EXPERIMENTAL METHODS IN PHONOSEMANTICS:
PRELIMINARY TESTING OF THE ANTONYMIC HYPOTHESIS AS A WAY OF
MEDIATING BETWEEN THE ARBITRARY NATURE OF LINGUISTIC
REPRESENTATION AND ASPECTS OF ICONISM

by

GEREMY RICHARD FREEMAN

A DISSERTATION

Submitted in partial fulfillment of the requirements
for the degree of Doctor of Philosophy in the
Department of Romance Languages and Classics
in the Graduate School of
The University of Alabama

TUSCALOOSA, ALABAMA

2009
ABSTRACT

The question of whether or not linguistic sounds might convey inherent meaning has never conclusively been resolved. This is an empirical study weighing evidence for and against the existence of phonosemantics, also known as sound symbolism or iconism. Contrary to well established principles such as the arbitrary nature of the sign and the double articulation, the phonosemantic hypothesis proposes that the sounds which compose a given word correlate with aspects of the meaning of that word by virtue of their articulatory features. 116 individuals of 19—73 years of age from both sexes were interviewed to determine their intuitions regarding potential meanings of linguistic sounds. The experiment consisted of three distinct parts. First, participants were asked to define nonsense words with their only cueing being the sound segments of the nonsense word. Second, for a given definition, participants were asked to create an appropriate-sounding nonsense word, uninfluenced by any real words. Finally, for a given image, participants were asked to create an appropriate-sounding nonsense word, uninfluenced by any real words. Participants’ responses from the first part were analyzed for semantic patterns, while responses from the second and third parts were analyzed for phonic patterns. Data was interpreted according to the antonymic hypothesis, which states that iconism is most readily observable in articulations that can be set in antonymic contrast to other articulations. This includes points of articulation from the extremities of the vocal apparatus such as front, back, high, and low and manners of articulation such as stops and continuants. The data gathered presents little evidence in support of phonosemantics; hence, by default, the opposite case is made in support of arbitrary designative processes. However, it was determined that
certain experimental procedures could be altered during future endeavors, perhaps leading to different results. This alteration primarily involves ways to better control extra-stimulus motivation (interference from real words) which was judged as the most crucial variable of the experimental process.
ACKNOWLEDGEMENTS

First and foremost, I thank the Lord for providing me a way to see this project through to the end. Second only to Him, I owe a huge debt of gratitude to my wife, whose love, patience and long-suffering nature sustained me throughout this process.

To my family, I owe more than I could ever repay. The love and constant encouragement of my mother and father kept me on track and inspired me to keep going. I’m indebted as well to my Uncle Gator, whose advice and support proved to be invaluable.

I owe a great deal to Margaret Magnus, whose research and ideas are responsible for my initial interest in this field and whose experimental approach and models inspired me to develop my own.

I’d like to thank my director, Michael Picone, and my committee members, Maurizio Godorecci, Douglas Lightfoot, Alicia Cipria, and Catherine Davies for all their feedback, assistance, and sacrifice of time.

Finally, I’d like to thank the individuals who graciously allowed themselves to be interviewed. None of this would have been possible without you.
<table>
<thead>
<tr>
<th>CONTENTS</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ABSTRACT</td>
<td>.ii</td>
</tr>
<tr>
<td>ACKNOWLEDGEMENTS</td>
<td>iv</td>
</tr>
<tr>
<td>LIST OF TABLES</td>
<td>vi</td>
</tr>
<tr>
<td>1. INTRODUCTION</td>
<td>1</td>
</tr>
<tr>
<td>2. A BRIEF HISTORY OF PHONOSEMANTICS</td>
<td>13</td>
</tr>
<tr>
<td>3. METHOD</td>
<td>41</td>
</tr>
<tr>
<td>4. RESULTS</td>
<td>96</td>
</tr>
<tr>
<td>5. DISCUSSION</td>
<td>278</td>
</tr>
<tr>
<td>BIBLIOGRAPHY</td>
<td>306</td>
</tr>
<tr>
<td>APPENDIX A</td>
<td>317</td>
</tr>
<tr>
<td>APPENDIX B</td>
<td>434</td>
</tr>
<tr>
<td>APPENDIX C</td>
<td>468</td>
</tr>
<tr>
<td>APPENDIX D</td>
<td>505</td>
</tr>
<tr>
<td>APPENDIX E</td>
<td>642</td>
</tr>
<tr>
<td>APPENDIX F</td>
<td>792</td>
</tr>
<tr>
<td>APPENDIX G</td>
<td>966</td>
</tr>
<tr>
<td>IRB APPROVAL FORM</td>
<td>997</td>
</tr>
</tbody>
</table>
**LIST OF TABLES**


2. Word Length and Stress Analysis—Relative (B): S.-B—148; T.-B—156; U.-B—164; V.-B—173; W.-B—183; X.-B—192; Y.-B—201; Z.-B—210; a.-B—219; b.-B—227; c.-B—236; d.-B—245; e.-B—255; f.-B—266; g.-B—276
CHAPTER I
INTRODUCTION

What is Phonosemantics?

Phonosemantics is a discipline within the broader field of linguistics that involves the study of sounds in an effort to determine if they convey inherent meaning and, if so, to what extent and how. As its name would suggest, it represents a fusion of the classical linguistic disciplines of phonology and semantics. Phonology is the study of how sound encodes meaning in a particular language while semantics is the study of the interpretation of signs or symbols as used in a particular context. The distinct linguistic discipline of phonetics can also play a roll, as it did in the present research. Phonetics is the study of the sounds of human speech. It is concerned with the physical properties of speech sounds, their physiological production and auditory perception.

It is widely accepted that the morpheme is the smallest meaning-bearing unit in a linguistic system. For example, hat [hæt] is a free morpheme. It is free because it can stand alone and it is a morpheme because it can undergo no further phonemic reduction without it resulting in either a fundamental semantic alteration or a rendering of it as meaningless; if /h/ is removed it becomes a totally different word and if /t/ is removed it becomes meaningless.

Within the theoretical framework of phonosemantics however, meaning does not end at the morphemic level. According to the phonosemantic hypothesis, each phoneme in an utterance, like [hæt], could potentially bear meaning. A phoneme is the smallest segmental unit of sound
employed to form meaningful contrasts between utterances. In [hæt], for example, this implies that the phonemes /h/, /æ/ and /t/ could individually communicate something unique. What the field of phonosemantics ultimately seeks to demonstrate is that there is a verifiable, quantifiable, intrinsic relationship between phonemes and the meaning of the words in which they are found. In other words, the sounds of a word can, at times, have a direct impact on a word’s meaning and a word’s meaning is not solely a function of arbitrary designation. Carried out to its maximum potential, this would mean that each linguistic sound that the human vocal apparatus is capable of producing could be assigned a set of meanings. Every instance of a word containing a particular phoneme in any given language in the world would contain a specific element of meaning derived directly from that phoneme and any word in any language lacking that phoneme would lack that same element of meaning (Magnus, 2001, p. 4).

Any interpretation of the phonosemantic hypothesis stands in stark contrast to the fact that language is overwhelmingly arbitrary, a necessary feature as it permits semantically neutral phones to be recombined in an infinite number of ways to convey an infinite number of meanings at the morphemic level. If language were wholly iconic, this would demand an infinite number of phones to represent every conceivable nuance in a one-to-one relationship, an impossibility which clearly is not descriptive of real language. André Martinet, in *Éléments de linguistique générale* (1970), described this simultaneous presence of neutral phonemes and semantically charged morphemes as the *double articulation*.

Traditionally when conducting phonosemantic studies, data has come from two different sources, real languages or invented words and definitions. When employing real languages, researchers will analyze part or all of a particular language’s lexicon (Wallis, 1653; Nodier, 1808; Bolinger, 1950; Rhodes & Lawler, 1981; Tsur, 1992; Berlin, 1994; Diffloth, 1994;
One can approach the analysis of a lexicon from one of two angles. One involves grouping together words of similar meaning and analyzing them for various manifestations of sound similarity. The other involves grouping together words of similar sound structure and analyzing them for semantic commonalities.

The second primary source of data comes from conducting phonosemantic experiments that involve the creation of invented words and definitions (Sapir, 1929; Fox, 1935; Bolinger, 1949; Davis, 1961; Magnus, 2001). Logistically, this can be significantly more complicated than the lexicon method. In place of a dictionary or other lexical sources, the data is acquired through surveying the intuitions of interviewees regarding words and definitions that are carefully designed to bear as little resemblance as possible to real language. The same process that was used with real languages of searching for sound similarities among words and semantic similarities among definitions is employed with this manner of analysis. Phonosemantic experimentation through elicitation was the method that was employed in the present research.

The Central Hypothesis of this Research

Ever mindful of the overwhelmingly arbitrary nature of language, the purpose of this research is to explore the possible ways in which iconism could be manifest. In searching for a reasonable avenue by which iconism could present itself, I arrived at the antonymic hypothesis. The antonymic hypothesis states that iconism is most readily observable in articulations that can be set in antonymic contrast to other articulations. For the most part, this means points of articulation occurring at the extremities of the vocal apparatus. Vowels and consonants

---

1The surveying of participant intuition can also involve the use of real words if the real words are presented to participants unfamiliar with the language to which the words belong. The end result is the same in that the stimulus is still nonsense to the participant.
articulated in the back of the mouth and the throat are hypothesized to indicate distance, obscurity, darkness, etc. while phones articulated in the front could represent light, shallowness, clearness, etc. The same antonymic principle applies to phones of low articulation compared to those of high articulation. Low articulations could indicate depth, lowness, weight, depression etc. while high articulations could indicate legerity, lightness, levity, altitude, etc. For vowels, the presence or absence of lip rounding could be iconic. Round lips could hypothetically represent constriction, tension, deprivation, focus, discrimination, etc. while unrounded lips could represent openness, acceptance, relaxation, broadness, etc. Considering antonymic manners of articulation, this involves stops versus continuants. Stops hypothetically represent impediments, restricted motion, frustration, burdens, etc. while continuants could represent propagation, encouragement, progress, dynamism, free movement, etc.²

The antonymic hypothesis assumes an extremely limited capacity of the vocal apparatus to iconically represent objects and concepts. The reader should be aware that it and the meanings attached to the various points and manners of articulation are speculative. These are not being presented as fact. The hypothesis is offered only as a potential means of explanation for the small amounts of data present in this research that could be viewed as positive evidence for iconism.

² Stop consonants, viewed through the lens of the antonymic hypothesis, were at the heart of the best positive evidence of this research, as scant as it was, for potential iconic activity.
Theoretical Issues of Phonosemantics

These are some foundational principles which guided the present research. They all tie in with and further develop the antonymic hypothesis.

Vocal Gesture: The Physical Nature of Sound Production

Phonation is a physical act under conscious control (Bolinger, 1965). Linguistic sounds are produced through a complex interaction of the lungs with various features of the throat, mouth, nose, tongue, teeth and lips. Just as physical gestures e.g., the clutching of the throat to signal choking, are seen as iconic, the activity of phonation could be viewed in the same manner as vocal gesture. The vocal apparatus must coordinate all of its anatomical parts in adopting a position that is unique for each individual consonant and vowel when creating sound. The relative position(s) of these various parts is the hypothesized basis for the connection between sound and meaning. Consider the physical, antonymic qualities of rounded versus unrounded lips. The same applies to tongue position. Whether it is high, low, forward or back, these antonymic postures are not abstract. When the vocal apparatus adopts a different position, it affects our perceptions through the different sounds created, though it is not the sounds that are hypothesized to be the initiator of iconicity. They are secondary to the position of the vocal apparatus anatomy (Paget, 1930; Fónagy, 1963). This is not to diminish the importance of the sounds, for it is the sounds that are most readily perceived, not the actual anatomical positions creating them. But, it is the antonymic positioning of the vocal anatomy that is hypothesized to be the iconic foundation.

The Guillotine and the Scalpel

The question of precision is fundamental to understanding the nature of phonosemantics. What force keeps language from being wholly iconic? This is explained through the physical
aspect of sound production and the representative limitation that is characteristic of the vocal apparatus. According to the antonymic hypothesis, the vocal apparatus is capable of iconically representing diametrically opposed concepts: high versus low, tight versus loose, etc. This is significant but, semantically, it will only go so far. Taking into account all the different nuances one can convey with relative ease in a fully functioning linguistic system, it is not hard to ascertain how limited iconism’s repertoire would be. Consider the analogy of a guillotine versus a scalpel. The ability of both tools to cut corresponds to the shared ability of iconism and conventionalism to communicate in their respective ways. The differences between the pairs are copious, though. A guillotine is a crude chopping instrument that is limited to a pre-established track. It is a capable tool, but its employment is specific and limited. It is poorly adapted to precise incising. This is the realm of the scalpel, which in the hands of a dexterous surgeon can be used in performing the finest, most delicate strokes. Likewise, the iconism capable of being communicated by the vocal apparatus is insufficient, too crude for communicating fine distinctions and nuance. The exact limit of iconic precision that is attainable is uncertain. But it is safe to say that it would be extremely limited. This principle is critical. The vocal apparatus is clearly incapable of communicating all meanings via pure iconicity because it is too rough of an instrument. Hypothetically though, it does appear capable of representing a handful of rudimentary, antonymic concepts.

*The Iconic Swiss Army Knife*

Another important characteristic of linguistic iconism lies in its multi-functional nature. A *Swiss Army Knife* is that famous, pocket-sized tool that has a plurality of uses. It is referred to in general as a *knife* because it sports a knife blade but it also is a saw, a can-opener, scissors, etc. The knife exists as a unit that is composed of many tools. Each tool can be used in multiple
ways in a variety of situations. A knife blade can be used to cut something, or it can be used to pry something apart. This describes the vocal apparatus and the iconicity of which it is capable. The vocal apparatus as a unit has many different tools, such as the lips, tongue and teeth. A particular tool within the unit, like the tongue, can be used in multiple ways. For example, according to the antonymic hypothesis, when the tongue is low in the mouth this can be iconic of several concepts: low, deep, slow, weight, etc. In keeping with the analogies involving cutting instruments, this multi-use principle is a double-edged sword. While this would hypothetically increase the iconic potential of the vocal apparatus it proportionally complicates any effort to assign meaning to a particular variety of articulation and contributes to the overall imprecision that characterizes the iconic potential of the vocal apparatus.

Region of Articulation

This principle, related to the three above it, is offered as a hypothetical means to further explain how something as relatively crude as the vocal apparatus could iconically represent multiple ideas. This concept is based on the traditional phonetic principle of sounds being described in terms of point and manner of articulation though it is only the point of articulation that enters into the discussion here. Region of articulation is a less precise, more inclusive manner of describing where sounds are articulated. The reason why such an approach would be beneficial is that it mimics in structure the previously antonymic relationships that are hypothesized to characterize linguistic iconism. Similar to what Chomsky & Halle (1968) suggest, instead of describing points of articulation such as bilabial and labiodental, these would be grouped together under a super-category: anterior. Likewise, the points of articulation like velar, uvular, pharyngeal and glottal would be grouped together as posterior. When sounds are described in this manner, antonymic relationships become more transparent, thereby making it
better adapted to discussions of iconicity. Traditionally, vowels are already described in an
antonymic manner e.g., front-back, high-low, though not under the classification of region of
articulation. Manner of articulation already has broadened, antonymic terms in current use as
well—*stop* and *continuant*—that describe it in this generalized fashion.

**Terminology of Phonosemantics**

It is appropriate to include a definition of terms. The most important term,
*phonosemantics*, was already defined above. The term *iconism* and other derivatives of *icon* are
used frequently. This may bring to mind C. S. Peirce and his three levels of signs: *iconic, indexical*
and *symbolic* (Hoopes, 1991). Of these three terms, iconic and its derivatives are the
ones with the most application and the greatest currency within phonosemantics. Iconic, as it is
typically used in this field and particularly in the present research, refers to a linguistic sound or
sounds which, by virtue of its articulation and sound qualities, is deemed in some way inherently
representative of the object to which it applies. *Sound-symbolism* is another term used in this
research. In current use, this is a general term that encompasses different varieties of vocal
sounds that are deemed to convey meaning. This term was appropriated for stylistic purposes as
synonyms were desired for periodic use in place of *iconism*. Technically speaking, sound-
symbolism includes phenomena such as *onomatopoeia*, discussed below, that do not enter into
the traditional phonosemantic discussion. The reader should bear in mind that when I use the
term *sound-symbolism*, it is to the exclusion of onomatopoeia and other related phenomena. In
the present research it is equated with iconism. Another term of currency is *phonoestheme*,
which denotes a systematic correlation between sound and meaning. In the prior literature,
phonesthemes typically are represented as being composed of two or more sound segments,
known as *clusters*. This appears to be the convention as I was unable to find many examples that did not conform to this pattern. For example, some common English phonoesthemes are *gl*- which pertains to light and vision (glint, gleam, glow, glance, glare, etc.) and *sl*- which pertains to low-to-the-ground motion, often involving a certain degree of friction (slide, slip, slink, slither, slog, slouch, slump, etc.). Phonesthemes such as this have been studied for hundreds of years (Wallis, 1653; Bolinger, 1950; Lawler, 1990; Magnus, 2001). While there are a small amount of consonant clusters that are analyzed in this research, they are not the focus of it. This research presents no convincing evidence for phonesthemes in the traditional sense. For the consonant clusters present herein that were deemed worthy of analysis, they are not referred to as phonesthemes as the evidence for their iconic potential was judged too tenuous. *Ideophone* is another term of common usage in the field. An ideophone is a word that is used to evoke a vivid impression of a smell, color, shape, sound or action. These are frequently referred to in African linguistics (Doke, 1927, 1935, 1954; Samarin 1967, 1972; Childs, 1989, 1994) though they are present in all languages to some extent. Examples of English ideophones are *hippety-hop* referring to the manner in which a rabbit hops about and *bling-bling* which refers to sparkle or luster and, by extension in common usage, wealth. Though ideophones do not play a significant part in this research, they are common enough to warrant mention.

Items not Entering into the Phonosemantic Discussion

Due to the highly fluid nature of this field, there are many opportunities for misunderstandings to arise as to what is true and what isn’t about phonosemantics itself and the beliefs of those who participate in it. This section is intended to address some of these misunderstandings. A very common and well-known manifestation of sound symbolism is
onomatopoeia. This is the phenomenon of a word imitating a sound through its sound structure. In English, examples of onomatopoeia include *meow*, imitating the call of a cat and *tick-tock*, which imitates the sound of a clock. Onomatopoeia typically does not factor into phonosemantic research. Theoretically, there could be iconic activity present within an utterance which also presents onomatopoeia but since the sound-meaning connection of onomatopoeia is normally taken for granted, this manifestation of sound symbolism is viewed separately from actual iconism. The distinction between the two is that contrary to onomatopoeia, iconism is concerned with potential meaning-bearing sounds found in words which do not represent sounds in nature.

Another related phenomenon that I personally feel should not be considered in the field is *synesthesia*. Synesthesia is a neurological condition where the stimulation of one sense leads to the involuntary stimulation of a second sense (van Campen, 2008). Synesthesia’s connection to phonosemantics lies in its supposed potential for explaining the meanings that individuals will associate with sounds. According to the theory, the perception of meaning is the involuntary consequence of sound stimulation. I personally reject synesthesia as a plausible explanation for phonosemantic phenomena in the broad sense. As I see it, iconism, if it exists, is rooted in nature. It has a physical foundation based on the way speakers use the vocal apparatus. It is not a pathology, as described in Harrison (2001), but a completely natural phenomenon that, hypothetically, language users instinctively or purposefully engage in. Not everybody is a synesthete but, as far as the phonosemantic and antonymic hypotheses are concerned, everybody can hypothetically use some degree of iconic language. I do not discount the possibility that among confirmed synesthetes some may be inclined to associate specific meanings with specific sounds. This is a function of their particular manifestation of synesthesia however, and should be considered separately. In addition, synesthetes will experience secondary stimulation in
unique ways (Cytowic, 1993). For example, one synesthete may attribute meaning $a$ to phoneme $x$ while another synesthete may attribute meaning $b$ to phoneme $x$. They are both correct in the sense that that is what their synesthesia dictates to them but this clearly can not be descriptive of real iconism as the meaning attributed to a given phoneme would necessarily need to be the same for an entire speech community.

Another common misconception of phonosemantics is that adherents to the theory believe that a word’s meaning is wholly determined by the quality of its phonetic makeup. In actuality, I have never come across any individual or anything in the literature that would indicate that presently this idea is seriously entertained. Granted, in the past there appears to have been some individuals who speculated on this. Cratylus, in his eponymous dialogue of Plato, and others like Gébelin (1775), de Brosses (1789) and Nodier (1808) seemed to view this idea favorably. But from all that can be ascertained, it remains unclear whether these individuals viewed this as the actual case or were just considering theoretical abstractions. The current debate in the field is focused on determining the degrees of iconicity that exist in union with the pervasive, dominant forces of arbitrary designation.

The final myth to address is that phonosemicists are all mystics, *bigfoot chasers* or highly eccentric individuals on the academic fringe. This is not the case. Many of the most famous linguists who ever lived gave serious consideration to the phonosemantic hypothesis. The list reads like a *Who’s Who* among twentieth century linguists: Leonard Bloomfield (1909-1910, 1984), Edward Sapir (1921, 1929), Otto Jespersen (1933, 1964), John Rupert Firth (1957, 1986), Dwight Bolinger (1940, 1949, 1950, 1959, 1965) and Roman Jakobson (1956, 1965, 1978, 1980) to name a few. Many if not most of them came to the conclusion that there was some validity in it, though there were differing ideas about the precise nature of the
phenomenon. Compared to the early and middle parts of the twentieth century, the field is in a bit of a lull, especially during the current decade. The questions still remain though, and with scholars such as Margaret Magnus, who is the standard bearer of phonosemantic research for our times, the field is in position to make further advancement.
CHAPTER 2
A BRIEF HISTORY OF PHONOSEMANTICS

This is an outline of the some of the highpoints in the history of phonosemantics and some of the key figures who have speculated on it, one way or another. This is not intended to represent a comprehensive account of all the important events that have transpired in the field over the millennia. Such accounts are already in existence, none of which is more sublime than that of Gérard Genette: Mimologics (1995). If one wishes to view a comprehensive account of this field’s history, one need not look any further than this. Margaret Magnus’s (2001) dissertation, What’s in a word?: Studies in phonosemantics, is another fine example. It offers a condensed history that is nonetheless rich in detail and insightful commentary. Both of these were quite inspirational to the present history, but particularly that of Magnus. Many of the same prominent figures found in these works are also commented on here, generally in chronological order. What follows is intended to give credit to the giants on whose shoulders I and other researchers stand who participate in this branch of linguistics. Included are some whose contribution may be less well known but were still judged important and, of course, those whose contribution has made the greatest impact on the present research.

Phonosemantic Mysticism

It appears that as far back as recorded history can attest, there have been individuals and even entire societies, eastern and western, speculating on the relationship between the meanings of words and the sounds that compose them. In Europe, ancient peoples such as Vikings and
Celts perceived what they felt was a link between their respective alphabets and intrinsic meaning. Viking orthography was comprised of symbols called runes or futhark which constituted the alphabets of various Germanic languages prior to the introduction of the Latin alphabet (Page, 1995). The Celtic people of ancient Wales revered The Book of Taliesin, a collection of poems, for its sound symbolic qualities. The book itself dates back to the early fourteenth century but the poems are believed to be hundreds of years older than this (Parry, 1955). The same attitude of sound-meaning connection was current in ancient Egypt where extra-canonical gospels were recorded on papyrus scrolls found at the Nag Hammadi Library (Robinson, 1988). In ancient India and further east in Japan, the same sentiments were entertained. The Upanishads are Hindu scriptures concerned with the concept of self-realization by which one understands the ultimate nature of reality, or Brahman. Central to the significance of the Upanishads is their ability to convey meaning by virtue of the sounds of the scriptures (Keith, 1998). Kotodama, lit. word spirit, is the ancient Japanese belief that mystical powers dwell in words and names (Philippi, 1969). Kotodama is based in the belief that sounds can affect objects through supernatural means, and that ritual word usage can influence the environment, body, mind, and soul. These ancient traditions were not grounded in science.

Classical Roots

Phonosemantics received its first modern treatment in the Cratylus of Plato. In this dialogue, there are three main interlocutors: Socrates, Hermogenes and Cratylus. Hermogenes argues from the perspective that words and their sounds are joined purely by convention.

---

3 Runes as a whole are sometimes referred to as futhark, which represents the pronunciation of the first six runes.
Cratylus takes the opposing perspective that the sounds which compose a word are the essential determiner of a word’s meaning. It is Socrates in the middle who plays devil’s advocate when arguing with each man. It appears that Socrates arrives at the conclusion that the semantics of words are neither wholly determined by their sounds nor by simple convention. The perspective of Socrates falls in line very well with the viewpoint of many others who would follow him.

One could even argue that Socrates was the father of the moderate stance. Here is an excerpt from the dialogue where Socrates debates Hermogenes, making the case for some degree of natural connection between names and what they represent:

Socrates: …Answer me this: If we hadn’t a voice or tongue, and wanted to express things to one another, wouldn’t we try to make signs by moving our hands, head and the rest of our body, just as dumb people do at present?

Hermogenes: What other choice would we have Socrates?

Socrates: So, if we wanted to express something light in weight or above us, I think we’d raise our hand towards the sky in imitation of the very nature of the thing. And if we wanted to express something heavy or below us, we’d move our hand towards the earth. And if we wanted to express a horse (or any other animal) galloping, you know that we’d make our bodies and our gestures as much like theirs as possible.

Hermogenes: I think we’d have to.

Socrates: Because the only way to express anything by means of our body is to have our body imitate whatever we want to express.

Hermogenes: Yes.

Socrates: So, if we want to express a particular fact by using our voice, tongue, and mouth, we will succeed in doing so, if we succeed in imitating it by means of them?

Hermogenes: That must be right I think.

Socrates: It seems to follow that a name is a vocal imitation of what it imitates and that someone who imitates something with his voice names what he imitates.

Hermogenes: I think so.

Socrates: Well, I don’t. I don’t think this is a fine thing to say at all.
Hermogenes: Why not?

Socrates: Because then we’d have to agree that those who imitate sheep, cocks and other animals are naming the things they imitate.

Hermogenes: That’s true, we would.

Socrates: And do you think that’s a fine conclusion?

Hermogenes: No, I don’t. But then what sort of imitation is a name, Socrates?

Socrates: In the first place, if we imitate things the way we imitate them in music we won’t be naming them, not even if the imitation in question is vocal. And the same holds if we imitate the things music imitates. What I mean is this: each thing has a sound and a shape, and many of them have a color, don’t they?

Hermogenes: Certainly.

Socrates: It doesn’t seem to be the craft of naming that’s concerned with imitating these qualities, however, but the crafts of music and painting. Isn’t that so?

Hermogenes: Yes.

Socrates: And what about this? Don’t you think that just as each thing has a color or some of these other qualities we mentioned it also has a being or essence? Indeed, don’t color and sound each have a being or essence, just like every other thing that we say “is”?

Hermogenes: Yes, I think they do.

Socrates: So if someone were able to imitate in letters and syllables this being or essence that each thing has, wouldn’t he express what each thing itself is? (Cooper, 1997, pp. 139-140)

Later, Socrates, in debating Cratylus, makes the point that a name can not possibly be wholly representative of the object for which it stands:

Socrates: So presumably one person will be a good craftsman of names and another a bad one?

Cratylus: Yes.

Socrates: And this craftsman is named a rule-setter?

Cratylus: Yes.
Socrates: By god, presumably some rule-setters are good and others are bad then, especially if what we agreed to before is true, and they are just like other craftsman. Cratylus: That’s right. But you see, Socrates, when we assign ‘a’, ‘b’, and each other of the letters to names by using the craft of grammar, if we add, subtract, or transpose a letter, we don’t simply write the name incorrectly, we don’t write it at all, for it immediately becomes a different name, if any of those things happens.

Socrates: That’s not a good way for us to look at the matter, Cratylus.

Cratylus: Why not?

Socrates: What you say may well be true of numbers, which have to be a certain number or not be at all. For example, if you add anything to the number ten or subtract anything from it, it immediately becomes a different number, and the same is true of any other number you choose. But this isn’t the sort of correctness that belongs to things of sensory qualities, such as images in general. Indeed, the opposite is true of them—an image cannot remain an image if it presents all the details of what it represents. See if I’m right. Would there be two things—Cratylus and an image of Cratylus—in the following circumstances? Suppose some god didn’t just represent your color and shape the way painters do, but made all the inner parts like you, with the same warmth and softness, and put motion, soul, and wisdom like yours into them—in a word, suppose he made a duplicate of everything you have and put it beside you. Would there then be two Cratyluses or Cratylus and an image of Cratylus?

Cratylus: It seems to me, Socrates, that there would be two Cratyluses.

Socrates: So don’t you see that we must look for some other kind of correctness in images and in the names we’ve been discussing, and not insist that if a detail is added to an image or omitted from it, it’s no longer an image at all. Or haven’t you noticed how far images are from having the same features as the things of which they are images? (Cooper, 1997, pp. 147-148)

This discussion, temporally so far removed, has aged remarkably well. All the elements that are pertinent in today’s debate are present here. To what extent is a word, or name as Socrates refers to it, influenced semantically by its sounds? What role do arbitrary forces play in this process? How does nature motivate one during the act of naming? It is apparent why today the Cratylus is so revered among early linguistic discussions.
Rebirth in Europe- The Age of Enlightenment

After this landmark discussion in ancient Greece there was a period of relative inactivity until the seventeenth century in Europe. John Wallis, mathematician and chief cryptographer for the British Parliament of 45 years, broke the silence when he published a rather large list of phonesthemes from English in *Grammatica linguae anglicanae* [A Grammar of the English Language] (1653). Though this book has been translated from Latin into English in Kemp (1972), this list, found in chapter 14 of the original work, was curiously not included in the English translation. Therefore, I rely on Genette (1995):

- *shr* suggests a strong contraction: *to shrink, shrimp*, “a miniscule and as though shrunken fish”; *to shrive, shroud*. “Without *r* the meaning is more subdued.”

- *sw* suggests an almost still agitation, or a slight lateral movement: *to sway, to swim, to swing, swift, sweet.*

- *sl* is a silent gliding, a nearly imperceptible movement: *to slide, sly, slow.*

- *sq, sk, scr*, indicate a violent compression: *to squeeze, to screw.*

- *sp* indicates “a certain dispersion or expansion, preferably rapid, especially with the addition of an *r*, as if coming from *spargo or separe*”: *to spread, to spit.* (pp. 37—39)

In this work, he makes the argument that among groups of words in the English language sharing particular phonetic elements there are demonstrable similarities of meaning which are directly attributable to those phonetic similarities. He takes it one step further in asserting that certain words’ semantic qualities can be completely determined through a breakdown of their phonesthemic constituents.

Later, an intellectual quarrel developed between John Locke and Wilhelm Gottfried Leibniz over the true nature of words and any iconic potential that they might bear. Locke, English philosopher of the empiricist school and highly influential in political theory, did not
view words as anything but arbitrary. In *An Essay Concerning Human Understanding* (1689), he said:

*Words...* come to be made use of by Men, as the *Signs* of their *Ideas*; not by any natural connexion, that there is between particular articulate Sounds and certain *Ideas*, for then there would be but one language amongst all Men; but by a voluntary Imposition, whereby such a Word is made arbitrarily the Mark of such an *Idea*. (Nidditch, 1975, p. 405)

Leibniz, philosopher and mathematician who invented the binary system, penned a response to Mr. Locke in *New Essays on Human Understanding* (1704) in which he expressed a belief in the natural means by which words represent what they stand for:

I know that Scholastics and everyone else are given to saying that the significations of words are arbitrary (*ex instituto*), and it is true that they are not settled by natural necessity; but they are settled by reasons—sometimes natural ones in which chance plays some part, sometimes moral ones which involve choice. Perhaps there are some artificial languages that are wholly chosen and completely arbitrary...But those that which we know to have been made up out of already known languages involve a mixture of chosen features and natural and chance features of the languages upon which they are built. (Remnant and Bennett, 1996, p. 279)

In France during the eighteenth and early nineteenth centuries, phonosemantics became a popular topic of debate. Certain primary sources from this period are difficult to come by. The most convenient way to view them is online at http://gallica.bnf.fr or at http://books.google.com where the entire original documents in scanned format can be found. Finding these in English translation can be even harder. Genette (1995) is the most readily available source for these materials in English. The quotes in English translation below come from that work.

Charles de Brosses, member of the *Académie des Inscriptions et Belles-Lettres* of Paris and parliamentary president of his hometown of Dijon, saw virtue in many ideas related to sound symbolism. Among these ideas that he considered was an immaculate, original language where sound corresponded perfectly to meaning, which is found in *Traité de la formation mécanique*
des languages et des principes physiques de l’étymologie (1789). Here is de Brosses discussing the intimate, natural relationship he saw between words and what they stand for:

The first rule, the simplest one as indicated by nature in the formation of words, is that they be true; that is to say, that they represent the thing named as accurately as is possible for the vocal instrument to do. The truth of words, just like that of ideas, lies in their conformity with things…There can be no doubt that the first names were fitted to the nature of things they express; to think otherwise would be to believe mankind insane, for that would be to argue that their aim in speaking was not to communicate. (as cited in Genette, 1995, p. 65, pp. 30—31 in original work)

Antoine Court de Gébelin, a self-described etymologist, influenced by the philosopher and historian Giambattista Vico and his New Science (1725), expressed a viewpoint similar to that of de Brosses in his Origine du langage et de l’écriture (1775):

Our overarching principle, that all is imitation…(as cited in Genette, 1995, p. 91, p. 376 in original work)

Never were the seeds, the principles, the developments of an art as essential and as wonderful as speech which could be called the glory and prerogative of the human race, abandoned to arbitrariness. (as cited in Genette, 1995, pp. 91—92, p. 275 in original work)

Never [would men assign a name to an object] without being guided by some relationship between the name chosen and the object to be named…We have said, and it cannot be repeated enough: speech is nothing else but a painting of our ideas, and our ideas, a painting of objects we know; therefore, a necessary relationship must exist between words and the ideas they present, as one exists between ideas and their objects. Indeed the act of painting cannot possibly be arbitrary; it is always determined by the nature of the object to be painted. In order to designate an object or an idea, men were thus forced to choose the sound most analogous to that object, to that idea. (as cited in Genette, 1995, p. 92, p. 275 in original work)

It is evident that both men saw words as being naturally representative of the objects they stand for. Their beliefs, as passionate as they were, are more extreme than what prevails today. Few if any supporters today would claim that a word’s meaning can be determined strictly
through an evaluation of its phonetic constituents. The view that both iconic and arbitrary forces shape the meaning of words is what prevails today.

Étienne Condillac, philosopher and psychologist, in *An Essay on the Origin of Human Knowledge* (1756) theorized about the origin of human language. It was through his desire to explain this origin that he was ultimately led to speculate on the relationship between words and the sounds that compose them. He saw gesture, or as he referred to it, “language of action” (Aarsleff, 2001, pp. 114—119), as being the foundation upon which the original language was built. Through gesture’s intimate connection of communication and meaning, a similar correspondence would develop between objects and the words that name them. Using a hypothetical example of two children lost in a desert who had never learned a language, he deduced that as the need for more and more complex communication arose, processes analogous to the gesture would eventually generate all the necessary characters of language. Through these deductions, it appears Condillac, unlike some of his contemporaries, recognized both iconic and arbitrary designative forces in language.

Much later, philosopher Jacques Derrida would critique the view of Condillac in *L’archéologie du frivole* (1973). Derrida observed that analogy, the process Condillac postulated would give rise to increasingly complex forms of communication, was itself imaginary and divorced from nature (pp. 81—82). As a language increases in complexity, it must become more and more distant from its origin as a signifying gesture. This demands an increase in arbitrariness. Derrida also rejected the premise that language at its origin was completely representative of an object since gesture does not become language until it has become detached and conventionalized making it usable for social interaction. He concludes “…the property of the sign is the system of the arbitrary (p. 112).” While both men, Condillac and Derrida,
acknowledged arbitrary forces in language, it was Derrida who apparently saw no room for iconic processes.

Another supporter of the correspondence between sound and meaning, Charles Nodier, author of the Romanticist tradition, wrote his *Dictionnaire raisonné des onomatopées françaises* (1808, as cited in Genette, 1995, pp. 132—134). Among his entries were:

*Achoppement* {stumbling}: noise of one body striking another. (p. 36 in original work)

*Cascade* {waterfall}: the first syllable is an artificial sound that causes the second one to ricochet, and this effect effectively represents the redundant noise of the *cascade*. (pp. 80—81 in original work)

*Catacombe* {catacomb}: the union of these two happily married words produces one of the beautiful, imitative effects of the {French} language. It is impossible to find a more picturesque sequence of sounds for rendering the ringing of the casket, gradually rolling down on the sharp angles of the stones and suddenly coming to a halt in the middle of the tombs. (p. 81 in original work)

*Fifre* {fife}: the vowel squeezed in between the two whistling letters gives a very accurate idea of the high-pitched noise of this instrument, and the rolling ending {-re} registers its somewhat raucous outburst. (pp. 126—127 in original work)

*Rincer* {to rinse}: noise of the fingers against the inside of a glass that one is rinsing. (p. 223 in original work)

He had in mind to create his own language where such sound-meaning correspondences ruled supreme. He later determined it was not possible and in *Notions élémentaires de linguistique* (1834) he declared more moderate views:

It does not follow from this system that all creatures ought to be designated by universal homonyms, because for this it would be indispensable for each creature to offer itself only one single character and to be potentially judged by only one single sensation, a ridiculous limitation.  (as cited in Genette, 1995, p. 122, pp. 52—53 in original work)

Wilhelm von Humboldt, philosopher and diplomat, was one of the most significant speculators on phonosemantic phenomena of the early nineteenth century. He published *Über*
die Verschiedenheit des menschlichen Sprachbaues und ihren Einfluß auf die geistige

Entwicklung des Menschengeschlechts [On the diversity of Human Language Construction and its Influence on the Mental Development of the Human Species] (1836). In this work, he divides the connection that exists between sound and meaning into three areas. Following his order of presentation as cited in Losonsky (1999), the first area was called “directly imitative” or onomatopoeia, where a noise emitted by a sounding object is represented in the word (p. 73). He referred to the second type of sound-meaning correspondence as:

The designation that imitates, not directly, but by way of a third factor common to both sound and object… This type of designation, which relies upon a certain significance attaching to each individual letter, and to whole classes of them, has undoubtedly exerted a great and perhaps exclusive dominance on primitive word designation. Its necessary consequence was bound to be a certain likeness of designation throughout all the languages of mankind, since the impression of objects would have everywhere to come into more or less the same relationship to the same sounds. Much of this kind can still be observed even in languages of today, and must in fairness prevent us from at once regarding all the likeness of meaning and sound to be encountered as an effect of communal descent. (p.73)

Von Humboldt called the third classification:

Designation by sound-similarity, according to the relationship of the concepts to be designated. Words whose meanings lie close to one another are likewise accorded similar sounds; but in contrast to the type of designation just considered, there is no regard here to the character inherent in these sounds themselves. (p. 74)
The Beginnings of Empiricism

In the first decade of the twentieth century, Leonard Bloomfield, the developer of structural linguistics, gave a fair bit of consideration to sound symbolism. The following comes from *Language* (1984). Here, Bloomfield is commenting on the presence of phonesthemic roots in English though he does not use this terminology:

Perhaps in most languages, most of the roots are morphemes. Even in cases like English sing : sang: sung: song or flap : flip : flop, a relevant description will view one of the forms as basic and the others as secondary derivatives or as primary derivatives with phonetic modification of the root. In other cases, however, we find clearly marked phonetic-semantic resemblances between elements which we view as different roots…complex morphologic structure of the root is much plainer in the case of English symbolic words; in these we can distinguish, with varying degrees of clearness and with doubtful cases on the border-line, a system of initial and final root-forming morphemes, of vague signification. It is plain that the intense, symbolic connotation is associated with the structure. Thus, we find recurrent initials:

[fl-] ‘moving light’: flash, flare, flame, flick-er, flimm-er.
[fl-] ‘movement in air’: fly, flap, flit, (flutt-er).
[gl-] ‘unmoving light’: glow, glare, gloat, gloom (gleam, gloam-ing, glimm-er), glint.
[sl-] ‘smoothly wet’: slime, slush, stop, slob-er, slip, slide.
[kr-] ‘noisy impact’: crash, crack (creak), crunch.
[skr-] ‘grating impact or sound’: scratch, scrape, scream.
[sn-] ‘breath-noise’: sniff (snuff), snore, snort, snot.
[sn-] ‘quick separation or movement’: snap (snip), snatch (snitch).
[J-] ‘up and down movement’: jump, jounce, jig (jog, jugg-le), jangle (jingle).
[b-] ‘dull impact’: bang, bash, bounce, biff, bump, bat. (pp. 244—245)

In this same era, Edward Sapir, an anthropologist-linguist, was busy conducting experiments where he was testing speakers’ intuitions regarding the meanings of foreign words and nonsense words. He was frequently interested in perceptions regarding relative size and he conducted extensive phonosemantic experimentation in this area. In his article “A Study in Phonetic Symbolism” (1929), also available in *Selected Writings of Edward Sapir* (1949), one of his most famous experiments is found. This involved his presenting 500 participants with two
nonsense words, *mil* and *mal*. He informed them that these were both words for tables in a foreign language, one was large the other was small. Based on the sounds of the words, participants had to decide which word meant the large table and which one meant the small table. 83% of children and 96% of adults found *mil* to be smaller and *mal* to be bigger.

Otto Jespersen, well known in the present field for his article “The Symbolic Value of the Vowel i” (1933) in which he came to similar conclusions as Sapir regarding the relative size values of high and low vowels, was a devoted seeker of empirical evidence. Also like Sapir, Jespersen tested speaker intuitions regarding sounds. When considering the contrasting arguments between arbitrary designation and inherent meaning Jespersen said the following in his posthumous *Language, Its Nature, Development and Origin* (1964):

Yes, of course it would be absurd to maintain that all words at all times in all languages had a signification corresponding exactly to their sounds, each sound having a definite meaning once for all. But is there really much more logic in the opposite extreme which denies any kind of sound symbolism (apart from the small class of evident echoisms and ‘onomatopoeia’) and sees in our words only a collection of accidental and irrational associations of sound and meaning? ...If linguistic historians are averse to admitting sound symbolism, this is a natural consequence of their being chiefly occupied with words which have undergone regular changes in sound and sense; and most words which form the staple of linguistic books are outside the domain of sound symbolism. There is no denying, however, that there are words which we feel instinctively to be adequate to express the ideas they stand for, and others the sounds of which are felt to be more of less incongruous with their signification. (pp. 397—398)

Jespersen later arrived at a trichotomy that one should bear in mind “in order to obtain a true valuation of this factor [sound symbolism] in the life of language…” First, no language will use sound symbolism to its fullest extent, meaning no languages are composed of words whose meanings are solely determined by their sound constituents. Second, words that were symbolically expressive may cease to be so under the influence of historical development.
Third, certain words may increase in expressiveness under the same historical forces (pp. 406—407).

Another researcher of this era was Sir Richard Paget, who, in *Human Speech* (1930), made the assertion that articulation was of greater influence in determining the semantics of words than the sounds of words.

Observations of the actual resonance changes which occur in the production of the vowels and consonants show that we accept as identical sounds which are widely different provided they are made of similar postures or gestures of the organs of articulation. From this it is argued that the significant elements in human speech are the postures and gestures, rather than the sounds. The sounds only serve to indicate the postures and gestures which produced them. We lip-read by ear. (p. 174)

Some of Paget’s articulations of significance include the bilabial consonants /p/, /b/ and /m/ which “denote closing, containing or gripping actions…”, the high vowels /i/ and /u/ which indicate “a projecting, pointing” or “directing…”, the dental fricatives /θ/ and /ð/ which correspond to “smearing, kneading, etc.”, the alveolar lateral approximant /l/ which “denotes movement, flow or rapid change of posture” and the velars /k/, /g/, /ŋ/ and glottal /h/ which denote “hang”, “take”, and “hold” (Paget, 1930, pp.155—156).

Clement Doke was a missionary in Africa who became a scholar of Bantu languages. He developed the concept of an ideophone, though he preferred the term *radical*. An ideophone is a word used to evoke a vivid impression of a sensation or sensory perception such as smell, color, shape, sound, or movement. Theoretically, ideophones exist in all languages but appear to figure more prominently in non-European languages. Doke observed that ideophones in Bantu follow unique syntactic and morphologic patterns. Among his works on African linguistics are *Bantu Linguistic Terminology* (1935) and *The Southern Bantu Languages* (1954). Since Doke, William Samarin, anthropologist-linguist perhaps most famous in more recent years for his research into
glossolalia, or speaking in tongues, took up the study of Bantu ideophones. Among his many publications is “Appropriateness and Metaphor in the Use of Ideophones” (1972). Ideophones lie outside the realm of the current research but the underlying principles that contribute to their meaning-bearing qualities are similar to what is discussed herein. They are still actively investigated today and a substantial corpus of research has been amassed dedicated to their study.

John Rupert Firth was another active figure at this time. His ideas, later referred to as *Firthian*, gave rise to the *London School* of linguistics. Within the present field, he is most famous for coining the term *phonaestheme* in the tract *Speech* (1930) which was aimed at heightening the general public’s awareness of linguistic issues. This tract combined with another of similar intent was subsequently released in *The Tongues of Men and Speech* (1986). Firth was cautious in his beliefs on the extent of sound-meaning correspondence. In the publication of 1986, he attributed the perception of sounds bearing meaning to “attunements”. He said “People who habitually use similar noises in similar situations are of one mind about the fundamental things of life (p. 181).” Speaking of onomatopoeia he voiced similar ideas: “it… is probably based on the habitual similar phonicizing of similar contexts of experience (p. 188).”

One of the greatest skeptics of iconism was active in these early days of the twentieth century. This was the Swiss, Ferdinand de Saussure. Within the field of phonosemantics, he is best known for the title of the second subsection of the first chapter of Part One of his posthumous book, *Cours de linguistique générale* (1916), which reads “Premier principe: l’arbitraire du signe” [First principle: the arbitrariness of the sign] (p. 67), implying he saw no room for phonosemantic phenomena aside from examples like onomatopoeia. This is how Saussure elaborates on the axiom above in the translation of Baskin (1964):
The bond between the signifier and the signified is arbitrary. Since I mean by sign the whole that results from the associating of the signifier and the signified, I can simply say: *the linguistic sign is arbitrary*. The idea of “sister” is not linked by any inner relationship to the succession of sounds *s-ö-r* which serves as its signifier in French; that it could be represented equally by just any other sequence is proved by differences among other languages and by the very existence of different languages...No one disputes the principle of the arbitrary nature of the sign, but it is often easier to discover a truth than to assign to it its proper place. Principle I dominates all the linguistics of language; its consequences are numberless. It is true that not all of them are equally obvious at first glance; only after many detours does one discover them, and with them the primordial importance of the principle. (pp. 67—68)

In a curious twist in the legacy of Saussure, it appears that he might have entertained ideas of words concealing meaning beyond their referent. From Jean Starobinski’s *Words upon Words: the Anagrams of Ferdinand de Saussure* (1979), one learns about Saussure’s secret fascination with language’s potential to mask hidden meanings. It appears that over the course of approximately three years Saussure dedicated a large amount of effort into decoding anagrams of Homer, Virgil, Seneca, the Vedas, and other examples of classical literature. Anagrams involve rearranging the letters of a word or phrase to produce a new word or phrase. There is evidence that he may have intended to publish some of his findings though this never happened. Given this bit of information it is hard to determine exactly where Saussure stood. After comparing his thoughts to the thoughts of others who believed just as strongly that sounds do convey meaning it almost leads one to believe that much of the speculation on phonosemantics from both sides has been too narrow. While it is beyond dispute that the sign is primarily arbitrary, the question of whether or not it can, under very specific conditions, be naturally motivated has never been answered.

Dwight Bolinger, famed linguist and professor of Romance Languages, was also a supporter of phonosemantics. He countered the arguments of Saussure when he published the articles “The Sign is Not Arbitrary” (1949) and “Rime, Assonance and Morpheme Analysis”
(1950). Both articles were later combined with many others in the collection *Forms of English: Accent, Morpheme, Order* (1965). It was Bolinger’s view that the morpheme was not the minimal meaning-bearing unit. He felt that one should refer to monosyllable roots exhibiting rhyme and assonance as *sub-morphemes* due to their tendency to share common meanings beyond what would normally occur statistically. Many of his ideas were based on the apparent capability of phonesthemes to convey meaning. The following quote, in which Bolinger comments on the power of linguistic sounds to influence meaning, is taken from “The Sign is Not Arbitrary” in *Forms of English* (1965):

…subtle examples become undeniable…in constellations of words having similar meanings tied to similar sounds. How such constellations originate is immaterial: it may be that some one word is used so often that phonetically similar words are affected, as has apparently happened with English *bulge* reflected in *divulge* and *indulgent*, suggesting ‘expansiveness’; or it may be that two or more forms coincidentally resemble one another in both form and meaning, thereby drawing closer together and pulling other form into their orbit, as seems to have happened with *chary*, *wary*, and *scary* (*skeery*) in their effect upon *leery*. The result is the same: the cluster maintains itself and attracts outside matter to it. Examples in Spanish are *tajar*, *rajar*, *ajar*, *bajar*, *fajar*, *majar*, *sajar*, and *desgajar*, analogizing closely with English *bash*, *mash*, *smash*, *crash*, *dash*, *lash*, *hash*, *rash*, *brash*, *clash*, *trash*, *plash*, *splash* and *flash*. (p. 237)

Ivan Fónagy culled together phonemes from diverse languages and presented the meanings that had been assigned to them in their respective grammatical traditions in *Die Metaphern in der Phonetik* (1963). As this book is unavailable in English, I present the description found in Magnus (2001, p.26). Fónagy referred to these meaning-bearing phonemes as *metaphors*. Fricatives were referred to as *raw* and *hairy* by the Greeks. European linguists labeled unvoiced stops as *thin*. Front vowels are viewed as *high* and *fine* whereas nasal vowels are considered *dark*. Palatalization renders words moister according to linguists of various origin. Leibniz proposed that children would opt for /l/ when they found /r/ too sharp. The
historian and teacher of ancient Greece, Dionysius of Halicarnassus, found /l/ to be the softest and sweetest of the semi-vowels, as opposed to the sharper and nobler /r/. Fónagy viewed these metaphors as having a physiological basis. Lower-pitched sounds were considered masculine because men’s voices are deep. Unvoiced stops were considered harder than their voiced counterparts because of perceived tension. Fónagy also cited a Hungarian study in which it was analyzed how deaf children interpreted phonemes. It was observed that they responded much the same way hearing children do. He interpreted this as evidence for an articulatory rather than an acoustic basis for phonosemantics.

Roman Jakobson was influential in phonosemantics during the latter half of the 20th century. His contribution was different though than most others mentioned here. Jakobson did not have an experimental approach and thus did not produce much empirical evidence in support of his beliefs. His contribution sprang from his extensive knowledge of the tenets of others in the field, upon which he commented frequently. He did not develop much in the way of new theories, though. Among many other publications, he is well known for an essay on linguistic iconism entitled “Quest for the Essence of Language” (1965) and the book The Sound Shape of Language (1979), co-authored with Linda Waugh. Jakobson’s view of language was strongly influenced by his interest in poetry. His poetic studies served to heighten his awareness of the influence that form could have on content.

Richard Rhodes and John Lawler are well known for their conference paper “Athematic Metaphors” (1981), assessing the sound symbolic intuitions of the Ojibwa people. Rhodes and Lawler noticed the word mdwesjiged was defined by most speakers to mean only ring the church bells when in actuality it was used in many contexts, all of which could be characterized as be/make a sound at a distance. When questioned on this, Ojibwa speakers would agree that the
verb was used in this general sense as well. Rhodes and Lawler refer to the semantic shifting as *athematic metaphor*. They go on to present other examples from Ojibwa and English where the actual usage of a word differs from its official meaning. Ultimately, this shift is attributed to sound interactions between phonesthemes causing assonances and rhymes. Lawler is also known for his paper “Women, Men, and Bristly Things: The Phonosemantics of the BR-Assonance in English” (1990) in which he analyzes three English phonesthemes, *br-, bl-, and pr*. Limiting his study to monosyllables and extended monosyllables (words with monosyllabic roots), he grouped together words that contained these phonesthemes, (or assonances as he referred to it) which also shared semantic elements. For example, *preach, prance, prattle, prom, prate, prim, preen, primp, prissy, pretty* and *proper* all were grouped into the category of *appropriateness of personal appearance and conventional behavior*.

**Recent Contributions to Phonosemantics**

Yakov Malkiel was one of the first to confront the issue of how diachronic sound change affects phonosemantic properties in the collection *Diachronic Problems in Phonosymbolism* (1990). The argument states that if a word’s meanings are impacted by its sounds, this would imply that any altering of a word’s phonetic constitution would likewise result in an altering of a word’s semantic constitution. It has been clearly demonstrated that the phonetic constitution of words does change over time. It has also been clearly demonstrated that a word’s semantic breadth can change over time. However, the idea of a causal relationship where the semantic drift is the direct result of iconic-based, phonetic change is difficult to prove. Regular processes of historical sound change such as epenthesis, prothesis, haplology and aphaeresis are systematic and internally explainable by the phonetic environments where the sound changes take place.
Phonetic changes which result from such processes do not normally lead to any significant semantic alteration (Crowley, 2000). This is something that must be taken into consideration. Could one explanation, among others, for the diachronic gain or loss of meanings and sounds involve sound symbolism? Contrary to the views of many historical linguists, Malkiel proposed that semantic shifts will frequently occur along with sound change so that the meaning of the word does not remain unchanged should its phonetic properties change. Under such conditions, words can appear in new contexts where they could not before and they are disallowed from old contexts where they were previously. Sometimes words will fall out completely and be replaced with new ones.

Take Lat. sībilāre «to hiss», with a by-form sīfilāre...From sībi-, sīfī-lāre Spanish has inherited three verbs: first sīlbar «to whistle»; second, chīflar «to hiss, gulp down», «to whistle, sing» (said of birds), plus, reflexively and only in the familiar register, «to become unbalanced», witness chīfladura «craze»; and, third, chīllar «to shriek, screech, creak, squeak, hiss, scream» (figuratively said of colors); (in New World dialects) «to squeal», i.e., «to turn informer»; among hunters, «to utter a fox call». Observe that the second and third products are given away as phonosymbolically colored not only by the representation of ancestral s-, before the high, front vowel, via ch-/č/, but also by a bizarre rendition of the ancestral word-medial -bil- or -fil- sequence through /fl/ or /λ/, counter to expectation; in contrast, the -lb- cluster of sīlbar involves an entirely innocuous metathesis of syncopated parental -b’l-. Silbar is, practically «laugtesetzlich»; nothing of the sort can be asserted of either chīflar or chīllar. But this is not all: The semantic development of sīlbar has been slow and imperceptibly slight; conversely, those of chīflar and chīllar have been saltatory, to the point of wilderness- in unfettered substandard and dialect speech even more so than in relatively polished literary Spanish. (Malkiel, 1990, p.25)

The introduction to Malkiel (1990) is the most eloquent explanation I have come across of why the study of sound symbolism is in the state (of torpor) that it is. No matter where an individual stands in the debate, he or she will find these five pages quite captivating.

Reuven Tsur, professor of Hebrew literature and literary theory, in his book What Makes Sound Patterns Expressive (1992), details the field of Cognitive Poetics, which he pioneered two decades earlier. Cognitive poetics involves elements of literary theory, linguistics, psychology,
and philosophy. It explores the relationship between the structure of the text and the manner in which it is perceived. Sound symbolism plays a major role in this approach. Tsur addresses this role:

This work assumes there is a …third, “Poetic Mode” of speech perception in which some rich precategorical sensory information is sublimely perceived, which is the source of the “mysterious” intuitions concerning speech sounds. It explains, for instance, …the relative height and brightness of front vowels as compared to back vowels, the relative hardness of voiceless consonants, and much more. (Tsur, 1992, p. viii)

He goes on to analyze the perceived meaning-bearing qualities of consonants and vowels in various examples of poetry. He outlines an experiment he conducted where he asked participants to assign antonymic values to the vowels /i/ and /u/. There was a strong tendency to find /i/ as “lighter, nearer, smaller, thinner… than /u/” (pp. 25—29). Among the discussions of consonants were the trilled /r/ and the velar and glottal stops where he incorporated ideas of Fónagy. In a psychoanalytical discussion invoking plentiful elements of Freud, things took a bit of an unseemly turn as the /r/ was related to phallic erection while the velar and glottal stops were discussed in terms of the anus (pp. 136—145).

*Sound Symbolism* (1994) edited by Hinton, Nichols and Ohala is one of the greatest single-volume resources available for those interested in phonosemantics. In this collection of conference papers, twenty four scholars representing some of the most prestigious linguistic and anthropology departments in the world came together to discuss and synthesize data to determine how sound symbolism fits within the broader field of linguistics and it’s implications for language theory. The range of topics is surprisingly diverse so it’s likely anyone who participates in the field would encounter something new inside. Only three of the papers are discussed below, but every one from this indispensible volume is worth reading.
Shoko Hamano conducted a lexical study of sound-symbolic Japanese words collectively known as *giongo*, *giseego* and *gitaigo* in “Palatalization in Japanese sound symbolism” (1994). Consonantonal palatalization is a prominent feature of this system. The semantic implications of palatalization ranges over a continuum of “childishness, immaturity, instability, unreliability, uncoordinated movement, diversity, excessive energy, noisiness, lack of elegance, and cheapness.” (p. 148):

- **pata-pata**: “hitting a flat surface with a large flat object such as a fan”
- **patya-patya**: “hitting the surface of the water with a big splash”
- **horo-horo**: “weeping elegantly”
- **hyoro-hyoro**: “looking thin and week”
- **tara-tara**: “thick creamy liquid drops”
- **tyara-tyara**: “flashy and cheap”
- **koro-koro**: “something hard and round rolls on”
- **kyoro-kyoro**: “to look around curiously without focusing on one thing” (pp.148—149)

Hamano asserts that the semantic continuum can be reduced to an association of palatalization of alveolar stops and fricatives with the list of generally negative characteristics listed above: childishness, immaturity, etc. This striking implication for sound symbolism follows: “Studies of language acquisition report palatalization as one of the universal characteristics of early stages of children’s language acquisition” (p.154). Hamano then cites Snow and Ferguson (1977) who reported palatalization as one of the commonest devices of baby-talk, i.e. adult modification of speech to children (p. 154).

Gérard Diffloth conducted an analysis of the Bahnar language of Vietnam which he presented in “i: big, a: small” (1994). He examined a group of words which he referred to as *expressives*. Expressives roughly correspond to ideophones in the African linguistic tradition. Diffloth noticed a pattern among expressives regarding relative size and the vowel quality used
to represent that size which seemed to conflict with the findings of those such as Sapir and Jespersen. In Bahnar “...the iconic values of the vowels are, roughly speaking: high = big and low = small, exactly opposite to the English...” (p. 112):

/blooŋ- bleeɛw/ “descriptive reduplication of the numerous reflections caused by a single ray of light on a large big, shiny object.”
/bleeɛl-bleeɛl/ “descriptive reduplication of large flames appearing intermittently but remaining vivid.”
/blɔɔŋ-bleɛɛw/ “descriptive reduplication of the numerous reflections caused by a single ray of light on a small shiny object.”
/bleeɛl-bleɛɛl/ “descriptive reduplication of small flames appearing intermittently but remaining vivid.” (pp. 109—110)

But Diffloth showed no consternation:

There is nothing peculiar about this Bahnar system, and one can easily find an iconic basis for it. In the articulation of high vowels, the tongue occupies a much larger volume in the mouth than it does for low vowels. The proprioceptive sensation due to this, reinforced by the amount of contact between the sides of the tongue and the upper molars, is available to all speakers and is probably necessary to achieve a precise, articulatory gesture. The most direct form of iconicity relies on finding similarities between two different kinds of sensations: articulatory feedback sensations (or proprioception of articulation) on the one hand, and the various sensations conveyed by expressives on the other. In this perspective, two different languages may easily use the same phonetic variable (vowel height) to convey the same range of sensations (size) and come up with exactly opposite solutions, both being equally iconic; all they need to do is focus upon different parts of the rich sensation package provided by articulatory gestures, in our case the volume of tongue instead of the size of the air passage between it and the palate. Iconicity can be both physiologically motivated and culturally relative at the same time. (pp. 112—113)

Brent Berlin conducted a study that was both unusual and empirically based which he presented in “Evidence for pervasive synesthetic sound symbolism in ethnozoological nomenclature” (1994). The experiment was based on a list of fifty word pairs from the Huambisa language of north central Peru. Each pair consisted of a bird and a fish e.g. 1. a. chunchuikit b. máuts, 2. a. katis b. waikiách, 3. a. weáhai b. tsakanána. He presented the list to an anthropology class of about 600 students and instructed them to guess which word was a fish
and which one was a bird based solely on the sounds of the animals’ names. The students guessed correctly with a 58% accuracy rate, which is not high but significantly better than chance. His determinations were:

The phonetic characteristics of the names of birds and fish in Huambisa suggest the workings of universal sound-symbolic processes. First, birds and fish differ on the basis of the differential distribution of phonetic segments of high and low acoustic frequency. Bird names show a disproportionate number of segments that are of acoustically high frequency which, it is claimed, connote quick and rapid motion (i.e. “birdness”). This contrasts with the lower frequency segments in fish names which lead to connotations of smooth, slow continuous flow (i.e. “fishness”). Secondly, both bird and fish nomenclature demonstrate a prominent internal pattern of size-sound symbolism where vowel quality and relative size are positively associated at high levels of statistical significance. Smaller birds and fish show disproportionate numbers of high frequency vowel \([i]\) stems while larger birds and fish show disproportionate numbers of lower frequency vowel \([a]\) and \([u]\) stems…In a perfect world, names for the creatures of nature should reflect their natural, inherent qualities. These data suggest that to a large extent, the Huambisa…are unconsciously motivated to develop systems of zoological nomenclature whose sound-meaning associations take full advantage of the frequency code innate to many living species. (p.91)

_Mimologics_ (1995) by Gérard Genette is the standard by which all other historical accounts of the field of phonosemantics are measured. There is no other resource that takes the reader from the Cratylus to modern times with the same amount of detail and rhetorical elegance. The true strength of this book however is how it sheds light on past contributors who many readers would have never heard of, or, who are well known in fields other than linguistics. Genette is so vivid in his portrayal of these so-called minor figures that after reading about them all it’s difficult to judge anybody as being insignificant. One can not digest this work without coming away with a deeper appreciation of the field and it might cause the reader who had dismissed the notion of linguistic iconism (the _Hermogenist_ as Genette likes to say) to reconsider, at least for a moment, the point of view of the believer (the _Cratylist_).

of sound symbolism in the Pastaza Quechua language of Peru. She illustrates the complex manner in which sound symbolism is infused with Quechua grammar:

Quechua speakers’ use of sound symbolism suggests an orientation to the world that unites the material with the conceptual and the natural with the cultural or conventional. For the lowland Ecuadorian Quechua, language use is modeled on sounds, patterns, movements, and rhythms of the natural world and of one’s bodily experiences in it. The “sounds of sound” communicate not an abstract, detached meaning, but a concrete movement, rhythm or process unfolding in time. Sound-symbolic utterances simulate the material qualities of the natural, sensible world and thereby articulate Quechua peoples’ cultural constructions of it. (p. 3)

Concepts like duration and movement pattern, for example, are communicated through iconic means. For the Quechua, sound symbolism is not merely a way of speaking, it is iconic of their way of life and a way of experiencing the world. Later, in her article “The Case for Sound Symbolism” (1999), she presented additional evidence through her examination of various experiments and research efforts throughout the twentieth century, evaluating multiple manifestations of sound symbolism throughout the world’s languages.

John Ohala has made several relatively recent contributions to the field. One recurrent theme in his research is the influence of frequency (pitch) on sound symbolism. Ohala, in his articles “The Frequency Code Underlies the Sound Symbolic Use of Voice Pitch” (1994) and “Sound Symbolism” (1997), asserts that frequency of resonances is a generally accurate, cross-linguistic communicator of size:

There is extensive documentation of a cross-language similarity in the use of certain consonants and vowels in sound symbolism…words denoting or connoting SMALL or SMALLNESS (and related notions) tend to exhibit a disproportionate incidence of vowels and/or consonants characterized by high acoustic frequency. In consonants, voiceless obstruents have higher frequency than voiced because of the higher velocity of the airflow, ejectives higher than plain stops (for the same reason) and dental, alveolar, palatal and front velars higher frequencies…than labials and back velars. In the case of vowels, high, front vowels have higher F₂ [frequency] and low, back vowels have the lowest F₂. (Ohala in Hinton, Nichols & Ohala, 1994, p. 335)
The phonetic generalization that can be made is that the expression of size utilizes speech sounds whose characteristic acoustic frequencies vary inversely with size of the thing designated. (Ohala, 1997, p. 99)

Another of Ohala’s trademarks is that his ideas are often based in biology. The vocal tract must become smaller and more constricted to produce the high frequency sounds thought to be symbolic of “smallness, non-threatening attitude, desire for the good will of the receiver…” and conversely it must grow larger to produce low frequency sounds that are presumably symbolic of “largeness, threat, self-confidence and self-sufficiency.” (Ohala in Hinton, Nichols & Ohala, 1994, p. 343)

During the current decade, arguably the most influential contributor to the field has been Margaret Magnus. Her dissertation, *What’s in a word?: Studies in phonosemantics* (2001), was a voluminous blending of theory and empirical evidence. The hallmark of this dissertation is the experimental section. Through fourteen separate experiments, she presents one of the greatest collections of empirical evidence ever assembled in the field. Ten of these experiments involve lexical analysis and four involve word/definition creation. The latter group is elaborated on at the beginning of the next chapter. From the lexical analysis group, these are further divided into examinations of English, and a single, cross-linguistic study. In the first experiment (pp. 54—77), Magnus isolated all the monosyllables familiar to her from a dictionary and then divided them into 24 classes according to each consonant phoneme present in the monosyllable. She then devised a tentative phonosemantic working classification for each of these groupings. Finally, the words within each of the resulting classes were subdivided again according to the phoneme’s position within the syllable. For example, the phoneme /g/ contained the following categories with its number of constituents indicated: the gullet 27; sound and talk 33; voice, containers and valleys 49; quantity 50; getting, holding and greed 77; blockage 38; giving 6;
going 55; growing 26; goodness 15; light 18; understanding 23; grids and grains 12; death and
gloom 30; too much where it doesn't belong 112; not enough where it’s needed 106; hidden
source or goal 117. It was determined that only three percent of the monosyllables did not fit
into a classification. These non-conformers were mostly concrete nouns. Experiment three (pp.
86—89) involved choosing a list of words all starting with the same letter at random by selecting
every tenth word, going in alphabetical order. She then analyzed the words for semantic
commonalities and divided them into semantic categories. For example, word-initial /b/ was
selected. After analyzing every tenth word starting with /b/ (in a dictionary), categories were
made to group the words together that meant similar things. One such category was bump with
the following members: bag, bale, ball, bay, bead, belch, bell, bilge, blimp, blip, blot, blod etc.
In experiment four (pp. 90—93), a semantic classification that worked well for words containing
one phoneme was applied to words containing another phoneme. All the monosyllables
containing /l/ were taken and it was attempted to fit them into the /b/ classes. It was determined
that there was very little overlap. For the category bulging these were the /b/ words: bag, bale,
ball, belch, bell, bilge, blimp, blot, blod, blouse, blow, boil, boob, bulge, bum, bun/s, burl,
burst, bust. The only conforming /l/ word was lung. Experiment six (pp. 101—108) involved
the presentation of certain semantic classes which were identified as favoring labial consonants.
Among these classes were bulges, mountains, humps and peaks; fountains and blowing;
foundations; beginnings; pairs, names, pictures and symbols. For example, the category of
round words (presumably a subsection of one of the above semantic classes) with the labial
consonant occurring word-initially included the following: /b/ bale, ball, bay, bead, bell, blimp,
blip, blot, blotch, bowl, bulb; /p/ pea, pearl, pill, pip, pit, plate, pock, pod, point, pore, puck; /r/
reel, ring, rink, roll, round, wrap, wreath, wrench, wrest, wring, wrist; /w/ waist, wheel, whirl, whorl. Experiment ten (pp. 127—129) was a cross-linguistic analysis of the appearance of the consonant cluster /str/ as it exists across various Indo-European languages as well as Indonesian. It was determined that Irish, Norwegian, German, Catalan and other languages showed many examples of this cluster occurring in words belonging to similar semantic categories. Some examples from the category of straight are: Catalan: estira stretching; Greek: sortheksi deer horn; Hindi: sutari heavy needle; Indonesian: setrip line, stripe, slash; Irish: starr tooth; Lithuanian: strele arrow. More cross-linguistic experimentation is greatly needed in the field. Magnus has published two other works in addition to her dissertation: *The Gods of the Word: Archetypes in the Consonants* (1998) and *A Dictionary of English Sound* (1999). The former is a general presentation of phonosemantic issues designed for the lay reader while the latter is a comprehensive dictionary of English phonesthemes. She also maintains a vast website dedicated to phonosemantics which is geared towards broadening interest among scholars and the general public alike.
CHAPTER 3

METHOD

The Present Research in Light of Previous Research

While there is a rich tradition of phonosemantic research within academic disciplines such as linguistics, anthropology and psychology, the majority of it has involved the use of real language lexicons (Wallis, 1653; Nodier, 1808; Bolinger, 1950; Rhodes & Lawler, 1981; Tsur, 1992; Berlin, 1994; Diffloth, 1994; Whissell, 1999; Magnus, 2001). One of the reasons for this is because a real language will offer an extensive, ready-made data set that is quite convenient for the researcher. Another reason is that, if evidence for iconism is found in the lexicon, there will be an actual speech community using the language to which the findings can be practically applied for whatever purposes the researcher has in mind. This manner has its drawbacks, though. If trends are isolated, the investigator has no way of ascertaining if, on the one hand, they are due to some manifestation of iconism or, on the other hand, to processes such as the according of similar sounds to words with similar meanings (von Humboldt, 1836 as cited in Losonsky, 1999) and common etymological descent. This problem can be side-stepped by using the made-up word and definition paradigm. This method involves the presentation and elicitation of created (nonsense) words and definitions to interviewees to determine their phonosemantic intuitions. This is the most effective way to determine if there is any natural connection between articulated sounds and meaning. Because the words are made-up, the aforementioned problems are avoided completely. The caveat is that there is the possibility of
participants relating the nonsense words and definitions to real, existing words. This is more likely to occur if the words and definitions are not designed to be as different as possible from the language(s) that the interviewees speak. I refer to this relating of the stimuli to actual language as *extra-stimulus motivation*. This is the primary problem one has to be cognizant of when using this method of phonosemantic research. If the pitfall of extra-stimulus motivation can be avoided, this method is the one with the most potential to reveal trends of iconism. It was the nonsense word and definition method that was chosen for the present research.

The invented word and definition model has been employed significantly less than the lexicon method, which is one of the reasons why I chose it. There are five previous examples of research which I find to be most exemplary of the made-up word and definition tradition that I ultimately decided to take up. The first is Edward Sapir’s “A Study in Phonetic Symbolism” (1929), appearing in *Selected Writings of Edward Sapir* (1949). In this study consisting of three experiments, Sapir tested the intuitions of participants as it related to the symbolic magnitude value of various vowels and consonants. In the first experiment (pp. 62—64), participants had to evaluate sixty nonsense word pairs, divided into two groups of thirty pairs, containing the vowels /i/ and /a/ with the goal of determining the relative size of each word. One group of thirty contained only sounds native to English while the other group of thirty contained some sounds not native to English. For example, one of the word pairs was *mal* and *mil* which the participants were told were tables. They had to decide which word represented the big table and which word represented the small table. Sapir found that the first group of thirty pairs saw /a/ associated with *large* 81% of the time while the second group of thirty pairs saw /a/ associated with *large* 73% of the time. In the second experiment, five hundred subjects, most of whom were school children, were read a list of one hundred word-pairs and were asked to determine the size of the
first word in the pair relative to the size of the second word. Some of the variables Sapir used were vowels that ranged from low to high in certain word pairs and vowels with the presence or absence of lip rounding. Sapir arrived at the same results as the first experiment regarding the perception of relative size of /i/ versus /a/: “It is obvious that…English-speaking society does…feel that these two vowels, a, by and large, is possessed of a greater potential magnitude symbolism than the contrasted vowel i” (p.65). In the third experiment, which was conducted with adult participants, Sapir offered a nonsense word which he had already defined to the individual. Next, he altered one aspect of the nonsense word, usually the first vowel but occasionally a consonant, and he asked the participant to describe any new meanings that the words acquired through the new sound. The original word was *mila* [milɑ] which was defined as a *brook*. Some of the modified forms were [mɛlɑ], [mɛlɑ] and [mælɑ]. Sapir noticed the same patterns with the vowels as before. The brook got smaller or larger as the vowels got higher or lower. But, in this experiment, Sapir did not explicitly introduce the concept of large or small into the question. This happened spontaneously which he found interesting:

…a considerable number of the responses here quoted from the third series of experiments check some of the magnitude symbolisms independently obtained from the first and second. This is true of most of the schedules in this set and is significant because neither magnitude variations nor any other class of variations in the responses had been suggested. (p.72)

The second study is Charles Fox’s “An Experimental Study of Naming” (1935). Fox was primarily concerned with the correlation of nonsense words to drawings. His approach was divided into ten separate experiments. Several of these were merely slight variations of preceding experiments so all ten will not be explicitly described here. One manner of experimentation involved the presentation of simple, abstract drawings made from four strokes
of a pen. A stroke could be a straight line, an arc of a circle, or a full circle. Each drawing was accompanied by six nonsense words made up differing numbers of consonants and vowels. The participants, of which there were five, were given ten seconds to choose the nonsense word which best suited the drawing. They were also asked to provide their reasoning for choosing the nonsense word that they did. Fox reported a few incidents of word-drawing associations that could not be attributed to chance as well as a few incidents of similar reasoning behind these identical word choices. One of these was with the nonsense word zitix which was explained as “a good name for ‘crosses’” (p.562) by three of the participants. Trends such as this were not very common, however. Fox also tested the appropriateness of the responses he received when, up to thirteen months later, he presented the same questions to his original participants to determine if their answers would remain consistent. Though it did happen some, he noticed that the nonsense words originally selected were frequently not selected the second time. In another approach, Fox had participants create their own nonsense words for ten abstract drawings that were supplied to them. They were asked to create one word that seemed appropriate and two words that seemed inappropriate (p.566). Following this, he had the participants create drawings for multiple groups of three nonsense words that were supplied to them. The drawing had to seem appropriate for one of the words on the list and inappropriate for the other two (p.567). Later, combining the data from these two previous sets, the participants were asked to evaluate the words and drawings of other participants to determine if they arrived at similar conclusions. Fox reports the following results:

The only agreements in reported bases which can be found among these are as follows: 3 Os [participants] found angularity or hardness or sharpness in hexit; 2 Os called xex tangled or confused; 2 referred to rotundity or curvedness in characterizing bul; 2 called rakok harsh or angular or sharp; two spoke of an emphatic harmony between gajan and the appertaining figure; 2 reported associations of tirogon with the word polygon; and for 2 Os riligin suggested a series of similar arcs. Otherwise the Os disagree concerning their
bases for these 15 names or simply do not report reasons. As in other series, we find a correlation far from perfect between word selected and ‘reason’ for its selection. [italics added] (p. 570)

A subsequent experiment involved Fox manipulating the drawings that the participants had created into a new form that he felt was the opposite of the original. He asked the participants to assign a name to the drawing from the list of nonsense words that had applied to the old drawing. The objective was to see if the same word would be picked again. He observed that as the figures changed so did the names (p. 573). Fox concluded that while participants will be sometimes be drawn to associate words with drawings beyond what chance would allow, their reasoning will usually differ, making it difficult to say what, if any, relationship there is between the sounds of nonsense words and the shapes they describe.

The third study is from Dwight Bolinger’s “The Sign is not Arbitrary” (1949) appearing in Bolinger’s *Forms of English* (1965). The article describes an experiment he conducted where he coined the nonsense word *smuck*. He surveyed sixteen people asking them first to determine if the word seemed *nice or not nice* and then to define it. Thirteen people found the word not nice, two people found it nice and one did not respond. He then asked the participants to define the word. Five people defined it as dirt or mud while four defined it as a socially unacceptable person. Other single definitions reported were something slimy or sticky, a stupid act, a stupid person, an opprobrious name for a foreigner and a slap. Bolinger finds remarkable “the cooperativeness with which speakers enter into a suggestion of this sort: it seems natural to them that sound should affect meaning” (p. 236). He also alludes to many other experiments of this type that he had previously carried out, but this is the only one that he presents.

The fourth study is R. Davis’ “The Fitness of Names to Drawings: A Cross-Cultural Study in Tanganyika” (1961). During a 1959 Oxford University expedition to the Lake
Tanganyika region of East Africa, along the lakeshore near the former Congo-Tanganyika border, Davis had the opportunity to experimentally assess the naming instincts of Kitongwe-speaking school children. In the first experiment (which did not involve nonsense words), Davis presented the children with two stick figures, one with a circular head and one with a square head. They were instructed to assign each of the figures a gender. The children selected the round head as the female and the square head as the male beyond chance figures (pp. 261—262). In the second experiment, he presented them with another pair of drawings which were based on previous drawings designed by Köhler (1929). One was angular and the other was rounded. He then presented two nonsense words also inspired by Köhler, *takete* and *uloomu*, which the children had to assign to the drawings. *Uloomu* was the name consistently assigned to the rounded drawing while *takete* was the name favored for the angular drawing (pp. 262—263).

Davis also ran a control experiment with British school children prior to the African expedition and arrived at essentially the same results (p.263). This cross-cultural dimension of the experiment lends additional support to what Davis refers to as “structural relationships”, which is the term he uses to designate the motivation for employing selected sounds to appropriately designate specific objects.

The fifth study is Magnus’s *What’s in a word?: Studies in phonosemantics* (2001). In total, Magnus ran fourteen separate experiments, ten of which were lexical studies with the remaining four being of the invented word or definition type. The first experiment (pp. 135—149) of that latter group involved a list of roughly sixty mono- and bi-syllables which Magnus referred to as *quasi-words*. She posted the words on a web page and asked participants to write definitions for the entries. Among the entries was the nonsense word *glon*. One of the semantic categories to classify the definitions she received for this stimulus was *light*. Some of the actual
definitions were a type of bright light, to look at something shiny or reflective and to shine in the distance. The second experiment (pp. 150—151) was like the first in that it involved definitions of nonsense words however there was a narrowing of the semantic field prior to the defining of the nonsense word. One of these questions was “If ‘nem’ were a size, what size would it be?” Participants had to choose between big, medium and small. Small was the overwhelming favorite for this particular nonsense word. The third experiment (pp. 152—159) involved creating a nonsense word for a given definition. One of these definitions was to swarm over the head like mosquitoes. Some of the nonsense words created were beez, bist, bizz, briz, peeeesh, frazz, sizz, swizz, ziz, shum, slif, zirr, ziz, and virn. The fourth experiment (pp. 160—165) involved invented words to describe images. One of the images was a close-up of several expandable metal watch bands. Some of the nonsense words offered for this image were bant, chongs, drak, jig, mah, pleads, rapp, sai, skent, stit, teek and zam. Magnus (2001) was the first example of phonosemantic research that I ever encountered and it was ultimately what was responsible for bringing me into this field in the first place. It is, by far, the study that has had the greatest impact on this study. I have the greatest respect for Magnus and her work and it is the springboard off which I attempted to further develop the experimental process that she and others, such as Sapir (1929) and Bolinger (1949), have used.

My own approach, which is outlined in detail later in this section, was an experimental one following in the empirical traditions above. I interviewed participants to ascertain their intuitions regarding made-up words and definitions that I created as well as images that I selected. The point was to look for semantic patterns within the definitions the participants created and to look for phonic patterns within the words that they created. As the word and definition creation method was the only method used in this research, I had a unique opportunity
to focus in on what works best for it and what does not. It is my view that there is room for the
development of new approaches and the need to dispense with certain old approaches in this
specific type of phonosemantic research that could lead to more reliable results. I made the
attempt to employ only what seemed to be the most effective methods in the present research.

In the past, various research endeavors have, to varying degrees, taken it for granted that
participants would not reference their native language when creating their words and definitions
(Sapir, 1929; Bolinger, 1949; Magnus, 2001). I believe this kind of confidence to be too
optimistic. The temptation to fall back on one’s native language in this process seems to be
much greater than is previously acknowledged. I interviewed 116 people and I observed that the
majority of them were improperly influenced at one point or another by their native language
(English for most) when formulating their responses. In the event that a participant creates a
word or definition where there is even the possibility that it is inspired by English (or any other
language), the data is rendered untrustworthy. This is because it becomes impossible to say with
any confidence whether or not the data is exemplary of true phonosemantic instinct or just word
association like rhyme, assonance, etc. This type of prejudicial word referencing, or extra-
stimulus motivation, is the most important variable to control in this type of experimentation.
For all three of the present experiments, I made it my top priority when interviewing participants
to try to curtail such associations. There are indications, which are discussed later, that I was not
as successful in this as I would have liked. But, I remain convinced that future experimental
procedures of this kind must adhere to stricter standards regarding the forbiddance of real
language influence when designing original stimuli, eliciting responses, and evaluating
responses, if reliable data is to be gathered.
Since the advent of the internet, data gathering and interviewing have frequently been conducted online, such as with Magnus (2001). While this is not necessarily detrimental to the data itself, it makes it much more difficult for the researcher to maintain control over certain variables, particularly that of extra-stimulus motivation. Online, it would be impossible to ask participants to formulate new responses in this event. All the data gathering for the present research was conducted face to face and participants were, in fact, frequently asked to create another word or definition when it was suspected that the initial response was tainted. (This is discussed in depth later on.)

For the Words Requiring Definitions and Definitions Requiring Words experiments, all the stimuli and all the participants answers were conveyed orally in the present research. This has not always been the case, as in Sapir (1929), Fox (1935), Davis (1961), and Magnus (2001). The presentation of written nonsense words is different than the presentation of oral nonsense words because the participants, once exposed to a graphic representation of the stimulus, might find it more difficult to abstain from associating elements of that graphic representation with their created word. This is especially the case with English. As all the stimuli in this research conformed to English sound patterns, the participants only hearing the nonsense words could not make an exact determination as to how the stimulus was spelled, which was deemed beneficial. All that is essential for a participant in assessing nonsense words for meaning is how they sound. Knowing how a nonsense word is spelled is, at best, extraneous information and, at worst, could be prejudicial to the response.

The process that went into the design of each stimulus in the Words Requiring Definitions and Definitions Requiring Words experiments was more detailed than most before. The nonsense words of the first experiment being organized according to four distinct syllable
lengths has never been done before to my knowledge. Other studies have considered which sounds were to be included in the nonsense words but none have made it explicit that their stimuli were methodically designed, one segment at a time, like the stimuli were for part one. The use of semantic subcategories like the three states of matter and three primary emotions for the *Definitions Requiring Words* and the three primary colors for the *Images Requiring Words* is novel as well.

This study is the first that I am aware of to utilize the International Phonetic Alphabet in the rendering of narrow phonetic transcriptions of the data that came from the participants’ creation of nonsense words in an effort to search for phonic trends, including possible trends conforming to the antonymic hypothesis. This applies to parts two and three. Also particular to this study, a specially-created phonetic alphabet based on English pronunciation is included to aid in the interpretation of the participants’ responses. Another unique feature is that it presents the individual segments, consonant clusters and whole syllables of Questions that required the coining of a nonsense word by the participant in a customized *phonetic order*, which greatly facilitates the interpretation of the data.

In the past, experiments have been conducted where the participant was forced to work within the framework of a pre-determined list of nonsense words which were to be applied to a stimulus, as in Fox (1935). Other approaches have presented participants with a limited semantic field to work in, which forces responses of a binary type. This was the case in one or more experiments performed in Sapir (1929), Bolinger (1949), Davis (1961), and Magnus (2001). My approach was to allow the participants as much freedom as possible in their creation of answers so that if trends did develop, they could not be dismissed as resulting from my leading the participants towards a particular end.
Another original contribution of this research is that it breaks down the created nonsense words of Questions S. –g. in terms of individual segments, consonant clusters and whole syllables into a template format organized by syllable configuration, syllable stress and word length. This allows for an expedient yet comprehensive evaluation of each Question.

Finally, this study introduces the antonymic hypothesis which states that iconism is manifest in articulations that can be set in antonymic opposition to other articulations. For the points of articulation, this includes phones originating from the extremities of the vocal apparatus and for the manners of articulation this includes stops and continuants.

Participants
116 people were interviewed, 62 males and 54 females. Participants ranged in age from 19—73 years. The breakdown of age groups was: 19—30 years: 94, 30—50 years: 6, 50—73 years: 16. The native languages represented were: English: 110, Spanish: 7, other (Catalan, Russian, Urdu, Slovenian): 4. All participants save one were fluent in English. The participant who was not fluent in English was a native speaker of Spanish. Five participants spoke English and one other native language: Spanish: 3, Russian, and Urdu. Five participants did not speak English as a native language: Spanish: 3, Slovenian, and Spanish/Catalan. There were eleven participants who were fluent but non-native in a language(s) other than English: Spanish, French: 4, German: 3, French/German, French/Spanish, and French/Italian/Serbo-Croatian.
Materials

Question Creation

The experimental process began with the creation and gathering of stimuli, designated as Questions, which I would use when conducting interviews. I divided the Questions into two main groups: auditory stimuli and visual stimuli. These main groups were then subdivided into smaller groups. Each Question was assigned a fixed alphabetic value, A—g., for identification purposes, making 33 Questions in total. What follows is a breakdown of the design of the auditory and visual stimuli groups.

Auditory Stimuli

The auditory stimuli are referred to as such because they were spoken aloud by me to each participant. They were divided into two primary sections: Words Requiring Definitions and Definitions Requiring Words. These will be discussed one at a time.

Words requiring definitions.

monosyllables:

- A. smitch [smsktʃ]  
- B. jube [dʒuˈmb]  
- C. keeve [kʰiv]  
- D. wam [wam]

bisyllables:

- E. easloff [ˈiːz·lɛf]  
- F. kedid [ˈkʰed·ræd]  
- G. mavar [ˈmeɪ·vɑr]  
- H. eyeyu [ˈæ·juw]

trisyllables:

- I. narathooze [ˈnæ·rə·θʊz]  
- J. phillontave [ˈfɪ·lɑn·tæv]  
- K. lulurode [ˈlu·lə·rəd]  
- L. goxiwall [ˈɡo·sə·wɔl]

tetrasyllables:

- M. cengastumine [sɪn·ˈgæs·tə·mæni]  
- N. poncrilader [ˈpɔŋ·krɛl·dər]  
- O. bowertilldew [ˈbɔ·wɛ·tɪld·dəw]  
- P. chocksasheebel [ˈtʃɔk·sə·hi·bæl]  
- Q. whoagsafflerick [wɔˈɡæ·fɛl·fɪk]  
- R. tobecraydrub [tʰoˈba·ˈkɛɪd·drʌb]

This section made up the first part of the interview. It consisted of sixteen Questions, designated A.—P.. This group of sixteen was divided into four groups of four words. The first tetrad consisted of monosyllables. The second tetrad consisted of bisyllables. The third consisted of trisyllables and the fourth, tetrasyllables. The four of four configuration was chosen
because I deemed it a good balance between maintaining a quantity of words large enough to promote stimulus variety and at the same time a quantity that was practical in size to work with. All sixteen of these Questions, though sometimes referred to as words, were not regular words. They were actually nonsense words or made-up words. Magnus (2001, pp.135—149) was the inspiration behind the formulation of these Questions. Each word was designed with several criteria in mind.

First, they were designed to bear as little resemblance as possible to real words. This was at best very challenging and at times, arguably, impossible. I determined that there was a direct relationship between the length (number of syllables) of a word and the facility with which it could be designed to sound like no other real word. The shorter the word, the harder it was to achieve this. The longer the word, the easier it was. All words, though not real, conform to English phonological patterns. This means that I limited myself to the phonetic inventory of Standard American English when creating these words. This limited palate approach had its advantages and disadvantages. On the upside, it made it possible for me to conduct the interviews in a strict, controlled manner as I was able to confidently pronounce the words identically each time I interviewed a participant. It also made it easier for the participants to understand the sounds I was using as the majority of them were native speakers of American English. The downside of this approach was that the words, though not real, at times sound to an English speaker as though they could be real. This can create problems because it opens the door for participants to draw comparisons based on sound similarity such as rhyme or assonance. This was especially true for monosyllables. Metaphorically, one could say I was struck by how little real estate there was available in the monosyllable part of town. If one limits oneself to the consonants and vowels of English, there are very few listings for new monosyllables which
would not form a minimal pair with an existing word. Using this type of sound-similarity reference or extra-stimulus motivation, is something participants were forbidden to do. This will be discussed in more detail later.

The second criterion was that the words sound distinct from each other. This was achieved by making sure that a wide range of consonants and vowels of American English was present. The sound constituents were used in rotation, none to the total exclusion of the others. This created a phonically diverse Question set and helped the participants not get caught up in constantly repeated sounds as this could have promoted an undesired influence on their semantic judgments.

The third criterion was that the words sound appealing and interesting. I sought words that would capture the attention and provoke the creativity of the participants. This is of course very subjective as what sounds mellifluous, intriguing or thought-provoking to one person could create quite the opposite effect in another. The object of this criterion was to have the participants fully engaged in the interview process.

After I had interviewed about twenty people, I decided that two words, Questions M. and N., were eliciting definitions that were highly suspect regarding their potential, and if true, illegal influence by English. It’s true that the same could be said for other words in the data set as well, especially the monosyllables. But, given that these suspect words were tetrasyllables, I decided that to neglect taking preventative action in this instance would be unjustifiable since, when designed properly, tetrasyllables have the potential among all four word lengths to be the most phonically distinct from real words. The action I took involved creating two new tetrasyllables with great care. These became Questions Q. and R.. These two new words actually wound up being the best examples I had of made-up words that bore little if any resemblance to English
and the results of the interviews bear this out. As pleased as I was with these new words, I decided to keep Questions M. and N. in the interview process since I already had approximately twenty examples of them recorded and it would not necessitate that much extra work to have two extra Questions to analyze. So in the end the Questions of the Words Requiring Definitions section amounted to eighteen, A.—R., rather than sixteen, A.—P..

The creative process behind words requiring definitions: Questions A.—R.⁴

Question A. smitch [smɪtf].

I wanted a word that ended in an affricate like /tf/ because I felt this had a strong possibility for conveying semantic elements, though I did not know exactly how. I also was interested in having the consonant cluster /sm/ in the same word as I hypothesized this would contribute to the richness of sonority.

Question B. jube [dʒuʌb].

I selected the affricate /dʒ/ because I felt it was very colorful. The way the nucleus and the coda interact is also quite interesting. The rounding of the lips followed by the bilabial stop seemed like a rich phonosemantic environment.

Question C. keeve [kʰiːv].

The initial /k/ followed by the vowel /i/ created a shrill, sharp effect. The /v/ in the coda complemented this very well I thought.

⁴Questions A.—R. were designed prior to the formulation of the antonymic hypothesis, which was developed during the process of analyzing the data. This means that these nonsense words contain many phones not originating at the extremities of the vocal apparatus.
**Question D. wam** [wam].

I was interested to see how the approximant /w/ would interact with the bilabial /m/.

Since both sounds actively involve the lips, I hypothesized they would create an interesting environment through their joint appearance.

**Question E. easloff** ['iːz · ɪf].

I was interested in combining the vowel /i/ with the buzzing sonority of /z/. In the second syllable I wanted to use a liquid in conjunction with a continuant.

**Question F. kedid** ['kʰɛ·ɾəd].

This word occurred to me all at once and was not designed one segment at a time. As far as the constituents go, the succession of similar alveolar consonants makes an impression on the ear. This and the presence of a word-initial /k/ are the most striking phonic elements of this word.

**Question G. mavar** ['meʲ · vaʊ].

For me, the most striking part of the word was the second syllable. I wanted to use /v/ with /u/. This seemed like a colorful combination. However, the sentiment of the word was dependant on the interplay between both syllables. The contrast between the vowels is prominent.

**Question H. eyeyu** ['aʲ · juʷ].

My original thoughts behind this Question were to use no consonants. This word represents the compromise I reached in that attempt. I feel what is most salient with this word springs from this interaction between only vowels and semivowels. The word feels very smooth.
in its articulation. I predicted that these characteristics would have an impact on the responses, but how this impact would be manifest I did not know.

*Question I. narathooze* ['næʊə θuːz].

The first two syllables pass quickly as they only consist of a single segment onset and a nucleus. The last syllable by contrast is quite long and drawn out. From the interdental onset to the nucleus that seems to demand lengthening to the continuant in the coda, it is clearly a different animal than the first two. It was this contrast that I found most interesting about this Question.

*Question J. phillontave* ['fɪləntav].

This word was dominated by continuants until the last syllable where a stop was present. The pattern picked up again as the word concluded with a word-final continuant.

*Question K. lulurode* ['luˈluɾod].

It is important to note that this is the only question to contain a built-in phonosemantic variable at the supra-segmental level: reduplication. I was quite interested to see what kind of impact this would have. I chose to use a liquid as the onset in the reduplication because I liked its potential to promote phonosemantic trends compared to other types of consonants in that environment. This was a subjective decision like all decisions when designing these Questions. I predicted that some responses might contain elements of repetition because of this.

*Question L. goxiwall* ['ɡɔkə ʊld].

The first syllable featured a lone velar plosive in the onset and coda. Both consonants are stops. The third syllable featured a continuant in the onset and coda: an approximant and a liquid. The phonic contrast between the first and third syllables is conspicuous.
Question M. cengastumine [sɪn ·ˈgæs ·tə ·mæɪn].

Because of its length, I hypothesized it would be representative of something complex. I also sensed that it would represent something specific. I found the first and last syllables to be the most provocative. Three of the four consonants were nasals, plus the one fricative. I predicted the nasals in this context would influence responses by virtue of their vibration.

Question N. poncrilader [ˈpʰəŋ ·kə ·le • rə].

I hypothesized that the first and second syllables were the strongest and most evocative of the word. The third syllable was possibly influential as well. The word-initial plosive was attention-grabbing. The consonant cluster in the onset of the second syllable in conjunction with the schwa was heavy and grounding. The importance of the third syllable was in its liquid onset and its front vowel.

Question O. bowertilldew [,ba · wə · 'tʰɪl · du].

In this word no particular syllables stand out more than the others but they all seem to be playing a role. The vowels were constantly moving up and, eventually, back. The consonants started towards the front and moved slightly back. There was never a return down or forward on the part of any of the segments.

Question P. chocksaheeble [ˈtʃək · sə · hi · bə].

Once again, I decided to put an affricate in the word-initial position. I hypothesized that affricates would be consistently attention grabbing in any environment. The first syllable was the strongest overall of the word. The expulsion of air in the third syllable onset, welling up from low and back in the throat, that ends up at the fourth syllable onset at the lips represents the maximal distance possible from one articulation to another. The word concludes with a return towards the center.
Question Q. whoagsafflerick [wɔˈgəˌzæ·fəlˌrɪk].

This word, like most of the tetrasyllables, was predicted to elicit responses that were on the complex side due to its length. All four syllables worked together to create an effect that sounded quite odd for a word composed exclusively of phones native to English. This was the intention. I strove to create something bizarre because I wanted that unfamiliarity to carry over to the definition process. The second and third syllables created a curious sonority through its combination of /z/ in the onset, /f/ in the onset and the liquid /ɻ/ in the coda. The fourth syllable was unique with its liquid onset that followed the liquid coda before it.

Question R. tobecraydrub [tʰoʊˌbəˈkɛɪˌdrəb].

This was another word that was structured in a way that English phones are not typically structured. It was replete with stops; every syllable had at least one. This was the point of the word.

Definitions requiring words.

concrete nouns: S. the wad of hair removed when cleaning a hairbrush
T. the grease that accumulates on top of a hot pizza
U. an unexpected cool breeze on a sultry day

abstract nouns: V. the feeling experienced by a death-row inmate after being pardoned or exonerated
W. a feeling of extreme disappointment
X. the feeling of being woken in the middle of the night by a strange noise

independent: Y. the name of the remotest island on earth

This question set formed the second part of the auditory stimuli as well as the second part of the interview. It could be viewed as a transition set between the first and third parts as it is a
hybrid which contains elements of both of those. This group, designated Questions S.—Y., consisted of seven definitions read aloud to the participants. Magnus (2001, pp.152—159) was the inspiration behind the formulation of these Questions. The definitions themselves were divided into three groups: two triads and a single definition. The first triad was composed of definitions involving the three states of matter: solid, liquid and gas. These formed the concrete nouns. I chose to structure the first group in this way for two reasons. First, matter in one of these states will have distinct physical properties that make it possible to differentiate it from matter in the other two states. I hypothesized that the difference in physical state could have a discernable, quantifiable impact on the way participants created words. Second, I made the assumption that these ideas would be easy to visualize and universally understood by the interviewees who all hailed from technological cultures that recognize the three states of matter and whose educational institutions teach the concept of the three states of matter from a relatively early age.

The second triad was composed of definitions involving primary emotions. These formed the abstract nouns. The exact name and number of all primary emotions varies depending on the school of thought but common to every list are the three used: joy, sadness and fear. The reasons I chose to use primary emotions were similar to the reasons why I chose the three states of matter. The difference between these emotions being poles apart, I felt that their comparative uniqueness could provoke phonic trends that would be equally unique. I also felt that these would be easy for all the participants to relate to as, theoretically, they are common to all people (Wierzbicka, 1992, citing Izard and Buechler, 1980).

The final definition of the second part was one that I created both for its potential ability to elicit phonosemantic trends and for its ability to stir the imagination. The semantic features of
this Question hypothesized to have the greatest impact on the sounds the participants would elect to employ were aspects of extreme isolation, silence and seemingly endless water.

I did not prime the participants by divulging the impetus for or structure of these definitions sets. I wanted to see if the essence of these concepts could transcend the definitions that outwardly represented them and then be manifest in quantifiable phonic patterns.

For all seven Questions of Definitions Seeking Words, the words used in the defining process were nouns. Though I had no control over what went on in the minds of the participants, I designed this question set in this manner because I predicted that nouns would be the easiest word class to visualize for the participants. I recognized at the outset that what I was asking the participants to do was not easy. In fact it can be exceedingly challenging.\(^5\) This concern was a guiding force throughout the designing of the interview which is why seven nouns were chosen over a variety of word classes.

The same procedure regarding the distinctiveness of the stimuli that was followed in the first part was implemented in the second part. I endeavored to create stimuli that were as unique as possible, bearing no resemblance to anything already in existence. I’m as certain as I could be that that no actual words are already in existence that would be accurately and wholly defined by the definitions I created. This was done on purpose, of course, to make it easier for the participants to invent a new word. It would have been unreasonable to ask them to create a new word for a familiar object like a broom. The image and the real word that represents it in English would be exceedingly difficult to ignore. For this reason I deemed it necessary to invent definitions that are, by my own admission, curious. These definitions also have what I refer to as

\(^5\)My suspicions were later confirmed during the interview process as I often found myself thinking that, if the tables were turned, I might be unable to successfully complete my own interview.
multiple *semantic peaks*. This means they have more than one striking aspect to them. There will naturally be elements of the states of matter and the primary emotions in the first six but there is more to them than just that. These definitions were designed to include multiple, image-creating elements that work in parallel with the fundamental aspects of the states of matter and the emotions. All this was done to facilitate the participant’s word creation.

*The creative process behind definitions requiring words: Questions S.—Y.*

*Question S. the wad of hair removed when cleaning a hairbrush.*

This was the first of the *Definitions Requiring Words* Questions and the first in the triad of the three states of matter. This one represented the solids. The other salient qualities of this Question include a coiled mass, wispiness and the texture of the wad of hair, oiliness, uselessness, and something to dispose of. It’s possible that certain elements of the hairbrush itself influenced the responses. One of these could be the appearance or texture of the prongs from which the wad of hair was removed. All in all, I found the image to be provocative in its unusualness. The wad of hair was something that I assumed all participants could relate to but something for which none would have previously encountered a specialized name.

*Question T. the grease that accumulates on top of a hot pizza.*

This was the second of the *Definitions Requiring Words* Questions and the second in the triad of the three states of matter. This one represented the liquids. The other salient qualities of this Question included the taste of the pizza and oil, the viscosity and texture of the oil, the heat of the pizza, and possible revulsion or disgust. The various colors of the oil itself and any toppings on the pizza that the participants may have envisioned could have impacted the responses. I intended for the image to be a bit off-putting. My intention was that it would help the participants focus creatively on the naming process owing to the strength of the image. This
was something that I assumed all participants could relate to but something for which none would have previously encountered a specialized name.

*Question U.* an unexpected cool breeze on a sultry day.

This was the third of the *Definitions Requiring Words* Questions and the third in the triad of the three states of matter. This one represented the gasses. The other salient qualities of this Question included aspects of discomfort and relief, the sound of the breeze and a summertime setting perhaps. This type of breeze was something that I assumed all participants could relate to but something for which none would have previously encountered a specialized name.

*Question V.* the feeling experienced by a death-row inmate after being pardoned or exonerated.

This was the fourth of the *Definitions Requiring Words* Questions and the first in the triad of three primary emotions. This one represented joy. The other salient qualities of this Question included aspects of surprise, disbelief, capital punishment, (in)justice, life and death, crimes worthy of death row, luck, and various perspectives of life inside prison. While this situation was something that I expected none of the participants could relate to from personal experience, I assumed that most all of them had heard stories of such events. But even if one had never heard such stories, I felt it was a situation that all people could relate to on some emotional level. I assumed this was something for which none would have previously encountered a specialized name.

*Question W.* a feeling of extreme disappointment.

This was the fifth of the *Definitions Requiring Words* Questions and the second in the triad of three primary emotions. This one represented sadness. It was hard to explicitly state what the other salient qualities might be attached to this Question because
it was so open-ended. All the Questions up to this point had been very specific and I wanted to try a change of approach. Since disappointment is so non-specific, about all that could be said for the expected responses would be that they would represent something negative. I expected that the participants could relate to some kind of disappointment from personal experience. Even though this situation is generic, I still felt it was something for which none would have previously encountered a specialized name.

Question X. the feeling of being woken in the middle of the night by a strange noise.

This was the sixth of the Definitions Requiring Words Questions and the third in the triad of three primary emotions. This one represented fear. Other salient qualities of this Question were darkness, familiar surroundings cast in an unfamiliar light, tension, harm, curiosity and perhaps temporary paralysis. I expected that many participants could relate to this from personal experience. For those that could not, I did not expect them to have a hard time imagining themselves in that position. I assumed this was something for which none would have previously encountered a specialized name.

Question Y. the name of the remotest island on earth.

This was the last of the Definitions Requiring Words section. This question formed its own category. The salient qualities of this Question included silence, isolation, perhaps a struggle for survival, exile, a potential tropical setting, the ocean and deep water and maybe a traditional island culture if the participants envisioned this island as an inhabited one. I expected that few participants could relate to this from personal experience. I did expect them to be able to imagine themselves in such a place. I assumed this was something for which none would have previously encountered a specialized name.
Visual Stimuli

The visual stimuli part of the interview represented a change in approach as I no longer spoke to the participants to elicit their responses. The visual stimuli consisted of just one primary section, *Images Requiring Words*.

*Images requiring words.*

primary colors: Z.  a.  b.  

colors and shapes: c.  d.  e.  

shapes: f.  g.  

This question set formed the third part of the interview. It alone constituted the visual stimuli part. These Questions were designated Z.—g.. It contained elements of the previous section in that the participants were asked once again to create original words based on the stimulus they were presented. The difference was that the stimuli were visual instead of auditory. The process in this part involved my presenting eight images, one at a time, to the participants. They were asked to create a new word inspired only by the stimulus which felt
phonically appropriate. Magnus (2001, pp. 160—165) was the inspiration behind the formulation of these Questions. The participants were forbidden to use any existing word as motivation for their responses.

The eight images were sub-divided into three groups: two triads and one dyad. The first triad consisted of images dominated by the three primary colors—red, yellow and blue—with subtle, amorphous accents throughout. I chose these particular images because I felt there was something elemental in them as they are the foundation of all other colors. I made the assumption that the interviewees (mostly American), all products of technological societies, would recognize these colors in more or less the same manner. I hypothesized that this primacy could possibly be revealed in the manner in which the participants chose to linguistically represent these images. I did not wish to use images that presented nothing but a field of solid color as I felt this might pose too much of a challenge as far as looking beyond the confines of one’s language(s) in order to create an original word. I required something as a distraction so the participants would not focus solely on the color. This means however that the indistinct forms present in the first three images could have had a direct influence on words created by the participants. This is not a problem but it must be recognized when interpreting the data.

The second triad consisted of images presenting different colors and shapes equally. Content-wise, it was the most diverse of all three groups. The colors present run the entire spectrum, with one particular image representing every main color on its own, though this is not done in an obvious, rainbow-like fashion. The shapes are equally diverse with there being a mix of straight lines and curves, acute and obtuse angles, recognizable geometric patterns and chaos. I selected these images because of their striking combinations of color and shape and their overall busyness. They seemed like good candidates to potentially elicit phonic trends. I also
chose these configurations because they represent the convergence of the colors and shapes of the first triad with the theme of the final group, the shape-dominant dyad.

In the dyad it is the shape which dominates the image with the color playing a supporting role. The shapes are quite different from each other as are the background colors. I chose these particular images because each shape leads the observer to distinct places. One has a finite, terminal aspect to it while the other conveys a sentiment of continuance through unknown origin or destination. One presents many points while the other is primarily round. In short, they are quite different, with even their background colors being at opposite ends of the spectrum (blue and reddish). I surmised once again that the various, opposing attributes of these images would be advantageous to the creation of responses untainted by English. I also found both images to be striking which I felt could only help the creative process.

For the same reasons that I chose odd-sounding definitions for the second part, I chose images that I felt would be unfamiliar for the third part. I felt that it would be too great an impediment to the participants to present them with concrete images, like of children playing or a bowl of fruit. These images already have words that are adequate. I felt it would be too difficult for the participants to avoid real word influence if they had great familiarity with the image. Like the definitions of the second section, these images are complex. This was by design as it was intended to aid the participants in their creative process.

Because these were the only stimuli not made from scratch, it was part of the interview protocol for each participant that I verify that they were unfamiliar with the images. There was only one instance of a participant claiming familiarity with an image, which involved Question f. However, due to her insistence that she had never considered what its name might be, her response was allowed to remain for later analysis.
As this is the final section of the interview, it is convenient at this point to mention the down side to having multiple strong elements in a stimulus. In this situation it becomes more difficult to know what element of the stimulus to attribute to the development of the patterns. What aspect or aspects influenced the formation of the trend? All or some? This problem can only be resolved by further rounds of experimentation that incorporate the elements suspected of eliciting the patterns previously to determine if the same trends develop again. The present experimentation is intended primarily to determine if phonic patterns are developing at all. To determine what is causing them, while definitely related, is secondary.

*The selection process behind images requiring words: Questions Z—g.*

This was the first of the *Images Requiring Words* section and the first in the primary color triad. It represented the primary color red. The salient qualities of this Question included the color, which was a rich, dark variety of red and the abstract texturing in the background. I hypothesized that the physical properties of red, the longest wavelength in the color spectrum, might be manifest linguistically. It was uncertain how the background texturing would influence the responses. This was an open-ended stimulus that did not offer much in the way of structure. Apart from what was described above, ostensibly there was nothing else to stimulate a participant’s response.

---

6 These strong elements are the *semantic peaks* referred to earlier. This applies to the whole experiment and to the second and third parts in particular.
This was the second of the *Images Requiring Words* section and the second in the primary color triad. It represented the primary color yellow. The salient qualities of this Question included the color, which was a bright, vibrant variety of yellow and the abstract texturing in the background. I hypothesized that the physical properties of yellow, a moderate wavelength in the color spectrum, might be manifest linguistically. It was uncertain how the background texturing would influence the responses. This was an open-ended stimulus that did not offer much in the way of structure. Apart from what was described above, ostensibly there was nothing else to stimulate a participant’s response.

This was the third of the *Images Requiring Words* section and the third in the primary color triad. It represented the primary color blue. The salient qualities of this Question included the color, which was a bright, aqua variety of blue and the abstract texturing in the background. I hypothesized that the physical properties of blue, a short wavelength in the color spectrum, might be manifest linguistically. It was uncertain how the background texturing would influence the responses. This was an open-ended stimulus that did not offer much in the way of structure. Apart from what was described above, ostensibly there was nothing else to stimulate a participant’s response.
This was the fourth of the *Images Requiring Words* section and the first of the triad that presented colors and shapes equally. The background was a light shade of yellow. It was overlain with abstract forms of various size and color. Each main color from the spectrum was represented in these forms. I predicted the combination of colors and shapes would serve as a great stimulus for possible phonosemantic phenomena. The image was very busy and I hypothesized this in particular might influence the word-creation process.

This was the fifth of the *Images Requiring Words* section and the second of the triad that presented colors and shapes equally. The background was multi-colored and presented lines that were vertical or slightly meandering in orientation. All background colors were in the pastel range. Through the middle was a large meandering shape which was darker than the background. I predicted that the combination of colors and shapes would serve as a great stimulus for possible phonosemantic phenomena. This image, like the previous one, was on the busy side. I hypothesized this might positively influence the word-creation process.
This was the sixth of the *Images Requiring Words* section and the third of the triad that presented colors and shapes equally. This image presented no background. It consisted of squares and rectangles of different colors, textures and sizes. I chose it because it represented more structure than the previous two images. Many but not all colors of the spectrum were represented. I predicted the combination of colors and shapes would serve as a great stimulus for possible phonosemantic phenomena. This image was the least busy of the triad. This was the only image to contain the color brown. I hypothesized that all these different attributes might influence the word-creation process in a measurable way.

This was the seventh of the *Images Requiring Words* section and the first of the dyad that presented shapes more prominently than colors. This image presented a background of royal blue. The focus of the image consisted of an egg-like object, eggshell in color, which was open on one side. The open side featured several, thick, spiny projections that curved in toward the center of the object. I chose it because it was attention-grabbing and thought-provoking. The contrast between the dark background and the light object made the image more striking. I hypothesized that all these attributes together would serve as a great stimulus for possible phonosemantic phenomena.
This was the eighth and last of the *Images Requiring Words* section and the second of the dyad that presented shapes more prominently than colors. This image presented a background of brownish-red. The focus of the image consisted of a grayish, metallic-like spiral that was oriented horizontally. Like the previous image, I chose this one because it was attention-grabbing and thought-provoking. The lack of contrast between the dark background and the dark object was quite mood-creating. The different features of the spiral were also compelling. I hypothesized all these attributes would serve as a great stimulus for eliciting possible phonosemantic phenomena.

*Equipment Used*

An Olympus Recorder, model VN-5200PC, was used for this study. During the interviews, the recording setting was HQ, the highest quality setting possible.

*Procedures*

*Interview Locations*

Most interviews were conducted on the campus of the University of Alabama, Tuscaloosa. Among these, the majority were held in 231 B.B. Comer Hall, in the controlled environment\(^7\) of my office. A few interviews were conducted in other parts of B.B. Comer Hall,

\(^7\) A controlled environment is defined as a setting where I have unchallenged control over the variables of the light, noise and the number of people present in that environment. An uncontrolled environment is one where I lack control over one or more of these variables.
most in controlled environments. Participants 20—32 were interviewed in Jupiter, Florida. All these interviews save one were conducted in controlled environments. Participants 63—70 were interviewed off campus in a controlled environment. Participants 71—87 and 97—104 were interviewed on campus in a controlled environment, but not at B.B. Comer Hall, over the course of many days. Noise and other distractions were not a great problem for the interviews not conducted in a controlled environment though background noises and other small distractions were present at times.

Pre-Interview Questions

To qualify legally for an interview, a prospective participant had to be at least 19 years of age. A participant also was required to sign an informed consent waiver approved by the University of Alabama’s Institutional Review Board. After a difficult interviewing experience early on, I made it an additional requirement that all participants had to be fluent speakers of English. If an interested individual met these three requirements, I would gladly accept him or her and we would proceed to the interview preparation.

The interview preparation involved the ascertainment of specific background information. First, a participant’s age and sex were indicated. Next linguistic background was determined. This included languages that the participant spoke natively as well as any languages of which that he or she had some degree of knowledge. To determine which languages the participants spoke natively I asked the question: “What is your native language?” This question does not take into account grey areas like cases of primary language attrition. This level of precision was not judged to be crucial to the success of this research, though. For the sake of simplicity, I decided that the above question would suffice. Most participants were not reticent to talk about their linguistic heritage though, especially when it was on the complex side. If
there was good reason to indicate that a particular participant was a special case in this regard, this would have been indicated. After determining a participant’s native language(s), I asked him or her about any other languages that they knew. The question posed was “Are there any other languages that you have some knowledge of or study?” Later in the interview process I started asking another question: “Are there any other languages that you have knowledge of that could influence your answers here today?” I felt this was more precise and better suited to my purposes.

To classify their answers, I employed a simplified version of the proficiency standards proposed by the American Council on the Teaching of Foreign Languages (ACTFL). This version was of my own design, customized for the purposes of this research. This was done because it was judged impractical to follow the protocols of ACTFL to judge the linguistic competence of every language spoken by every participant. A compromise had to be reached, so four categories of proficiency were recognized: beginning learner, intermediate learner, advanced learner, fluent speaker. I classified a beginning learner as anybody who had knowledge consisting of a few words all the way to that of a first year student or, through real-world experience, had a roughly equivalent knowledge. An intermediate learner was somebody who had had from two to three years of instruction or, had a real-world equivalent knowledge of it. An advanced learner had four or more years of instruction or had a roughly equivalent knowledge. Fluent speaker was reserved for anybody who spoke a language fluently but did not acquire it prior to their teens.

*Interview Procedures*

The most important variable in this experiment was the degree of influence that the languages that a participant spoke would have over the answers he or she gave. This is the rule
to which all other procedures had to conform. Therefore, in addition to the section-specific directions given for each of the three parts, the participants were constantly reminded to keep their thought processes away from English or any other language as a reference point for their answers.

The instructions for the first part of the auditory stimuli, the *Words Requiring Definitions*, were: “I’m going to read to you a list of eighteen nonsense words. These are words that I created. They are not real words. I need you to define these words based strictly on how they sound without using English or any other language as a reference point. You may not be influenced by rhyme or any other resemblance that these words might have to real words. Simply listen to the sounds of the word and assign the word a meaning that you think is appropriate based solely on the sounds you hear.” I gave these instructions to every participant. After telling the participants the rules I began reciting the list, A.—R..

If there was an answer that I suspected of being inadmissible, I would make an effort to get the participant to try again, though not always explicitly. I employed different methods of trying to get acceptable answers out of the participants depending on what could be ascertained about their mood, personality and any other relevant attributes I observed. There were occasions where I would directly call the participant out and ask them to try again immediately because, for example, their answer rhymed with the nonsense word or maybe their definition was describing something that rhymed with the nonsense word. Other times, I determined it would work better to skip a question that a participant was having a hard time answering and return to it later. Another method I employed involved not alerting the participant to anything at all but moving the Question to a later point. Frequently it appeared the participant did not remember answering
the Question from earlier and, with a fresh perspective, they would provide an acceptable answer the second time, unaware that it was the second time.

For the second part, Definitions Requiring Words, the instructions were: “We’re going to flip things around now. I’m going to provide you with a definition and you’re going to provide me with a nonsense word of your creation that you feel captures the essence of this definition. Just as before, you can not be influenced by any real words in your decision making. Here’s how you should go about it: Consider all the different (linguistic) sounds you can make with your mouth. Isolate a few that feel most appropriate for this definition, put them together in the form of a word, and then tell me your word.” After explaining the directions I proceeded to recite Questions S.—Y.. I was ever vigilant for words created that bore a resemblance to real words that could be related to the definition. If I suspected that this was happening, I would follow the same procedures I described above in an attempt to get a usable response.

The third part, Images Requiring Words, Questions Z.—g., was handled in a similar manner to the second part. The directions I gave to the participants were essentially the same except I explained that they would create a word for an image instead of a definition. The recommended process of sound isolation and combination was the same. Unless there was a reason to skip an image, I presented them all in the same order each time I interviewed. (This was the protocol I followed for all three parts.) The third part was the conclusion of the interview.

The average interview lasted between fifteen and twenty recording minutes. The shortest interview was approximately five recording minutes, while the longest was approximately forty recording minutes. Recording minutes refers only to the interview time that was actually
recorded.\textsuperscript{8} Very few interviews were shorter than twenty minutes real time. Most were about thirty minutes. A few lasted nearly an hour.\textsuperscript{9}

Analysis

\textit{Transcription}

The process of transcribing the data began as soon as the interviews concluded. The transcription of the data was divided into two phases. The first involved interpreting the definitions the participants provided from the first section of the interview. The second involved phonetic transcriptions of the second and third parts of the interviews.\textsuperscript{10} The two phases will be described one at a time.

\textit{Transcription of Part One-\textit{Words Requiring Definitions}}

This was by far the easier of the two phases of transcription. It became apparent soon after beginning this process that a literal transcription of what was said would not always be possible. Sometimes the participants were exceedingly loquacious and other times some of what they said did not have an impact of the essence of their definition. The decision was made to

\textsuperscript{8} I usually turned the recorder off while I explained directions, answered questions and during long pauses when the participant did not know how to respond.

\textsuperscript{9} The feedback I got from participants after completing the interview was largely positive. Most people seemed to enjoy themselves and, in this case, appearances were largely indicative of the truth because through positive word of mouth and former participant’s recommendations I was able to interview many of their friends and acquaintances. I think this interview caused most all the participants to think about language in a way they had never thought about it before so in this sense it was a success as well.

\textsuperscript{10} While transcribing the data, I found it convenient to listen to the recordings over headphones. The headphones allowed me to get as clear a representation as possible of what was on the recording. They had a very useful noise cancellation feature which put me in as good a position as possible to make accurate transcriptions.
record a literal transcription when it was practical. Practical was defined as a length within the range of 8-10 words or fewer. I considered a transcription that did not include conversation filler such as *like* or *umm* or *you know* or other related items characteristic of discourse as literal, if it was otherwise brief. If present, miscues and changes of thought were not indicated but a transcription was still counted as literal if there was no further distillation of the response.

When a response was much longer than eight to ten significant words, I would paraphrase in as accurate a manner as possible. When paraphrasing, I started out by listening to the definition in its entirety, usually multiple times, so that I could follow the participant’s train of thought. Once I understood where they were going with it, I listened for words that were semantically *heavy*, which is to say the words that are at the crux of the definition. These are the words that cannot be removed without fundamentally altering the meaning of the definition. Once I had these isolated, I formed them into a denser version of what the participant offered. Paraphrased definitions can sometimes be identified by the presence of *pertaining to* or *some kind of*.

*Transcription of Parts Two and Three- Definitions Requiring Words and Images Requiring Words*

The transcription of parts two and three was quite different than the first part. Since the participants were creating words rather than definitions, the manner of transcription was completely altered. Each word was transcribed in two different ways. First, in a system that was designed specifically for this research, I represented each word phonetically in the English alphabet. I did this with those readers in mind who might not be familiar with the International Phonetic Alphabet (IPA). I designed the system so that anybody who can read English could read these words and know with a relatively high degree of accuracy what they sound like.
without the need of a primer. I endeavored to create as close to a one-to-one system as possible, like the IPA, where each sound is represented by only one letter or combination of letters in the English alphabet. Admittedly, in some environments it was impossible to achieve this correspondence due to the variety of consonants and vowels I encountered and the imprecision of the English alphabet to represent foreign sounds. The reader who can not read an IPA transcription should be aware that the accompanying English alphabetic transcription is not always 100% accurate. However, they are never that far off the mark, and they will consistently give one a reasonable idea of what a response sounded like.

The second transcription was done in the IPA. The transcriptions rendered in the IPA should be classified as narrow given that aspiration, partially realized segments, unreleased consonants, glides and other juncture phenomena were indicated. There was never any question about the necessity of doing narrow transcriptions of the data. I had to make a decision however about the level of precision that I was interested in achieving. This question was answered based on issues of practicality and utility. Practically speaking, the transcriptions made were as narrow as possible given the volume of data to analyze and the amount of time I had to spend analyzing it. From a utilitarian standpoint, I had to determine what level of precision best served the present purposes. While the IPA is capable of representing utterances with great precision, I had to consider what was the minimum level of precision that I could accept for achieving the desired results and then, how far I was interested in going beyond that. I realized that there was a point of diminishing returns regarding the effort required to make the transcription narrower and narrower and the benefits I would reap in terms of phonosemantic

11 The IPA, when it is used to its fullest potential, is capable of offering an astounding level of precision. I make no claims, though, to have used the IPA to its fullest in the present research.
qualities elucidated by the narrower and narrower transcriptions. After a careful evaluation of all the different features that the IPA allows one to represent I eventually decided which ones were indispensible regarding their potential to impact phonosemantic trends and which ones could be ignored.12

Data Set Creation

After the process of transcription was complete I began creating various data sets for organizational, illustrative and problem solving purposes. These data sets represent the sum of all my research efforts. These are where the judgments on the presence or absence of phonosemantic phenomena are made. Each example of data set is addressed below.

Foundational Data Sets

These two data sets described below formed the foundation of the entire family of data sets that I created. I use the term family by design as one data set gave rise to the next through a process of refinement. This is not to say that the offspring was somehow superior to the parent. Even though there was refinement going on, the parent data set would retain information that is unique to it and crucial to the overall development of the research. Each generation of data set served a unique purpose that could only be realized by it. Almost all later data sets are direct descendants of these two: the Participant Data Sheets and the Question Data Sheets.

Participant data sheets.

The Participant Data Sheets were the first data set created. They were formed during the transcription process as a means of recording the responses of all 116 individual participants.

12 I probably did go beyond what was necessary to effectively address the phonosemantic concerns of this research, but, I feel it was not a wasted effort. If nothing else, it removes any doubt that there was anything else I could have done to identify phonosemantic trends, assuming the features chosen were the useful features and the ones I ignored were overlooked justifiably.
These data sheets are actually the progenitor of every data set and, therefore, every conclusion that would come after them. They catalog a participant’s background information such as age, sex, and linguistic background as well as every answer that they gave. These were designed from a template. These sheets also allow the reader to view how each participant responded to the interview at a glance.

*Question data sheets.*

The *Question Data Sheet* data set was created to present all the answers to a particular Question at a glance. All 33 Questions, A.–g., were represented. All 116 participants’ responses were listed in numerical order on each sheet. This early data set, a direct descendent of the *Participant Data Sheets*, was the first to assume the Question-centered format that all subsequent data sets would assume.

*Trend Data Sets*

These were the data sets where the search for and classification of trends began. These data sets were the most important of the research because what they reveled dictated the conclusions that were drawn. The trend data sets were divided into two sections. The first section consists of the *Definition Grouping Data Sheets*. The second section consists of the three *Segmental and Supra-Segmental* data sets.

*Definition grouping data sheets.*

This data set indicated where the semantic trends lie for Questions A.–R.. In order to qualify as a trend, there had to be two responses that could logically be grouped together because of shared semantic elements. Trends varied in size from two to nearly forty constituents. Responses were allowed to be in more than one grouping if it was appropriate. For responses not fitting in any category there was a non-conforming category. It may not seem apparent at first
why a particular response was included in a particular category. This is because I evaluated responses very broadly. Some connections might not be obvious and some are abstract. This is on purpose. I decided to classify the responses in this manner because I determined it would be better to err on the side of inclusion rather than exclusion and easier to strike unwanted answers if necessary rather than have to broaden the categories and re-evaluate all the data. There was no methodical way to analyze this data set. The strategy I employed simply involved reading the lists over and over, relying on short-term memory to identify definitions that could be grouped together.

*Segmental and supra-segmental data sheets.*

These three data sets marked the phase of detailed evaluation that would establish the identities and the absolute numbers of phonetic constituents, their relative rank in terms of number of appearances and their frequency represented as a percentage, all within their respective phonetic environments. These are the most important of all the S.— g. data sets as far as their ability to comment on the presence or absence of phonosemantic trends. The descriptions of these three data sets are below.

*Segmental and supra-segmental profile data sheets.*

The Segmental and Supra-Segmental Profile Data Sheets descended from the Question Data Sheets S.—g.. This was the point were the data sheets assumed the template format that would be used for all three Segmental and Supra-Segmental data sets. The format of the data set was designed to illustrate the features of the participants’ answers that were deemed to best bring any phonosemantic trends to the forefront. The data sheets were divided into segmental and supra-segmental sections, hence the name. The segmental section consisted only of the segmental category. The supra-segmental section was then further divided into three smaller
categories. These were consonant clusters, whole syllables and whole words. Throughout the data set, the environments in which the segments and supra-segments appeared were listed. These environments vary, depending on the category involved. Each category is illustrated separately.

Segments were always the first to be analyzed. The first environment where the segments were analyzed was structured according to the syllables where they were found and, within each of these syllables, in terms of syllable configuration. This means that the segments of the onset, nucleus and coda of each numbered syllable were broken down and recorded according to which one of these three environments they appeared in. The syllables of this part were distinguished by the presence or absence of stress. This means there were two categories of each numbered syllable: stressed and unstressed. Stressed syllables were indicated in bold typeface while unstressed syllables were indicated in regular typeface. Monosyllables were analyzed separately here as I did not evaluate them as exhibiting stress. (Syllable number clearly does not apply to them, either.) Once the segments were assigned a place within the configuration paradigm, they were placed in what I refer to as phonetic order. To my knowledge, this is an order that I designed and is not official as far as the IPA is concerned. I am also unaware of any recommended, official phonetic order that has been proposed by the IPA or other linguistic entities which is why I created it. I defined the phonetic order of consonants as beginning at the front according to the point of articulation, where the bilabials /p/ and /b/ are found, and moving down through all the manners of articulation of the bilabial column until all are exhausted. Then, moving towards the back (the right) to the next point of articulation, which is the labiodentals, the next column was evaluated in the same way, from top to bottom through all the manners of articulation. This process continued, top to bottom and front to back, until the
entire consonant chart was covered, usually ending in the voiceless glottal fricative, /h/.

Phonetic order of the vowels was defined differently. I started with the high, front, tense, unrounded vowel /i/ and moved from left to right on the chart which is front to back in terms of tongue position, ending with the high, back, tense, rounded vowel /u/. I continued the pattern of front to back with the next row down starting with the high, front, lax, unrounded vowel /ɪ/ and ending with the high, back, lax, unrounded vowel /ʊ/. I continued this pattern, front to back and high to low until reaching the terminus which was usually the low, back, lax, unrounded vowel /ɑ/. (Its rounded counterpart was absent in the data.) This phonetic order was used as means to organize all segments and, later, all supra-segments in all environments. Having the data in phonetic order allowed it to be in a form that imitated the vocal apparatus and this permits one to see where in the vocal tract the preponderance of segments and supra-segments were clustering.

Word-initial and word-final segments were indicated by the presence of the symbol #. This was placed in front of word-initial segments and behind word-final segments. When a segment was repeated, and almost always they were, a number in parentheses was placed immediately next to it to indicate the number of times it appeared in that particular environment. For example, if /p/ appeared five times in an environment, this would be represented as p(5). The following segmental environment involved evaluating the onsets and codas in terms of stress. Next, stress was ignored and all onsets and all codas were merged. The monosyllable onsets and codas were added in here. The next environment of the segments saw a collapsing of the syllable configurations and indicated only syllable number and stress with a separate category for monosyllables. This environment marks the point where the consonants and vowels would be
separated into two distinct groups. The consonants, being the larger group, were always listed first and the vowels were listed underneath. This also marks the point where syllabic nasals and liquids would have to be pulled from the nucleus and listed among the consonants of the environment in question. The next environment involved the removal of the stressed/unstressed distinction and only indicated in which syllables the segments belonged. The following environment merged all stressed segments into one group and all unstressed segments in another. The final environment of the segments saw all consonants merged regardless of stress or syllable number and all vowels merged regardless of stress or syllable number. Monosyllables were added in at this point. This formed the narrow segment count. The final step in the evaluation of the segments, still within the same environment, involved merging of all the segments together into the broad count without regard to word-initial/word-final position or diacritics. The segments of the narrow count roughly correspond to allophonic variations. When these segments were merged, they became what roughly corresponds to phonemes.\textsuperscript{13} This completed the segmental evaluation.

The second category, which was the first of the supra-segments, was the consonant clusters. These were analyzed in environments similar to the segments. They were also placed in phonetic order according to the first consonant in the cluster and assigned word-initial/word-final values and diacritics when applicable. The first environment of the consonant clusters included syllable configuration, number, and stress. This did not include a nucleus position as with the segments because consonant clusters cannot appear there. Monosyllable consonant clusters were treated separately in this environment just as they were above. The next

\textsuperscript{13} Technically, these weren’t real allophones or phonemes because I wasn’t working within the parameters of a real linguistic system and it has not been established how these sounds correspond to meaning.
environment involved the analysis of clusters in terms of stress and syllable configuration (onset and coda) without respect to syllable number. The following environment saw the variable of stress fall away as all the onset clusters and all the coda clusters were merged. Monosyllable clusters were added at this point. Next came the environment of collapsing syllable configurations. Clusters were organized according to syllable number and stress. Monosyllables were analyzed separately here, as they were above with the segments. After this came the environment of clusters organized by syllables only, without stress. The following environment grouped clusters only by the presence or absence of stress. Finally the environment of merging everything together without regard to stress or syllable number came with the narrow count. Monosyllables were added back in at this point. Staying within the same environment, the broad count came after this which saw the further merging of the clusters without regard to word-initial/word-final position or diacritics.

The category subsequent to the consonant clusters was the whole syllables. Whole syllables were grouped according to stress and syllable number and were assigned word-initial and word-final values as well as diacritics. The phonetic order method that was used up to this point was applied differently to the whole syllables. Within each environment, whole syllables were first grouped according to the vowel in their nucleus. This means the number of groups was equal to the number of vowels represented. Each vowel group was put in phonetic order by placing them one underneath the other with the first vowel according to phonetic order on top, the second under the first, the third under the second, etc. Then, within each vowel group, its members were put into phonetic order according to their first constituent. If the first constituent was the nucleus (the vowel) then this syllable would be placed at the beginning of its vowel group. If there were multiple examples of syllable-initial vowels, they were put in order from
shortest to longest. Whole syllable environments were fewer in number compared to previous categories. The first whole syllable environment had them organized according to syllable number and stress. Monosyllables were pulled out and organized separately. The next environment was organized by syllable with no regard to stress. The following environment was structured according to stress with no regard to syllable number. In the final environment, the whole syllables were grouped together into the narrow count with no stress or syllable number distinctions made between them. Monosyllables were added back at this point, as usual. Staying in this environment, the distinction between word-initial/word-final position and diacritics fell away forming the broad count which was the end of the whole syllables. In some environments the number of whole syllables was too great to fit on a single line. When this occurred, any subsequent lines (placed directly below the first line) were indented to facilitate the reading and interpretation of the list. This curiosity of formatting was intended to remove any possibility that the second line would be interpreted as a new group instead of a continuation of the previous group.

The category that concluded the *Segmental and Supra-Segmental Profile Data Sheets* was the whole words. These were analyzed differently than everything before. They were grouped according to word length. With all the monosyllables together, all the bisyllables together, etc. Within these groups there was a further distinction made between which syllable was receiving stress. For example, the bisyllables were divided into two sub-groups: a group receiving stress on the first syllable and a group receiving stress on the second syllable. This was done for all word lengths. When necessary, there was a separate category for words other than monosyllables that exhibited no stress.
An explanation is warranted regarding the conspicuous presence of empty environments that occasionally appear throughout this and the other two Segmental and Supra-Segmental data sets. Each Question elicited different types of responses from the participants. No two Questions are exactly alike in how they were answered. Some Questions featured responses that were predominantly bisyllabic and some showcased plentiful examples of polysyllabic words. Some Questions had large amounts of consonant clusters in their answers and others did not. Some Questions featured responses that delayed stress till late in the word while others tended to place it early. These and other differences between Questions mean that there will be variations between which environments in a particular word are productive and which are nonproductive. To help the reader appreciate the differences between productive and nonproductive environments, as they will vary from Question to Question, I made the decision to leave the names of all environments in place regardless of whether or not they housed constituents. When one comes across an unproductive environment, one should take notice of it. It should not be forgotten that this is an environment that for some reason seemed inappropriate to all 116 participants, whether or not they were even aware that this was happening. When viewed in this manner, empty environments can reveal interesting things, too.

Segmental and supra-segmental ranking data sheets.

This data set is a direct descendant of the one right above it. I created it as a way to conveniently illustrate which segments and supra-segments were appearing most frequently in their respective environments. One will recall that the constituents of the environments in the data set above were all placed in a variety of my phonetic order. It was determined however that the reader of this research needed a way to more easily identify which segments were dominating the numbers in any given environment. This was the solution. The template that formed the
basis for the previous data set remained unchanged for this data set. What one notices immediately upon seeing this data set is a series of segments or supra-segments in bold typeface that are listed in descending order. To form a part of this list a segment or supra-segment had to be repeated at least once. All segments and supra segments that were not repeated were allowed to remain but they were not placed in bold and were listed at the end. When there were examples of two or more segments or supra-segments that were repeated the same number of times they were put in phonetic order. All single, unrepeated constituents were placed in phonetic order as well. The environments remained the same as they were in the previous data set. One may refer to the environmental descriptions of the Segmental and Supra-Segmental Profile Data Sheets above if one requires an explanation of the various environments for this data set.

Another difference between this and the previous data set was the presence of a word length and stress analysis chart. This chart served several different purposes. First it broke down the total number of whole words by word length and then displayed the total number of whole words. Second it illustrated which syllables were receiving stress within a particular word length and how often this was occurring for a particular word length. Finally, it totaled how many times across the entire spectrum of whole words that a particular syllable was stressed. Monosyllables did not figure into the stress tallies because they were not analyzed as showing any stress.

Segmental and supra-segmental frequency data sheets.

This data set is a direct descendant of the one right above it. Its purpose was to display the incidence with which constituents were appearing in their respective environments in terms of a percentage. The percentage was calculated by dividing the number of times an individual constituent appeared in an environment by the total number of constituents in the environment.
In this data set, constituents that were not repeated were not represented as they were in the previous data set. This was done for two reasons. As this is the last of the three Segmental and Supra-Segmental data sets, I decided this was the appropriate time to start focusing exclusively on data that indicated trends. Clearly there can be no trends where there is no repetition. Second this was done in an effort to save space which would make reading easier. In the event one wishes to determine the percentages of the unrepeated constituents they can always be found in the Ranking data set that gave rise to this data set. Consonants and vowels were considered separately, as usual. This means that most environments in the segment category show two different percentages. Note that the broad counts of the segments, consonant clusters and whole syllables of the Frequency data sheets were what would form the basis of the Results Data Sheets that followed the completion of all data sets. It was from the Results Data Sheets that final conclusions would be drawn for all Questions. The percentages were recorded out to two decimal places because it eliminated the need to round and it improved accuracy all at once. The segments and consonant clusters of this data set for the first time assumed the vertical positioning that was only characteristic of the whole syllables. This was deemed easier to read and, intrinsic to its design, it effectively illustrates the numerical superiority of the constituents on top relative to those lower down. The environments remained the same as they were in the previous two Segmental and Supra-Segmental data sets. For a detailed explanation of their structure and purpose, one may read the description found above for the Segmental and Supra-Segmental Profile Data Sheets.

At the end of each Frequency data set, there is a chart similar to the one found in the Ranking data set which described totals of various word lengths and stress positions. The chart here was based on the information contained in the old one but it was represented quite
differently as it was constructed in terms of percentage. A key is required to properly interpret it. The key was included with the chart at the bottom of the Frequency data sheets but I will outline a brief explanation of it here. The words were divided once again according to their length. Their frequency relative to the total number of words is indicated as a percentage. The words’ stress was analyzed again, too. First, for each word length, it was indicated by percentage where each of its syllables was receiving stress. Second, it indicated with what frequency a particular syllable was stressed for each word length. Third, from the perspective of all words, it indicated how often a particular syllable was stressed. Words showing no stress were not analyzed in this third category for obvious reasons. Monosyllables, as before, did not figure into the percentages because they were not analyzed as containing stress.

**Phonetic Inventory Data Set**

This data set was created to conveniently illustrate the array and quantity of sound segments for a particular Question in terms of the IPA chart. There are two varieties within this data set: the *Phonetic Inventory Data Sheet-Narrow* and the *Phonetic Inventory Data Sheet-Broad*. Both data sets are discussed below.

*Phonetic inventory data sheets-narrow.*

These data sheets illustrated in a narrow fashion all the different varieties of consonants and all the different varieties of vowels present among the responses of Questions S.—g.. The presence of aspiration, on- and off-glides, unreleased airflow, vowel lengthening and word-

14 The term *phonetic* was used as a matter of convenience. These sound segments were not representative of a real linguistic system and can not be tied to any established meanings.

15 The reader should be aware that infrequently throughout the *Phonetic Inventory Data Sheets*, the *Participant Data Sheets* and the *Question Data Sheets*, the rhotacized schwa /ə/ was employed in stressed syllables. This is unorthodox in some traditions where /ɔ/ is preferred in stressed positions. In the present research, the rhotacized schwa was used in both environments.
initial/word-final position was indicated. The number of appearances was not indicated in this
group for practical reasons. Several of the cells, even without the numbers, were quite
ponderous due to the high level of variations they contain. To add in numbers to all the
segments in this situation would only exacerbate the problems of tables that were already
excessively turgid in certain cells, thereby throwing them even further out of symmetry, perhaps
to the point where they both would no longer be able to fit on the same page. The number of
appearances for the segments of the narrow counts can be found on the Profile data sheets at the
end of the segment category section if one is curious.

*Phonetic inventory data sheets-broad.*

These data sheets exhibit a broad, phonemic-like representation of the sound segments of
the participants’ responses to Questions S.—g.. None of the distinctions listed above were
indicated. There was room in this chart to include the numbers of appearances of the segments
listed. The reader will notice that I analyzed the rhotacized schwa separately from the non-rhotic
schwa, so I did not merge them.¹⁶ The segments that were listed on these broad data sheets were
the same ones that were analyzed in the *General Analysis* of S.—g..

*Results Data Sheets*

This was the next large step in the research. It consisted of two main parts. First was the
analysis of part one, which involved the further dissection of the definitions that the participants
supplied. The second was the examination of parts two and three which involved the deeper

¹⁶ The acoustic effect was judged sufficiently distinct to warrant this; spectrograms indicate that
the rhotacized schwa experiences a lowering of the third formant compared to the non-rhotic
variety. This was not a pivotal decision however and had no real impact on the way the data was
analyzed overall. The schwa was already among the most frequent vowels which qualified for
scrutiny in the *Results* section without even taking into consideration the rhotacized examples.
This means that merged or not it would have had no impact on the large trends that were
analyzed for phonosemantic phenomena because the schwa was going to be present either way.
scrutiny of all the words the participants created. The purpose of the *Results Data Sheets* was to showcase the strongest trends that developed in the data and to discuss their significance. It was from the data as it’s presented in the *Results* chapter that the final conclusions would be drawn. Both parts of the analysis will be detailed separately.

**Results: A.—R.**

The analysis of the first part involved determining which categories of definitions merited being placed front and center in the write-up of the research and which ones could be viewed in the appendix. The determination was made that in order for a category to qualify for appearance in the *Results Data Sheets* it had to comprise at least 5% of the total number of definitions. The process I used for arriving at this figure involved comparing percentages of categories from all Questions A.—R.. While making the comparisons, I noticed that the strongest categories comprised just over 20% of all the definitions for a particular question. (The non-conforming categories, which can be much larger than this, were not considered in this comparison.) This being the case, I decided that if a category could be roughly 25% the size of the largest categories than they could be admitted for consideration. This, I determined, was the smallest percentage allowable that had a legitimate possibility at not being explained away by chance. Admittedly, it is not a large percentage but I wanted to be as thorough as possible in my attempt to isolate semantic trends. There were of course many categories with percentages much higher than 5%. I was unable to locate any precedent for determining statistical significance in a scenario such as this. Given the subjective nature of grouping definitions into semantic categories and considering the added complexity of frequent cross-grouping, I determined that fixing the lower baseline through internal comparison seemed the most sensible and practical way to proceed.
After listing the qualifying categories, I introduced my analysis. I discussed the relative size of the categories paying close attention the non-conforming category. I felt it was important to judge these (and all the data) with a critical eye so I included in my analyses alternative explanations for the trends that developed. These explanations normally revolved around possible English words that could have interfered in the definition process. Specifically, this means that the participant allowed rhyme or some other manifestation of sound similarity to illegally influence their decision making process.

Results: S.—g.

The analysis of the second and third parts was based on the information that came from the Segmental and Supra-Segmental Frequency Data Sheets. The same decision made for the previous analysis had to be made for this part as well: Which segments and supra-segments merited being included in the write-up and which ones did not? I decided that for a segment to qualify for inclusion it had to comprise over 9% of the broad count if it were a consonant and over 13% if it were a vowel. The consonant clusters had to comprise over 8% and the whole words had to comprise over 1% of the broad count. The process of internal comparison I used for determining these figures was more or less the same as the process I used above. For each Question S.—g., I determined what the highest percentages were in the broad count for each category of constituent. I then compared them all to determine, in terms of percentage, how soon the drop-off began after the most frequent constituents. The reasons for following this method were the same, too. There were no established methods that seemed appropriate given these unique circumstances so I was inclined to develop methods that were tailored to the needs of the present research. These sheets do not indicate the empty environments like the Segmental and Supra-Segmental data sets do. The reader is encouraged to reference the various Segmental and
Supra-Segmental data sets in the appendix where the empty environments were allowed to remain.

After listing the qualifying segments and supra-segments in their respective environments, I discussed the trends in terms of their composition and the various environments where they were found.
CHAPTER 4

RESULTS

Results Data Sheet

Words Requiring Definitions

*Question ID: A. smitch [smitʃ]*

Below is a listing of most of the definitions given for the word above. Definitions sharing semantic elements were grouped together into the categories below. Some definitions belong to more than one category. A category had to comprise at least 5% of the total amount of definitions to be listed here. See *Definition Groupings Data Sheet A.* in the appendix for a complete listing of all definitions and categories.

**a small amount (26): 22.41%**
- #4 a pinch of something you cook with
- #17 a little bit of something
- #22 a short, bulky guy
- #24 a little bit
- #25 a small amount
- #28 a small quantity of something
- #29 small
- #30 a small quantity of something
- #31 small
- #34 a small portion of something
- #41 a small animal like a mouse
- #47 a small quantity
- #56 a little bit of something
- #57 a nerdy person without a lot of friends
- #59 a small amount of something
- #60 a small smudge
- #63 a speck
- #72 a small animal, like a squirrel
- #77 the little ball of lint in the pocket
- #84 a short race of people
- #85 something subtracted from something else
- #104 something small
- #106 a small spot
- #107 a very small adult person, like an Irish
- #108 a small game bird, similar to a quail
- #111 a short trip

**an imperfect person or action (24): 20.68%**
- #6 mean, not nice
- #7 an expression of disappointment like "aw shucks"
- #10 something that injures a person
- #15 when somebody treats you in a manner that causes you to feel insecure
- #16 to smack or smother
- #20 a traitor
- #23 a liar
- #33 to tell on someone
- #35 a person you don’t like very much
- #40 sneaky
- #49 untrustworthy
- #50 sly
- #57 a nerdy person without a lot of friends
- #67 a thief
an imperfect person or action (24): 20.68% (cont.)
#73 to be sarcastic
#74 to snatch
#91 a mean person
#93 an accomplice
#99 to snatch
#102 to ogle over something
#105 something gross or smutty
#109 smug
#114 to steal
#115 a person upset by the comment of another

a stain or mark (14): 12.06%
#3 a stain
#26 a smear of color on a wall
#32 a muddy substance
#51 to stain something
#60 a small smudge
#63 a speck
#64 black
#81 soot
#82 a mark, maybe on the wall
#89 a stain
#92 a smudge
#94 to mark on the wall
#106 a small spot
#113 a stain on a garment

restricted motion (14): 12.06%
#11 a tunneling animal like a groundhog
#16 to smack or smother
#18 a glove used in sports, like a baseball mitt
#22 a short, bulky guy
#40 sneaky
#41 a small animal like a mouse
#55 to cloister
#75 a limping way of walking
#78 a car part, like a piston
#79 a briar patch
#95 to cut off (lose) a toenail while stumping it
#97 an interruption
#100 a hard hit in football, like spearing somebody
#111 a short trip

a small place (9): 7.75%
#1 a place in a wall
#2 something you can do with your mouth
#11 a tunneling animal like a groundhog
#43 a crack, like in a sidewalk
#55 to cloister
#77 the little ball of lint in the pocket
#78 a car part, like a piston
#87 digging holes
#101 a pocket watch

diminished (8): 6.89%
#15 when somebody treats you in a manner that causes you to feel insecure
#42 to scribble
#44 something hidden
#52 a fleeting feeling
#55 to cloister
#65 to flash a smile
#71 to quiet somebody
#75 a limping way of walking

abrasive or hard (8): 6.89%
#5 to scratch
#9 the sound of a shoe hitting a nail into a board
#36 a cracker or something crunchy
#66 a scratch
Question discussion.

Question A. showed the development of several large trends. It was, comparatively speaking, one of the easier questions to group into categories. It had one of the lowest numbers of definitions not conforming to a category, which can be viewed on Definition Groupings Data Sheet A. in the appendix. Many of these trends could have been influenced by English. These are the suspect trends and the English words that might have influenced them:

- **a small amount, a small place, diminished, restricted motion**: smidge, smidgen
- **an imperfect person or action**: snitch
- **a stain or mark**: smudge
- **handmade**: stitch

There are other, smaller categories listed on Definition Groupings Data Sheet A. which were arguably influenced by English as well. See that Data Sheet for the smaller trends not included above and the proposed English words of interference.
Results Data Sheet

Words Requiring Definitions

Question ID: B. jube [ʤu"b]

Below is a listing of most of the definitions given for the word above. Definitions sharing semantic elements were grouped together into the categories below. Some definitions belong to more than one category. A category had to comprise at least 5% of the total amount of definitions to be listed here. See “Definition Groupings Data Sheet B.” in the appendix for a complete listing of all definitions and categories.

**a round shape (38): 32.75%**
- #2 a fat tube
- #3 a bug like a beetle
- #4 an orb-shaped thing
- #7 a ball-shaped thing, like a toy
- #8 a bottle of something
- #21 a round fruit like a grape or an avocado
- #28 an oblong, round shape
- #29 a stone
- #30 a stocky, little guy
- #32 a jar
- #34 a round bouncing object
- #35 a ball you use in a game
- #41 a round kind of candy, like a jelly bean
- #42 a type of bouncy ball
- #45 a type of candy, shaped like a jelly bean
- #51 a candy like a jelly bean
- #56 a ball
- #62 a round, fruity candy
- #63 a blob of something
- #65 a tube
- #66 a tube in a 'J'-form
- #68 a bathtub
- #71 a big, round rock
- #74 a glob of something
- #75 a small ball
- #82 a nickname for a fat friend
- #83 a ball
- #85 a general spherical object
- #89 a fruit, like an orange
- #93 a sphere
- #94 a soup bowl
- #96 a spherical shape
- #97 a round shape
- #105 a chamber pot
- #106 like a light bulb
- #108 a ball shaped object
- #109 a round bug with dots
- #110 a brightly colored, plastic toy consisting of folding pipes that can be formed into different shapes
- #113 an inner tube that kids play with
- #116 a chewy candy like a gummy bear, cone shaped

**pertaining to fruit (10): 8.62%**
- #1 a hard, strawberry candy
- #17 a sweet, seedless fruit
- #21 a round fruit like a grape or an avocado
- #37 a fruit spread
- #62 a round, fruity candy
- #69 jelly
- #79 a jelly-type substance
- #89 a fruit, like an orange
- #90 a gelatinous substance
- #104 a natural fruit drink

**candy (7): 6.03%**
- #1 a hard, strawberry candy
- #41 a round kind of candy, like a jelly bean
candy (7):  6.03% (cont.)
#45  a type of candy, shaped like a jelly bean
#51  a candy like a jelly bean
#62  a round fruity candy
#90  a gelatinous substance
#116 a chewy candy like a gummy bear, cone shaped

a color (7):  6.03%
#24  a color like purple
#52  a shade of yellow
#77  a shade of purple seen after the sun sets
#99  red
#110 a brightly colored, plastic toy consisting of folding pipes that can be formed into different shapes
#111 a color between blue and green
#112 a shade of blue

actions (7):  6.03%
#31  to stop
#46  to jump
#53  movement to the left
#55  to throw
#67  to run
#91  to dodge
#95  to fall going up the stairs

Question discussion.

Question B. boasts one of the largest definition groupings of the study found under the a round shape category. Curiously, it also had quite a large group of non-conforming definitions which can be seen on Definition Groupings Data Sheet B. in the appendix. There is the possibility that several of the groupings were influenced by English words. These are the groupings and the possible interfering words:

a round shape: boob, tube
pertaining to fruit, candy: Jujubes
actions: juke

There were other groupings too small to include on this page which could have been influenced by English. These can be found on Definition Groupings Data Sheet B. along with the English words that might have influenced them.
Results Data Sheet

Words Requiring Definitions

Question ID: C. keeve [kʰiv]

Below is a listing of most of the definitions given for the word above. Definitions sharing semantic elements were grouped together into the categories below. Some definitions belong to more than one category. A category had to comprise at least 5% of the total amount of definitions to be listed here. See Definition Groupings Data Sheet C. in the appendix for a complete listing of all definitions and categories.

a hole, depression or falling (23): 19.82%
#1 a small damp place in a cave
#3 a hole
#4 a trench
#17 a hole you dig in the ground
#24 a narrow passageway
#29 to keel over
#30 to cave in, collapse
#32 a small opening
#34 a small crevice in a rock wall
#36 to fall or bust
#37 to fall down
#41 a type of difficult, precise dive performed off a diving board
#48 to overburden yourself
#53 to hide away treasure as a kid
#54 a vase for flowers
#67 to dig
#77 the little area where you can slide a pen inside the ring of a spiral notebook
#78 a soft seat, like an airplane seat
#84 a mound
#93 to sink
#99 an atoll
#109 a crevice in the earth
#116 the start of the descent on a rollercoaster

cutting instruments, sharp, piercing actions (16): 13.79%
#7 a tool like a saw
#10 a tool to open a can
#31 something sharp, pointed
#41 a type of difficult, precise dive performed off a diving board
#42 to cut or open something up
#43 to jump off of something or to dive
#49 a peninsula
#55 a knife
#61 a manner of working with wood
#65 a weapon, like a dagger
#79 a cutting motion
#80 a special kind of knife
#90 a large, jagged, free-standing rock
#91 to cut
#96 to make something out of wood
#103 the speed of sound

mental irritation or anguish (12): 10.34%
#8 a state of being perturbed
#16 to direct somebody in a precise direction
#20 a scoundrel
#70 an unpleasant person
#94 to pry somebody for help they shouldn’t be giving you
#104 to do something stupid
#105 something that really annoys somebody
#107 to antagonize somebody to the point of altercation
#111 the look you make when you have little hope of success
#112 to freak out
#113 to procrastinate so much you are about to miss you deadline
#115 a description of the sound somebody makes when surprised
food and fruit (12): 10.34%
#14 an exotic, sweet, green fruit
#22 a bright orange fruit
#23 a type of bread
#25 a quantity of fruit
#33 a spicy chicken dish
#35 a type of bread, like a bagel
#57 a bland food that poor people would eat
#63 a green fruit like a lime (NOT a kiwi)
#73 a green vegetable, like a pea
#75 a type of hearty soup
#76 a glass dish for storing cakes
#98 a green fruit, shaped like a banana but smaller

a violent action (10): 8.62%
#9 the action of a bee striking a car
#13 to push something over
#27 a collision between objects
#28 to push something out of the way
#36 to fall or bust
#37 to fall down
#51 to break something in half
#71 a sudden movement
#74 a swinging motion
#82 a cough or an illness

Question discussion.

Question C. showed some decent-sized definition groupings and only a moderate amount of definitions not conforming to a category which can be seen on Definition Groupings Data Sheet C. in the appendix. There are some groupings that could have been influenced by English. They are:

a hole, depression or falling: cave
cutting instruments, sharp, piercing actions; a violent action: cleave
mental irritation or anguish: skeeve
food and fruit: kiwi

There were also other groupings which, due to their size, did not qualify for inclusion on this page. Some of these were perhaps influenced by English, too. These can be found on Definition Groupings Data Sheet C. along with the English words that might have influenced them.
Results Data Sheet

Words Requiring Definitions

Question ID: D. wam [wam]

Below is a listing of most of the definitions given for the word above. Definitions sharing semantic elements were grouped together into the categories below. Some definitions belong to more than one category. A category had to comprise at least 5% of the total amount of definitions to be listed here. See Definition Groupings Data Sheet D. in the appendix for a complete listing of all definitions and categories.

**a noise (17): 14.65%**
- #10 a sound to describe the impact of crashing onto the floor
- #13 the sound a trombone makes
- #17 a wind instrument in a marching band
- #29 silent
- #32 represents an explosion
- #33 the sound of an impact
- #34 a wind instrument, like a didgeridoo
- #42 an echoing sound
- #44 a big drum or other percussion instrument
- #56 to make a noise
- #57 an exclamation of astonishment
- #67 to listen
- #71 describes a moaning noise
- #75 a shouting way of speaking
- #94 when you hit two pens together really loud
- #100 a long, low-pitched, slow noise with a sudden high-pitched part
- #116 a dispute

**an impact (16): 13.79%**
- #2 denotes an impact
- #10 a sound to describe the impact of crashing onto the floor
- #32 represents an explosion
- #33 the sound of an impact
- #44 a big drum or other percussion instrument
- #54 to throw a punch
- #66 a splash
- #68 to slap
- #85 to strike
- #86 to strike
- #87 to bounce
- #93 to hit
- #94 when you hit two pens together really loud
- #96 to hit something hard
- #104 something crumpled up, like paper
- #116 a dispute

**comfortable, motherly, warm (12): 10.34%**
- #6 mother
- #16 to completely relax on the beach
- #26 something warm and fuzzy that wraps around you
- #28 an object you would sit in
- #37 to be at peace
- #43 soft or fluffy, like a blanket
- #51 to cuddle up with a blanket
- #62 spicy chicken
- #73 something woven, like a basket or quilt
- #110 a fuzzy blanket
- #113 comfortable, soothing
- #114 motherly

**an animal (12): 10.34%**
- #7 a mythical, silly animal
- #11 a type of bird, large and pink
- #12 a small, brown, arboreal animal
- #15 a furry, long-haired, arboreal animal
- #18 a medium-sized animal with a short tail that lives in the jungle
an animal (12): 10.34% (cont.)
#22 flying squirrel
#38 an animal like a bat
#70 a small animal, like a domesticated dog
#89 a wild animal, like a mountain lion
#91 a large, black dog
#106 a rat
#107 a bat (animal)

Asian food (10): 8.62%
#4 Asian food
#21 Asian food
#31 a Chinese soup
#45 a Chinese noodle
#47 a thick, reddish-brown sauce
#48 chopsticks
#49 exotic cuisine
#62 spicy chicken
#105 a thin, water-based soup
#108 A food like rice and shrimp or other seafood

pertaining to water (8): 6.89%
#19 swimming
#23 an island
#25 stormy weather
#72 a wooden sailboat
#74 something that’s wet
#79 to wade through water
#88 muddy black ice
#99 a creek

a large, wide, open space (7): 6.03%
#8 an open place
#24 a big, wide-open space
#40 a lot of something
#58 big
#59 a type of wide-brimmed hat
#82 deserted area
#98 something broad and concave, like a crater

emotional or mental discontent (7): 6.03%
#36 to complain
#50 confused
#92 to wonder or worry
#95 to complain
#102 to be tired
#109 to be deeply saddened
#112 bored (not interested)

(non-Asian)food (7): 6.03%
#5 a type of gin
#14 a spicy, Latino food
#46 a fruity candy
#69 a type of fruity gum
#78 reminiscent of eggs
#90 a type of candy, chewy and sweet
#115 a cooking appliance

**Question discussion.**

Question D. showed mostly medium-sized trends. This includes the category of non-conforming definitions recorded on *Definition Groupings Data Sheet D*. in the appendix. There were no particularly large categories. As is frequently the case, there were several categories
where the possibility of English influence can’t be summarily dismissed. These are the
categories and some of the possible English words impacting their constituents:

- **a noise, an impact**: *wham*
- **comfortable, motherly, warm**: *warm, mom*
- **an animal**: *wombat*
- **Asian food**: *Wang, Wong*

Question D. had several categories to small to justify their inclusion here. These can be seen on *Definition Groupings Data Sheet D.* Possible interfering words coming from English can also be found there.
Results Data Sheet

Words Requiring Definitions

Question ID: E. easloff [ˈiːzəlɔf]

Below is a listing of most of the definitions given for the word above. Definitions sharing semantic elements were grouped together into the categories below. Some definitions belong to more than one category. A category had to comprise at least 5% of the total amount of definitions to be listed here. See Definition Groupings Data Sheet E. in the appendix for a complete listing of all definitions and categories.

elevation or a superior position (21): 18.10%
#3 a food with something melted and oozing on top
#8 a surface to paint or draw on
#27 a mountainous location
#33 a country like those in Tolkien’s “Lord of the Rings”
#45 a wooden ladder
#48 an elf
#49 a ladder
#52 a kite
#53 when a plane pulls back prior to takeoff
#57 a hearty sandwich with a dressing on it
#63 to ski
#64 high
#70 a giraffe
#74 something that’s high up, like the top floor
#76 to flick water off of a surface
#79 pertaining to a castle
#91 a cathedral-type church
#96 a ladder
#99 a bastion
#100 a valley
#106 a giant wall, like on the Parthenon

loafing, relaxation or idleness (20): 17.24%
#10 a tropical island
#13 easily achieved
#15 a person who likes to choose the easy way out
#17 a library, a place of peace
#19 something soft, like a pillow
#26 a defense attorney who hasn’t done his homework
#31 something smooth, relaxed
#35 a religious holiday
#51 to purposefully not do something
#58 a couch
#66 pertaining to ease and flow
#86 a slacker
#92 to calm down
#97 a sleeping arrangement involving two or more palates
#101 a slacker
#102 relaxed
#103 a cushion brought to sporting events to sit on
#105 somebody who’s lazy
#107 to be lazy
#112 tired

religion (often pertaining to Semites) (10): 8.62%
#1 a Jewish name
#4 a Hebrew person
#5 an eastern religion
#22 an Arab man
#34 a Germanic language
#35 a religious holiday
#43 a holiday celebrating the harvest
#75 to pray
#91 a cathedral-type church
#108 an expression of jubilation
food (9): 7.75%
#3 a food with something melted and oozing on top
#6 a type of food, like rice
#11 type of food consisting of meat and sauce
#44 an East Indian food, like curry or rice
#57 a hearty sandwich with a dressing on it
#67 to eat
#72 a soup with noodles, maybe homemade
#98 a type of noodle, like linguini
#110 a fruit-flavored, strong alcoholic drink

load moving or bearing (6): 5.17%
#7 to shovel something
#20 a pulley
#25 a cart to carry things
#42 a tool for spreading something
#60 to remove something
#116 a tool, like a shovel and a crowbar

travel or transportation (6): 5.17%
#21 having to do with roads, highways, bridges
#32 access to a highway
#73 walking
#83 a black sports car
#111 a dual concept of both a journey and a destination
#113 a tool used to measure distance

quick movement (6): 5.17%
#39 quickly
#53 when a plane pulls back prior to takeoff
#77 a person who runs around the block with no shoes
#81 running
#82 to stop or relent
#84 to skip fluidly

*Question discussion.*

Question E. had two fairly large categories with several other medium-sized ones. It also had a large non-conforming category seen on *Definition Groupings Data Sheet E.* in the appendix. There are possible English words which might have influenced several of the categories. These are the categories and the English words:

elevation or a superior position: loft, lift
loafing, relaxation or idleness: ease, easy, to loaf
religion (often pertaining to Semites): the –off or –ov surname suffix

Question E. also had several smaller categories that were too small to be included here. These and any English words that might have affected their meanings can be found on *Definition Groupings Data Sheet E.*
Results Data Sheet

Words Requiring Definitions

Question ID: F. kedid ['kʰɛ·ɾəd]

Below is a listing of most of the definitions given for the word above. Definitions sharing semantic elements were grouped together into the categories below. Some definitions belong to more than one category. A category had to comprise at least 5% of the total amount of definitions to be listed here. See Definition Groupings Data Sheet F. in the appendix for a complete listing of all definitions and categories.

relative distance (to be/bring near or drive away) (20): 17.24%
#3 an adjective meaning ‘adjacent to’
#4 to catch things, like fish
#8 the feeling experienced upon seeing somebody you haven’t seen in a long time
#25 to gather things together
#27 to scurry away
#29 close
#37 to find something
#52 a shy person
#55 close together
#62 to throw something away
#63 skittish
#65 twisted together in a pile
#79 a fruit gathering action
#87 to catch
#100 a throw to home plate from the outfield
#104 to obtain
#111 to bring together
#113 stacked up, one on another

food (14): 12.06%
#10 something to store food inside the refrigerator
#21 food cooked just right, between raw and burned
#33 a type of lettuce, like kale
#39 to cook
#42 a type of dry dog food, like kibble
#49 a type of wheat
#67 popcorn
#68 something to cook in, like a pan
#77 the scent left after burnt popcorn
#79 a fruit gathering action
#82 a long, orange fruit or vegetable, like a banana or a cucumber
#83 a spice, like garlic
#101 a big cooking pot, like a cauldron
#108 a plant, like a cabbage or a lettuce

truncation, cutting, shortening (12): 10.34%
#15 short and to the point
#28 to be shorted on something
#31 something sharp, pointed
#34 to terminate a game early when a probable outcome has been determined
#45 to truncate something
#47 to be brusque
#48 to cut somebody off in a car
#54 a type of bed, low to the ground and boxy
#56 skipped
#71 something that has been shortened
#95 to declaw a cat
#96 something notched

sports (most all involving balls) (9): 7.75%
#1 a way of kicking a ball
#7 a type of sport, like soccer
#34 to terminate a game early when a probable outcome has been determined
#53 when you’re in the outfield and you try to get the ball but miss it
sports (most all involving balls) (9): 7.75% (cont.)
#59 a hard ball between the size of a softball and a basketball
#73 a sport with balls
#84 swimming
#87 to catch
#100 a throw to home plate from the outfield

closed, bounded or delineated (8): 6.89%
#10 something to store food inside the refrigerator
#11 a cabinet
#12 a secret
#17 a dog kennel
#34 to terminate a game early when a probable outcome has been determined
#61 a type of bucket or container
#102 to put something away for safe keeping or to wrap something up
#116 fenced in

shy or reserved (7): 6.03%
#27 to scurry away
#38 an introverted person
#52 a shy person
#63 skittish
#86 an aggressive person
#94 to be shy around your parents but outgoing around everyone else
#107 to be reserved

shaping by force or striking (7): 6.03%
#2 beaten into shape
#23 something stamped
#43 bent, folded or wrinkled
#44 something that has an uneven surface
#60 a manner of striking something
#66 to hit something
#74 something that’s riveted or studded

twisted or tangled (6): 5.17%
#13 tangled
#43 bent, folded or wrinkled
#44 something that has an uneven surface
#65 twisted together in a pile
#76 mixed up words or thoughts
#109 cross stitching

damaged or destroyed (6): 5.17%
#6 hurt, injured
#22 describes a drunk person
#26 an item that has fallen into the possession of a dog and is destroyed
#51 incomprehensible
#92 flawed
#97 a state of moribund flesh

Question discussion.

Question F. had one comparatively large trend and many other moderate ones. It showed a non-conforming category roughly equal in size to the largest trend category. This can be seen on Definition Groupings Data Sheet F. in the appendix. There are a couple of possibilities for English interference among the trends. These are the trends and the suspect English words:

truncation, cutting, shortening, enclosed, bounded or delineated: cut
sports (most all involving balls), kick

There were several categories whose definitions were too few in number to include here. These may be found on *Definition Groupings Data Sheet F.* None of these small categories were suspected of being influenced by English.
Results Data Sheet

Words Requiring Definitions

Question ID: G. mavar ['meɪ . vaɹ]

Below is a listing of most of the definitions given for the word above. Definitions sharing semantic elements were grouped together into the categories below. Some definitions belong to more than one category. A category had to comprise at least 5% of the total amount of definitions to be listed here. See Definition Groupings Data Sheet G. in the appendix for a complete listing of all definitions and categories.

ships, boats or sailing (14): 12.17%
#1  a pirate’s ship
#3  an old wooden boat like those of Columbus’ day
#18  a large wooden boat
#35  a journey
#43  a quantity of water
#52  a barge
#55  an early, metal ship
#62  something on a ship, maybe for navigation
#63  to travel
#65  a big ship
#67  a ship, like a yacht
#74  an old boat with sails
#84  a large, Viking-like sailboat
#105  a long, epic voyage

color (11): 9.56%
#4  a bright, sunny time of year
#12  a yellow cake
#14  a color close to purple
#21  a color like mauve
#26  a type of rose that has the fragrance of lavender
#36  a hot color, like orange or yellow
#45  a small, green, ringed planet
#53  the process of applying a light skin of color to a canvas
#70  a fruit like an orange
#83  a type of yellow flower
#90  a color between light blue and lavender

food (9): 7.82%
#10  a utensil to prepare food
#16  a box of candy
#42  spreadable food in general, like PB&J or Vegemite
#54  a type of cornstarch
#69  escargot
#73  a food like chocolate
#98  a manufactured milk substance
#104  ice cream
#115  a bland food made of eggs, cream and milk

sharp or pointed (8): 6.95%
#26  a type of rose that has the fragrance of lavender
#33  a fencing sword
#37  to cut something
#72  sharp medical tools
#94  a single blade razor
#99  a coat of arms
#107  a bullfight
#108  a military job, maybe a cavalryman

upheaval, discontent (8): 6.95%
#41  a war helmet
#56  an accident
#59  to destroy something
#75  a big, automatic gun
#89  stormy weather
#92  angry
upheaval, discontent (8): 6.95% (cont.)
#93  chaos
#116  a dark, melancholy individual

flying (7): 6.08%
#15  a mythological or extinct winged creature
#27  a military airplane
#35  a journey
#63  to travel
#78  a wing(s)
#95  the first voyage on a new aircraft
#105  a long, epic voyage

pertaining to the intellect (7): 6.08%
#6  smart, intelligent
#47  a technical piece of equipment, like with a telescope
#50  complex
#80  a scientific measurement of electricity
#85  absent minded
#91  to think
#100  curious

an animal (6): 5.21%
#15  a mythological or extinct winged creature
#19  an insect like a moth
#69  escargot
#71  a small, ground-dwelling mammal
#82  a big, vicious, hairy animal
#97  a small mammal from Australia

picturesque (6): 5.21%
#2  a description of scenery in a painting
#5  a vineyard
#28  a small, southern town
#68  grass
#87  a type of tree, like a walnut
#102  pretty

Question discussion.

Question G. showed only moderate-sized trends. It had a relatively large non-conforming definition category seen on Definitions Groupings Data Sheet G. in the appendix. There were a couple of categories that could have been influenced by English. These are the categories and the possible interfering English words:

ships, boats or sailing: naval, navy
color: mauve

Question G. also had a fairly large number of categories too small to be included here. They can be seen on Definition Groupings Data Sheet G.. Any categories that could have been influenced by English are accompanied by the proposed word of interference.
Results Data Sheet

Words Requiring Definitions

**Question ID: H. eyeyu ['a¹· juʷ']**

Below is a listing of most of the definitions given for the word above. Definitions sharing semantic elements were grouped together into the categories below. Some definitions belong to more than one category. A category had to comprise at least 5% of the total amount of definitions to be listed here. See Definition Groupings Data Sheet H. in the appendix for a complete listing of all definitions and categories.

**a terrestrial animal (17): 14.65%**
- #1 a dog-like animal with a bushy tail and a long nose
- #8 a furry, passive animal
- #12 a type of beetle
- #14 a long, short, white mammal
- #17 a small reptile
- #23 a jackal-type animal
- #27 a small, furry rodent
- #28 an African animal like a deer, with antlers
- #31 a worm
- #35 a big bird, like an ostrich
- #40 a fluffy, white animal found in cold climates
- #41 a medium-sized, ground-dwelling, brown animal with a short tail
- #55 a grey rabbit-like animal
- #72 an animal like a bear that walks on two legs
- #74 a small bird around parks
- #94 a small bird, like a sparrow
- #106 reminiscent of a sled dog

**boats and/or water (13): 11.20%**
- #30 an inlet on an island
- #33 a small boat the Eskimos would use
- #43 a landform, like a delta
- #44 a canoe paddle
- #54 a peaceful, fishing Indian tribe
- #59 a small one-person boat
- #60 a type of aquatic animal
- #62 a fish or some other aquatic creature
- #82 a small, saltwater fish
- #103 a game played at the beach involving two Frisbees, an umbrella and a wiffle ball
- #105 a pirogue
- #112 water
- #116 a small dolphin

**cold or the arctic (7): 6.03%**
- #13 an igloo
- #20 an igloo
- #33 a small boat the Eskimos would use
- #40 a fluffy, white animal found in cold climates
- #79 the color of ice when it gets dirty
- #88 a rotten smell in the fridge
- #106 reminiscent of a sled dog

**a greeting (7): 6.03%**
- #7 a slang form of greeting
- #63 a greeting
- #80 a friendly greeting
- #84 a greeting
- #92 a greeting
- #95 to see an old friend
- #104 to say goodbye

**pertaining to Eskimos and Native Americans (6): 5.17%**
- #5 a Native American tribe
- #11 a Native American tribe
- #13 an igloo
- #20 an igloo

113
pertaining to Eskimos and Native Americans (6): 5.17% (cont.)

#33  a small boat the Eskimos would use
#54  a peaceful, fishing Indian tribe

Question discussion.

Question H. had no trends that were both semantically precise and large in number. There was a very large category of non-conforming definitions amounting to over three times the size of the largest category of semantically groupable definitions. This can be viewed on Definition Groupings Data Sheet H. in the appendix. There were a few categories that could have been influenced by English. Here are those suspect categories and the English words that could have influenced them:

- boats and/or water: bayou
- cold or the arctic, pertaining to Eskimos and Native Americans: igloo
- a greeting: hi, you!

There were several smaller categories that did not qualify for inclusion on this page. See Definition Groupings Data Sheet H. for these categories and any English words that might have influenced them.
Words Requiring Definitions

Question ID: I. narathooze ['næɹəθuːz]

Below is a listing of most of the definitions given for the word above. Definitions sharing semantic elements were grouped together into the categories below. Some definitions belong to more than one category. A category had to comprise at least 5% of the total amount of definitions to be listed here. See Definition Groupings Data Sheet I. in the appendix for a complete listing of all definitions and categories.

**a medical procedure, medicine or an illness (36): 31.03%**
- #2 nose spray
- #4 a sickness of the nose
- #17 an upper respiratory or nasal infection
- #18 a cold medicine, nasal spray
- #22 a medicine for nasal congestion
- #26 an emollient for the feet
- #27 a disease
- #28 a small passageway
- #31 something to do with the nose, smell
- #35 a mental disorder
- #36 the tube used to help a patient breathe
- #39 a nasal strip
- #41 a disease of the immune system that makes you feel drowsy
- #42 an allergy medicine
- #44 a pain reliever, like Icy Hot
- #45 a medicine for the brain
- #46 a cold (illness)
- #48 a drug to treat ADD
- #56 to sneeze
- #57 a medical instrument for internal x-rays
- #58 a type of anesthesia
- #60 relates to the esophagus
- #65 nose medicine
- #71 a decongestant
- #75 a state of being numb
- #76 a nose medicine
- #77 homemade nasal spray
- #78 therapeutic
- #84 a prescription sleeping pill
- #94 a product for the nose or sinuses
- #96 a type of medicine for arthritis
- #98 a sinus condition where the nasal passages are constricted
- #99 a canal
- #102 a medicine for a skin rash
- #107 medicine that treats breast cancer
- #109 similar to neurons in the brain, they transmit signals

**the nose (spray) (20): 17.24%**
- #2 nose spray
- #4 a sickness of the nose
- #17 an upper respiratory or nasal infection
- #18 a cold medicine, nasal spray
- #22 a medicine for nasal congestion
- #26 a small passageway
- #31 something to do with the nose, smell
- #36 the tube used to help a patient breathe
- #39 a nasal strip
- #42 an allergy medicine
- #46 a cold (illness)
- #56 to sneeze
- #60 relates to the esophagus
- #65 nose medicine
- #71 a decongestant
- #76 a nose medicine
- #77 homemade nasal spray
- #94 a product for the nose or sinuses
the nose (spray) (20): 17.24% (cont.)
#98 a sinus condition where the nasal passages are constricted
#99 a canal

a confined passageway (18): 15.51%
#9 the action of a marble travelling along a Styrofoam pipe
#21 the path and shape of a river
#28 a small passageway
#30 to be close in proximity
#36 the tube used to help a patient breathe
#47 an inlet
#52 a natural passageway
#53 a trough in the earth
#55 a sea monster like Loch Ness
#60 relates to the esophagus
#70 socks
#88 a dangerous switchback on a cliff
#95 to drive off a cliff
#98 a sinus condition where the nasal passages are constricted
#99 a canal
#101 a piece of tubing, like a funnel
#108 a pass through a canyon
#116 a knot that can’t be untied

mental acuity or confusion and ignorance (15): 12.93%
#14 confused
#16 nonsense
#25 one’s thoughts
#35 a mental disorder
#43 an intellectual person
#45 a medicine for the brain
#48 a drug to treat ADD
#49 a philosopher
#51 to daydream
#85 ignorant
#86 a person who isn’t very smart
#87 confusion
#104 to educate somebody
#109 similar to neurons in the brain, they transmit signals
#114 to dream

sleep, calm or tranquility (9): 7.75%
#1 a Greek god of sleep
#11 a fairy tale for children, like a fable
#51 to daydream
#58 a type of anesthesia
#59 to calm somebody down
#79 a state of being numb
#84 a prescription sleeping pill
#110 soporific
#114 to dream

festive, excitement, happy (8): 6.89%
#5 to become excited over
#6 silly
#8 something that would make you happy, like a movie
#19 a parade
#20 happy
#50 a competition
#72 a bubbly, alcoholic beverage
#103 a drink containing four types of alcohol and fruit juice

storytelling (6): 5.17%
#1 a Greek god of sleep
#3 a dark (evil) character from Greek or Roman mythology
#11 a fairy tale for children, like a fable
#29 playful
#37 a story passed down
#63 to read
Question discussion.

Question I. showed some exceptional categories both in terms of size. It showed a moderate non-conforming category as well which can be viewed on Definition Groupings Data Sheet I. in the appendix. These are the categories whose definitions might have been influenced by English:

sleep, calm or tranquility: *snooze*

a confined passageway: *narrow*

There were several categories that were too small to include on this page. These can be found on Definition Groupings Data Sheet I.
Results Data Sheet

Words Requiring Definitions

Question ID: J. phillontave ['fɪ·lən·tʰeʲv]

Below is a listing of some of the definitions given for the word above. Definitions sharing semantic elements were grouped together into the categories below. Some definitions belong to more than one category. A category had to comprise at least 5% of the total amount of definitions to be listed here. See Definition Groupings Data Sheet J. in the appendix for a complete listing of all definitions and categories.

a tool (15): 13.04%
#31 a mechanical tool used for levering
#40 a writing utensil
#42 a shovel used in the garden
#43 a writing pen
#50 a measuring device, like a beaker
#53 a piece of hardware that tightens down a lamp fixture
#55 a leather-working tool
#59 a tool like a pick used in archaeology
#68 duct tape
#82 a utensil, like a spatula
#83 a mechanical pencil
#96 a machine used to cut
#101 a pitcher, like for water
#103 a radar detector used by police and baseball scouts
#107 a car dent remover

caulk or glue (11): 9.56%
#8 a type of gel used to caulk
#18 a bone or cartilage in the nose
#41 a packaging material used at the post office
#65 something sticky and gritty
#68 duct tape
#72 toothpaste
#77 the glue for tape or a post-it
#87 a type of glue
#102 a strong glue or cement
#105 denture glue, like Fixodent
#109 a type of caulk

Question discussion.

Question J. was one of the least productive questions for finding semantic trends. The non-conforming category was one of the largest of the entire data set and can be found in Definition Groupings Data Sheet J. in the appendix. There were only two categories that were numerous enough to include here. Both were of moderate size. One of these groupings could have been influenced by English:

caulk or glue: fill, filling
There were a handful of small groupings that were not listed here. These can be found on *Definition Groupings Data Sheet J.* Some of these smaller trends could have been influenced by English as well. The proposed English word of interference is listed with the trend.
Results Data Sheet

Words Requiring Definitions

*Question ID: K. lulurode* ['luw·ə·joʊd]

Below is a listing of most of the definitions given for the word above. Definitions sharing semantic elements were grouped together into the categories below. Some definitions belong to more than one category. A category had to comprise at least 5% of the total amount of definitions to be listed here. See *Definition Groupings Data Sheet K.* in the appendix for a complete listing of all definitions and categories.

**windy, twisty or curvy (34):** 29.31%

#2 an uneven street  
#3 a windy road like in the game Candyland  
#8 a windy, country road  
#15 a toy for children consisting of interlocking hoops  
#18 a pipe snake  
#23 a mountain trail  
#34 a shortcut on a road trip  
#45 to bypass something  
#48 ambiguous  
#49 a tool for weaving  
#51 to meander  
#60 a passageway  
#61 something that goes on and on and on  
#64 erratic motion  
#66 to swerve down the road  
#67 curves, like in a road OR a rose  
#73 a line of people  
#78 twisty  
#80 a trick involving flips  
#81 a jump rope  
#86 a speed bump  
#87 to run around  
#88 to go off on a tangent when speaking  
#90 to evade a question  
#91 a crazy person, like a schizophrenic  
#98 something that is permanently curled  
#100 misleading  
#105 a winding road  
#106 a big roll of paper  
#107 a bicycle tire  
#108 bizarre or confusing  
#110 a small, delicate, purple flower, built around a central axis  
#111 a mammal that hops and jumps  
#116 a carnival ride, like a merry-go-round

**game, play, or whimsy (28):** 24.13%

#3 a windy road like in the game Candyland  
#5 a game, maybe a video game  
#7 a little kid  
#11 a children’s game  
#14 a fun, happy, comfortable place  
#15 a toy for children consisting of interlocking hoops  
#17 a toy  
#20 exuberant  
#21 a child’s game  
#33 a carefree person  
#38 a whimsical animal with a long tail, like a lemur  
#39 to play  
#40 whimsical, girlish, childhood play  
#57 a game that small children play at recess  
#58 a type of toy  
#76 a piece of play equipment  
#80 a trick involving flips  
#84 a vacation  
#85 laid back
**Question discussion.**

Question K. presented several strong categories, some of which were quite large. It also showed a fairly large, non-conforming category which can be seen in Definition Groupings Data Sheet K. in the appendix. Some of the categories could have been influenced by English. Here are the categories and the proposed English interferers:

**windy, twisty or curvy**: loop, road

game, play, or whimsy, a dance  the old children’s song  Skip to My Lou, ludicrous, luau

There were a handful of categories that were not large enough to be included here. They can be found on Definition Groupings Data Sheet K.
Results Data Sheet

Words Requiring Definitions

**Question ID: L. goxiwall ['ɡəkəˌsə.ˈwɔli]**

Below is a listing of most of the definitions given for the word above. Definitions sharing semantic elements were grouped together into the categories below. Some definitions belong to more than one category. A category had to comprise at least 5% of the total amount of definitions to be listed here. See Definition Groupings Data Sheet L. in the appendix for a complete listing of all definitions and categories.

**fantastical, non-sensical or different than the norm (25): 21.73%**
- #3 something without coherence, nonsensical
- #7 a weird town in a valley
- #8 a circus freak, maybe an animal-man
- #14 reminiscent of Halloween, scary ghosts
- #15 a ferocious animal the size of a raccoon, arboreal, nocturnal, and carnivorous
- #29 an alien monster
- #43 an extraterrestrial being
- #46 a movie monster
- #47 a fantastical Tolkien character
- #58 a big, mean monster, like Grendel
- #61 a weird (drinking) bar
- #65 large, powerful castles, maybe with gargoyles
- #66 to make a weird noise
- #69 a ghost
- #85 insane
- #94 pure mayhem
- #100 an odd, diagonal pattern, like with tiles
- #101 a flying animal, not necessarily a bird, dangerous to people
- #102 a troll or goblin
- #108 an ugly sea creature with tentacles
- #110 an exotic animal, small and grey, harmless to people, maybe found in Australia
- #112 dark (evil)
- #113 a young, mischievous, irresponsible, problem-solving child
- #115 a non-sense statement
- #116 an ogre

**something to be feared or otherwise negative (25): 21.73%**
- #11 a wolf-like animal
- #14 reminiscent of Halloween, scary ghosts
- #15 a ferocious animal the size of a raccoon, arboreal, nocturnal, and carnivorous
- #28 a mistake you would want to cover up
- #29 an alien monster
- #40 a disease of the skin, a rash
- #46 a movie monster
- #48 to screw up majorly
- #58 a big, mean monster, like Grendel
- #65 large, powerful castles, maybe with gargoyles
- #69 a ghost
- #73 to freak out
- #74 the action of breaking something
- #75 vomiting
- #85 insane
- #90 to hit somebody with a bat
- #92 scared, anxious
- #94 pure mayhem
- #101 a flying animal, not necessarily a bird, dangerous to people
- #102 a troll or goblin
- #108 an ugly sea creature with tentacles
- #112 dark (evil)
- #113 a young, mischievous, irresponsible, problem-solving child
- #114 to make fun of
- #116 an ogre

**an animal (18): 15.65%**
- #1 a white, vegetarian, ox-like animal
- #8 a circus freak, maybe an animal-man
an animal (18): 15.65% (cont.)
#11 a wolf-like animal
#15 a ferocious animal the size of a raccoon, arboreal, nocturnal, and carnivorous
#18 a type of tropical bird
#22 a type of waterfowl
#23 a medium-sized, dog-like animal
#24 a big, tropical bird
#27 a parrot
#42 a bird, like a seagull
#54 an animal with scales and feet, like an iguana
#57 a small herbivore animal hunted for its meat
#84 a short woodland creature, like a koala
#91 a bird, like a gull
#101 a flying animal, not necessarily a bird, dangerous to people
#108 an ugly sea creature with tentacles
#110 an exotic animal, small and grey, harmless to people, maybe found in Australia
#111 a beast of the forest, like a small cat, not dangerous to people

adhesives (11): 9.56%
#9 putty used for sealing up cracks
#44 floor sealant
#49 a type of adhesive
#51 to glue something together
#56 a type of slime or sludge
#76 something that gets stuck to the bottom of your shoe
#87 a type of caulk
#93 thick
#96 a putty to form molds for repairs
#103 a putty substance used to fix leaks
#107 caulk for floor tile

a castle, architecture, or a structure (8): 6.95%
#21 describes the architecture of a castle
#25 a thatched roof
#33 Spanish-type architecture
#34 supports a building like a flying buttress
#59 a construction tool for measuring
#65 large, powerful castles, maybe with gargoyles
#67 an old castle
#71 a stained glass window

food and drink (6): 5.21%
#26 a seasoning salt for cooking shellfish
#38 a Scottish alcoholic beverage
#79 a traditional way in which beer is consumed
#83 a green spherical vegetable
#105 a food like sausages and sauerkraut
#109 a spicy chili from Spain

**Question discussion.**

Question L. showed several good-sized trends. It also had a large non-conforming category which was actually the largest category of the question. This can be viewed on *Definition Groupings Data Sheet L.* in the appendix. There was a category where there might be a connection between English and the definitions provided:

**adhesives, a castle, architecture, or a structure:** wall
There were several categories too small to fit on this sheet. Any of these that were possibly influenced by English are accompanied by the hypothesized English word. This information may be found on *Definition Groupings Data Sheet L..*
Results Data Sheet

Words Requiring Definitions

Question ID: M. cengastumine [sɪnˈɡæs·tə·maɪn]

Below is a listing of most of the definitions given for the word above. Definitions sharing semantic elements were grouped together into the categories below. Some definitions belong to more than one category. A category had to comprise at least 5% of the total amount of definitions to be listed here. See Definition Groupings Data Sheet M. in the appendix for a complete listing of all definitions and categories.

disease, the body or gastro-intestinal issues (21): 18.10%
#1 a skin disease of the legs
#14 a stomach disease
#19 a stomach ache
#23 a disease of the stomach
#25 a stomach disease
#27 an internal organ
#29 an illness of the immune system
#30 a stomach problem
#31 a medicine for the sinuses
#39 to do surgery
#40 nausea
#43 a blood disease
#57 describes something unpleasant in the body, uneasiness
#60 a disease where sweating is one of the symptoms
#82 a saw that a surgeon would use
#90 a parasitic insect that sucks blood
#98 a manufactured compound in a prescription drug
#101 a disease of the intestines
#105 bloated
#110 a disease of the intestines
#115 a medical procedure where scans of the internal organs are made

chemical compounds, elements or minerals (17): 14.65%
#5 oil refining
#9 a chemical compound used for making rubber ducks
#12 something poisonous, like asbestos
#21 something’s chemical composition
#22 an element from the periodic table
#37 a chemical element
#42 a toxic, chemical compound
#56 an element
#73 to experiment with chemicals
#78 something synthetic or false
#84 a bright orange mineral
#87 radioactive chemical
#91 an ore, something that would be mined
#96 a type of chalky rock
#97 a chemical product used as a fire retardant
#98 a manufactured compound in a prescription drug
#109 a gasoline additive

warfare, chemical weapons, poison or the infliction of harm (16): 13.79%
#2 a gas chamber in the Holocaust
#4 something having to do with warfare and trenches
#6 an explosion
#7 a poisonous chemical
#8 something dangerous, a poisonous murder weapon
#13 chemical explosion
#15 to poison with an inhalant
#17 a tank or related weapon
#36 a poisonous by-product from a factory
#42 a toxic, chemical compound
#46 a large booming noise
#49 a volatile chemical
#61 a way of destroying something
#83 an artificial poisonous chemical
warfare, chemical weapons, poison or the infliction of harm (16): 13.79% (cont.)
#87 radioactive chemical
#107 a liquid explosive

duplication (9):  7.75%
#3 a replication, mimesis or parroting
#33 a synonym
#44 systematically searching for a treasure
#51 to talk nonstop
#62 two things that are alike
#94 when you don’t believe somebody because they are a liar
#103 a type of English bifocal
#106 writing a satire of satires
#111 a door to door salesman

duplication (9):  7.75%
#3 a replication, mimesis or parroting
#33 a synonym
#44 systematically searching for a treasure
#51 to talk nonstop
#62 two things that are alike
#94 when you don’t believe somebody because they are a liar
#103 a type of English bifocal
#106 writing a satire of satires
#111 a door to door salesman

low places (6): 5.17%
#4 something having to do with warfare and trenches
#32 to break through a surface
#48 to erupt, like a volcano
#55 an ocean trench
#74 a cavern
#77 the grooves left in hardwood that comes from heavy furniture

Question discussion.

Question M. was one of two questions that were ultimately replaced by different
tetrasyllables because it appeared that the participants were having a hard time ignoring
resemblances that certain syllables bore to actual English words. The decision was made to
analyze both words that were replaced anyway because I had already gone to the trouble to
collect the data.

Question M. shows several well-developed semantic trends. It also has a large non-
conforming category which is listed on Definition Groupings Data Sheet M. in the appendix.
There were numerous instances where the improper influence of English was suspected in the
designation of meaning by the participants. Here are the suspected categories and English
words:
disease, the body or gastro-intestinal issues, low places: gas
chemical compounds, elements or minerals, low places: mine, gas
warfare, chemical weapons, poison or the infliction of harm, low places: sin\textsuperscript{17}, gas, mine
duplication: mime

Question M. had several small categories that are listed only on Definition Groupings Data Sheet M. One of these small categories was suspected of being prejudiced by English. The suspected English word can be found on the aforementioned data sheet as well.

\textsuperscript{17} The participants were not privy to the manner in which I was spelling the words. Though the reader sees the syllable cengastumine, the participants only heard me pronounce the word, which sounds like the English sin.
Results Data Sheet

Words Requiring Definitions

Question ID: N. poncrilader ['pʰaŋ·kə·le¹·rə]

Below is a listing of most of the definitions given for the word above. Definitions sharing semantic elements were grouped together into the categories below. Some definitions belong to more than one category. A category had to comprise at least 5% of the total amount of definitions to be listed here. See Definition Groupings Data Sheet N. in the appendix for a complete listing of all definitions and categories.

domestic or office tools (23): 20.00%
#6 a cooking utensil
#13 a fancy stereo
#23 a coffee pot
#33 a coffee pot
#36 a cleaning utensil
#42 a paper hole puncher
#43 an electrical appliance, like a blender or toaster
#44 a water purifier
#45 an extension cord
#51 earthenware
#57 a device to mix drinks
#66 a technological device for pushing or opening things
#68 tongs
#78 a grinder
#79 a vegetable juicer
#84 a thermostat
#86 a copy machine
#104 a washing machine
#105 a noise-making toy with buttons corresponding to different sounds
#108 churning butter
#109 an air purifier
#113 a machine that matches up music with images
#116 transfers files from a recorder to a television

a measuring device (16): 13.91%
#10 a tool to measure depth
#18 a portable heart monitor
#21 a mathematical device for making calculations
#25 a meter for determining volume
#41 a timekeeper
#49 a device for measuring pressure or temperature
#52 a machine that tests air pressure
#59 a time keeper, like a watch
#62 a measuring device
#81 a thermostat
#82 an instrument for finding heart murmurs
#101 a tool to measure distances
#102 a switch board or control station
#106 a person who calculates scores
#114 a medical device that measures blood pressure
#115 a device used by a neurologist to measure the amount of electricity in you

a device pertaining to engines or cars (15): 13.04%
#4 a car part
#14 a car part
#16 a car made into an object of art
#21 a mathematical device for making calculations
#24 a tool used in car repair
#32 a guy with a tanker truck
#35 a part of a car engine
#37 a pump for filling up tires
#48 a very fancy car
#50 a grater or bulldozer
#54 a part of an engine, like the fuel injectors
#63 a type of motorbike, like a dirt bike
#84 a street sweeper
a device pertaining to engines or cars (15): 13.04% (cont.)

#90 a new type of fuel pump for a car
#94 a car part, like an oil filter

an impact-causing device (10): 8.69%

#42 a paper hole puncher
#56 a machine that hammers
#58 a machine that stamps things
#60 something to punch through concrete
#64 to poke
#97 something to punch holes in metal
#98 a large machine that crushes rocks
#103 a nightstick carried by the police
#107 a torture device, like a dull guillotine
#110 a steam powered machine that stamps out widgets

a medical device (10): 8.69%

#1 a machine which helps keep the muscles strong
#3 a pacemaker for the pancreas
#5 a medical device
#8 a defibrillator
#12 a medical device to revive people who have passed out
#18 a portable heart monitor
#69 a psychotherapist
#82 an instrument for finding heart murmurs
#114 a medical device that measures blood pressure
#115 a device used by a neurologist to measure the amount of electricity in you

(pseudo-)intellectualism (7): 6.08%

#15 a person obsessed with punctuation
#30 the means of achieving an end
#34 somebody whose mind jumps from one place to another
#39 exploring new places
#53 a savvy move in poker
#70 an intelligent person
#71 a know-it-all

heavy, load-bearing machines (6): 5.21%

#32 a guy with a tanker truck
#47 a concrete mixer
#50 a grater or bulldozer
#87 an elevator part, maybe a gear
#96 a machine that moves heavy objects
#98 a large machine that crushes rocks

**Question discussion.**

Question N. was one of two questions that were ultimately replaced by different tetrasyllables because it appeared that the participants were having a hard time ignoring resemblances that certain syllables bore to actual English words. The decision was made to analyze both words that were replaced anyway because I had already gone to the trouble to collect the data.

Question N. shows several well-developed semantic trends, most of which center on various type of tools or machines. It has a moderate non-conforming category which can be
viewed on *Definition Groupings Data Sheet N.* in the appendix. There were numerous instances where the improper influence of English was suspected in the designation of meaning by the participants. Here are the suspected categories and English words:

**domestic or office tools, a measuring device, a device pertaining to engines or cars, an impact-causing device, a medical device, heavy, load-bearing machines:** It is assumed that the presence of the *-er* suffix, a suffix of agency in English, caused most participants to gravitate towards various mechanical devices and machines.

**a device pertaining to engines or cars, a medical device:** *pump*

**(pseudo-)intellectualism:** *punk*

**an impact-causing device:** *punch*

Question N. had several categories too small to merit their inclusion on this page. These can be found on *Definition Groupings Data Sheet N.* When these categories are suspected of being influenced by English, the suspected English word is indicated below the category.
Results Data Sheet

Words Requiring Definitions

Question ID: O. bowertilldew [ˌbaˑwəˑˈtʰɪlˑdʊ̊̊]

Below is a listing of most of the definitions given for the word above. Definitions sharing semantic elements were grouped together into the categories below. Some definitions belong to more than one category. A category had to comprise at least 5% of the total amount of definitions to be listed here. See Definition Groupings Data Sheet O. in the appendix for a complete listing of all definitions and categories.

a tool (16): 14.15%
#3 a balance (scale)
#10 a tool used for cleaning
#14 a tool for breaking up dirt
#27 a drill-like tool used to fashion wood
#34 a tool for setting up a tent
#61 a piece of farming equipment that plants seeds
#62 an electronic gadget for measuring
#71 a lawn mower
#76 an automated vacuum
#79 a barbed spear
#80 a large, hand-operated digging instrument
#82 an instrument to clean out the intestines
#85 a garden tool, like an aerator
#96 something used to cut grass
#103 a writing utensil for electronic smart boards, like a stylus
#109 an essential piece in a pulley system

farming or cultivation (11): 9.73%
#14 a tool for breaking up dirt
#20 a garden
#42 describes somebody who works with their hands
#47 a lamp that hangs in the garden
#61 a piece of farming equipment that plants seeds
#80 a large, hand-operated digging instrument
#85 a garden tool, like an aerator
#97 descriptive of boggy soil, like in Scotland
#101 a term for a hard worker
#105 cultivation, planting
#114 a young, hard worker

the passage of time or something put off for later (8): 7.07%
#17 an activity that you wish to avoid
#18 implying the wish to procrastinate
#30 a time late in the day
#68 tomorrow
#70 to procrastinate
#94 to push the snooze button on the alarm
#95 to waste time
#111 an amount of time

a mode of transportation (7): 6.19%
#23 a ship’s bilge
#29 an army tank
#33 an anchor on a boat
#65 a sailboat
#81 a car
#83 type of helicopter
#107 reminiscent of a jet engine

pertaining to nobility (7): 6.19%
#4 descriptive of English nobility long ago
#35 a round tower with many windows
#40 something royal
#56 a castle
#69 someone in charge
#74 a boss or leader, like a mayor
pertaining to nobility (7): 6.19% (cont.)
#91 a medieval castle

fantasy worlds (7): 6.19%
#8 a genre of writing, creative non-fiction that uses embellishments to enrich the story
#12 a fantasy novel, like Lord of the Rings
#37 a long sword
#56 a castle
#60 a mythical creature greatly revered in a civilization
#73 a RPG-type video game
#91 a medieval castle

wooded places or forests (6): 5.30%
#31 a wooded place
#32 a highway through the Amazon
#41 a place with a lake where people vacation
#48 a small, colorful bird of the rainforest
#54 a type of tree that produces only pine cones
#59 a type of wild plant, like a bush

an article of clothing (6): 5.30%
#2 an article of clothing
#13 men’s casual pants
#43 pants, like jeans
#46 a plastic mask
#55 an ornate robe
#98 a 16th Century men’s cloth hat

**Question discussion.**

Question O. presented no trends of above average size. Moderate to small exemplifies this question. It had an average-sized non-conforming category when compared against other questions. However, the non-conforming category was the largest category of this question. It can be viewed on *Definition Groupings Data Sheet O.* in the appendix. There were possibilities for English impacting the meaning designation process. These are the suspected categories and the English words that might have impacted them:

**pertaining to nobility, fantasy worlds:** *to bow*
**farming or cultivation:** *tilling*
**the passage of time or something put off for later:** *’til or until*
**a mode of transportation:** *bow (of a boat)*

Question O. had many small categories that were too small to include here. These as well as any potential English interfering words can be seen on *Definition Groupings Data Sheet O.*
Results Data Sheet

Words Requiring Definitions

Question ID: P. chocksahheeble [ˈtʃəkəˌhɪˈbɛl]

Below is a listing of most of the definitions given for the word above. Definitions sharing semantic elements were grouped together into the categories below. Some definitions belong to more than one category. A category had to comprise at least 5% of the total amount of definitions to be listed here. See Definition Groupings Data Sheet P. in the appendix for a complete listing of all definitions and categories.

**a cluster, pile or group of repeated objects (33):  28.94%**

#3  a large gathering of people
#7  a material like bricks or cement
#9  a device used for chopping round objects
#14  somebody who got sick and threw up
#24  a mixture of various snack foods, like a chex mix
#28  a big mess
#29  a stand of logs
#33  a pile of various, countable pieces
#35  a group of loud children
#40  a pile of meaningless crap
#42  a big mess, a cluster
#43  a big concert, like Woodstock
#52  a food made from a mashed up root
#53  the bend in a river where sediment has a collected and it makes the area un-navigable
#55  an old piece of farming equipment, like for tilling
#62  reminiscent of bamboo
#63  to chop something
#74  to cook something in a wok
#76  a thick food with big chunks
#77  the skill of leaping on stones that are far away from one another when crossing a creek
#79  ground corn
#82  a crushed up grain, maybe red in color
#85  many
#86  a stump grinder
#87  an ingredient in concrete
#88  a relay game you play running from pole to pole
#96  a fence
#97  a regular polyhedron
#105  multi-faceted
#106  a large, indefinite number
#108  cornmeal-based food
#112  rocks, like boulders, dispersed
#116  a big pile of food

**food (24):  21.05%**

#2  a hot drink, like tea, taken when ill or in the winter
#4  a type of candy
#6  a type of hard, cinnamon candy
#8  someone who eats a lot
#16  something to grill on a campfire
#23  Chinese food
#24  a mixture of various snack foods, like a Chex mix
#34  a rich foreign (to Americans) candy
#37  a foreign candy
#39  to prepare a food you never prepared before
#41  a sweet, thick, European food served in a bowl
#52  a food made from a mashed-up root
#64  sweet
#67  chewy candy
#71  a kitchen table
#74  to cook something in a wok
#76  a thick food with big chunks
#79  ground corn
#82  a crushed up grain, maybe red in color
#95  to make a cake
#102  a vitamin or herb useful for steadying the hand
food (24): 21.05% (cont.)
#104 to eat
#108 cornmeal-based food
#116 a big pile of food

tools (13): 11.40%
#9 a device used for chopping round objects
#10 a tool used to make marks on various surfaces
#47 a part in a furnace
#49 a tool used by native people for hunting
#55 an old piece of farming equipment, like for tilling
#56 the handle on a drawer
#59 something that helps find direction, like a map or a compass
#60 a wooden spear
#83 a touch screen desktop computer
#86 a stump grinder
#100 a hammer
#103 a parking brake for steep inclines
#107 a hatchet

Indians (9): 7.89%
#3 a large gathering of people
#12 an American Indian tribe
#20 an Indian tribe
#27 name of an ancient tribe of Native Americans
#32 a temple in Mexico
#36 an Indian shelter, like a teepee
#38 pertaining to Sasquatch
#46 Indian face paint
#84 a story passed down about ancestors

an animal (8): 7.01%
#1 a purple, unfriendly, reptile-like animal
#44 a large, mysterious monster, like Bigfoot
#58 pertaining to a rooster
#61 a big furry monster that eats people
#68 a horse barn
#90 an animal that lives in a rocky desert
#101 a small, furry dinosaur
#111 an animal, like a squirrel but with a spiky tail

emotion (7): 6.14%
#5 to become angry over something
#13 a violent act
#50 to be cocky
#93 something funny
#98 somebody opposed to an idea even though they know it is the morally right thing to do
#99 a malevolent spirit
#115 an emotion of anger or disgust

Question discussion.

Question P. showed large, moderate and small semantic trends. Its non-conforming category was fairly small and can be seen on Definition Groupings Data Sheet P. in the appendix. There are instances where the influence of English can’t be ruled out. These are the categories and the possible interfering English words:

a cluster, pile or group of repeated objects: heap
food: chocolate
Indians: Choctaw
tools: chop

Question P. had several small categories not listed here. These can be found on

*Definition Groupings Data Sheet P.*
Results Data Sheet

Words Requiring Definitions

Question ID: Q. whoagsafflerick [wəˈɡæsəˈfleɪrɪk]

Below is a listing of most of the definitions given for the word above. Definitions sharing semantic elements were grouped together into the categories below. Some definitions belong to more than one category. A category had to comprise at least 5% of the total amount of definitions to be listed here. See Definition Groupings Data Sheet Q. in the appendix for a complete listing of all definitions and categories.

generally negative (26): 22.60%
#6 a short, ugly dwarf
#16 stupidity, arrogance, obnoxiousness
#20 folly
#28 to exaggerate about something, to stretch the truth
#29 weeds
#32 a really mad person
#33 someone who commits a serious crime
#34 a xenophobic feeling
#35 an ill-tempered person
#46 some kind of trouble or misfortune
#52 the action of carjacking
#58 a torture chamber
#74 a big, furry, wild, dangerous animal
#76 hard, manual labor
#82 a large, evil monster
#87 a side effect from a drug
#88 describing an overdressed man
#91 ridiculous
#93 something that causes pain
#94 something crazy
#97 somebody down on their luck or depressed
#105 scratchy
#106 reminiscent of characters like Don Quixote
#111 a disease affecting the whole body
#112 sadness
#113 a booby prize

emotion (18): 15.65%
#15 describes a person who has gone through an experience that gave them both sadness and happiness at the same time
#16 stupidity, arrogance, obnoxiousness
#18 to be astonished
#20 folly
#28 to exaggerate about something, to stretch the truth
#34 a xenophobic feeling
#35 an ill-tempered person
#38 a happy reaction
#50 aggressive
#51 to be lazy on the sofa
#59 something fantastic or amazing
#60 terrific
#75 a rave
#78 fun
#97 somebody down on their luck or depressed
#112 sadness
#115 kind or concerned
#116 a cry of exasperation or excitement

a tool or machine (17): 14.78%
#3 relating to a pulley mechanism, an archaic means of hoisting something
#7 a complex machine used for moving things
#12 a huge, Viking battleaxe
#13 a time machine
#17 a rusted, long sword
#36 an instrument that makes a deep sound, like a brass instrument
#40 an organizational tool, like a syllabus
#42 motor oil or engine coolant
a tool or machine (17): 14.78% (cont.)
#49 a long sword
#56 a system of pulleys
#61 a machine to help you do your hair
#79 a cleat on a wooden boat
#80 an inky part of the printing press
#84 a ski lift
#98 a steering implement for a boat or maybe an amphibious vehicle
#100 an off-road vehicle like the ones used in African safaris
#104 a computer

pertaining to water (14): 12.17%
#5 log riding
#9 a ship made of toilet paper
#17 a rusted, long sword
#24 a tropical island
#31 a water dam
#47 a barge
#54 a duck habitat
#63 a raft
#69 a color like dark blue
#71 a steamboat
#79 a cleat on a wooden boat
#83 a fishing boat
#96 a type of canoe
#98 a steering implement for a boat or maybe an amphibious vehicle

an animal (12): 10.43%
#2 a type of squirrel
#10 a barking animal
#21 a small animal, like a squirrel
#25 reminiscent of a wolf
#27 an animal in the Zebra family
#43 a wild canine
#54 a duck habitat
#55 a small fly
#62 a small insect
#74 a big, furry, wild, dangerous animal
#103 a prehistoric lobster
#109 a legendary wolf that walks on two legs

furry or fuzzy (10): 8.69%
#2 a type of squirrel
#4 furry or fuzzy
#10 a barking animal
#14 something wooly or furry
#21 a small animal, like a squirrel
#25 reminiscent of a wolf
#43 a wild canine
#73 soft material, like cashmere
#74 a big, furry, wild, dangerous animal
#109 a legendary wolf that walks on two legs

a spectacle or entertainment (7): 6.08%
#8 something amazing
#11 a puppet from a kid’s show
#70 something amazing
#77 the art of having crumbs fall from the mouth to the beard forming little artistic symbols
#85 magic
#92 to ponder
#107 an exceptional piano player

a textile or garment (6): 5.21%
#23 a judge’s robe
#30 a type of natural material for a garment
#39 to sew clothes
#65 pertaining to knitting
#66 something woven
#67 a quilt
Question discussion.

Question Q. presented several substantial categories. It showed a moderate non-conforming category which can be seen on *Definition Groupings Data Sheet Q.* in the appendix. There were a couple of instances where it is possible that English prejudiced the answers of the participants. These are the suspected categories and the English words that might have influenced them:

- a tool or machine, *rig*
- generally negative, *woe*

Question Q. had several small categories that did not qualify for inclusion on this page. These can be found on *Definition Groupings Data Sheet P.* Some of these smaller categories could have been influenced by English. When this is suspected, the English word is indicated below the category.

Question Q. was one of two tetrasyllabic questions that were brought in to replace two other tetrasyllables which were deemed to difficult to fairly evaluate due to their strong affinity to actual English words. Great care went in to both of these words’ creation and the results speak for themselves. There was clearly less possible interference from rhyme or other resemblance to English.
Words Requiring Definitions

Question ID: R. tobecraydrub [tʰoˑ uəˑ ˈkæliˑ daəb]

Below is a listing of most of the definitions given for the word above. Definitions sharing semantic elements were grouped together into the categories below. Some definitions belong to more than one category. A category had to comprise at least 5% of the total amount of definitions to be listed here. See Definition Groupings Data Sheet R. in the appendix for a complete listing of all definitions and categories.

massive, oversized or relatively large (22): 19.13%
#8 a big, heavy piece of furniture, like a dresser
#9 a candy bar with 1000 different flavors
#15 a type of earthworm that lives in a colony that could cause problems if they are too numerous
#24 a snow-covered, cold mountain
#34 a gigantic, above-ground reservoir
#38 a large piece of construction equipment, like a dump truck
#55 a mountainous place, like Nepal
#56 a large, plastic, box-shaped container
#60 a big, multi-purpose tub
#62 a large enclosed object
#63 a big rock, like a boulder
#69 a musical instrument, like the tuba
#78 fat, gigantic
#79 two astral bodies colliding
#82 a giant mushroom
#85 a fictitious animal that is large, nocturnal, and winged
#93 large rocks, like mountains
#95 to break a chair
#98 a volcanic formation, different from a crater or a caldera
#105 the feeling from looking at a mountain range from the sky
#106 a large, flowering bush
#109 a Caribbean fruit, peach colored, round and the size of a cantaloupe

cold, dark or hard (18): 15.65%
#5 spelunking
#24 a snow-covered, cold mountain
#31 a snow sled
#34 a gigantic, above-ground reservoir
#38 a large piece of construction equipment, like a dump truck
#52 a boxy, older kind of car
#55 a mountainous place, like Nepal
#58 an above-ground cave
#60 a big, multi-purpose tub
#63 a big rock, like a boulder
#66 reminiscent of a cave
#79 two astral bodies colliding
#93 large rocks, like mountains
#98 a volcanic formation, different from a crater or a caldera
#99 a temple
#105 the feeling from looking at a mountain range from the sky
#111 a dull color, like a flat grey or silver
#113 a layer of rock that geologists would study

impeded movement, confinement or slow (17): 14.78%
#13 a turtle
#33 a slothful creature of the forest
#38 a large piece of construction equipment, like a dump truck
#40 a sitting object, like a vase, used for aesthetic purposes
#45 to release something
#46 an ice cream topping, like syrup
#48 a sedentary person who eats just to eat
#49 a catatonic condition
#55 a mountainous place, like Nepal
#56 a large, plastic, box-shaped container
#62 a large enclosed object
#75 jumping in place
impeded movement, confinement or slow (17): 14.78% (cont.)
#77 the level ice filters reach when they need to be replaced
#79 two astral bodies colliding
#94 a feeling of frustration
#115 a special room in a house for relaxation
#116 a compartment for holding birds

food (11): 9.56%
#2 a mushy, bitter, African dish with rice
#6 a food like a pita with a spicy filling
#9 a candy bar with 1000 different flavors
#12 a type of spicy food from the Pacific eaten with fingers
#26 a type of leafy, oriental vegetable
#27 a type of East Indian Food
#46 an Ice Cream topping, like syrup
#48 a sedentary person who eats just to eat
#51 to snack
#82 a giant mushroom
#109 a Caribbean fruit, peach colored, round, and the size of a cantaloupe

storage (11): 9.56%
#11 a bathroom towel hanger
#34 a gigantic, above-ground reservoir
#56 a large, plastic, box-shaped container
#60 a big, multi-purpose tub
#61 a new backpack that floats behind you
#62 a large enclosed object
#71 a closet
#83 a box to store something in
#100 a small Tupperware set
#107 like a backpack or a harness, something to be carried on your person
#116 a compartment for holding birds

plants (8): 9.56%
#17 a pink & purple plant with circular leaves
#18 a tall plant with a purple flower
#42 an exotic type of tree, thin, short with unique leaves
#80 a suspended flower pot
#86 a medium sized, seasonal tree
#89 an arrangement of leaves on a plant
#101 a yellow weed flower, like a dandelion
#106 a large, flowering bush

mountains (8): 9.56%
#24 a snow-covered, cold mountain
#55 a mountainous place, like Nepal
#63 a big rock, like a boulder
#76 a dip in the landscape
#93 large rocks, like mountains
#105 the feeling from looking at a mountain range from the sky
#112 a mineral ore that is grey or silver
#113 a layer of rock that geologists would study

an animal (7): 6.08%
#1 an insect
#13 a turtle
#15 a type of earthworm that lives in a colony that could cause problems if they are too numerous
#33 a slothful creature of the forest
#35 an animal like a wolf
#57 a small, wild animal, potentially dangerous, that some find cute
#85 a fictitious animal that is large, nocturnal, and winged

disease or medicine (7): 6.08%
#7 a liquid medicine
#10 a type of pain medicine
#22 a hypochondriac
#36 a malignant growth, like on the skin
#37 a disease like cancer
#68 a type of cough syrup
#89 medicine, like antibiotics

140
misfortune or evil (6): 5.21%
#20 craven
#25 something that is falling apart
#59 something sad or melancholy
#67 evil
#73 something to be feared
#110 a negative outcome, trouble

**Question discussion.**

Question R. showed several substantial trends. It had a non-conforming category slightly smaller than the largest defined category. It can be viewed on *Definition Groupings Data Sheet R.* in the appendix. There was one suspected case of possible English interference: Here is the category and the possible English word of interference.

**storage:** tub

Question R. had many small categories not included on this sheet. To see all of Question R.’s categories, see *Definition Groupings Data Sheet R.*

Question R. was one of two tetrasyllabic questions that were brought in to replace two other tetrasyllables which were deemed to difficult to fairly evaluate due to their strong affinity to actual English words. Great care went in to both of these words’ creation and the results speak for themselves. There was clearly less possible interference from rhyme or other resemblance to English.
Results Data Sheet

Definitions Requiring Words

Question ID: S. the wad of hair removed when cleaning a hairbrush

Below is a listing of the most frequent segments and supra-segments of this Question, the environments in which they appeared and the frequency with which they appeared in the indicated environments. In order to qualify for this data set, segments and supra-segments must have accounted for a minimum percentage of the broad total listed at the end of each section. The minimum values are as follows: consonants >9%, vowels >13%, consonant clusters >8%, whole syllables >1%. For a complete listing of the segments, supra-segments, environments and frequencies of this Question see the various Question S. data sheet sets in the appendix.

Segments

The most frequent consonants were /s/, /ʃ/, and /k/. The most frequent vowels were /ɑ/ and /ə/.

Segment Total for Stressed and Unstressed Syllables and Monosyllables according to Syllable Configuration

Monosyllable Onset (46):
\( \mu(9), 19.56\% \)
\(#s(5), 10.86\% \)
\(k(2), 4.34\% \)

Monosyllable Nucleus (26):
\( \alpha(5), 19.23\% \)

Monosyllable Coda (29):
\( k\#(3), 10.34\% \)

First Syllable Segment Stressed Onset (81):
\( \mu(8), 9.87\% \)
\(#s(6), 7.40\% \)
\(#k\#(5), 6.17\% \)
\( k(4), 4.93\% \)

First Syllable Segment Stressed Nucleus (72):
\( \alpha(14), 19.44\% \)

First Syllable Segment Stressed Coda (34):
\( k(9), 26.47\% \)
\( s(3), 8.82\% \)
\( \mu(2), 5.88\% \)

First Syllable Segment Unstressed Onset (13):
\( #s(3), 23.07\% \)

First Syllable Segment Unstressed Nucleus (16):
\( \alpha(6), 37.50\% \)

First Syllable Segment Unstressed Coda (6):
\( k(2), 33.33\% \)

Second Syllable Segment Stressed Onset (17):
\( s(3), 17.64\% \)

Second Syllable Segment Stressed Nucleus (14):
\( \alpha(3), 21.42\% \)

Second Syllable Segment Stressed Coda (6):
\( \mu(2), 33.33\% \)
Second Syllable Segment Unstressed Onset (82):
s(11), 13.41%
ɹ(7), 8.53%
k(4) 4.87%

Second Syllable Segment Unstressed Nucleus (74):
ə(16), 21.62%
ɑ(10) 13.51%

Second Syllable Segment Unstressed Coda (24):
s#(2), ɹ#(2) 8.33%

Third Syllable Segment Unstressed Onset (36):
ɹ(5), 13.88%
s(4), 11.11%
k(3) 8.33%

Third Syllable Segment Unstressed Nucleus (29):
ə#(4), ɑ(4), 13.79%
ə(3) 10.34%

Third Syllable Segment Unstressed Coda (16):
s#(3) 18.75%

Segment Total for Stressed and Unstressed Onsets and Codas

Stressed Onset (101):
ɹ(8), 7.92%
#s(6), 5.94%
#kʰ(5), 4.95%
s(4), k(4) 3.96%

Stressed Coda (40):
k(9), 22.50%
ɹ(4), 10.00%
s(3) 7.50%

Unstressed Onset (134):
s(15), 11.19%
ɹ(14), 10.44%
k(8), 5.97%
#s(3) 2.23%

Unstressed Coda (48):
s#(6), 12.5%
ɹ#(2), k(2), k#(2) 4.16%

Segment Total for Onsets and Codas

Onset (281):
ɹ(31), 11.03%
s(19), 6.76%
#s(14), k(14), 4.98%
#kʰ(6) 2.13%
Coda (117):
k(12), 10.25%
s#(7), 5.98%
k#(6), 5.12%
ɹ(5), 4.27%
ɹ#(4), 3.41%
s(3) 2.56%

Segment Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllable Segment (75):
ɹ(9), 12.00%
#s(5), 6.66%
k(3), k#(3) 4.00%

(26):
α(5) 19.23%

First Syllable Segment Stressed (115):
k(13), 11.30%
ɹ(10), 8.69%
#s(6), 5.21%
#kʰ(5), 4.34%
s(3) 2.60%

(72):
α(14), 19.44%
#α(2) 2.77%

First Syllable Segment Unstressed (19):
#s(3), k(3) 15.78%

(16):
α(6) 37.5%

Second Syllable Segment Stressed (23):
s(3), 13.04%
ɹ(2), 8.69%

(14):
α(3) 21.42%

Second Syllable Segment Unstressed (122):
s(11), 9.01%
ɹ(8), 6.55%
k(4),
s#(2), ɹ#(2) 1.63%

(58):
α(16), 27.58%
α(10) 17.24%

Third Syllable Segment Unstressed (56):
ɹ(5), 8.92%
s(4), 7.14%
s#(3), k(3) 5.35%
(25):
ə#(4), ə(4), 16.00%
ə(3) 12.00%

Segment Total by Syllable

<table>
<thead>
<tr>
<th>Syllable Segment</th>
<th>Length</th>
<th>Stressed Seg.</th>
<th>Unstressed Seg.</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Syllable Segment (134):</td>
<td>k(16)</td>
<td>11.94%</td>
<td>11.94%</td>
</tr>
<tr>
<td></td>
<td>ɹ(11)</td>
<td>8.20%</td>
<td>8.20%</td>
</tr>
<tr>
<td></td>
<td>#s(9)</td>
<td>6.71%</td>
<td>6.71%</td>
</tr>
<tr>
<td></td>
<td>#kʰ(5)</td>
<td>3.73%</td>
<td>3.73%</td>
</tr>
<tr>
<td></td>
<td>s(3)</td>
<td>2.23%</td>
<td>2.23%</td>
</tr>
<tr>
<td>(72):</td>
<td>a(14)</td>
<td>19.44%</td>
<td>19.44%</td>
</tr>
<tr>
<td></td>
<td>#a(2)</td>
<td>2.77%</td>
<td>2.77%</td>
</tr>
<tr>
<td>Second Syllable Segment (145):</td>
<td>s(14)</td>
<td>9.65%</td>
<td>9.65%</td>
</tr>
<tr>
<td></td>
<td>ɹ(10)</td>
<td>6.89%</td>
<td>6.89%</td>
</tr>
<tr>
<td></td>
<td>k(4)</td>
<td>2.75%</td>
<td>2.75%</td>
</tr>
<tr>
<td></td>
<td>ɹ#(3)</td>
<td>2.06%</td>
<td>2.06%</td>
</tr>
<tr>
<td></td>
<td>s#(2), k#(2)</td>
<td>1.37%</td>
<td>1.37%</td>
</tr>
<tr>
<td>(72):</td>
<td>a(16)</td>
<td>22.22%</td>
<td>22.22%</td>
</tr>
<tr>
<td></td>
<td>a(13)</td>
<td>18.05%</td>
<td>18.05%</td>
</tr>
<tr>
<td>Third Syllable Segment (59):</td>
<td>s(5), ɹ(5)</td>
<td>8.47%</td>
<td>8.47%</td>
</tr>
<tr>
<td></td>
<td>s#(3), k(3)</td>
<td>5.08%</td>
<td>5.08%</td>
</tr>
<tr>
<td>(27):</td>
<td>ə#(4), ə(4)</td>
<td>14.81%</td>
<td>14.81%</td>
</tr>
<tr>
<td></td>
<td>ə(3)</td>
<td>11.11%</td>
<td>11.11%</td>
</tr>
</tbody>
</table>

Segment Stressed and Unstressed Total

<table>
<thead>
<tr>
<th>Stressed Segment (140):</th>
<th>Length</th>
<th>Stressed Seg.</th>
<th>Unstressed Seg.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>k(13)</td>
<td>9.28%</td>
<td>9.28%</td>
</tr>
<tr>
<td></td>
<td>ɹ(12)</td>
<td>8.57%</td>
<td>8.57%</td>
</tr>
<tr>
<td></td>
<td>s(7)</td>
<td>5.00%</td>
<td>5.00%</td>
</tr>
<tr>
<td></td>
<td>#s(6)</td>
<td>4.28%</td>
<td>4.28%</td>
</tr>
<tr>
<td></td>
<td>#kʰ(5)</td>
<td>3.57%</td>
<td>3.57%</td>
</tr>
<tr>
<td>(88):</td>
<td>a(17)</td>
<td>19.31%</td>
<td>19.31%</td>
</tr>
<tr>
<td></td>
<td>#a(2)</td>
<td>2.27%</td>
<td>2.27%</td>
</tr>
</tbody>
</table>

Unstressed Segment (202):

<table>
<thead>
<tr>
<th>Length</th>
<th>Stressed Seg.</th>
<th>Unstressed Seg.</th>
</tr>
</thead>
<tbody>
<tr>
<td>s(15), ɹ(15)</td>
<td>7.42%</td>
<td>7.42%</td>
</tr>
<tr>
<td>k(10)</td>
<td>4.95%</td>
<td>4.95%</td>
</tr>
<tr>
<td>s#(6)</td>
<td>2.97%</td>
<td>2.97%</td>
</tr>
<tr>
<td>#s(3)</td>
<td>1.48%</td>
<td>1.48%</td>
</tr>
<tr>
<td>ɹ#(2), k#(2)</td>
<td>.99%</td>
<td>.99%</td>
</tr>
</tbody>
</table>
(103):
ə(26), 25.24%
a(15), 14.56%
ə#(4), 3.88%
a#(2) 1.94%

Segment Total (absolute)

Narrow (411):
ɾ(36), 8.75%
k(26), 6.32%
s(22), 5.35%
#s(14), 3.40%
s#(7), 1.70%
k#(6), 1.45%
#kʰ(5), 1.21%
ɾ#(3), .72%
kʰ(2) .48%

(216):
a(37), 17.12%
a(26), 12.03%
ə#(4), 1.85%
a#(2), #a(2) .92%

Broad (411):
s(43), 10.46%
ɾ(39), k(39) 9.48%

(216):
a(41), 18.98%
a(30) 13.88%

627 total segments

Supra-Segments: Consonant Clusters

The most frequent consonant clusters were /sk/ and /gl/.

Consonant Cluster Total for Stressed and Unstressed Syllables and Monosyllables according to Syllable Configuration

Monosyllable Consonant Cluster Onset (all entries are word initial) (19):
#gl(3), 15.78%
#sk(2) 10.52%

First Syllable Consonant Cluster Stressed Onset (all entries are word initial) (18):
#sk(4), 22.22%
#gl(3) 16.66%

Consonant Cluster Total for Stressed and Unstressed Onsets and Codas

Stressed Onset (24):
#sk(4), 16.66%
#gl(3) 12.50%

Consonant Cluster Total for Onsets and Codas

Onset (54):
#sk(6), #gl(6) 11.11%
Consonant Cluster Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllable Consonant Cluster (25):
#gl(3), 12.00%
#sk(2) 8.00%

First Syllable Consonant Cluster Stressed (20):
#sk(4), 20.00%
#gl(3) 15.00%

Consonant Cluster Total per Syllable

First Syllable Consonant Cluster (21):
#sk(4), 19.04%
#gl(3) 14.28%

Consonant Cluster Stressed and Unstressed Total

Consonant Cluster Stressed (27):
#sk(4), 14.81%
#gl(3) 11.11%

Consonant Cluster Total (absolute)

Narrow (68):
#sk(6), #gl(6) 8.82%

Broad (68):
sk(7), 10.29%
gl(6) 8.82%

68 total consonant clusters

Supra-Segments: Whole Syllables

The most frequent whole syllable was /bəl̩/.

Whole Syllable Total for Stressed and Unstressed Syllables and Monosyllables

Second Syllable Whole Syllable Unstressed (74):
bəl̩#(3) 4.05%

Whole Syllable Total per Syllable

Second Syllable Whole Syllable (88):
bəl̩#(3) 3.40%

Whole Syllable Stressed and Unstressed Total

Whole Syllable Unstressed (124):
bəl̩#(3) 2.41%

Whole Syllable Total (absolute)

Narrow (237):
bəl̩#(3) 1.26%

Broad (237):
bəl̩(4) 1.68%

237 total whole syllables
Supra-Segments: Whole Words

Word Length and Stress Analysis—Absolute

Table S.-A

<table>
<thead>
<tr>
<th>Word Length Total</th>
<th>Syllable</th>
<th>Receiving Stress</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>None</td>
<td>First</td>
</tr>
<tr>
<td>Monosyllabic: 26</td>
<td>None</td>
<td>0</td>
</tr>
<tr>
<td>Bisyllabic: 57</td>
<td>0</td>
<td>54</td>
</tr>
<tr>
<td>Trisyllabic: 28</td>
<td>1</td>
<td>18</td>
</tr>
<tr>
<td>Tetrasyllabic: 2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Pentasyllabic: 1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total: 114</td>
<td>1</td>
<td>72</td>
</tr>
</tbody>
</table>

Word Length and Stress Analysis—Relative

Table S.-B

<table>
<thead>
<tr>
<th>Word Length Total</th>
<th>Syllable</th>
<th>Receiving Stress</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>None</td>
<td>First</td>
</tr>
<tr>
<td>Monosyllabic: 22.80%</td>
<td>None</td>
<td>94.73%</td>
</tr>
<tr>
<td>Bisyllabic: 50.00%</td>
<td>0</td>
<td>100%</td>
</tr>
<tr>
<td>Trisyllabic: 24.56%</td>
<td>3.57%</td>
<td>100%</td>
</tr>
<tr>
<td>Tetrasyllabic: 1.75%</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Pentasyllabic: .87%</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Stressed Syllable Total:</td>
<td>82.75%</td>
<td>14.94%</td>
</tr>
</tbody>
</table>

Table Key: The “Word Length Total” column figure represents the percentage of words that is of that word length. For the cells inside the “Syllable Receiving Stress” columns, the amount on top indicates what percentage of a particular word length was stressed on that syllable. The number on the bottom indicates, for all the words that received stress on a particular syllable, what percentage of these words were of a particular word length. The “Stressed Syllable Total” row indicates what percentage of words was stressed on a particular syllable. Note that monosyllables were not analyzed as receiving stress and the “None” cell in the “Stressed Syllable Total” row is inapplicable.

Question discussion.

Question S. presented as its most frequent segments consonants /s/, /ɹ/, and /k/ and vowels /ɑ/ and /ə/. Two of the consonants, /s/ and /ɹ/, are alveolar. The remaining one, /k/, is velar. /s/ and /k/ are both voiceless. Both vowels, /ɑ/ and /ə/, are unrounded. /ə/ is intermediate and /ɑ/ is lax. The vowels occupy the mid central (/ə/) and low back (/ɑ/) positions.
All segments were absent from fourth and fifth syllables. They were most common in first stressed syllables and in second and third unstressed syllables. Stressed and unstressed totals were roughly even. Syllable configuration positions were roughly even. All segments tended to be word-medial. The monosyllables contained all the segments except /ə/. (/ə/ can never be present in a monosyllable.) /sk/ and /gl/ were the most frequent consonant clusters. /g/ is a voiced, velar plosive. /l/ is an alveolar approximant. Both clusters contain velar consonants. They were only found in monosyllables and in the first stressed syllable in the onset. /bɔkl/ was the most frequent whole syllable. /b/ is a voiced, bilabial plosive. /ɔk/ is a retroflex, lateral approximant. It was used syllabically. It was only found in the second unstressed syllable, frequently word-final. Its onset and nucleus are not among the most common segments. For all 114 whole words there were no repeated words.
Results Data Sheet

Definitions Requiring Words

Question ID: T. the grease that accumulates on top of a hot pizza

Below is a listing of the most frequent segments and supra-segments of this Question, the environments in which they appeared and the frequency with which they appeared in the indicated environments. In order to qualify for this data set, segments and supra-segments must have accounted for a minimum percentage of the broad total listed at the end of each section. The minimum values are as follows: consonants- >9%, vowels- >13%, consonant clusters- >8%, whole syllables- >1%. For a complete listing of the segments, supra-segments, environments and frequencies of this Question see the various Question T. data sheet sets in the appendix.

Segments

The most frequent consonants were /s/, /l/, and /k/. The most frequent vowels were /u/ and /a/.

Segment Total for Stressed and Unstressed Syllables and Monosyllables according to Syllable Configuration

Monosyllable Onset (54):
#s(14), l(14), 25.92%
#l(3) 5.55%

Monosyllable Nucleus (32):
α(2) 6.25%

Monosyllable Coda (40):
k#(7), 17.5%
s(2), s#(2) 5.00%

First Syllable Segment Stressed Onset (89):
#s(17), 19.10%
l(7), 7.86%
#kʰ(6), 6.74%
k(3), 3.37%
#l(2) 2.24%

First Syllable Segment Stressed Nucleus (67):
uʷ(8), α(8), 11.94%
uʷ(2) 2.98%

First Syllable Segment Stressed Coda (21):
k(3), 14.28%
s(2), 9.52%

First Syllable Segment Unstressed Onset (15):
#s(3) 20.00%

First Syllable Segment Unstressed Nucleus (13):
α(2) 15.38%

Second Syllable Segment Stressed Onset (12):
l(4) 33.33%

Second Syllable Segment Unstressed Onset (77):
l(7), 9.09%
s(6), 7.79%
k(5) 6.49%
Second Syllable Segment Unstressed Nucleus (70):
\( \text{a}(8), 11.42\% \)
\( \text{u}^* (5), 7.14\% \)
\( \text{u}^*\text{#} (4), 5.71\% \)

Second Syllable Segment Unstressed Coda (19):
\( \text{s}\#(5), 26.31\% \)
\( \text{k}\#(2), 10.52\% \)

Third Syllable Segment Stressed Nucleus (4):
\( \text{a}(3), 75.00\% \)

Third Syllable Segment Unstressed Onset (24):
\( \text{l}(3), 12.50\% \)
\( \text{s}(2), \text{k}(2), 8.33\% \)

Third Syllable Segment Unstressed Coda (13):
\( \text{s}\#(4), 30.76\% \)
\( \text{k}\#(2), 15.38\% \)

Segment Total for Stressed and Unstressed Onsets and Codas

Stressed Onset (105):
\( \text{#s}(17), 16.19\% \)
\( \text{l}(11), 10.47\% \)
\( \text{#k}'(6), 6.66\% \)
\( \text{k}(3), 5.95\% \)
\( \text{#l}(2), \text{k}'(2), 1.90\% \)

Stressed Coda (27):
\( \text{k}(4), 14.81\% \)
\( \text{s}(3), 11.11\% \)

Unstressed Onset (122):
\( \text{l}(11), 9.01\% \)
\( \text{s}(8), 6.55\% \)
\( \text{k}(7), 5.73\% \)
\( \text{#s}(3), 2.45\% \)

Unstressed Coda (32):
\( \text{s}\#(5), 15.62\% \)
\( \text{k}\#(4), 12.50\% \)
\( \text{s}(2), 6.25\% \)

Segment Total for Onsets and Codas

Onset (281):
\( \text{l}(36), 12.81\% \)
\( \text{#s}(34), 12.09\% \)
\( \text{k}(11), 3.91\% \)
\( \text{s}(9), 3.20\% \)
\( \text{#k}'(8), 2.84\% \)
\( \text{#l}(5), 1.77\% \)
\( \text{k}'(2), 0.71\% \)
Coda (99):
k#(11), 11.11%
s(7), s#(7), 7.07%
k(5), 5.05%

Segment Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllable Segment (89):
#s(14), l(14), 15.73%
k#(7), 7.86%
#l(3), 3.37%
s(2), s#(2) 2.24%

(32):
α(2) 6.25%

First Syllable Segment Stressed (110):
#s(17), 15.45%
l(7), 6.365%
k(6), #kʰ(6), 5.45%
s(2), #l(2), 1.81%

(67):
α′(8), α(8), 11.94%
α∗(2) 2.98%

First Syllable Segment Unstressed (19):
#s(3), 15.78%

(13):
α(2) 15.38%

Second Syllable Segment Stressed (16):
l(4), 25.00%
s(2) 12.50%

Second Syllable Segment Unstressed (111):
l(7), 6.30%
s(6), 5.40%
s#(5), k(5), 4.50%
k#(2) 1.80%

(55):
α(8), 14.54%
α′(5), 9.09%
α∗(4) 7.27%

Third Syllable Segment Stressed:

(4):
α(3) 75.00%

Third Syllable Segment Unstressed (38):
s#(4), 10.52%
s(3), l(3), k(3), 7.89%
k#(2) 5.26%
Segment Total by Syllable

First Syllable Segment (129):
#s(20), 15.50%
l(7), #kʰ(7), 5.42%
k(6), 4.65%
s(3), #l(3), 2.32%

(80):
ɑ(10), 12.50%
#uʷ(2), uʷ(2) 2.50%

Second Syllable Segment (127):
l(11), 8.66%
s(8), 6.29%
s #(5), k(5), 3.93%
k #(2) 1.57%

(66):
ɑ(9), 13.63%
uʷ(6), 9.09%
uʷ #(5) 7.57%

Third syllable Segment (44):
s #(4), k(4), 9.09%
s(3), l(3), 6.81%
k #(2) 4.54%

(24):
ɑ(4), 16.66%
uʷ(2) 8.33%

Segment Stressed and Unstressed Total

Stressed Segment (132):
#s(17), 12.87%
l(11), 8.33%
k(7), 5.30%
#kʰ(6), 4.54%
s(4), 3.03%
#l(2), kʰ(2) 1.51%

(82):
ɑ(12), 14.63%
#uʷ(9), 10.97%
uʷ(3) 3.65%

Unstressed Segment (172):
l(11), 6.39%
s(10), 5.81%
s #(9), 5.23%
k(8), 4.65%
k #(4), 2.32%
#s(3) 1.74%
Supra-Segments: Consonant Clusters

The most frequent consonant clusters were /sl/ and /st/.
Consonant Cluster Total for Onsets and Codas

Onset (62):
#sl(9), 14.51%
sl(4) 6.45%

Coda (11):
st#(3) 27.27%

Consonant Cluster Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllable Consonant Cluster (27):
#sl(8), 29.62%
st#(2) 7.40%

Second Syllable Consonant Cluster Unstressed (8):
st(2) 25.00

Third Syllable Consonant Cluster Unstressed (7):
st(2) 28.57%

Consonant Cluster Total per Syllable

Second Syllable Consonant Cluster (9):
s#(2) 22.22%

Third Syllable Consonant Cluster (7):
s#(2) 28.57%

Consonant Cluster Stressed and Unstressed Total

Consonant Cluster Unstressed (19):
s#(4) 21.05%

Consonant Cluster Total (absolute)

Narrow (73):
#sl(9), 12.32%
s#(4), 5.47%
st#(3) 4.10%

Broad (73):
sl(9), 12.32%
sl(8) 10.95%
73 total consonant clusters

Supra-Segments: Whole Syllables

The most frequent whole syllables were /u/ and /ɑ/.

Whole Syllable Total for Stressed and Unstressed Syllables and Monosyllables

Whole Syllable Total per Syllable

First Syllable Whole Syllable (all entries are word initial) (82):
#u"(2) 2.43%

Whole Syllable Total (absolute)

Narrow (227):
#u"(2) .88%
Broad (227):
u(3), Ɂ(3)   1.32%

227 total whole syllables

Whole syllable /Ɂ/ was never repeated in the same environment which is why it was not recorded above until the final, broad count.
To see it in all of its environments, see Question T. Segmental and Supra-Segmental Profile Data Sheet in the appendix.

**Supra-Segments: Whole Words**

Table T.-A

<table>
<thead>
<tr>
<th>Word Length Total</th>
<th>None</th>
<th>First</th>
<th>Second</th>
<th>Third</th>
<th>Fourth</th>
<th>Fifth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monosyllabic: 32</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bisyllabic: 57</td>
<td>0</td>
<td>53</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trisyllabic: 19</td>
<td>0</td>
<td>13</td>
<td>5</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tetrasyllabic: 6</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Pentasyllabic: 0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total: 114</td>
<td>0</td>
<td>67</td>
<td>11</td>
<td>4</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Table T.-B

<table>
<thead>
<tr>
<th>Word Length Total</th>
<th>None</th>
<th>First</th>
<th>Second</th>
<th>Third</th>
<th>Fourth</th>
<th>Fifth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monosyllabic: 28.07%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bisyllabic: 50.00%</td>
<td>0</td>
<td>92.98%/79.10%</td>
<td>7.01%/36.36%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trisyllabic: 16.66%</td>
<td>0</td>
<td>68.42%/19.40%</td>
<td>26.31%/45.45%</td>
<td>5.26%/25.00%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tetrasyllabic: 5.26%</td>
<td>0</td>
<td>16.66%/1.49%</td>
<td>33.33%/18.18%</td>
<td>50.00%/75.00%</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Pentasyllabic: 0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Stressed Syllable Total:</td>
<td>81.70%</td>
<td>13.41%</td>
<td>4.87%</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Table Key: The “Word Length Total” column figure represents the percentage of words that is of that word length. For the cells inside the “Syllable Receiving Stress” columns, the amount on top indicates what percentage of a particular word length was stressed on that syllable. The number on the bottom indicates, for all the words that received stress on a particular syllable, what percentage of these words were of a particular word length. The “Stressed Syllable Total” row indicates what percentage of words was stressed on a particular syllable. Note that monosyllables were not analyzed as receiving stress and the “None” cell in the “Stressed Syllable Total” row is inapplicable.

**Question discussion.**

Question T. presented as its most common segments consonants /s/, /Ɂ/, and /k/ and vowels /u/ and /ɑ/. /s/ is a voiceless alveolar fricative. /Ɂ/ is an alveolar lateral approximant. /k/ is a voiceless velar plosive. /u/ a rounded, tense, high, back vowel and /ɑ/ is an unrounded, lax,
low, back vowel. They were most common in first stressed syllables and in second and third unstressed syllables. They were also prevalent in monosyllables except for /u/, which was absent in this environment. The consonants favored the syllable onset. The monosyllables contained all the high-frequency segments except for /u/. The segments slightly favored unstressed environments over stressed environments. There was a slight tendency for /s/ and /l/ to be word-initial and for /k/ to be word-medial. The vowels were word-medial for the most part. The most frequent consonant clusters were /sl/ and /st/. /t/ is a voiceless, alveolar, plosive.

Both start with the same consonant which was among the most frequent consonants. /sl/ was only found in monosyllables while /st/ was found in second and third unstressed syllables. Both favored syllable onsets over codas. /sl/ was exclusively word-initial while /st/ was only word-medial and word-final. The most frequent whole syllables were /u/ and /lɑ/. Both syllables’ vowels were the most frequent vowels of the Question. /u/ tended to be in the first syllable, word-initial while /lɑ/ favored word-medial positions. For all 114 whole words there were no repeated words.
Results Data Sheet

Definitions Requiring Words

Question ID: U. an unexpected cool breeze on a sultry day

Below is a listing of the most frequent segments and supra-segments of this Question, the environments in which they appeared and the frequency with which they appeared in the indicated environments. In order to qualify for this data set, segments and supra-segments must have accounted for a minimum percentage of the broad total listed at the end of each section. The minimum values are as follows: consonants- >9%, vowels- >13%, consonant clusters- >8%, whole syllables- >1%. For a complete listing of the segments, supra-segments, environments and frequencies of this Question see the various Question U. data sheet sets in the appendix.

Segments

The most frequent consonants were /s/, /ʃ/, and /l/. The most frequent vowels were /i/ and /ɪ/.

<table>
<thead>
<tr>
<th>Segment Total for Stressed and Unstressed Syllables and Monosyllables according to Syllable Configuration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monosyllable Onset (42):</td>
</tr>
<tr>
<td>#s(6), l(6), 14.28%</td>
</tr>
<tr>
<td>ʃ(3) 7.14%</td>
</tr>
<tr>
<td>Monosyllable Nucleus (27):</td>
</tr>
<tr>
<td>i(6), 22.22%</td>
</tr>
<tr>
<td>ʃ(3) 11.11%</td>
</tr>
<tr>
<td>Monosyllable Coda (29):</td>
</tr>
<tr>
<td>s#(4) 13.79%</td>
</tr>
<tr>
<td>First Syllable Segment Stressed Onset (71):</td>
</tr>
<tr>
<td>#s(10), 14.08%</td>
</tr>
<tr>
<td>#l(7), 9.85%</td>
</tr>
<tr>
<td>ʃ(5), 7.04%</td>
</tr>
<tr>
<td>l(4) 5.63%</td>
</tr>
<tr>
<td>First Syllable Segment Stressed Nucleus (63):</td>
</tr>
<tr>
<td>i(9), 14.28%</td>
</tr>
<tr>
<td>ʃ(8) 12.69%</td>
</tr>
<tr>
<td>First Syllable Segment Stressed Coda (17):</td>
</tr>
<tr>
<td>s(3), 17.64%</td>
</tr>
<tr>
<td>ʃ(2) 11.76%</td>
</tr>
<tr>
<td>First Syllable Segment Unstressed Onset (25):</td>
</tr>
<tr>
<td>l(2) 8.00%</td>
</tr>
<tr>
<td>Second Syllable Segment Stressed Onset (20):</td>
</tr>
<tr>
<td>l(4) 20.00%</td>
</tr>
<tr>
<td>Second Syllable Segment Stressed Nucleus (20):</td>
</tr>
<tr>
<td>ʃ(2), i(2) 10.00%</td>
</tr>
<tr>
<td>Second Syllable Segment Unstressed Onset (69):</td>
</tr>
<tr>
<td>ʃ(6), l(6), 8.69%</td>
</tr>
<tr>
<td>s(3) 4.34%</td>
</tr>
</tbody>
</table>
Second Syllable Segment Unstressed Nucleus (67):
\(i^\#(8), i(8), 11.94\%\)
\(i^r(5)\) 7.46%

Second Syllable Segment Unstressed Coda (17):
\(\#r(2)\) 11.76%

Third Syllable Segment Unstressed Onset (31):
\(i(8), 25.80\%\)
\(s(3), l(3)\) 9.67%

Third Syllable Segment Unstressed Nucleus (28):
\(i^r(4), i^\#(4), i(4)\) 14.28%

Third Syllable Segment Unstressed Coda (12):
\(\#r(2)\) 16.66%

Fourth Syllable Segment Unstressed Coda (4):
\(s\#(2)\) 50.00%

Segment Total for Stressed and Unstressed Onsets and Codas

**Stressed Onset (93):**
\(#s(10), 10.75\%\)
\(l(9), 9.67\%\)
\(#l(7), 7.52\%\)
\(i(5)\) 5.37%

**Stressed Coda (27):**
\(s(4), 14.81\%\)
\(i(3), l(3), 11.11\%\)
\(s\#(2)\) 7.40%

Unstressed Onset (133):
\(i(15), 11.27\%\)
\(l(11), 8.27\%\)

Unstressed Coda (37):
\(\#r(4), 10.81\%\)
\(s\#(3), 8.10\%\)
\(i(2)\) 5.40%

Segment Total for Onsets and Codas

Onset (267):
\(l(26), 9.73\%\)
\(i(23), 8.61\%\)
\(#s(16), 5.99\%\)
\(#l(8), 2.99\%\)
\(s(6), 2.24\%\)
\(#i(3)\) 1.12%

Coda (93):
\(s\#(9), 9.67\%\)
\(s(5), i(5), 5.37\%\)
\(\#r(4)\) 4.30%
Segment Total for Stressed and Unstressed Syllables and Monosyllables

<table>
<thead>
<tr>
<th>Segment Type</th>
<th>Total (n)</th>
<th>Stressed Syllables</th>
<th>Unstressed Syllables</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Monosyllable Segment (71):</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>#s(6), l(6)</td>
<td></td>
<td>8.45%</td>
<td></td>
</tr>
<tr>
<td>s#(4),</td>
<td></td>
<td>5.63%</td>
<td></td>
</tr>
<tr>
<td>μ(3)</td>
<td></td>
<td>4.22%</td>
<td></td>
</tr>
<tr>
<td>(27):</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>η(6)</td>
<td></td>
<td>22.22%</td>
<td></td>
</tr>
<tr>
<td>l(3)</td>
<td></td>
<td>11.11%</td>
<td></td>
</tr>
<tr>
<td><strong>First Syllable Segment Stressed (88):</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>#s(10),</td>
<td></td>
<td>11.36%</td>
<td></td>
</tr>
<tr>
<td>μ(7), #l(7),</td>
<td></td>
<td>7.95%</td>
<td></td>
</tr>
<tr>
<td>l(4)</td>
<td></td>
<td>4.54%</td>
<td></td>
</tr>
<tr>
<td>s(3)</td>
<td></td>
<td>3.40%</td>
<td></td>
</tr>
<tr>
<td>(63):</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>η(9),</td>
<td></td>
<td>14.28%</td>
<td></td>
</tr>
<tr>
<td>l(8)</td>
<td></td>
<td>12.69%</td>
<td></td>
</tr>
<tr>
<td><strong>First Syllable Segment Unstressed (29):</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>μ(2), l(2)</td>
<td></td>
<td>6.89%</td>
<td></td>
</tr>
<tr>
<td><strong>Second Syllable Segment Stressed (28):</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>l(4)</td>
<td></td>
<td>14.28%</td>
<td></td>
</tr>
<tr>
<td>(20):</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>l(2), η(2)</td>
<td></td>
<td>10.00%</td>
<td></td>
</tr>
<tr>
<td><strong>Second Syllable Segment Unstressed (99):</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>μ(6), l(6)</td>
<td></td>
<td>6.06%</td>
<td></td>
</tr>
<tr>
<td>s(4)</td>
<td></td>
<td>4.04%</td>
<td></td>
</tr>
<tr>
<td>μ#(2)</td>
<td></td>
<td>2.02%</td>
<td></td>
</tr>
<tr>
<td>(54):</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>μ#(8), η(8)</td>
<td></td>
<td>14.81%</td>
<td></td>
</tr>
<tr>
<td>l(5)</td>
<td></td>
<td>9.25%</td>
<td></td>
</tr>
<tr>
<td><strong>Third Syllable Segment Unstressed (43):</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>μ(9),</td>
<td></td>
<td>20.93%</td>
<td></td>
</tr>
<tr>
<td>s(3), l(3)</td>
<td></td>
<td>6.97%</td>
<td></td>
</tr>
<tr>
<td>μ#(2)</td>
<td></td>
<td>4.65%</td>
<td></td>
</tr>
<tr>
<td>(28):</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>μ(4), μ#(4), η(4)</td>
<td></td>
<td>14.28%</td>
<td></td>
</tr>
<tr>
<td><strong>Fourth Syllable Segment Unstressed (9):</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>s#(2)</td>
<td></td>
<td>22.22%</td>
<td></td>
</tr>
</tbody>
</table>
Segment Total by Syllable

First Syllable Segment (117):
#s(10), 8.54%
#l(9), 7.69%
#l(8), 6.83%
l(6), 5.12%
s(3), 2.56%
#u(2), 1.70%

(87):
#l(9), #l(9), 10.34%
#u(2), 2.29%

Second Syllable Segment (127):
l(10), 7.87%
#l(7), 5.51%
s(4), 3.14%
l#(2), 1.57%

(74):
#l(10), 13.51%
#l#(8), 10.81%
#l(7), 9.45%

Third Syllable Segment (47):
l(9), 19.14%
s(4), l(4), 8.51%
s#(2), l#(2), 4.25%

(32):
#l#(5), #l(5), 15.62%
#l(4), 12.50%

Fourth Syllable Segment (9):
s#(2), 22.22%

Segment Stressed and Unstressed Total

Stressed Segment (120):
#s(10), 8.33%
l(9), 7.50%
l(8), 6.66%
#l(7), 5.83%
s(4), 3.33%
s#(2), 1.66%

(87):
l(12), 13.79%
l#(10), 11.49%

Unstressed Segment (184):
l(17), 9.23%
l(11), 5.97%
l(7), 3.80%
l#(4), 2.17%
s#(3), 1.63%
Supra-Segments: Consonant Clusters

The most frequent consonant clusters were /fl/ and /sw/.

Consonant Cluster Total for Stressed and Unstressed Syllables and Monosyllables according to Syllable Configuration

Monosyllable Consonant Cluster Onset (all entries are word initial) (16):
/fl(3), /sw(3) 18.75%

Consonant Cluster Total for Onsets and Codas

Onset (39):
/fl(4), /sw(4) 10.25%

Consonant Cluster Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllable Consonant Cluster (20):
/fl(3), /sw(3) 15.00%

Consonant Cluster Total (absolute)

Narrow (48):
/fl(4), /sw(4) 8.33%

Broad (48):
/fl(4), /sw(4) 8.33%
48 total consonant clusters

**Supra-Segments: Whole Syllables**

The most frequent whole syllable was /kə/.

**Whole Syllable Total for Stressed and Unstressed Syllables and Monosyllables**

First Syllable Whole Syllable Unstressed (all entries are word initial) (25):

#kə(4) 16.00%

**Whole Syllable Total per Syllable**

First Syllable Whole Syllable (all entries are word initial) (87):

#kə(4) 4.59%

**Whole Syllable Stressed and Unstressed Total**

Whole Syllable Unstressed (127):

#kə(4) 3.14%

**Whole Syllable Total (absolute)**

Narrow (241):

#kə(4) 1.65%

Broad (241):

kə(5) 2.07%

241 total whole syllables

**Supra-Segments: Whole Words**

<table>
<thead>
<tr>
<th>Word Length Total</th>
<th>Syllable</th>
<th>Receiving</th>
<th>Stress</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monosyllabic: 27</td>
<td>None</td>
<td>First</td>
<td>Second</td>
</tr>
<tr>
<td>Bisyllabic: 55</td>
<td>0</td>
<td>50</td>
<td>5</td>
</tr>
<tr>
<td>Trisyllabic: 26</td>
<td>0</td>
<td>11</td>
<td>12</td>
</tr>
<tr>
<td>Tetrasyllabic: 4</td>
<td>0</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Pentasyllabic: 2</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>
Table U.-B

<table>
<thead>
<tr>
<th>Word Length Total</th>
<th>Syllable</th>
<th>Receiving</th>
<th>Stress</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>None</td>
<td>First</td>
<td>Second</td>
<td>Third</td>
</tr>
<tr>
<td>Monosyllabic: 23.68%</td>
<td>0</td>
<td>90.90%/ 80.64%</td>
<td>9.09%/ 23.80%</td>
<td>0</td>
</tr>
<tr>
<td>Bisyllabic: 48.24%</td>
<td>0</td>
<td>42.30%/ 17.74%</td>
<td>46.15%/ 57.14%</td>
<td>11.53%</td>
</tr>
<tr>
<td>Trisyllabic: 22.80%</td>
<td>0</td>
<td>25.00%/ 1.61%</td>
<td>75.00%/ 14.28%</td>
<td>0</td>
</tr>
<tr>
<td>Tetrasyllabic: 3.50%</td>
<td>0</td>
<td>0</td>
<td>50.00%/ 4.76%</td>
<td>50.00%</td>
</tr>
<tr>
<td>Pentasyllabic: 1.75%</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Stressed Syllable Total:</td>
<td>71.26%</td>
<td>24.13%</td>
<td>4.59%</td>
<td>0</td>
</tr>
</tbody>
</table>

Table Key: The “Word Length Total” column figure represents the percentage of words that is of that word length. For the cells inside the “Syllable Receiving Stress” columns, the amount on top indicates what percentage of a particular word length was stressed on that syllable. The number on the bottom indicates, for all the words that received stress on a particular syllable, what percentage of these words were of a particular word length. The “Stressed Syllable Total” row indicates what percentage of words was stressed on a particular syllable. Note that monosyllables were not analyzed as receiving stress and the “None” cell in the “Stressed Syllable Total” row is inapplicable.

Question discussion.

The most frequent segments presented in Question U. were consonants /s/, /l/, and /l/ and vowels /i/ and /ɪ/. /s/ is a voiceless alveolar fricative, /l/ is an alveolar approximant and /l/ is an alveolar lateral approximant. /i/ is an unrounded, tense, high, front vowel and /ɪ/ is an unrounded, lax, high, front vowel. They were most common in first stressed syllables and second and third unstressed syllables. The fourth unstressed syllable showed only a coda. The segments favored unstressed syllables over stressed syllables. Syllable onsets were favored over codas. All segments were present at times in the monosyllables. /s/ and /l/ favored word-initial environments while /l/ favored word-medial. The vowels favored word-medial positions. The most frequent consonant clusters were /fl/ and /sw/. /f/ is a voiceless, labiodental fricative. /w/ is a labial-velar approximant. /l/ and /s/ were among the most frequent segments. Both were exclusively found in monosyllable onsets, word-initial. The most frequent whole syllable was

164
/kə/. /k/ is a voiceless, velar plosive. /ə/ is a unrounded, intermediate, mid, central vowel. It was almost exclusively found in the first, unstressed syllable, word-initial. For all 114 whole words there were no repeated words.
Definitions Requiring Words

**Question ID:** V. the feeling experienced by a death-row inmate after being pardoned or exonerated

Below is a listing of the most frequent segments and supra-segments of this Question, the environments in which they appeared and the frequency with which they appeared in the indicated environments. In order to qualify for this data set, segments and supra-segments must have accounted for a minimum percentage of the broad total listed at the end of each section. The minimum values are as follows: consonants- >9%, vowels- >13%, consonant clusters- >8%, whole syllables- >1%. For a complete listing of the segments, supra-segments, environments and frequencies of this Question see the various Question V. data sheet sets in the appendix.

**Segments**

The most frequent consonants were /n/ and /s/. The most frequent vowels were /ɪ/ and /ɑ/.

<table>
<thead>
<tr>
<th>Segment Total for Stressed and Unstressed Syllables and Monosyllables according to Syllable Configuration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monosyllable Nucleus (17):</td>
</tr>
<tr>
<td>ɪ(2) 11.76%</td>
</tr>
<tr>
<td>Monosyllable Coda (25):</td>
</tr>
<tr>
<td>5#(2) 8.00%</td>
</tr>
<tr>
<td>First Syllable Segment Stressed Onset (68):</td>
</tr>
<tr>
<td>#5(3), 4.41%</td>
</tr>
<tr>
<td>#n(2) 2.94%</td>
</tr>
<tr>
<td>First Syllable Segment Stressed Nucleus (63):</td>
</tr>
<tr>
<td>ɪ(14), 22.22%</td>
</tr>
<tr>
<td>α(10), 15.87%</td>
</tr>
<tr>
<td>#α(7) 11.11%</td>
</tr>
<tr>
<td>First Syllable Segment Stressed Coda (25):</td>
</tr>
<tr>
<td>n(8), 32.00%</td>
</tr>
<tr>
<td>s(2) 8.00%</td>
</tr>
<tr>
<td>First Syllable Segment Unstressed Nucleus (34):</td>
</tr>
<tr>
<td>ɪ(3), 8.82%</td>
</tr>
<tr>
<td>#α(2) 5.88%</td>
</tr>
<tr>
<td>First Syllable Segment Unstressed Coda (12):</td>
</tr>
<tr>
<td>s(2) 16.66%</td>
</tr>
<tr>
<td>Second Syllable Segment Stressed Onset (38):</td>
</tr>
<tr>
<td>s(6), 15.78%</td>
</tr>
<tr>
<td>n(3) 7.89%</td>
</tr>
<tr>
<td>Second Syllable Segment Stressed Nucleus (28):</td>
</tr>
<tr>
<td>ɪ(3) 10.71%</td>
</tr>
<tr>
<td>Second Syllable Segment Stressed Coda (18):</td>
</tr>
<tr>
<td>n#(2), n(2) 11.11%</td>
</tr>
</tbody>
</table>
Second Syllable Segment Unstressed Onset (77):
s(13), 16.88%
n(5) 6.49%

Second Syllable Segment Unstressed Nucleus (69):
ɪ(9), 13.04%
*ɒ(#(5), 7.24%
*ɒ(4), 5.79%
ɑ(#(2) 2.89%

Second Syllable Segment Unstressed Coda (22):
s#(4), 18.18%
n#(3), 13.63%
n(2) 9.09%

Third Syllable Segment Unstressed Onset (41):
n(3) 7.31%

Third Syllable Segment Unstressed Nucleus (40):
ɪ(8), 20.00%
*ɒ(#(4) 10.00%

Third Syllable Segment Unstressed Coda (18):
s#(4) 22.22%

Fourth Syllable Segment Unstressed Coda (7):
s#(3) 42.85%

Fifth Syllable Segment Unstressed Nucleus (2):
*ɒ(#(2) 100%

Segment Total for Stressed and Unstressed Onsets and Codas

<table>
<thead>
<tr>
<th>Stressed Onset (114):</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>s(6) 5.26%</td>
<td>n(5) 4.38%</td>
</tr>
<tr>
<td>s#(3) 2.63%</td>
<td>n#(2) 1.75%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Stressed Coda (45):</th>
</tr>
</thead>
<tbody>
<tr>
<td>n(10) 22.22%</td>
</tr>
<tr>
<td>n#(2), s(2) 4.44%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Unstressed Onset (155):</th>
</tr>
</thead>
<tbody>
<tr>
<td>s(17) 10.96%</td>
</tr>
<tr>
<td>n(8) 5.16%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Unstressed Coda (59):</th>
</tr>
</thead>
<tbody>
<tr>
<td>s#(11) 18.64%</td>
</tr>
<tr>
<td>n#(5) 8.47%</td>
</tr>
<tr>
<td>n(3) 5.08%</td>
</tr>
<tr>
<td>n(2), s(2) 3.38%</td>
</tr>
</tbody>
</table>
### Segment Total for Onsets and Codas

Onset (287):
- s (23), 8.01%
- n (13), 4.52%
- #s (4), 1.39%
- #n (2), 0.69%

Coda (129):
- s# (14), 10.85%
- n (12), 9.30%
- n# (7), 5.42%
- s (4), 3.10%

### Segment Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllable Segment (43):
- s# (2), 4.65%

First Syllable Segment Stressed (93):
- n (8), 8.60%
- #s (3), 3.22%
- #n (2), s (2), 2.15%

Second Syllable Segment Stressed (56):
- s (6), 10.71%
- n (5), 8.92%

First Syllable Segment Unstressed (38):
- s (2), 5.26%

Second Syllable Segment Unstressed (113):
- s (13), 11.95%
- n (7), 6.19%
- *η# (5), 4.42%
- *η (4), s# (4), 3.53%
- n# (3), 2.65%

### Segment Total for Stressed and Unstressed Syllables and Monosyllables
Third Syllable Segment Unstressed (66):
\( n(4), *\eta(#4), s(4), *\eta(#4) 6.06\% \)

(33):
\( \iota(8) 24.24\% \)

Fourth Syllable Segment Unstressed (16):
\( *\eta(#3) 18.75\% \)

Fifth Syllable Segment Unstressed (4):
\( *\eta(#2) 50.00\% \)

Segment Total by Syllable

First Syllable Segment (131):
\( n(9), 6.87\%
#s(4), s(4), 3.05\%
#n(2) 1.52\% \)

(97):
\( \iota(17), 17.52\%
\alpha(11), 11.34\%
#\alpha(9) 9.27\% \)

Second Syllable Segment (169):
\( s(19), 11.24\%
\eta(12), 7.10\%
\eta(#5), *\eta(#5), *\eta(#5), 2.95\%
*\eta(4) 2.36\% \)

(83):
\( \iota(12), 14.45\%
\alpha(5), 6.02\%
\alpha(#2) 2.40\% \)

Third Syllable Segment (75):
\( n(5), 6.66\%
*\eta(#4), s(4), *\eta(#4) 5.33\% \)

(39):
\( \iota(8), 20.51\%
\alpha(2) 5.12\% \)

Fourth Syllable Segment (19):
\( *\eta(#3), 15.78\%
\eta(2) 10.52\% \)

Fifth Syllable Segment (4):
\( *\eta(#2) 50.00\% \)

Segment Stressed and Unstressed Total

Stressed Segment (158):
\( n(15), 9.49\%
s(8), 5.06\%
#s(3), 1.89\%
#n(2), n(#2) 1.26\% \)
(99):
ɪ(17), 17.17%
a(11), 11.11%
#a(7) 7.07%

Unstressed Segment (238):
s(19), 7.98%
n(13), 5.46%
*η#(12), 5.04%
s#(11), 4.62%
n#(5), *η(5) 2.10%

(130):
ɪ(21), 16.15%
a(7), 5.38%
a#(4), 3.07%
#a(2) 1.53%

Segment Total (absolute)

Narrow (439);
n(28), 6.37%
s(27), 6.15%
s#(14), 3.18%
*η#(12), 2.73%
n#(7), 1.59%
*η(5), 1.13%
#s(4), .91%
#n(2) .45%

(246):
ɪ(40), 16.26%
a(19), 7.72%
#a(9), 3.65%
a#(4) 1.62%

Broad (439):
n(54), 12.30%
s(45) 10.25%

(246):
ɪ(42), 17.07%
a(34) 13.82%

685 total segments

Supra-Segments: Consonant Clusters

The most frequent consonant clusters were /st/, /gʃ/, and /fl/.

Consonant Cluster Total for Stressed and Unstressed Syllables and Monosyllables according to Syllable Configuration

Monosyllable Consonant Cluster Onset (all entries are word initial) (3):
#gʃ(3) 100%

First Syllable Consonant Cluster Stressed Onset (all entries are word initial) (13):
#gʃ(2) 15.38%
Second Syllable Consonant Cluster Stressed Onset (9):
\(\text{st}(2)\) 22.22%

Second Syllable Consonant Cluster Unstressed Onset (7):
\(\text{st}(2)\) 28.57%

Third Syllable Consonant Cluster Unstressed Onset (4):
\(\text{st}(3)\) 75.00%

Consonant Cluster Total for Stressed and Unstressed Onsets and Codas

Stressed Onset (24):
\(\text{fl}(2), \text{st}(2), \text{#g\#}(2)\) 8.33%

Unstressed Onset (15):
\(\text{st}(5)\) 33.33%

Consonant Cluster Total for Onsets and Codas

Onset (42):
\(\text{st}(7), 16.66\%
\text{#g\#}(5), 11.90\%
\text{fl}(3), 7.14\%
\text{#fl}(2) 4.76\%

Consonant Cluster Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllable Consonant Cluster (12):
\(\text{#g\#}(3)\) 25.00%

First Syllable Consonant Cluster Stressed (13):
\(\text{#g\#}(2)\) 15.38%

Second Syllable Consonant Cluster Stressed (10):
\(\text{st}(2)\) 20.00%

Second Syllable Consonant Cluster Unstressed (10):
\(\text{st}(2)\) 20.00%

Third Syllable Consonant Cluster Unstressed (7):
\(\text{st}(3)\) 42.85%

Consonant Cluster Total per Syllable

First Syllable Consonant Cluster (18):
\(\text{#fl}(2), \text{#g\#}(2)\) 11.11%

Second Syllable Consonant Cluster (20):
\(\text{fl}(2), \text{st}(2)\) 10.00%

Third Syllable Consonant Cluster (9):
\(\text{st}(3)\) 33.33%

Consonant Cluster Stressed and Unstressed Total

Consonant Cluster Stressed (25):
\(\text{fl}(2), \text{st}(2), \text{#g\#}(2)\) 8.00%

Consonant Cluster Unstressed (23):
\(\text{st}(5)\) 21.73%
Consonant Cluster Total (absolute)

Narrow (60):
- st(7), 11.66%
- #g(5), 8.33%
- fl(3), 5.00%
- #fl(2) 3.33%

Broad (60):
- st(7), 11.66%
- gu(6), 10.00%
- fl(5) 8.33%

60 total consonant clusters

Supra-Segments: Whole Syllables

The most frequent whole syllable was /ɪɨ/.

Whole Syllable Total for Stressed and Unstressed Syllables and Monosyllables

First Syllable Whole Syllable (all entries are word initial) (36):
- #ɪɨ(2) 5.55%

Whole Syllable Total per Syllable

First Syllable Whole Syllable (all entries are word initial) (97):
- #ɪɨ(3) 3.09%

Whole Syllable Stressed and Unstressed Total

Whole Syllable Unstressed (157):
- #ɪɨ(2), #ɪɨ#(2) 1.27%

Whole Syllable Total (absolute)

Narrow (270):
- #ɪɨ(3) 1.11%
- #ɪɨ#(2) .74%

Broad (270):
- #ɪɨ(5) 1.85%

270 total whole syllables

Supra-Segments: Whole Words

Table V.-A

<table>
<thead>
<tr>
<th>Word Length Total</th>
<th>Syllable Receiving Stress</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>None</td>
</tr>
<tr>
<td>Monosyllabic:</td>
<td>17</td>
</tr>
<tr>
<td>Bisyllabic:</td>
<td>52</td>
</tr>
<tr>
<td>Trisyllabic:</td>
<td>33</td>
</tr>
<tr>
<td>Tetrasyllabic:</td>
<td>10</td>
</tr>
<tr>
<td>Pentasyllabic:</td>
<td>2</td>
</tr>
<tr>
<td>Total: 114</td>
<td>0</td>
</tr>
</tbody>
</table>
Table V.-B

<table>
<thead>
<tr>
<th>Word Length Total</th>
<th>None</th>
<th>First</th>
<th>Second</th>
<th>Third</th>
<th>Fourth</th>
<th>Fifth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monosyllabic: 14.91%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bisyllabic: 45.61%</td>
<td>80.76%/68.85%</td>
<td>19.23%/35.71%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trisyllabic: 28.94%</td>
<td>54.54%/29.50%</td>
<td>39.39%/46.42%</td>
<td>6.06%/33.33%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tetrasyllabic: 6.94%</td>
<td>10.00%/1.63%</td>
<td>50.00%/17.85%</td>
<td>40.00%/66.66%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pentasyllabic: 1.75%</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>100%/100%</td>
<td>0</td>
</tr>
<tr>
<td>Stressed Syllable Total:</td>
<td>62.88%</td>
<td>28.86%</td>
<td>6.18%</td>
<td>2.06%</td>
<td>100%</td>
<td>0</td>
</tr>
</tbody>
</table>

Table Key: The “Word Length Total” column figure represents the percentage of words that is of that word length. For the cells inside the “Syllable Receiving Stress” columns, the amount on top indicates what percentage of a particular word length was stressed on that syllable. The number on the bottom indicates, for all the words that received stress on a particular syllable, what percentage of these words were of a particular word length. The “Stressed Syllable Total” row indicates what percentage of words was stressed on a particular syllable. Note that monosyllables were not analyzed as receiving stress and the “None” cell in the “Stressed Syllable Total” row is inapplicable.

**Question discussion.**

For Question V. the most frequent segments were consonants /n/ and /s/ and vowels /ɪ/ and /ɑ/. /n/ is an alveolar nasal and /s/ is a voiceless, alveolar fricative. /ɪ/ is an unrounded, lax, high, front vowel and /ɑ/ is an unrounded, lax, low, back vowel. The segments were predominant in the first stressed and second unstressed syllables. They were infrequent in monosyllables, first unstressed, second stressed, and third, fourth and fifth unstressed syllables. The segments favored unstressed environments over stressed environments. Both segments were evenly distributed between onsets and codas with /n/ appearing syllabically in second, third and fifth unstressed syllable nuclei. The monosyllables were lacking /n/ and /ɑ/. Both consonants favored word-medial positions overall. /s/ had more word-initial examples than word-final examples and /n/ was the opposite. The vowels favored word-medial positions. The most frequent consonant clusters were /st/, /ɡʃ/, and /fl/. /t/ is a voiceless, alveolar plosive. /ɡ/ is a
voiced, velar plosive. /ɹ/ is an alveolar approximant. /f/ is a voiceless, labiodental fricative. /l/ is an alveolar, lateral approximant. /ɹʃ/ occurs almost exclusively word initially, split evenly between monosyllables and first stressed syllables. /st/ occurs in second syllables stressed and unstressed and third syllables unstressed, word medial. /fl/ occurs in first and second stressed syllables, word-initial and word-medial. The most frequent whole syllable was /ɹɪ/. /i/ is an unrounded, tense, high, front vowel. /ɹi/ occurs exclusively in first unstressed syllables, both word-initial and word-final. For all 114 whole words there were no repeated words.
Results Data Sheet

Definitions Requiring Words

Question ID: W. a feeling of extreme disappointment

Below is a listing of the most frequent segments and supra-segments of this Question, the environments in which they appeared and the frequency with which they appeared in the indicated environments. In order to qualify for this data set, segments and supra-segments must have accounted for a minimum percentage of the broad total listed at the end of each section. The minimum values are as follows: consonants- >9%, vowels- >13%, consonant clusters- >8%, whole syllables- >1%. For a complete listing of the segments, supra-segments, environments and frequencies of this Question see the various Question W. data sheet sets in the appendix.

Segments

The most frequent consonants were /n/, /s/, /ɹ/ and /d/. The most frequent vowels were /ɑ/ and /ɪ/. The Segment Total for Stressed and Unstressed Syllables and Monosyllables according to Syllabic Configuration:

Monosyllable Onset (29):
μ(4) 13.79%

Monosyllable Nucleus (20):
a(3), 15.00%
#a(2) 10.00%

Monosyllable Coda (31):
d#(4), 12.90%
μ(3), 9.67%
n(2) 6.45%

First Syllable Segment Stressed Onset (70):
#d(10), 14.28%
#s(9), 12.85%
μ(5), 7.14%
#μ(3) 4.28%

First Syllable Segment Stressed Nucleus (63):
a(10), 15.87%
ɪ(7) 11.11%

First Syllable Segment Stressed Coda (26):
n(4), μ(4) 15.38%

First Syllable Segment Unstressed Onset (17):
#d(3), 17.64%
#s(2) 11.76%

First Syllable Segment Unstressed Nucleus (25):
#a(3), 12.00%
μ(2) 8.00

First Syllable Segment Unstressed Coda (3):
η(2) 66.66%

Second Syllable Segment Stressed Onset (22):
μ(5), 22.72%
d(2), s(2) 9.09%

Second Syllable Segment Stressed Nucleus (20):
a(2) 10.00%
Second Syllable Segment Stressed Coda (12):
d#(3), 25.00%
n(2) 16.66%

Second Syllable Segment Unstressed Onset (72):
 n(9), 12.50%
s(6), 8.33%
d(5), t(5) 6.94%

Second Syllable Segment Unstressed Nucleus (68):
 i(13), 19.11%
a(7), 10.29%
*η(3), 4.41%
*η#(2) 2.94%

Second Syllable Segment Unstressed Coda (34):
s#(7), 20.58%
n#(5), 14.70%
d#(2), s(2) 5.88%

Third Syllable Segment Unstressed Onset (28):
 t(4), 14.28%
 n(3), s(3) 10.71%

Third Syllable Segment Unstressed Nucleus (25):
 a(4) 16.00%

Fourth Syllable Segment Unstressed Nucleus (10):
 t(3) 30.00%

Fourth Syllable Segment Unstressed Coda (3):
n#(2) 66.66%

Segment Total for Stressed and Unstressed Onsets and Codas

Stressed Onset (97):
 #d(10), t(10), 10.30%
 #s(9), 9.27%
s(3), t(3), 3.09%
d(2) 2.06%

Stressed Coda (38):
 n(6), 15.78%
t(4), 10.52%
s#(3), 7.89%
s(2) 5.26%

Unstressed Onset (128):
 n(13), 10.15%
t(10), 7.81%
s(9), 7.03%
#s(2) 1.56%
Unstressed Coda (46):
- n#(10), 21.73%
- s#(8), 17.39%
- d#(3), n(3), s(3) 6.52%

Segment Total for Onsets and Codas

Onset (254):
- ɹ(24), 9.44%
- #d(14), 5.51%
- n(13), 5.11%
- #s(12), s(12), 4.72%
- d(8), 3.14%
- #u(4), 1.57%
- #n(2) .78%

Coda (115):
- n#(12), 10.43%
- n(11), 9.56%
- d#(10), 8.69%
- s#(9), 7.82%
- u(7), 6.085%
- s(5), 4.34%
- ɹ#(2) 1.73%

Segment Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllable Segment (60):
- ɹ(7), 11.66%
- d#(4), 6.66%
- n(2) 3.33%

(20):
- a(3), 15.00%
- #a(2) 10.00%

First Syllable Segment Stressed (96):
- #d(10), 10.41%
- #s(9), u(9), 9.37%
- n(4), 4.16%
- #u(3) 3.12%

(63):
- a(10), 15.87%
- u(7) 11.11%

First Syllable Segment Unstressed (20):
- #d(3), 15.00%
- n(2), #s(2) 10.00%

(25):
- #a(3), 12.00%
- u(2) 8.00%
Second Syllable Segment Stressed (34):
μ(5), 14.70%
d#(3), s(3), 8.82%
d(2), n(2) 5.88%

(20):
a(2) 10.00%

Second Syllable Segment Unstressed (118):
n(10), 8.47%
s(8), 6.77%
s#(7), 5.93%
d(5), n#(5), μ(5), 4.23%
*η(3), 2.54%
d#(2), *η#(2) 1.69%

(56):
μ(13), 23.21%
a(7) 12.50%

Third Syllable Segment Unstressed (34):
#μ(4), 11.76%
n(3), s(3) 8.82%

(23):
a(4) 17.39%

Fourth Syllable Segment Unstressed (13):
n#(2) 15.38%

(9):
μ(3) 33.33%

Segment Total by Syllable

First Syllable Segment (116):
#dμ(13), 11.20%
#sμ(11), 9.48%
μ(9), 7.75%
n(6), 5.17%
#μ(3), 2.58%
s(2) 1.72%

(88):
a(10), 11.36%
μ(9), 10.22%
#μ(3) 3.40%

Second Syllable Segment (152):
n(12), 7.89%
s(11), 7.23%
μ(10), 6.57%
s#(7), 4.60%
n#(6), 3.94%
d#(5), 3.28%
*η(3), 1.97%
*η#(2), #η(2) 1.31%
Third syllable Segment (38):
s(4), #ɻ(4), 10.52%
n(3) 7.89%

Fourth Syllable Segment (13):
#n(2) 15.38%

Unstressed Segment (189):
n(16), 8.46%
s(12), 6.34%
n#(10), 5.29%
s#(8), 4.23%
d(6), #d(6), 3.17%
#s(4), 2.11%
#d(3), #ɻ(3), *η(3), *η#(3), 1.58%
#s(2) 1.05%

Segment Stressed and Unstressed Total

Stressed Segment (135):
ɻ(14), 10.37%
#d(10), 7.40%
#s(9), 6.66%
n(6), 4.44%
s(5), 3.70%
d#(3), #d(3), #ɻ(3) 2.22%

Unstressed Segment (189):
n(16), 8.46%
s(12), 6.34%
n#(10), 5.29%
s#(8), 4.23%
d(6), #d(6), 3.17%
#s(4), 2.11%
#d(3), #ɻ(3), *η(3), *η#(3), 1.58%
#s(2) 1.05%
Segment Total (absolute)

Narrow (384):
\( \mu(27), 7.03\% \)
\( n(24), 6.25\% \)
\( s(17), 4.42\% \)
\( #d(14), 3.64\% \)
\( n#(12), #s(12), 3.12\% \)
\( t(10), d#(10), 2.60\% \)
\( d(9), s#(9), 2.34\% \)
\( #t(8), 2.08\% \)
\( *\eta(3), *\eta#(3), .78\% \)
\( #n(2), #t(2) .52\% \)

(222):
\( \tau(29), 13.06\% \)
\( a(26), 11.71\% \)
\( #a(5) 2.25\% \)

Broad (384):
\( n(44), 11.45\% \)
\( s(38), 9.89\% \)
\( \mu(37), 9.63\% \)
\( d(35) 9.11\% \)

(222):
\( a(32), 14.41\% \)
\( \tau(29) 13.06\% \)

606 total segments

Supra-Segments: Consonant Clusters

The most frequent consonant clusters were /st/, /\( \mu \)/, and /k\( \mu \)/.

Consonant Cluster Total for Stressed and Unstressed Syllables and Monosyllables according to Syllable Configuration

Monosyllable Consonant Cluster Onset (all entries are word initial) (8):
\( #\mu(2) 25.00\% \)

Second Syllable Consonant Cluster Unstressed Coda (8):
\( st#(2) 25.00\% \)

Third Syllable Consonant Cluster Unstressed Onset (4):
\( st(2) 50.00\% \)

Consonant Cluster Total for Stressed and Unstressed Onsets and Codas

Unstressed Onset (11):
\( st(3) 27.27\% \)

Unstressed Coda (8):
\( st#(2) 25.00\% \)

Consonant Cluster Total for Onsets and Codas

Onset (29):
\( st(4), #\mu(4), 13.79\% \)
\( #k\mu(2) 6.89\% \)
Coda (17):
st#(2) 11.76%

Consonant Cluster Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllable Consonant Cluster (15):
#ɡ(2) 13.33%

Second Syllable Consonant Cluster Unstressed (13):
st#(2) 15.38%

Third Syllable Consonant Cluster Unstressed (4):
st(2) 50.00%

Consonant Cluster Total per Syllable

First Syllable Consonant Cluster (9):
#ɡ(2) 22.22%

Second Syllable Consonant Cluster (18):
st(2), st#(2) 11.11%

Third Syllable Consonant Cluster (4):
st(2) 50.00%

Consonant Cluster Stressed and Unstressed Total

Consonant Cluster Unstressed (19):
st(3), st#(2) 10.52%

Consonant Cluster Total (absolute)

Narrow (46):
st(4), #ɡ(4), 8.69%
st#(2), #kʰ(2) 4.34%

Broad (46):
st(6), 13.04%
ɡ(5), 10.86%
ku(4) 8.69%

46 total consonant clusters

Supra-Segments: Whole Syllables

The most frequent whole syllables were /di/, /ʃi/, /mɪn/, /nɔ/, /sɔ/, /a/, /nə/, /sə/, /kə/, /kʰə/, and /kɑ/.

Whole Syllable Total for Stressed and Unstressed Syllables and Monosyllables

First Syllable Whole Syllable Stressed (all entries are word initial) (65):
#dɪ(2), #kʰa(2) 3.07%

First Syllable Whole Syllable Unstressed (all entries are word initial) (23):
#ɑ(2), #sə(2) 8.69%

Second Syllable Whole Syllable Unstressed (68):
no#(2) 2.94%

Third Syllable Whole Syllable Unstressed (25):
ʃi#(2), na(2) 8.00%
Whole Syllable Total per Syllable

First Syllable Whole Syllable (all entries are word initial) (88):
#dl(2), #a(2), #sa(2), #kʰa(2) 2.27%

Second Syllable Whole Syllable (88):
no*#(2) 2.27%

Third Syllable Whole Syllable (28):
ji/#(2), na(2) 7.14%

Whole Syllable Stressed and Unstressed Total

Whole Syllable Stressed (89):
#dl(2), #kʰa(2) 2.24%

Whole Syllable Unstressed (128):
mn#(3), no*#(3), na(3), 2.34%
ji/#(2), #a(2), #sa(2) 1.56%

Whole Syllable Total (absolute)

Narrow (242):
mn#(3), no*#(3), 1.23%
#dl(2), ji/#(2), #a(2), na(3), #sa(2), #kʰa(2) .82%

Broad (242):
di(3), ji(3), mn(3), no(3), so(3), a(3), na(3), sa(3), ka(3), ka(3), ka(3) 1.23%

Whole syllables /so/, /ka/, and /ka/ were never repeated in the same environment which is why they were not recorded above until the final, broad count. To see them in all of their environments please see the Question W. “Segmental and Supra-Segmental Profile Data Sheet” in the appendix.

Supra-Segments: Whole Words

Table W.-A

<table>
<thead>
<tr>
<th>Word Length Total</th>
<th>Syllable Receiving Stress</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>None</td>
</tr>
<tr>
<td>Monosyllabic: 25</td>
<td>0</td>
</tr>
<tr>
<td>Bisyllabic: 60</td>
<td>0</td>
</tr>
<tr>
<td>Trisyllabic: 18</td>
<td>0</td>
</tr>
<tr>
<td>Tetrasyllabic: 8</td>
<td>0</td>
</tr>
<tr>
<td>Pentasyllabic: 1</td>
<td>0</td>
</tr>
<tr>
<td>Hexasyllabic: 1</td>
<td>0</td>
</tr>
<tr>
<td>Total: 113</td>
<td>0</td>
</tr>
</tbody>
</table>

182
Table W.-B

<table>
<thead>
<tr>
<th>Word Length Total</th>
<th>Syllable Receiving Stress</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>None</td>
</tr>
<tr>
<td>Monosyllabic: 22.12%</td>
<td>0</td>
</tr>
<tr>
<td>Bisyllabic: 53.09%</td>
<td>0</td>
</tr>
<tr>
<td>Trisyllabic: 15.92%</td>
<td>0</td>
</tr>
<tr>
<td>Tetrasyllabic: 7.07%</td>
<td>0</td>
</tr>
<tr>
<td>Penta syllabic: .88%</td>
<td>0</td>
</tr>
<tr>
<td>Hexasyllabic: .88%</td>
<td>0</td>
</tr>
</tbody>
</table>

Table Key: The “Word Length Total” column figure represents the percentage of words that is of that word length. For the cells inside the “Syllable Receiving Stress” columns, the amount on top indicates what percentage of a particular word length was stressed on that syllable. The number on the bottom indicates, for all the words that received stress on a particular syllable, what percentage of these words were of a particular word length. The “Stressed Syllable Total” row indicates what percentage of words was stressed on a particular syllable. Note that monosyllables were not analyzed as receiving stress and the “None” cell in the “Stressed Syllable Total” row is inapplicable.

**Question discussion.**

For Question W, the most frequent segments were consonants /n/, /s/, /ɻ/, and /d/ and vowels /a/ and /ɪ/. /n/ is an alveolar nasal. /s/ is a voiceless, alveolar fricative. /ɻ/ is an alveolar approximant. /d/ is a voiced, alveolar plosive. /a/ is an unrounded, lax, low, back vowel. /ɪ/ is an unrounded, lax, high, front vowel. The segments were most common in first stressed syllables and in second and third unstressed syllables. They were also prevalent in monosyllables except for /s/. They were infrequent in first unstressed, second stressed and fourth unstressed syllables. The segments favored unstressed environments over stressed environments. Consonants favored onsets except for second unstressed syllables where the coda was favored. Syllabic /n/ occurred in the second unstressed syllable nucleus. Monosyllables were lacking /s/ and /ɻ/. Consonants were evenly distributed between word-initial and word-final positions. The vowels preferred word-medial positions with /a/ appearing infrequently as word-initial. The most frequent
consonant clusters were /st/, /ɡɪ/ and /kɹ/. /t/ is a voiceless, alveolar plosive. /ɡ/ is a voiced, velar plosive. /k/ is a voiceless, velar plosive. /st/ occurred in second and third unstressed syllables, frequently in the coda. /ɡɪ/ occurred almost exclusively word-initially, in monosyllables and first syllables. /kɹ/ frequently occurred word initially. The most frequent whole syllables were /di/, /i/, /mɪn/, /no/, /so/, /ə/, /nə/, /sə/, /kə/, /kə/, and /kɑ/. /i/ is an unrounded, tense, high, front vowel. /m/ is a bilabial nasal. /o/ is a round, tense, mid, back vowel. /ə/ is an unrounded, intermediate, mid, central vowel. /k/ is a voiceless, velar plosive. /ə/ is a rhoticized, unrounded, intermediate, mid, central vowel. /di/ and /kɑ/ were the only whole syllables to occur in a stressed position. This was word-initial in the first syllable. /ə/ and /sə/ occurred in first unstressed syllables, word-initial. /no/ occurred in second syllables, word-final. /i/ and /nə/ occurred in third syllables. /i/ was word-final in this position. /mɪn/ occurred only word-finally. For all 113 whole words there were no repeated words.
Results Data Sheet

Definitions Requiring Words

**Question ID:** X. the feeling of being woken in the middle of the night by a strange noise

Below is a listing of the most frequent segments and supra-segments of this Question, the environments in which they appeared and the frequency with which they appeared in the indicated environments. In order to qualify for this data set, segments and supra-segments must have accounted for a minimum percentage of the broad total listed at the end of each section. The minimum values are as follows: consonants- >9%, vowels- >13%, consonant clusters- >8%, whole syllables- >1%. For a complete listing of the segments, supra-segments, environments and frequencies of this Question see the various Question X. data sheet sets in the appendix.

### Segments

The most frequent consonants were /ɹ/, /k/ and /n/. The most frequent vowels were /ɪ/, /ɑ/ and /ə/.

#### Monosyllable Onset (30):

- /ɹ/ (5), 16.66%
- #/kʰ/ (3), 10.00%
- #/k/ (2) 6.66%

#### Monosyllable Nucleus (24):

- /ɪ/ (4), 16.66%
- #/a/ (2) 8.33%

#### Monosyllable Coda (31):

- /k/ (4), #/k/ (4) 12.90%

#### First Syllable Segment Stressed Onset (47):

- /ɹ/ (9), 19.14%
- /k/ (4), #/kʰ/ (4), 8.51%
- #/ɹ/ (2) 4.25%

#### First Syllable Segment Stressed Nucleus (61):

- /ɑ/ (11), 18.03%
- /ɪ/ (6), 9.83%
- #/ɑ/ (3) 4.91%

#### First Syllable Segment Stressed Coda (32):

- /ɹ/ (9), 28.12%
- /k/ (7), 21.87%
- /n/ (5) 15.62%

First Syllable Segment Unstressed Onset (23):

- #/k/ (2) 8.69%

First Syllable Segment Unstressed Nucleus (29):

- /ɪ/ (7), 24.13%
- #/ɑ/ (6), 20.68%
- #/ɑ/ (3), 10.34%
- /ɑ/ (2) 6.89%

First Syllable Segment Unstressed Coda (11):

- /k/ (4), 36.36%
- /ɹ/ (2) 18.18%
Second Syllable Segment Stressed Onset (35):
\( \mu(9), 25.71\% \)
\( k(2), k^h(2) 5.71\% \)

Second Syllable Segment Stressed Nucleus (27):
\( \imath(4), 14.81\% \)
\( \alpha(3) 11.11\% \)

Second Syllable Segment Stressed Coda (20):
\( n(5), 25.00\% \)
\( \mu(2) 10.00\% \)

Second Syllable Segment Unstressed Onset (67):
\( \mu(8), 11.94\% \)
\( n(3), k(3) 4.47\% \)

Second Syllable Segment Unstressed Nucleus (63):
\( \imath(9), \alpha(9), 14.28\% \)
\( \alpha(4) 6.34\% \)
\( ^*\eta#/2 3.17\% \)

Second Syllable Segment Unstressed Coda (32):
\( n#/6, 18.75\% \)
\( k#/4, 12.50\% \)
\( \mu#/3 9.37\% \)

Third Syllable Segment Unstressed Onset (26):
\( n(4), \mu(4) 15.38\% \)

Third Syllable Segment Unstressed Nucleus (25):
\( \alpha(4), 16.00\% \)
\( \imath(3), ^*\eta#/3 12.00\% \)

Third Syllable Segment Unstressed Coda (7):
\( n#/2 28.57\% \)

Fourth Syllable Segment Unstressed Onset (7):
\( n(2) 28.57\% \)

Fourth Syllable Segment Unstressed Nucleus (9):
\( \alpha#/4 44.44\% \)

**Segment Total for Stressed and Unstressed Onsets and Codas**

Stressed Onset (100):
\( \mu(18), 18.00\% \)
\( k(6), 6.00\% \)
\( #k^h(4), 4.00\% \)
\( #\mu(2), k^h(2) 2.00\% \)

Stressed Coda (52):
\( \mu(11), 21.15\% \)
\( n(10), 19.23\% \)
\( k(8) 15.38\% \)

Unstressed Onset (116):
\( \mu(12), 10.34\% \)
\( n(9), 7.75\% \)
\( k(3), 2.58\% \)
\( #k(2) 1.72\% \)
Unstressed Coda (56):
n#(8), 14.28%
k#(5), 8.92%
k(4), 7.14%
\(\mathfrak{u}\#(3), 5.35\%
\(\mathfrak{u}(2)\), 3.57%

Segment Total for Onsets and Codas

Onset (246):
\(\mathfrak{u}(35), 14.22\%
n(9), k(9), 3.65\%
\#\(\mathfrak{u}(6), \#k^2(6), 2.43\%
\#n(2), \#k(2), k^2(2) .81\%

Coda (139):
k(16), 11.51%
\(\mathfrak{u}(14), 10.07\%
n(12), 8.63%
k#(9), 6.47%
n#(8), 5.75%
\(\mathfrak{u}(4) 2.87\%

Segment Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllable Segment (61):
\(\mathfrak{u}(6), 9.83\%
k(4), k#(4), 6.55\%
\#\(\mathfrak{u}(3), 4.91\%
\#k^3(2) 3.27\%

(24):
\(\mathfrak{u}(4), 16.66\%
\#\(\mathfrak{a}(2) 8.33\%

First Syllable Segment Stressed (96):
\(\mathfrak{u}(18), 18.75\%
k(11), 11.45\%
n(5), 5.20%
\#k^3(4), 4.16%
\#\(\mathfrak{u}(2) 2.08\%

(61):
\(\mathfrak{a}(11), 18.03\%
\(\mathfrak{u}(6), 9.83\%
\#\(\mathfrak{a}(3) 4.91\%

First Syllable Segment Unstressed (34):
k(4), 11.76%
\(\mathfrak{u}(2), \#k(2) 5.88\%

(29):
\(\mathfrak{u}(7), 24.13\%
\(\mathfrak{a}(6), 20.68\%
\#\(\mathfrak{a}(3) 10.34\%
\(\mathfrak{a}(2) 6.89\%

187
Second Syllable Segment Stressed (55):
\( \mu(11), 20.00\% \\
\eta(5), 9.09\% \\
k(3), 5.45\% \\
k^\circ(2) 3.63\% \\

(27):
\( \eta(4), 14.81\% \\
a(3) 11.11\% \\

Second Syllable Segment Unstressed (112):
\( \mu(8), 7.14\% \\
\eta\#(6), 5.35\% \\
k\#(4), 3.57\% \\
n(3), \mu\#(3), k(3), 2.67\% \\
*\eta\#(2) 1.78\% \\

(50):
\( \eta(9), a(9), 18.00\% \\
a(4) 8.00\% \\

Third Syllable Segment Unstressed (38):
\( n(4), \mu(4), 10.52\% \\
*\eta\#(3), 7.89\% \\
n\#(2) 5.26\% \\

(20):
\( a(4), 20.00\% \\
\eta(3) 15.00\% \\

Fourth Syllable Segment Unstressed (13):
\( n(2) 15.38\% \\

(9):
\( a\#(4) 44.44\% \\

Segment Total by Syllable

First Syllable Segment (130):
\( \mu(20), 15.38\% \\
k(15), 11.53\% \\
n(6), 4.61\% \\
#k^\circ(4), 3.07\% \\
#\mu(3), 2.30\% \\
#n(2), #k(2) 1.53\% \\

(90):
\( \eta(13), a(13), 14.44\% \\
\eta(6), 6.66\% \\
#a(4), 4.44\% \\
#a(3) 3.33\% 

188
Second Syllable Segment (167):
\( \mu(19), 11.37\% \\
\text{n}(8), 4.79\% \\
\text{n#}(6), \text{k}(6), 3.59\% \\
\text{k#}(4), 2.39\% \\
\text{#\(\mu\)}(3), 1.79\% \\
\text{#\(\eta\)}(2), \text{k\(^h\)}(2) 1.19\%

(77):
\text{\(\iota\)}(13), 16.88\% \\
\text{\(\alpha\)}(9), 11.68\% \\
\text{\(\alpha\)}(7) 9.09\%

Third Syllable Segment (39):
\text{n}(4), \mu(4), 10.25\% \\
\text{#\(\eta\)}(3), 7.69\% \\
\text{n#}(2) 5.12\%

(21):
\text{\(\alpha\)}(4), 19.04\% \\
\text{\(\iota\)}(3) 14.28\%

Fourth Syllable Segment (13):
\text{n}(2) 15.38\%

(9):
\text{#\(\alpha\)}(4) 44.44%

**Segment Stressed and Unstressed Total**

**Stressed Segment (152):**
\( \mu(29), 19.07\% \\
\text{k}(14), 9.21\% \\
\text{n}(10), 6.57\% \\
\text{#\(k\)}(4), 2.63\% \\
\text{#\(\mu\)}(2), \text{k\(^h\)}(2) 1.31\%

(89):
\text{\(\alpha\)}(14), 15.73\% \\
\text{\(\iota\)}(10), 11.23\% \\
\text{#\(\alpha\)}(3) 3.37\%

**Unstressed Segment (197):**
\( \mu(14), 7.10\% \\
\text{n}(10), 5.07\% \\
\text{n#}(8), 4.06\% \\
\text{k}(7), 3.55\% \\
\text{#\(\eta\)}(5), \text{k#}(5), 2.53\% \\
\text{#\(\mu\)}(3), 1.52\% \\
\text{#\(k\)}(2) 1.01\%

(108):
\text{\(\iota\)}(20), \text{\(\alpha\)}(20), 18.51\% \\
\text{\(\alpha\)}(7), 6.48\% \\
\text{#\(\alpha\)}(6), 5.55\% \\
\text{#\(\alpha\)}(3) 2.77\%
Segment Total (absolute)

Narrow (410):

<table>
<thead>
<tr>
<th>Segment</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>µ(49)</td>
<td>49</td>
<td>11.95%</td>
</tr>
<tr>
<td>k(25)</td>
<td>25</td>
<td>6.09%</td>
</tr>
<tr>
<td>n(21)</td>
<td>21</td>
<td>5.12%</td>
</tr>
<tr>
<td>n(#) 8</td>
<td>8</td>
<td>1.95%</td>
</tr>
<tr>
<td>#µ(6)</td>
<td>6</td>
<td>1.46%</td>
</tr>
<tr>
<td>*η(5)</td>
<td>5</td>
<td>1.21%</td>
</tr>
<tr>
<td>µ(#) 4</td>
<td>4</td>
<td>.97%</td>
</tr>
<tr>
<td>#η(2)</td>
<td>2</td>
<td>.48%</td>
</tr>
</tbody>
</table>

Broad (410):

<table>
<thead>
<tr>
<th>Segment</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>µ(60)</td>
<td>60</td>
<td>14.63%</td>
</tr>
<tr>
<td>k(45)</td>
<td>45</td>
<td>10.97%</td>
</tr>
<tr>
<td>n(37)</td>
<td>37</td>
<td>9.02%</td>
</tr>
</tbody>
</table>

(221):

<table>
<thead>
<tr>
<th>Segment</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>ι(34)</td>
<td>34</td>
<td>15.38%</td>
</tr>
<tr>
<td>a(22)</td>
<td>22</td>
<td>9.95%</td>
</tr>
<tr>
<td>a(20)</td>
<td>20</td>
<td>9.04%</td>
</tr>
<tr>
<td>a(#) 6</td>
<td>6</td>
<td>2.71%</td>
</tr>
<tr>
<td>a(3)</td>
<td>3</td>
<td>1.35%</td>
</tr>
<tr>
<td>a(#) 2</td>
<td>2</td>
<td>.90%</td>
</tr>
</tbody>
</table>

631 total segments

Supra-Segments: Consonant Clusters

The most frequent consonant clusters were /st/ and /kʃ/.

Consonant Cluster Total for Stressed and Unstressed Syllables and Monosyllables according to Syllable Configuration

First Syllable Consonant Cluster Stressed Onset (all entries are word initial) (13):

#kʃ(3) 23.07%

Second Syllable Consonant Cluster Stressed Onset (7):

st(2) 28.57%

Consonant Cluster Total for Stressed and Unstressed Onsets and Codas

Stressed Onset (20):

#kʃ(3), 15.00%
st(2) 10.00%

Consonant Cluster Total for Onsets and Codas

Onset (36):

#kʃ(3), 8.33%
st(2) 5.55%

Consonant Cluster Total for Stressed and Unstressed Syllables and Monosyllables

First Syllable Consonant Cluster Stressed (15):

#kʃ(3) 20.00%
Second Syllable Consonant Cluster Stressed (12):
\[\text{st}(2)\] 16.66%

Consonant Cluster Total per Syllable

First Syllable Consonant Cluster (20):
\[\#k\l^3(3)\] 15.00%

Second Syllable Consonant Cluster (16):
\[\text{st}(2)\] 12.50%

Consonant Cluster Stressed and Unstressed Total

Consonant Cluster Stressed (27):
\[\#k\l^3(3), \text{st}(2)\] 11.11%, 7.40%

Consonant Cluster Total (absolute)

Narrow (55):
\[\text{st}(3), \#k\l^3(3)\] 5.45%

Broad (55):
\[\text{st}(5), \text{k}\l(5)\] 9.09%

55 total consonant clusters

Supra-Segments: Whole Syllables

The most frequent whole syllable was /ə/.

Whole Syllable Total for Stressed and Unstressed Syllables and Monosyllables

First Syllable Whole Syllable Unstressed (all entries are word initial) (29):
\[\#a(3)\] 10.34%

Fourth Syllable Whole Syllable Unstressed (9):
\[\text{a}#(2)\] 22.22%

Whole Syllable Total per Syllable

First Syllable Whole Syllable (all entries are word initial) (90):
\[\#a(3)\] 3.33%

Fourth Syllable Whole Syllable (9):
\[\text{a}#(2)\] 22.22%

Whole Syllable Stressed and Unstressed Total

Whole Syllable Unstressed (123):
\[\#a(5)\] 4.06%

Whole Syllable Total (absolute)

Narrow (239):
\[\#a(5)\] 2.09%

Broad (239):
\[\text{a}(5)\] 2.09%

239 total whole syllables
### Table X.-A

<table>
<thead>
<tr>
<th>Word Length</th>
<th>Total</th>
<th>None</th>
<th>First</th>
<th>Second</th>
<th>Third</th>
<th>Fourth</th>
<th>Fifth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monosyllabic</td>
<td>24</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bisyllabic</td>
<td>64</td>
<td>0</td>
<td>52</td>
<td>12</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trisyllabic</td>
<td>17</td>
<td>0</td>
<td>6</td>
<td>11</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tetrasyllabic</td>
<td>9</td>
<td>0</td>
<td>3</td>
<td>5</td>
<td>1</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Pentesyllabic</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>114</td>
<td>0</td>
<td>61</td>
<td>28</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

### Table X.-B

<table>
<thead>
<tr>
<th>Word Length</th>
<th>Total</th>
<th>None</th>
<th>First</th>
<th>Second</th>
<th>Third</th>
<th>Fourth</th>
<th>Fifth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monosyllabic</td>
<td>21.05%</td>
<td>0</td>
<td>81.25%</td>
<td>18.75%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bisyllabic</td>
<td>56.14%</td>
<td>0</td>
<td>85.24%</td>
<td></td>
<td>1.46%</td>
<td>3.54%</td>
<td>0</td>
</tr>
<tr>
<td>Trisyllabic</td>
<td>14.91%</td>
<td>0</td>
<td>35.29%</td>
<td>64.70%</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tetrasyllabic</td>
<td>7.89%</td>
<td>0</td>
<td>49.33%</td>
<td>55.55%</td>
<td>11.11%</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Pentesyllabic</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Stressed Syllable Total</td>
<td>67.77%</td>
<td>31.11%</td>
<td>1.11%</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Table Key: The “Word Length Total” column figure represents the percentage of words that is of that word length. For the cells inside the “Syllable Receiving Stress” columns, the amount on top indicates what percentage of a particular word length was stressed on that syllable. The number on the bottom indicates, for all the words that received stress on a particular syllable, what percentage of these words were of a particular word length. The “Stressed Syllable Total” row indicates what percentage of words was stressed on a particular syllable. Note that monosyllables were not analyzed as receiving stress and the “None” cell in the “Stressed Syllable Total” row is inapplicable.

### Question discussion.

For Question X. the most frequent segments were consonants /ɹ/, /k/, and /n/ and vowels /ɪ/, /ɑ/, and /ə/. /ɹ/ is an alveolar approximant. /k/ is a voiceless, velar plosive. /n/ is an alveolar nasal. /ɪ/ is an unrounded, lax, high, front vowel. /ɑ/ is an unrounded, lax, low, back vowel. /ə/ is an unrounded, intermediate, mid, central vowel. The segments were most frequent in first stressed and second unstressed syllables. They were less frequent, though not rare, in first...
unstressed and second stressed and third unstressed syllables. All segments but /n/ were present in monosyllables. The first unstressed syllable nucleus frequently housed these vowels. The segments were rare in fourth unstressed syllables. They favored unstressed syllables over stressed syllables. Segments were evenly split between syllable onsets and codas. The second and third syllable unstressed nuclei contained syllabic /n/. The monosyllables showed every segment except for /n/. (/ə/ will never occur in monosyllables.) Segments preferred word-medial positions. There were examples of word-initial and word-final positions for all consonants. /t/ only occurred word-medially while /ə/ was found in all three positions. The most frequent consonant clusters were /st/ and /kɹ/. /s/ is a voiceless, alveolar fricative. /t/ is a voiceless, alveolar plosive. /st/ frequently occurred in the second syllable stressed onset. /kɹ/ frequently occurred in the first syllable stressed onset. The most frequent whole syllable was /ə/. It occurred most frequently in the first syllable unstressed, word-initial and in the fourth syllable unstressed, word-final. For all 114 whole words there were no repeated words.
Results Data Sheet

Definitions Requiring Words

Question ID: Y. the name of the remotest island on earth

Below is a listing of the most frequent segments and supra-segments of this Question, the environments in which they appeared and the frequency with which they appeared in the indicated environments. In order to qualify for this data set, segments and supra-segments must have accounted for a minimum percentage of the broad total listed at the end of each section. The minimum values are as follows: consonants- >9%, vowels- >13%, consonant clusters- >8%, whole syllables- >1%. For a complete listing of the segments, supra-segments, environments and frequencies of this Question see the various Question Y. data sheet sets in the appendix.

Segments

The most frequent consonants were /n/, /s/, /ɹ/, and /l/. The most frequent vowels were /a/ and /ə/.

Segment Total for Stressed and Unstressed Syllables and Monosyllables according to Syllable Configuration

Monosyllable Onset (16):
#s(2), l(2) 12.50%

Monosyllable Nucleus (12):
a(3) 25.00%

Monosyllable Coda (16):
n(2) 12.50%

First Syllable Segment Stressed Onset (51):
#s(7), #l(7), 13.72%
l(3), 5.88%
#ə(2) 3.92%

First Syllable Segment Stressed Nucleus (56):
a(9), 16.07%
#a(3) 5.35%

First Syllable Segment Stressed Coda (26):
n(10), 38.46%
ɹ(4), 15.38%
s(2) 7.69%

First Syllable Segment Unstressed Onset (36):
#s(4), 11.11%
#ɹ(3) 8.33%

First Syllable Segment Unstressed Nucleus (46):
a(11), 23.91%
#a(4), 8.69%
#ə(3) 6.52%

First Syllable Segment Unstressed Coda (11):
n(6), 54.54%
l(2) 18.18%

Second Syllable Segment Stressed Onset (39):
l(7), 17.94%
l(6), 15.38%
n(3), s(3) 7.69%
Second Syllable Segment Stressed Nucleus (36):
α(7) 19.44%

Second Syllable Segment Stressed Coda (15):
n(2), ɹ#(2) 13.33%

Second Syllable Segment Unstressed Onset (73):
s(7), 9.58%
l(6), 8.21%
μ(3), 4.10%
n(2) 2.73%

Second Syllable Segment Unstressed Nucleus (67):
ə(14), 20.89%
α(6), 8.95%
*η#(4), 5.97%
*η(2), ə#(2) 2.98%

Second Syllable Segment Unstressed Coda (22):
n#(5), 22.72%
n(4), 18.18%
s#(2) 9.09%

Third Syllable Segment Unstressed Onset (45):
l(6), 13.33%
μ(5), 11.11%
n(4), 8.88%
s(3) 6.66%

Third Syllable Segment Unstressed Nucleus (43):
ə(5), 11.62%
ə#(4), α(4), 9.30%
*η#(2), ə#(2) 4.65%

Third Syllable Segment Unstressed Coda (10):
n#(2) 20.00%

Fourth Syllable Segment Unstressed Onset (11):
l(3), 27.27%
μ(2) 18.18%

Fourth Syllable Segment Unstressed Nucleus (15):
ə#(3), 20.00%
α(2), ə#(2) 13.33%

Fourth Syllable Segment Unstressed Coda (4):
n#(2) 50.00

Segment Total for Stressed and Unstressed Onsets and Codas

Stressed Onset (99):
l(11), 11.11%
#s(7), μ(7), #l(7), 7.07%
n(5), 5.05%
s(4), 4.04%
μ(2) 2.02%
Stressed Coda (41):

- n(12), 29.26%
- μ(5), 12.19%
- s(3), 7.31%
- μ#(2) 4.87%

Unstressed Onset (165):

- l(15), 9.09%
- μ(12), 7.27%
- s(11), 6.66%
- n(6), 3.63%
- #s(4), 2.42%
- #μ(3) 1.81%

Unstressed Coda (50):

- n(10), 20.00%
- n#(9), 18.00%
- μ(4), 8.00%
- s#(3) 6.00%

Segment Total for Onsets and Codas

Onset (280):

- l(28), 10.00%
- μ(20), 7.14%
- s(15), 5.35%
- #s(13), 4.64%
- n(11), 3.92%
- #l(8), 2.85%
- #μ(5) 1.78%

Coda (107):

- n(24), 22.42%
- n#(10), μ(10), 9.34%
- μ#(7), 6.54%
- s#(5), 4.67%
- s(3) 2.80%

Segment Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllable Segment (41):

- n(2), #s(2), μ(2), l(2) 4.87%
- (12):
- a(3) 25.00%

First Syllable Segment Stressed (77):

- n(11), 14.28%
- #s(7), #l(7), 9.09%
- μ(4), 5.19%
- l(3), 3.89%
- #μ(2) 2.59%

- (56):
- a(9), 16.07%
- #a(3) 5.35%
First Syllable Segment Unstressed (47):
- n(6), 12.76%
- #s(4), 8.51%
- #a(3), #a(3) 6.38%

(46):
- a(11), 23.91%
- a(4), #a(4), 8.69%
- #a(3) 6.52%

Second Syllable Segment Stressed (54):
- μ(7), I(7), 12.96%
- n(5), s(4), 9.25%
- μ#(2) 3.70%

(36):
- a(7) 19.44%

Second Syllable Segment Unstressed (106):
- s(7), 6.60%
- n(6), I(6), 5.66%
- n#(5), 4.71%
- *η#(4), 3.77%
- μ(3), 2.83%
- *η(2), s#(2) 1.88%

(56):
- a(14), 25.00%
- a(6), 10.71%
- a#(2) 3.57%

Third Syllable Segment Unstressed (61):
- I(6), 9.83%
- μ(5), 8.19%
- n(4), 6.55%
- s(3), 4.91%
- n#(2), *η#(2) 3.27%

(37):
- a(5), 13.51%
- a#(4), a(4), 10.81%
- a#(2) 5.40%

Fourth Syllable Segment Unstressed (15):
- l(3), 20.00%
- n#(2), μ(2) 13.33%

(15):
- a#(3), 20.00%
- a(2), a#(2) 13.33%
Segment Total by Syllable

First Syllable Segment (124):
- n(17), 13.70%
- #s(11), 8.87%
- #l(8), 6.45%
- μ(7), 5.64%
- #μ(5), 4.03%
- l(3), 2.41%
- s(2), 1.61%

(102):
- α(13), 12.74%
- α(11), 10.78%
- #α(7), 6.86%
- #α(3), 2.94%

Second Syllable Segment (160):
- l(13), 8.12%
- n(11), s(11), 6.87%
- μ(10), 6.25%
- n#(6), 3.75%
- *η#(4), 2.50%
- s#(3), μ#(3), 1.87%
- *η(2), 1.25%

(92):
- α(14), 15.21%
- α(13), 14.13%
- α#(2), α#(2), 2.17%

Third Syllable Segment (69):
- l(7), 10.14%
- μ(6), 8.69%
- n(5), 7.24%
- s(4), 5.79%
- n#(2), *η#(2), 2.89%

(45):
- α(5), 11.11%
- α#(4), α(4), 8.88%
- α#(2), 4.44%

Fourth Syllable Segment (16):
- n#(2), μ(2), 12.50%

(16):
- α#(3), α(3), 18.75%
- α#(2), 12.50%
Segment Stressed and Unstressed Total

**Stressed Segment (140):**
- n(17), 12.14%
- ɹ(12), 8.57%
- l(11), 7.85%
- #s(7), #l(7), #Il(7), 5.00%
- #a(2), #e(2) 1.42%

(101):
- a(17), 16.83%
- #a(3) 2.97%

**Unstressed Segment (230):**
- n(16), 6.95%
- l(15), 6.52%
- ɹ(14), 6.08%
- s(11), 4.78%
- n#(9), 3.91%
- *e#(6), 2.60%
- #s(4), 1.73%
- s#(3), #a(3), 1.30%
- *e(2) .86%

(156):
- a(30), 19.23%
- a(16), 10.25%
- a#(10), 6.41%
- a#(5), 3.20%
- #a(4), 2.56%
- #a(3) 1.92%

**Segment Total (absolute)**

Narrow (411):
- n(35), 8.51%
- ɹ(28), l(28), 6.81%
- s(18), 4.37%
- #s(13), 3.16%
- n#(10), 2.43%
- *e#(6), 1.45%
- s#(5), #a(5), 1.21%
- #e(4), .97%
- *e(2) .48%

(269):
- a(36), 13.38%
- a(30), 11.15%
- a#(10), 3.71%
- #a(7), 2.60%
- a#(6), 2.23%
- #a(3) 1.11%

Broad (411):
- n(54), 13.13%
- s(37), ɹ(37), l(37) 9.00%
(269):
ɑ(49), 18.21%
ə(43) 15.98%
680 total segments

Supra-Segments: Consonant Clusters

The most frequent consonant cluster was /kl/.

Consonant Cluster Total for Stressed and Unstressed Syllables and Monosyllables according to Syllable Configuration

Consonant Cluster Total for Onsets and Codas

Onset (20):
#kʰl(2) 10.00%

Consonant Cluster Total (absolute)

Narrow (32):
#kʰl(2) 6.25%
Broad (32):
kl(3) 9.37%
32 total consonant clusters

Supra-Segments: Whole Syllables

The most frequent consonant clusters were /lo/ and /ə/.

Whole Syllable Total for Stressed and Unstressed Syllables and Monosyllables

First Syllable Whole Syllable Unstressed (all entries are word initial) (45):
#ə(3) 6.66%
Third Syllable Whole Syllable Unstressed (44):
loʷ#(2) 4.54%

Whole Syllable Total per Syllable

First Syllable Whole Syllable (all entries are word initial) (102):
#ə(3) 2.94%
Third Syllable Whole Syllable (52):
loʷ#(2) 3.84%

Whole Syllable Stressed and Unstressed Total

Whole Syllable Unstressed (172):
loʷ#(3), #ə(3) 1.74%

Whole Syllable Total (absolute)

Narrow (285):
loʷ#(3), #ə(3) 1.05%
Broad (285):
Io(5), ə(5) 1.75%
285 total whole syllables

200
Supra-Segments: Whole Words

Table Y.-A

<table>
<thead>
<tr>
<th>Word Length Total</th>
<th>Syllable</th>
<th>Receiving</th>
<th>Stress</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>None</td>
<td>First</td>
<td>Second</td>
</tr>
<tr>
<td>Monosyllabic:</td>
<td>12</td>
<td>0</td>
<td>40</td>
</tr>
<tr>
<td>Bisyllabic:</td>
<td></td>
<td>2</td>
<td>14</td>
</tr>
<tr>
<td>Trisyllabic:</td>
<td>37</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Tetrasyllabic:</td>
<td>13</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Pentasyllabic:</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total: 114</td>
<td>2</td>
<td>56</td>
<td>36</td>
</tr>
</tbody>
</table>

Table Y.-B

<table>
<thead>
<tr>
<th>Word Length Total</th>
<th>Syllable</th>
<th>Receiving</th>
<th>Stress</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>None</td>
<td>First</td>
<td>Second</td>
</tr>
<tr>
<td>Monosyllabic:</td>
<td>10.52%</td>
<td>80.00%</td>
<td>71.42%</td>
</tr>
<tr>
<td>Bisyllabic:</td>
<td>43.85%</td>
<td>37.83%</td>
<td>25.00%</td>
</tr>
<tr>
<td>Trisyllabic:</td>
<td>32.45%</td>
<td>15.38%</td>
<td>46.15%</td>
</tr>
<tr>
<td>Tetrasyllabic:</td>
<td>11.40%</td>
<td>5.40%</td>
<td>20.00%</td>
</tr>
<tr>
<td>Pentasyllabic:</td>
<td>1.75%</td>
<td>50.00%</td>
<td>50.00%</td>
</tr>
<tr>
<td>Stressed Syllable Total:</td>
<td>56.56%</td>
<td>36.36%</td>
<td>6.06%</td>
</tr>
</tbody>
</table>

Table Key: The “Word Length Total” column figure represents the percentage of words that is of that word length. For the cells inside the “Syllable Receiving Stress” columns, the amount on top indicates what percentage of a particular word length was stressed on that syllable. The number on the bottom indicates, for all the words that received stress on a particular syllable, what percentage of these words were of a particular word length. The “Stressed Syllable Total” row indicates what percentage of words was stressed on a particular syllable. Note that monosyllables were not analyzed as receiving stress and the “None” cell in the “Stressed Syllable Total” row is inapplicable.

**Question discussion.**

For Question Y. the most frequent segments were consonants /n/, /s/, /ɹ/, and /l/ and vowels /a/ and /ə/. /n/ is an alveolar nasal. /s/ is a voiceless, alveolar fricative. /ɹ/ is an alveolar approximant. /l/ is an alveolar, lateral approximant. /a/ is an unrounded, lax, low, back vowel. /ə/ is an unrounded, intermediate, mid, central vowel. These segments were most frequent in the first syllable, stressed and unstressed, and second and third unstressed syllables. They were less
frequent in second stressed syllables, fourth unstressed syllables and monosyllables. Unstressed segments far exceeded the number of stressed segments. The onset was equal to or favored over the coda by all consonants. /n/ occurred syllabically in second and third unstressed nuclei. The monosyllables contained every segment except for /ʌ/. (/ə/ can never occur in a monosyllable.) Though the segments favored word-medial positions, the consonants except for /l/ (word-initial and -medial only) could be found in all three positions as could the vowels. The most frequent consonant cluster was /kl/. /k/ is a voiceless, velar plosive. /kl/ was frequently found as a word-initial onset. The most frequent whole syllables were /lo/ and /ə/. /o/ is a round, tense, mid, back vowel. /lo/ was frequently word-final in third unstressed syllables. /ə/ was frequently found word-initially in the first unstressed syllable. For all 114 whole words there were no repeated words.
Results Data Sheet

Images Requiring Words

Question ID: Z.

Below is a listing of the most frequent segments and supra-segments of this Question, the environments in which they appeared and the frequency with which they appeared in the indicated environments. In order to qualify for this data set, segments and supra-segments must have accounted for a minimum percentage of the broad total listed at the end of each section. The minimum values are as follows: consonants- >9%, vowels- >13%, consonant clusters- >8%, whole syllables- >1%. For a complete listing of the segments, supra-segments, environments and frequencies of this Question see the various Question Z. data sheet sets in the appendix.

Segments

The most frequent consonants were /n/, /ɹ/, and /s/. The most frequent vowels were /ɨ/ and /ɑ/.

Segment Total for Stressed and Unstressed Syllables and Monosyllables according to Syllable Configuration

Monosyllable Onset (41):
#s(4), ɹ(4), 9.75%
#n(3) 7.31%

Monosyllable Nucleus (28):
ɑ(7) 25.00%

Monosyllable Coda (36):
n(2) 5.55%

First Syllable Segment Stressed Onset (70):
#s(11), ɹ(11), 15.71%
ɹ(5), 7.14%
n(2) 2.85%

First Syllable Segment Stressed Nucleus (57):
ɑ(11) 19.29%

First Syllable Segment Stressed Coda (27):
n(7), ɹ(7) 25.92%

First Syllable Segment Unstressed Onset (26):
#s(4), #n(4) 15.38%

First Syllable Segment Unstressed Nucleus (28):
ɑ(12) 42.85%
#ə(3) 10.71%

First Syllable Segment Unstressed Coda (4):
n(3) 75.00%

Second Syllable Segment Stressed Onset (32):
ɹ(5) 15.62%
n(2), s(2) 6.25%

Second Syllable Segment Stressed Nucleus (27):
ɑ(3) 11.11%
Second Syllable Segment Stressed Coda (18):

- n(4), 22.22%
- n#(2) 11.11%

Second Syllable Segment Unstressed Onset (59):

- n(6), 10.16%
- s(5), 8.47%
- μ(4) 6.77%

Second Syllable Segment Unstressed Nucleus (58):

- a(8), 13.79%
- a(6) 10.34%
- *η#(5), 8.62%
- *ο(3) 5.17%

Second Syllable Segment Unstressed Coda (24):

- n#(7) 29.16%

Third Syllable Segment Unstressed Onset (25):

- n(5), ɹ(5), 20.00%
- s(3) 12.00%

Third Syllable Segment Unstressed Nucleus (23):

- a(6), 26.08%
- a#(3), *п#(3) 13.04%

Third Syllable Segment Unstressed Coda (8):

- s#(2) 25.00%

Fourth Syllable Segment Unstressed Nucleus (6):

- a(2) 33.33%

Segment Total for Stressed and Unstressed Onsets and Codas

**Stressed Onset (103):**

- #s(11), #μ(11), 10.67%
- μ(10), 9.70%
- n(4), 3.88%
- s(2) 1.94%

**Stressed Coda (45):**

- n(11), 24.44%
- μ(7), 15.55%
- n#(2), s(2) 4.44%

Unstressed Onset (115):

- n(12), 10.43%
- μ(10), 8.69%
- s(8), 6.95%
- #s(4), #α(4) 3.47%

Unstressed Coda (39):

- n#(8), 20.51%
- s#(4), 10.25%
- n(3), 7.69%
- s(2) 5.12%
Segment Total for Onsets and Codas

Onset (259):
- ɹ (24), 9.26%
- #s (19), 7.33%
- #a (18), 6.94%
- n (16), 6.17%
- s (10), 3.86%

Coda (120):
- n (16), 13.33%
- n# (10), 8.33%
- ɹ (8), 6.66%
- s# (6), 5.00%
- s (5), 4.16%
- #a (2), 1.66%

Segment Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllable Segment (77):
- ɹ (5), 6.49%
- #s (4), 5.19%
- #a (3), 3.89%
- n (2), 2.59%

(28):
- a (7) 25.00%

First Syllable Segment Stressed (97):
- ɹ (12), 12.37%
- #s (11), #a (11), 11.34%
- n (9), 9.27%

(57):
- a (11) 19.29%

First Syllable Segment Unstressed (30):
- #s (4), #a (4), 13.33%
- n (3), 10.00%

(28):
- a (12), 42.85%
- #a (3), 10.71%

Second Syllable Segment Stressed (50):
- n (6), 12.00%
- ɹ (5), 10.00%
- s (3), 6.00%
- n# (2), 4.00%

(27):
- a (3) 11.11%
Second Syllable Segment Unstressed (97):
n#(7), 7.21%
n(6), 6.18%
*η#(5), s(5), 5.15%
*μ(4), 4.12%
*η(3) 3.09%

(44):
a(8), 18.18%
a(6) 13.63%

Third Syllable Segment Unstressed (36):
n(5), η(5), 13.88%
s(4), 11.11%
*η#(3), 8.33%
s#(2) 5.55%

(20):
a(6), 30.00%
a#(3) 15.00%

Fourth Syllable Segment Unstressed:
(4):
a(2) 50.00%

Segment Total by Syllable

First Syllable Segment (127):
#s(15), #μ(15), 11.81%
n(12), μ(12) 9.44%

(81):
a(12), a(12), 14.81%
#a(3) 3.70

Second Syllable Segment (147):
n(12), 8.16%
n#(9), μ(9), 6.12%
s(8), 5.44%
*η#(5), 3.40%
*η(3), 2.04%
s#(2) 1.36%

(71):
a(9), 12.67%
a⑧ 11.26%

Third Syllable Segment (38):
n(5), μ(5), 13.15%
s(4), 10.52%
*η#(3), 7.89%
s#② 5.26%

(20):
a(6), 30.00%
a#③ 15.00%
Fourth Syllable Segment:

(5):
\( a(2) \) 40.00%

Segment Stressed and Unstressed Total

Stressed Segment (148):
\( \mu(17) \), 11.48%
\( n(15) \), 10.13%
\#s(11), \#\( \mu(11) \), 7.43%
\s(4) \), 2.70%

(85):
\( a(14) \) 16.47%

Unstressed Segment (174):
\( n(15) \), 8.62%
\s(10), \( a(10) \), 5.74%
*\( \eta#(9) \), 5.17%
\n#(8) \), 4.59%
\#s(4), \#\#s(4), \#\( \mu(4) \), 2.29%
*\( \eta(3) \) 1.72%

(97):
\( a(28) \), 28.86%
\( a(8) \), 8.24%
\#\( a(3) \), \#\( a#(3) \) 3.09%

Segment Total (absolute)

Narrow (399):
\( n(32), \mu(32) \), 8.02%
\#s(19) \), 4.76%
\#\( \mu(18) \), 4.51%
\s(15) \), 3.75%
\n#(10) \), 2.50%
*\( \eta#(9) \), 2.25%
\s#(6) \), 1.50%
*\( \eta(3) \) .75%
\( \mu#(2) \) .50%

(210):
\( a(29) \), 13.80%
\( a(28) \), 13.33%
\#\( a(3) \), \#\( a#(3) \) 1.42%

Broad (399):
\( n(54) \), 13.53%
\( \mu(52) \), 13.03%
\s(40) \) 10.02%

(210):
\( a(34) \), 16.19%
\( a(33) \) 15.71%
The most frequent consonant clusters were /bl/ and /st/.

Consonant Cluster Total for Stressed and Unstressed Syllables and Monosyllables according to Syllable Configuration

Monosyllable Consonant Cluster Onset (all entries are word initial) (13):
#bl(2) 15.38%

Second Syllable Consonant Cluster Unstressed Onset (3):
b(2) 66.66%

Consonant Cluster Total for Stressed and Unstressed Onsets and Codas

Unstressed Onset (9):
b(l) 22.22%

Unstressed Coda (5):
st#(2) 40.00%

Consonant Cluster Total for Onsets and Codas

Onset (42):
b(l) 7.14%

Coda (19):
st#(3), 15.78%

Consonant Cluster Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllable Consonant Cluster (23):
#bl(2) 8.69%

Second Syllable Consonant Cluster Unstressed (7):
b(l) 28.57%

Consonant Cluster Total per Syllable

Second Syllable Consonant Cluster (13):
b(l) 23.07%

Consonant Cluster Stressed and Unstressed Total

Consonant Cluster Unstressed (14):
b(l), st#(2) 14.28%

Consonant Cluster Total (absolute)

Narrow (61):
b(l), st#(3), 4.91%
#b(l) 3.27%

Broad (61):
b(l), st#, 8.19%

61 total consonant clusters

Supra-Segments: Whole Syllables

The most frequent whole syllables were /ɹo/, /də/, and /sə/.
Whole Syllable Total for Stressed and Unstressed Syllables and Monosyllables

First Syllable Whole Syllable Unstressed (all entries are word initial) (28):
#da(2), #sa(2) 7.14%

Second Syllable Whole Syllable Unstressed (58):
sa(2) 3.44%

Whole Syllable Total per Syllable

First Syllable Whole Syllable (all entries are word initial) (85):
#da(2), #sa(2) 2.35%

Whole Syllable Stressed and Unstressed Total

Whole Syllable Unstressed (116):
sa(2), #sa(2) 1.72%

Whole Syllable Total (absolute)

Narrow (229):
#jo*(2), da(2), #da(2), sa(2), #sa(2) .87%

Broad (229):
jo(4), da(4), sa(4) 1.74%

229 total whole syllables

Whole syllable /jo/ was never repeated in the same environment which is why it was not recorded above until the final, narrow count. To see it in all of its environments please see the Question Z. “Segmental and Supra-Segmental Profile Data Sheet” in the appendix.

Supra-Segments: Whole Words

Table Z.-A

<table>
<thead>
<tr>
<th>Word Length Total</th>
<th>Syllable</th>
<th>Receiving Stress</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>None</td>
<td>First</td>
</tr>
<tr>
<td>Monosyllabic: 28</td>
<td>28</td>
<td></td>
</tr>
<tr>
<td>Bisyllabic: 62</td>
<td>0</td>
<td>50</td>
</tr>
<tr>
<td>Trisyllabic: 16</td>
<td>0</td>
<td>7</td>
</tr>
<tr>
<td>Tetrasyllabic: 6</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Pentasyllabic: 1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total: 113</td>
<td>0</td>
<td>57</td>
</tr>
</tbody>
</table>
Table Z.-B

<table>
<thead>
<tr>
<th>Word Length Total</th>
<th>Syllable</th>
<th>Receiving Stress</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>None</td>
<td>First</td>
</tr>
<tr>
<td>Monosyllabic: 24.77%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bisyllabic: 54.86%</td>
<td>0</td>
<td>80.64%/87.71%</td>
</tr>
<tr>
<td>Trisyllabic: 14.15%</td>
<td>0</td>
<td>43.75%/12.28%</td>
</tr>
<tr>
<td>Tetrasyllabic: 5.30%</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Pentasyllabic: .88%</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Stressed Syllable Total:</td>
<td>67.05%</td>
<td>31.76%</td>
</tr>
</tbody>
</table>

Table Key: The “Word Length Total” column figure represents the percentage of words that is of that word length. For the cells inside the “Syllable Receiving Stress” columns, the amount on top indicates what percentage of a particular word length was stressed on that syllable. The number on the bottom indicates, for all the words that received stress on a particular syllable, what percentage of these words were of a particular word length. The “Stressed Syllable Total” row indicates what percentage of words was stressed on a particular syllable. Note that monosyllables were not analyzed as receiving stress and the “None” cell in the “Stressed Syllable Total” row is inapplicable.

**Question discussion.**

For Question Z. the most frequent segments were consonants /n/, /ɹ/, and /s/ and vowels /ə/ and /ɑ/. /n/ is an alveolar nasal. /ɹ/ is an alveolar approximant. /s/ is a voiceless, alveolar fricative. /ə/ is an unrounded, intermediate, mid, central vowel. /ɑ/ is an unrounded, lax, low, back vowel. The segments were most prevalent in the first stressed syllable. The first unstressed, second stressed and unstressed and third unstressed syllables also frequently housed the segments. The fourth unstressed syllable had very few of these segments. The monosyllables housed all the segments except for /ə/. (/ə/ cannot appear in a monosyllable.)

Unstressed segments outnumbered the stressed segments. Segments favored the syllable onsets over the codas. /n/ appeared syllabically in second and third unstressed syllable nuclei. /s/ was most frequently word-initial while the other two consonants were usually word-medial. /ə/ appeared in all three positions and /ɑ/ appeared only word-medially. The most frequent
consonant clusters were /bl/ and /st/. /b/ is a voiced, bilabial plosive. /l/ is an alveolar, lateral approximant. /t/ is a voiceless, alveolar plosive. /bl/ occurred in monosyllables word-initially and in second unstressed syllable onsets, word-medial. /st/ occurred in word-final positions in unstressed syllables. The most frequent whole syllables were /ɹo/, /də/, and /sə/. /o/ is a rounded, tense, mid, back vowel. /d/ is a voiced, alveolar plosive. /ɹo/ frequently occurred word-initially. /də/ frequently occurred word-initially in the first unstressed syllable. /sə/ frequently occurred in the first unstressed syllable word-initially and the second unstressed syllable word-medially. For all 113 whole words there were no repeated words.
Results Data Sheet

Images Requiring Words

Question ID: a

Below is a listing of the most frequent segments and supra-segments of this Question, the environments in which they appeared and the frequency with which they appeared in the indicated environments. In order to qualify for this data set, segments and supra-segments must have accounted for a minimum percentage of the broad total listed at the end of each section. The minimum values are as follows: consonants- >9%, vowels- >13%, consonant clusters- >8%, whole syllables- >1%. For a complete listing of the segments, supra-segments, environments and frequencies of this Question see the various Question a. data sheet sets in the appendix.

Segments

The most frequent consonants were /n/, /s/, and /l/. The most frequent vowels were /ɑ/ and /ə/.

Segment Total for Stressed and Unstressed Syllables and Monosyllables according to Syllable Configuration

Monosyllable Onset (36):
#s(4), 11.11%
l(3), 8.33%
#l(2) 5.55%

Monosyllable Nucleus (25):
ɑ(4) 16.00%

Monosyllable Coda (28):
n#(5) 17.85%

First Syllable Segment Stressed Onset (75):
#s(11), 14.66%
l(7), 9.33%
#l(5) 6.66%

First Syllable Segment Stressed Nucleus (57):
ɑ(10) 17.54%

First Syllable Segment Stressed Coda (24):
n(8), 33.33%
s(4) 16.66%

First Syllable Segment Unstressed Onset (29):
#s(4), l(4) 13.79%

First Syllable Segment Unstressed Nucleus (30):
ɑ(6), ɑ(6), 20.00%
#ɑ(3), 10.00%
#ɑ(2) 6.66%
Second Syllable Segment Stressed Onset (28):
<table>
<thead>
<tr>
<th>Segment</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>l</td>
<td>7</td>
<td>25.00%</td>
</tr>
<tr>
<td>n</td>
<td>2</td>
<td>7.14%</td>
</tr>
</tbody>
</table>

Second Syllable Segment Stressed Nucleus (28):
<table>
<thead>
<tr>
<th>Segment</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>ɑ</td>
<td>3</td>
<td>10.71%</td>
</tr>
</tbody>
</table>

Second Syllable Segment Stressed Coda (11):
<table>
<thead>
<tr>
<th>Segment</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>n#</td>
<td>3</td>
<td>27.27%</td>
</tr>
</tbody>
</table>

Second Syllable Segment Unstressed Onset (61):
<table>
<thead>
<tr>
<th>Segment</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>l</td>
<td>5</td>
<td>8.19%</td>
</tr>
<tr>
<td>n</td>
<td>4</td>
<td>6.55%</td>
</tr>
<tr>
<td>s</td>
<td>6</td>
<td>9.83%</td>
</tr>
</tbody>
</table>

Second Syllable Segment Unstressed Nucleus (59):
<table>
<thead>
<tr>
<th>Segment</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>ɑ</td>
<td>7</td>
<td>11.86%</td>
</tr>
<tr>
<td>*n#</td>
<td>4</td>
<td>6.77%</td>
</tr>
<tr>
<td>q#</td>
<td>2</td>
<td>3.38%</td>
</tr>
</tbody>
</table>

Second Syllable Segment Unstressed Coda (17):
<table>
<thead>
<tr>
<th>Segment</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>n#</td>
<td>4</td>
<td>23.52%</td>
</tr>
<tr>
<td>s#</td>
<td>2</td>
<td>11.76%</td>
</tr>
</tbody>
</table>

Third Syllable Segment Unstressed Onset (31):
<table>
<thead>
<tr>
<th>Segment</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>n</td>
<td>5</td>
<td>16.12%</td>
</tr>
<tr>
<td>s</td>
<td>2</td>
<td>6.45%</td>
</tr>
</tbody>
</table>

Third Syllable Segment Unstressed Nucleus (31):
<table>
<thead>
<tr>
<th>Segment</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>ɑ</td>
<td>6</td>
<td>19.35%</td>
</tr>
<tr>
<td>*n#</td>
<td>5</td>
<td>16.12%</td>
</tr>
<tr>
<td>q#</td>
<td>2</td>
<td>6.45%</td>
</tr>
</tbody>
</table>

Third Syllable Segment Unstressed Coda (14):
<table>
<thead>
<tr>
<th>Segment</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>n#</td>
<td>2</td>
<td>23.52%</td>
</tr>
<tr>
<td>s#</td>
<td>2</td>
<td>14.28%</td>
</tr>
</tbody>
</table>

Fourth Syllable Segment Unstressed Nucleus (5):
<table>
<thead>
<tr>
<th>Segment</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>ɑ</td>
<td>2</td>
<td>40.00%</td>
</tr>
</tbody>
</table>

Fourth Syllable Segment Unstressed Coda (4):
<table>
<thead>
<tr>
<th>Segment</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>s#</td>
<td>2</td>
<td>50.00%</td>
</tr>
</tbody>
</table>

Segment Total for Stressed and Unstressed Onsets and Codas

Stressed Onset (105):
<table>
<thead>
<tr>
<th>Segment</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>l</td>
<td>15</td>
<td>14.28%</td>
</tr>
<tr>
<td>#s</td>
<td>11</td>
<td>10.47%</td>
</tr>
<tr>
<td>#l</td>
<td>5</td>
<td>4.76%</td>
</tr>
<tr>
<td>n</td>
<td>3</td>
<td>2.85%</td>
</tr>
<tr>
<td>s</td>
<td>2</td>
<td>1.90%</td>
</tr>
</tbody>
</table>

Stressed Coda (35):
<table>
<thead>
<tr>
<th>Segment</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>n</td>
<td>9</td>
<td>25.71%</td>
</tr>
<tr>
<td>s</td>
<td>4</td>
<td>11.42%</td>
</tr>
<tr>
<td>n#</td>
<td>3</td>
<td>8.57%</td>
</tr>
</tbody>
</table>
Unstressed Onset (125):
l(10), 8.00%
n(9), 7.20%
s(8), a(8), 6.40%
#s(4) 3.20%

Unstressed Coda (40):
n#(7), 17.50%
s#(6), 15.00%
n(2) 5.00%

Segment Total for Onsets and Codas

Onset (266):
l(28), 10.52%
#s(19), 7.14%
n(12), 4.51%
s(10), 3.75%
#l(7) 2.63%

Coda (103):
n#(15), 14.56%
n(11), 10.67%
s#(6), 5.82%
s(5), 4.85%
l#(2) 1.94%

Segment Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllable Segment (63):
n#(5), 7.93%
#s(4), 6.34%
l(3), 4.76%
#l(2) 3.17%

(25):
a(4) 16.00%

First Syllable Segment Stressed (99):
#s(11), 11.11%
n(8), l(8), 8.08%
#l(5), 5.05%
s(4) 4.04%

(57):
a(10) 17.54%

First Syllable Segment Unstressed (34):
#s(4), l(4) 11.76%

(30):
a(6), a(6), 20.00%
#a(3), 10.00%
#a(2) 6.66%
Second Syllable Segment Stressed (39):

l(7), 17.94%
n#(3), n(3), 7.69%
s(2), 5.12%

Second Syllable Segment Unstressed (91):
l(5), 5.49%
n(4), n#(4), әn̩#, 4.39%
s#(2), 2.19%

Second Syllable Segment Stressed (28):
ә(3), 10.71%

Second Syllable Segment Unstressed (91):
l(5), 5.49%
n#(4), әn̩#, 4.39%
s#(2), 2.19%

Third Syllable Segment Unstressed (50):
n(6), 12.00%
n#(2), әn̩#(2), s(2), s#(2) 4.00%

Fourth Syllable Segment Unstressed (8):
s#(2), 25.00%

Segment Total by Syllable

First Syllable Segment (133):
#s(15), 11.11%
l(12), 8.88%
n(9), 6.66%
#l(5), 3.70%
s(4), 2.96%

First Syllable Segment (87):
ә(13), 14.94%

Second Syllable Segment (130):
l(12), 9.23%
s(8), 6.15%
n(7), n#(7), 5.38%
*әn̩#(4), 3.07%
s#(2), 1.53%

Second Syllable Segment (74):
ә(11), 14.86%
ә(10), 13.51%
ә#(2), ә#(2) 2.70%
Third syllable Segment (51):
n(6), 11.76%
n#(2), *η#(2), s(2), s#(2), l(2) 3.92%

(27):
α(6), 22.22%
α#(5) 18.51%

Fourth Syllable Segment (9):
s#(2) 22.22%

(5):
α(2) 40.00%

Segment Stressed and Unstressed Total

Stressed Segment (140):
l(16), 11.42%
n(12), 8.57%
#s(11), 7.85%
s(6), 4.28%
#l(5), 3.57%
n#(3) 2.14%

(87):
α(14) 16.09%

Unstressed Segment (184):
n(11), 5.97%
l(10), 5.43%
s(8), 4.34%
n#(7), *η#(7), 3.80%
s#(6), 3.26%
#s(4), 2.17%
*η(2) 1.08%

(107):
α(19), α(19), 17.75%
α#(7), 6.54%
#α(3), 2.805
#α(2), α#(2) 1.86%

Segment Total (absolute)

Narrow (387):
l(29), 7.49%
n(23), 5.94%
#s(19), 4.90%
n#(15), s(15), 3.87%
*η#(7), #l(7), 1.80%
s#(6), 1.55%
*η(2), l#(2) .51%
Supra-Segments: Consonant Clusters

The most frequent consonant clusters were /br/ and /fl/.

Consonant Cluster Total for Stressed and Unstressed Syllables and Monosyllables according to Syllable Configuration

First Syllable Consonant Cluster Stressed Onset (all entries are word initial) (16):
#br(3), 18.75%
#fl(2) 12.50%

Consonant Cluster Total for Stressed and Unstressed Onsets and Codas

Stressed Onset (19):
#br(3), 15.78%
#fl(2) 10.52%

Consonant Cluster Total for Onsets and Codas

Onset (39):
#br(4), #fl(4) 10.25%

Consonant Cluster Total for Stressed and Unstressed Syllables and Monosyllables

First Syllable Consonant Cluster Stressed (16):
#br(3), 18.75%
#fl(2) 12.50%

Consonant Cluster Total per Syllable

First Syllable Consonant Cluster (19):
#br(3), 15.78%
#fl(2) 10.52%

Consonant Cluster Stressed and Unstressed Total

Consonant Cluster Stressed (20):
#br(3), 15.00%
#fl(2) 10.00%

Consonant Cluster Total (absolute)

Narrow (47):
#br(4), #fl(4), 8.51%
br(2) 4.25%
Broad (47):
\( \text{b}(6) \), 12.76%
\( \text{fl}(4) \), 8.51%

47 total consonant clusters

**Supra-Segments: Whole Syllables**

The most frequent whole syllable was /ə/.

Whole Syllable Total for Stressed and Unstressed Syllables and Monosyllables

First Syllable Whole Syllable Unstressed (all entries are word initial) (30):
\( #\text{ə}(2) \), 6.66%

Second Syllable Whole Syllable Unstressed (59):
\( \text{ə}(2) \), 3.38%

Whole Syllable Total per Syllable

First Syllable Whole Syllable (all entries are word initial) (87):
\( #\text{ə}(2) \), 2.29%

Second Syllable Whole Syllable (87):
\( \text{ə}(2) \), 2.29%

Whole Syllable Stressed and Unstressed Total

Whole Syllable Unstressed (125):
\( \text{ə}(3) \), 2.40%
\( #\text{ə}(2) \), 1.60%

Whole Syllable Total (absolute)

Narrow (239):
\( \text{ə}(3) \), 1.25%
\( #\text{ə}(2) \), .83%

Broad (239):
\( \text{ə}(5) \), 2.09%

239 total whole syllables

**Supra-Segments: Whole Words**

Table a.-A

<table>
<thead>
<tr>
<th>Word Length Total</th>
<th>Syllable Receiving Stress</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>None</td>
</tr>
<tr>
<td>Monosyllabic: 26</td>
<td></td>
</tr>
<tr>
<td>Bisyllabic: 55</td>
<td>0</td>
</tr>
<tr>
<td>Trisyllabic: 26</td>
<td>0</td>
</tr>
<tr>
<td>Tetrasyllabic: 5</td>
<td>0</td>
</tr>
<tr>
<td>Pentasyllabic: 1</td>
<td>0</td>
</tr>
<tr>
<td>Total: 113</td>
<td>0</td>
</tr>
</tbody>
</table>
Table a.-B

<table>
<thead>
<tr>
<th>Word Length Total</th>
<th>None</th>
<th>First</th>
<th>Second</th>
<th>Third</th>
<th>Fourth</th>
<th>Fifth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monosyllabic: 23.00%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bisyllabic: 48.67%</td>
<td>0</td>
<td>74.54%/71.92%</td>
<td>25.45%/50.00%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trisyllabic: 23.00%</td>
<td>0</td>
<td>57.69%/26.31%</td>
<td>42.30%/39.28%</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tetrasyllabic: 4.42%</td>
<td>0</td>
<td>20.00%/1.75%</td>
<td>60.00%/10.71%</td>
<td>20.00%/100%</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Pentasyllabic: .88%</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>100%/100%</td>
<td>0</td>
</tr>
<tr>
<td>Stressed Syllable Total:</td>
<td>65.51%</td>
<td>32.18%</td>
<td>1.14%</td>
<td>1.14%</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

Table Key: The “Word Length Total” column figure represents the percentage of words that is of that word length. For the cells inside the “Syllable Receiving Stress” columns, the amount on top indicates what percentage of a particular word length was stressed on that syllable. The number on the bottom indicates, for all the words that received stress on a particular syllable, what percentage of these words were of a particular word length. The “Stressed Syllable Total” row indicates what percentage of words was stressed on a particular syllable. Note that monosyllables were not analyzed as receiving stress and the “None” cell in the “Stressed Syllable Total” row is inapplicable.

**Question discussion.**

For Question a. the most frequent segments were consonants /n/, /s/, and /l/ and vowels /ɑ/ and /ə/. /n/ is an alveolar nasal. /s/ is a voiceless, alveolar fricative. /l/ is an alveolar lateral approximant. /ɑ/ is an unrounded, lax, low back vowel. /ə/ is an unrounded, intermediate, mid, central vowel. The segments occurred most frequently in the first stressed and the second and third unstressed syllables. The first unstressed, second stressed and fourth unstressed syllables contained fewer segments. The monosyllables housed all the segments but /ə/. (/ə/ cannot appear in a monosyllable.) Unstressed segments were more numerous than stressed ones. Syllable onsets housed more segments than syllable codas. All consonants appeared in word-initial, -medial and -final positions. /s/ favored word-initial positions however, and /n/ favored word-final positions. /ə/ occurred in all three positions. /ɑ/ occurred word-initially and word-finally. Syllabic /n/ occurred in the second and third unstressed syllables. The most frequent
consonant clusters were /bɹ/ and /fl/. /b/ is a voiced, bilabial plosive. /ɹ/ is an alveolar approximant. /f/ is a voiceless, labiodental fricative. /bɹ/ and /fl/ frequently occurred in the first stressed syllable onset, word-initial. The most frequent whole syllable was /ə/. /ə/ occurred in the first syllable unstressed, word-initial and in the second syllable unstressed, word-medial. For all 113 whole words there were no repeated words.
Results Data Sheet

Images Requiring Words

Question ID: b.

Below is a listing of the most frequent segments and supra-segments of this Question, the environments in which they appeared and the frequency with which they appeared in the indicated environments. In order to qualify for this data set, segments and supra-segments must have accounted for a minimum percentage of the broad total listed at the end of each section. The minimum values are as follows: consonants- >9%, vowels- >13%, consonant clusters- >8%, whole syllables- >1%. For a complete listing of the segments, supra-segments, environments and frequencies of this Question see the various Question b. data sheet sets in the appendix.

Segments

The most frequent consonants were /ɹ/ and /n/. The most frequent vowels were /ɑ/, /i/, and /ə/.

Monosyllable Nucleus (30):
ɪ(4), ɑ(4) 13.33%

Monosyllable Coda (28):
n#(4), 14.28%
ɪ(2) 7.14%

First Syllable Segment Stressed Onset (74):
ɪ(6) 8.10%

First Syllable Segment Stressed Nucleus (62):
ɑ(10), 16.12%
#ɑ(3), 4.83%
ɪ(2) 3.22%

First Syllable Segment Stressed Coda (22):
n(8), 36.36%
ɪ(3) 13.63%

First Syllable Segment Unstressed Nucleus (23):
ɑ(6), 26.08%
#ɑ(3), ɑ(3), 13.04%
#ɑ(2) 8.69%

First Syllable Segment Unstressed Coda (3):
n(2) 66.66%

Second Syllable Segment Stressed Onset (19):
ɪ(3) 15.78%

Second Syllable Segment Stressed Nucleus (20):
ɪ(3), ɑ(3) 15.00%

Second Syllable Segment Stressed Coda (10):
n(2), #ɑ(2), ɪ(2) 20.00%
Second Syllable Segment Unstressed Onset (66):
µ(9), 13.63%
n(3) 4.54%

Second Syllable Segment Unstressed Nucleus (64):
a(9), 14.06%
l#(8), 12.50%
a(3), 4.68%
l(2), *n#(2) 3.12%

Second Syllable Segment Unstressed Coda (15):
n#(2) 13.33%

Third Syllable Segment Stressed Nucleus (2):
l(2) 100%

Third Syllable Segment Unstressed Onset (30):
µ(4) 13.33%

Third Syllable Segment Unstressed Nucleus (27):
a(6), 22.22%
a(3), *n#(3), 11.11%
l(2) 7.40%

Third Syllable Segment Unstressed Coda (11):
n#(2), µ#(2) 18.18%

Fourth Syllable Segment Unstressed Onset (5):
µ(2) 40.00%

Fourth Syllable Segment Unstressed Nucleus (9):
l#(2), a(2) 22.22%

Segment Total for Stressed and Unstressed Onsets and Codas

Stressed Onset (96):
µ(9), 9.37%
n(3) 3.12%

Stressed Coda (33):
n(10), 30.30%
µ(5) 15.15%

Unstressed Onset (120):
µ(16), 13.33%
n(6) 5.00%

Unstressed Coda (32):
n#(4), 12.50%
µ#(3), 9.37%
n(2) 6.25%

Segment Total for Onsets and Codas

Onset (252):
µ(26), 10.31%
n(9) 3.57%
Coda (93):
\( n(12), 12.90\% \)
\( n\#(8), \bar{\alpha}(8), 8.60\% \)
\( \bar{\alpha}\#(6) \ 6.45\% \)

Segment Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllable Segment (64):
\( n\#(4), 6.25\% \)
\( \bar{\alpha}(3) \ 4.68\% \)

(30):
\( l\#(4), a(4) \ 13.33\% \)

First Syllable Segment Stressed (96):
\( \bar{\alpha}(9), 9.37\% \)
\( n(8) \ 8.33\% \)

(62):
\( a(10), 16.12\% \)
\( \#a(3), 4.83\% \)
\( l\#(2) \ 3.22\% \)

First Syllable Segment Unstressed (22):
\( n(2), \bar{\alpha}(2) \ 9.09\% \)

(23):
\( a(6), 26.08\% \)
\( \#a(3), a(3), 13.04\% \)
\( \#a(2) \ 8.69\% \)

Second Syllable Segment Stressed (29):
\( \bar{\alpha}(5), 17.24\% \)
\( n(3), 10.34\% \)
\( \bar{\alpha}\#(2) \ 6.89\% \)

(20):
\( l\#(3), a(3) \ 15.00\% \)

Second Syllable Segment Unstressed (95):
\( \bar{\alpha}(9), 9.47\% \)
\( n\#(2), *\bar{\eta}\#(2) \ 2.10\% \)

(45):
\( a(9), 20.00\% \)
\( l\#(8), 17.77\% \)
\( a(3), 6.66\% \)
\( l\(l\#(2) \ 4.44\% \)

Third Syllable Segment Stressed:

(2):
\( l\#(2) \ 100\% \)

Third Syllable Segment Unstressed (47):
\( \bar{\alpha}(4), 8.51\% \)
\( n(3), *\bar{\eta}\#(3), 6.38\% \)
\( n\#(2), \bar{\eta}\#(2) \ 4.25\% \)
<table>
<thead>
<tr>
<th>Segment</th>
<th>Stressed</th>
<th>Unstressed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fourth Syllable Segment Unstressed (10):</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(21):</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ə(6), 28.57%</td>
<td></td>
<td>ə(3), 14.28%</td>
</tr>
<tr>
<td>ə(2) 9.52%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fourth Syllable Segment Stressed and Unstressed Total</td>
<td>18.18%</td>
<td>25.00%</td>
</tr>
<tr>
<td>(2):</td>
<td>18.18%</td>
<td>25.00%</td>
</tr>
<tr>
<td>ə(2)</td>
<td>28.57%</td>
<td></td>
</tr>
<tr>
<td>Segment Total by Syllable</td>
<td>18.18%</td>
<td>25.00%</td>
</tr>
<tr>
<td>ə(2)</td>
<td>28.57%</td>
<td></td>
</tr>
<tr>
<td>Segment Stressed and Unstressed Total</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
(85):
\( \alpha(13), 15.29\% \)
\( \iota(7), 8.23\% \)
\( \#\alpha(3) 3.52\% \)

Unstressed Segment (175):
\( \iota(17), 9.71\% \)
\( n(8), 4.57\% \)
\( ^*\eta\#(5), 2.85\% \)
\( n\#(4), 2.28\% \)
\( \eta\#(3) 1.71\% \)

(97):
\( \alpha(24), 24.74\% \)
\( \iota\#(10), 10.30\% \)
\( \alpha(9), 9.27\% \)
\( \iota(4), 4.12\% \)
\( \#\alpha(3), 3.09\% \)
\( \#\alpha(2), \#\alpha(2) 2.06\% \)

Segment Total (absolute)

Narrow (367):
\( \iota(34), 9.26\% \)
\( n(21), 5.72\% \)
\( n\#(8), 2.17\% \)
\( \eta\#(6), 1.63\% \)
\( ^*\eta\#(5) 1.36\% \)

(212):
\( \alpha(26), 12.26\% \)
\( \alpha(24), 11.32\% \)
\( \iota\#(15), 7.07\% \)
\( \iota\#(10), 4.71\% \)
\( \#\alpha(7), 3.30\% \)
\( \#\alpha(2), \#\alpha(2) .94\% \)

Broad (367):
\( \iota(40), 10.89\% \)
\( n(36) 9.80\% \)

(212):
\( \alpha(34), 16.03\% \)
\( \iota(28), \alpha(28) 13.20\% \)

579 total segments

**Supra-Segments: Consonant Clusters**

The most frequent consonant clusters were /bl/ and /pl/.

Consonant Cluster Total for Stressed and Unstressed Syllables and Monosyllables according to Syllable Configuration

**First Syllable Consonant Cluster Stressed Onset (all entries are word initial) (18):**
\( \#bl(5) 27.77\% \)
Consonant Cluster Total for Stressed and Unstressed Onsets and Codas

Stressed Onset (19):
#bl(5), 26.31%

Consonant Cluster Total for Onsets and Codas

Onset (36):
#bl(7), 19.44%
#pʰl(2) 5.55%

Consonant Cluster Total for Stressed and Unstressed Syllables and Monosyllables

First Syllable Consonant Cluster Stressed (18):
#bl(5) 27.77%

Consonant Cluster Total per Syllable

First Syllable Consonant Cluster (22):
#bl(6) 27.27%

Consonant Cluster Stressed and Unstressed Total

Consonant Cluster Stressed (19):
#bl(5) 26.31%

Consonant Cluster Total (absolute)

Narrow (43):
#bl(7), 16.27%
#pʰl(2) 4.65%

Broad (43):
bl(7), 16.27%
pl(4) 9.30%

43 total consonant clusters

Supra-Segments: Whole Syllables

The most frequent whole syllable was /a/.

Whole Syllable Total for Stressed and Unstressed Syllables and Monosyllables

First Syllable Whole Syllable Stressed (all entries are word initial) (57):
#a(2) 3.50%

First Syllable Whole Syllable Unstressed (all entries are word initial) (25):
#a(2) 8.00%

Whole Syllable Total per Syllable

First Syllable Whole Syllable (all entries are word initial) (82):
#a(4) 2.43%

Whole Syllable Stressed and Unstressed Total

Whole Syllable Stressed (82):
#a(2) 2.43%

Whole Syllable Unstressed (123):
#a(2) 1.62%
Whole Syllable Total (absolute)

Narrow (237):
#ɑ(4) 1.68%

Broad (237):
ɑ(4) 1.68%

237 total whole syllables

Supra-Segments: Whole Words

Table b.-A

<table>
<thead>
<tr>
<th>Word Length Total</th>
<th>Syllable Receiving Stress</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>None</td>
</tr>
<tr>
<td>Monosyllabic: 30</td>
<td></td>
</tr>
<tr>
<td>Bisyllabic: 53</td>
<td>0</td>
</tr>
<tr>
<td>Trisyllabic: 20</td>
<td>0</td>
</tr>
<tr>
<td>Tetrasyllabic: 9</td>
<td>0</td>
</tr>
<tr>
<td>Pentasyllabic: 1</td>
<td>0</td>
</tr>
<tr>
<td>Total: 113</td>
<td>0</td>
</tr>
</tbody>
</table>

Table b.-B

<table>
<thead>
<tr>
<th>Word Length Total</th>
<th>Syllable Receiving Stress</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>None</td>
</tr>
<tr>
<td>Monosyllabic: 26.54%</td>
<td></td>
</tr>
<tr>
<td>Bisyllabic: 46.90%</td>
<td></td>
</tr>
<tr>
<td>Trisyllabic: 17.69%</td>
<td></td>
</tr>
<tr>
<td>Tetrasyllabic: 7.96%</td>
<td></td>
</tr>
<tr>
<td>Pentasyllabic: .88%</td>
<td></td>
</tr>
<tr>
<td>Stressed Syllable Total:</td>
<td>69.87%</td>
</tr>
</tbody>
</table>

Table Key: The “Word Length Total” column figure represents the percentage of words that is of that word length. For the cells inside the “Syllable Receiving Stress” columns, the amount on top indicates what percentage of a particular word length was stressed on that syllable. The number on the bottom indicates, for all the words that received stress on a particular syllable, what percentage of these words were of a particular word length. The “Stressed Syllable Total” row indicates what percentage of words was stressed on a particular syllable. Note that monosyllables were not analyzed as receiving stress and the “None” cell in the “Stressed Syllable Total” row is inapplicable.

Question discussion.

For Question b. the most frequent segments were consonants /ɹ/ and /n/ and vowels /ɑ/, /i/, and /ə/. /ɹ/ is an alveolar approximant. /n/ is an alveolar nasal. /ɑ/ is an unrounded, lax,
low, back vowel. /i/ is an unrounded, tense, high, front vowel. /ə/ is an unrounded, intermediate, mid, central vowel. The segments most frequently occurred in first stressed and second and third unstressed syllables. The first unstressed syllable housed many vowels and few consonants. The second stressed syllable contained fewer but balanced amounts of segments. The third stressed syllable contained only vowels and the fourth unstressed syllable had both consonants and vowels. The unstressed segments easily outnumbered the stressed ones. The syllable nucleus, stressed and unstressed, generally contained the greatest concentration of segments. Syllabic /n/ was present in second and third unstressed syllables. The onsets and codas were smaller than the nuclei, but about equal to each other in size most of the time. The monosyllables contained examples of all the segments. (/ə/ can never appear in a monosyllable.) Most segments favored word-medial positions with /i/ having several examples that were word-final as well. The most frequent consonant clusters were /bl/ and /pl/. /b/ is a voiced, bilabial plosive. /l/ is an alveolar, lateral approximant. /p/ is a voiceless, bilabial plosive. Note that none of these constituents were among the most common segments. This was unusual. /bl/ occurred most frequently in first stressed syllables in the onset, word-initial. /pl/ occurred most frequently in the onset, word-initially. The most frequent whole syllable was /a/. It occurred exclusively in the first syllable, both stressed and unstressed, word-initially. For all 113 whole words there were no repeated words.
Results Data Sheet

*Images Requiring Words*

**Question ID: c.**

Below is a listing of the most frequent segments and supra-segments of this Question, the environments in which they appeared and the frequency with which they appeared in the indicated environments. In order to qualify for this data set, segments and supra-segments must have accounted for a minimum percentage of the broad total listed at the end of each section. The minimum values are as follows: consonants- >9%, vowels- >13%, consonant clusters- >8%, whole syllables- >1%. For a complete listing of the segments, supra-segments, environments and frequencies of this Question see the various Question c. data sheet sets in the appendix.

**Segments**

The most frequent consonants were /ɹ/ and /n/. The most frequent vowels were /ɑ/ and /ə/.

Segment Total for Stressed and Unstressed Syllables and Monosyllables according to Syllable Configuration

- **Monosyllable Onset (19):**
  - ɹ(4) 21.05%

- **Monosyllable Nucleus (14):**
  - ɑ(2) 14.28%

- **First Syllable Segment Stressed Onset (69):**
  - ɹ(8), 11.59%
  - #ɹ(2) 2.89%

- **First Syllable Segment Stressed Nucleus (61):**
  - ɑ(11), 18.03%
  - #ɑ(2) 3.27%

- **First Syllable Segment Stressed Coda (29):**
  - ɹ(6), 20.68%

- **First Syllable Segment Unstressed Onset (33):**
  - ɹ(5), 15.15%
  - #n(2) 6.06%

- **First Syllable Segment Unstressed Nucleus (38):**
  - ɑ(6), 21.05%
  - ɑ(4), 10.52%
  - #ɑ(3) 7.89%

- **First Syllable Segment Unstressed Coda (12):**
  - ɹ(4) 33.33%

- **Second Syllable Segment Stressed Nucleus (26):**
  - ɑ(3) 11.53%

- **Second Syllable Segment Stressed Coda (11):**
  - n#(2) 18.18%
Second Syllable Segment Unstressed Onset (82):
ɹ (8), 9.75%
n (4) 4.87%

Second Syllable Segment Unstressed Nucleus (72):
ə (15), 20.83%
ə# (2), *ə (2) 2.77%

Second Syllable Segment Unstressed Coda (27):
n# (6), 22.22%
ɹ (3), 11.11%
n (2) 7.40%

Third Syllable Segment Stressed Nucleus (6):
ə (2) 33.33%

Third Syllable Segment Unstressed Onset (42):
ɹ (6), 14.28%
n (3) 7.14%

Third Syllable Segment Unstressed Nucleus (34):
ə (6), 17.64%
ə (4), 11.76%
ə# (3), 8.82%
*ə (2) 5.88%

Third Syllable Segment Unstressed Coda (22):
n# (4), 18.18%
ɹ (2) 9.09%

Fourth Syllable Segment Unstressed Nucleus (13):
ə# (3), 23.07%
ə (2) 15.38%

Segment Total for Stressed and Unstressed Onsets and Codas

Stressed Onset (112):
ɹ (15), 13.39%
n (2), #ɹ (2) 1.78

Stressed Coda (42):
n (8), 19.04%
ɹ (7), 16.66%
n# (2) 4.76%

Unstressed Onset (169):
ɹ (20), 11.83%
n (8), 4.73%
#n (2) 1.18%

Unstressed Coda (63):
n# (10), 15.87%
ɹ (6), 9.52%
n (4), #ɹ (4) 6.34%
Segment Total for Onsets and Codas

Onset (300):
ɹ(39), 13.00%
n(10), 3.33%
#ɹ(4), 1.33%
#n(2) .66%

Coda (124):
ɹ(14), 11.29%
n#(13), n(13), 10.48%
ɹ#(4) 3.22%

Segment Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllable Segment (38):
ɹ(5), 13.15%

First Syllable Segment Stressed (104):
ɹ(14), 13.46%
n(6) 5.76%

First Syllable Segment Unstressed (47):
ɹ(9), 19.14%
#n(2), *n(2) 4.25%

Second Syllable Segment Stressed (42):
ɹ(7), 16.66%
n#(2), n(2) 4.76%

Second Syllable Segment Unstressed (115):
ɹ(8), 6.95%
n#(6), n(6) 5.21%
ɹ#(3), 2.60%
*n(2) 1.73%

Second Syllable Segment Unstressed (66):
ɹ(15), 22.72%
ɹ(9), 13.63%
ɹ#(2) 3.03%
Third Syllable Segment Stressed (8):
\( n(2) \) 25.00%

(6):
\( a(2) \) 33.33%

Third Syllable Segment Unstressed (69):
\( u(8) \), 11.59%
\( n(4), n\#(4) \), 5.79%
\( *\eta\#(2) \) 2.89%

(29):
\( a(6) \), 20.68%
\( a(4) \), 13.79%
\( a\#(3) \) 10.34%

Fourth Syllable Segment Unstressed:

(12):
\( a\#(3) \), 25.00%
\( a(2) \) 16.66%

Segment Total by Syllable

First Syllable Segment (151):
\( u(23) \), 15.23%
\( n(7) \), 4.63%
\( *n(2), *\eta(2) \) 1.32%

(97):
\( a(15) \), 15.46%
\( a(8) \), 8.24%
\( *a(5) \), 5.15%
\( *a(2) \) 2.06%

Second Syllable Segment (157):
\( u(15) \), 9.55%
\( n\#(8), n(8) \), 5.09%
\( *u(3) \), 1.91%
\( *\eta(2) \) 1.27%

(92):
\( a(15) \), 16.30%
\( a(12) \), 13.04%
\( a\#(2) \) 2.17%

Third syllable Segment (77):
\( u(9) \), 11.68%
\( n(6) \), 7.79%
\( n\#(4) \), 5.19%
\( *\eta\#(2) \) 2.59%

(35):
\( a(8) \), 22.85%
\( a(4) \), 11.42%
\( a\#(3) \) 8.57%
Fourth Syllable Segment:

(12):
ə#(3), 25.00%
ə(2) 16.66%

Segment Stressed and Unstressed Total

Stressed Segment (154):
ɹ(22), 14.28%
n(10), 6.49%
n#(2) 1.29%

(93):
ɑ(16), 17.20%
#ɑ(2) 2.15%

Unstressed Segment (248):
ɹ(26), 10.48%
n(12), 4.83%
n#(10), 4.03%
ɹ#(4), 1.61%
*ɳ#(3), 1.20%
#n(2) .80%

(143):
ə(29), 20.27%
ə(19), 13.28%
ə#(8), 5.59%
#ɑ(3), 2.09%
#ɑ(2) 1.39%

Segment Total (absolute)

Narrow (425):
ɹ(53), 12.47%
n(23), 5.41%
n#(13), 3.05%
*ɳ(4), ɻ#(4), #ɻ(4), .94%
*ɳ#(3), .70%
#n(2) .47%

(265):
ə(37), 13.96%
ə(29), 10.94%
ə#(8), 3.01%
#ɑ(5), 1.88%
#ɑ(2) .75%

Broad (425):
ɹ(61), 14.35%
n(45) 10.58%
The most common consonant clusters were /bɹ/, /fɹ/, /tɹ/, and /gɹ/.

Consonant Cluster Total for Stressed and Unstressed Syllables and Monosyllables according to Syllable Configuration

Monosyllable Consonant Cluster Onset (all entries are word initial) (2):
#b(2) 100%

First Syllable Consonant Cluster Stressed Onset (all entries are word initial) (17):
#f(3), #g(3) 17.64%

First Syllable Consonant Cluster Unstressed Onset (all entries are word initial) (5):
#b(3) 60.00%

Second Syllable Consonant Cluster Stressed Onset (6):
b(2), t(2) 33.33%

Consonant Cluster Total for Stressed and Unstressed Onsets and Codas

Stressed Onset (23):
#f(3), #g(3), 13.04%
b(2), t(2) 8.69%

Unstressed Onset (12):
#b(3) 25.00%

Consonant Cluster Total for Onsets and Codas

Onset (37):
#b(5), 13.51%
b(3), #f(3), #g(3), 8.10%
t(2), t(2) 5.40%

Consonant Cluster Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllable Consonant Cluster (4):
#b(2) 50.00%

First Syllable Consonant Cluster Stressed (17):
#f(3), #g(3) 17.64%

First Syllable Consonant Cluster Unstressed (5):
#b(3) 60.00%

Second Syllable Consonant Cluster Stressed (7):
b(2), t(2) 28.57%

Consonant Cluster Total per Syllable

First Syllable Consonant Cluster (22):
#b(3), #f(3), #g(3) 13.63%

Second Syllable Consonant Cluster (13):
b(3), 23.07%
t(2) 15.38%
Consonant Cluster Stressed and Unstressed Total

Consonant Cluster Stressed (24):

#f(3), #g(3), 12.50%
#b(2), #t(2) 8.33%

Consonant Cluster Unstressed (16):

#b(3) 18.75%

Consonant Cluster Total (absolute)

Narrow (44):

#b(5), 11.36%
#b(3), #f(3), 6.81%
#t(2), #t(2) 4.54%

Broad (44):

#b(4), 18.18%
#f(4), #t(4), #g(4) 9.09%

44 total consonant clusters

Supra-Segments: Whole Syllables

The most common whole syllables were /li/, /a/, /ma/, and /la/.

Whole Syllable Total for Stressed and Unstressed Syllables and Monosyllables

First Syllable Whole Syllable Unstressed (all entries are word initial) (37):

#a(2), #ma(2) 5.40%

Whole Syllable Total per Syllable

First Syllable Whole Syllable (all entries are word initial) (99):

#a(2), #ma(2) 2.02%

Whole Syllable Stressed and Unstressed Total

Whole Syllable Unstressed (161):

li#(2), #a(2), #ma(2), la#(2), la(2) 1.24%

Whole Syllable Total (absolute)

Narrow (273):

li#(2), #a(2), #ma(2), la#(2), la(2) 0.73%

Broad (273):

li(4), a(4), ma(4), la(4) 1.46%

273 total whole syllables
Supra-Segments: Whole Words

Table c.-A

<table>
<thead>
<tr>
<th>Word Length Total</th>
<th>Syllable Receiving Stress</th>
<th>None</th>
<th>First</th>
<th>Second</th>
<th>Third</th>
<th>Fourth</th>
<th>Fifth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monosyllabic: 14</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bisyllabic: 52</td>
<td></td>
<td>0</td>
<td>42</td>
<td>10</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trisyllabic: 34</td>
<td></td>
<td>1</td>
<td>20</td>
<td>11</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tetrasyllabic: 12</td>
<td></td>
<td>0</td>
<td>0</td>
<td>7</td>
<td>5</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Pentasyllabic: 1</td>
<td></td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total: 113</td>
<td></td>
<td>1</td>
<td>62</td>
<td>28</td>
<td>8</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Table c.-B

<table>
<thead>
<tr>
<th>Word Length Total</th>
<th>Syllable Receiving Stress</th>
<th>None</th>
<th>First</th>
<th>Second</th>
<th>Third</th>
<th>Fourth</th>
<th>Fifth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monosyllabic: 12.38%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bisyllabic: 46.01%</td>
<td></td>
<td>0</td>
<td>80.76%/67.74%</td>
<td>19.23%/35.71%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trisyllabic: 30.08%</td>
<td></td>
<td>2.94%/100%</td>
<td>58.82%/32.25%</td>
<td>32.35%/39.28%</td>
<td>5.88%/25.00%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tetrasyllabic: 10.61%</td>
<td></td>
<td>0</td>
<td>0</td>
<td>58.33%/25.00%</td>
<td>41.66%/62.50%</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Pentasyllabic: .88%</td>
<td></td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>100%/12.50%</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Stressed Syllable Total:</td>
<td></td>
<td>63.26%</td>
<td>28.57%</td>
<td>8.16%</td>
<td></td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Table Key: The “Word Length Total” column figure represents the percentage of words that is of that word length. For the cells inside the “Syllable Receiving Stress” columns, the amount on top indicates what percentage of a particular word length was stressed on that syllable. The number on the bottom indicates, for all the words that received stress on a particular syllable, what percentage of these words were of a particular word length. The “Stressed Syllable Total” row indicates what percentage of words was stressed on a particular syllable. Note that monosyllables were not analyzed as receiving stress and the “None” cell in the “Stressed Syllable Total” row is inapplicable.

*Question discussion.*

For Question c. the most frequent segments were consonants /ɹ/ and /n/ and vowels /ɑ/ and /ə/. /ɹ/ is an alveolar approximant. /n/ is an alveolar nasal. /ɑ/ is an unrounded, lax, low, back vowel. /ə/ is an unrounded, intermediate, mid, central vowel. Segments most frequently occurred in the first stressed and unstressed syllable and in the second and third unstressed syllable. The second stressed syllable contained fewer segments but was balanced. The third stressed syllable and the fourth unstressed syllable only contained vowels. Unstressed segments
far exceeded stressed segments in total number. The segments were fairly well balanced between onsets, nuclei and codas. At times, the nuclei housed a bit more segments than the other two. The monosyllables had no examples of /n/. (/ə/ is never found in a monosyllable.) In the second and third unstressed syllables, syllabic /n/ was present. Most segments were word-medial. /n/ was an exception as it showed several examples that were word-final. The most common consonant clusters were /bʌ/, /fʌ/, /tʌ/, and /gʌ/. /b/ is a voiced, bilabial plosive. /f/ is a voiceless, labiodental fricative. /t/ is a voiceless, alveolar, plosive. /g/ is a voiced, velar plosive. None of these consonants are among the most frequent consonants. /bʌ/ occurred in monosyllables, first unstressed and second stressed syllables in the onset. It was word initial in the monosyllables and the first syllables. /fʌ/ and /gʌ/ occurred most frequently in first stressed syllable onsets, word initial. /tʌ/ frequently occurred in second stressed syllables in the onset, word-medial. The most common whole syllables were /li/, /ə/, /mə/, and /lə/. /l/ is an alveolar, lateral approximant. /i/ is an unrounded, tense, high, front vowel. /m/ is a bilabial nasal. /li/ frequently occurred unstressed in word-final position. /ə/ and /mə/ frequently occurred in the first whole syllable unstressed, word-initial. /lə/ frequently occurred in unstressed syllables in word-medial and word-final positions. For all 113 whole words there were no repeated words.
Results Data Sheet

Images Requiring Words

Question ID: d.

Below is a listing of the most frequent segments and supra-segments of this Question, the environments in which they appeared and the frequency with which they appeared in the indicated environments. In order to qualify for this data set, segments and supra-segments must have accounted for a minimum percentage of the broad total listed at the end of each section. The minimum values are as follows: consonants- >9%, vowels- >13%, consonant clusters- >8%, whole syllables- >1%. For a complete listing of the segments, supra-segments, environments and frequencies of this Question see the various Question d. data sheet sets in the appendix.

Segments

The most frequent consonants were /s/, /ɹ/, and /n/. The most frequent vowels were /ɪ/, /ɑ/, and /ə/.

Segment Total for Stressed and Unstressed Syllables and Monosyllables according to Syllable Configuration

Monosyllable Onset (28):
#s(6), 21.42%
ɹ(3) 10.71%

Monosyllable Nucleus (15):
ɑ(2) 13.33%

Monosyllable Coda (19):
ɹ#(2) 10.52%

First Syllable Segment Stressed Onset (101):
#s(27), 26.73%
ɹ(6), 5.94%
#ɹ(3) 2.97%

First Syllable Segment Stressed Nucleus (79):
ɪ(15), 18.98%
ɑ(14) 17.72%

First Syllable Segment Stressed Coda (29):
ɹ(9), 31.03%
ɹ(3), 10.34%
s(2) 6.89%

First Syllable Segment Unstressed Onset (20):
#s(5) 25.00%

First Syllable Segment Unstressed Nucleus (20):
ɪ(5), 25.00%
ɑ(4), 20.00%
#ɑ(2) 10.00%
Second Syllable Segment Stressed Onset (20):
μ(4), 20.00%
s(2), 10.00%

Second Syllable Segment Stressed Nucleus (16):
α(5), 31.25%
τ(3), 18.75%

Second Syllable Segment Stressed Coda (9):
n(2), μ#(2), 22.22%

Second Syllable Segment Unstressed Onset (84):
μ(8), 9.52%
n(4), 4.76%
s(2), 2.38%

Second Syllable Segment Unstressed Nucleus (137):
αι(15), 10.94%
τ(8), 5.83%
αι(6), 4.37%
*η#(4), 2.91%

Second Syllable Segment Unstressed Coda (29):
n#(6), 20.68%
s#(2), 6.89%

Third Syllable Segment Unstressed Onset (25):
n(5), 20.00%
μ(4), 16.00%
s(3), 12.00%

Third Syllable Segment Unstressed Nucleus (21):
τ(5), 23.80%
αι#(4), 19.04%
αι(2), 9.52%

Third Syllable Segment Unstressed Coda (12):
s#(4), 33.33%

Fourth Syllable Segment Unstressed Nucleus (8):
αι#(4), 50.00%

Fourth Syllable Segment Unstressed Coda (3):
s#(2), 66.66%

Segment Total for Stressed and Unstressed Onsets and Codas

Stressed Onset (125):
#s(27), 21.60%
μ(10), 8.00%
#μ(3), 2.40%
s(2), 1.60%

Stressed Coda (38):
n(11), 28.94%
μ(3), 7.89%
s(2), μ#(2), 5.26%
Unstressed Onset (135):
#s(5), 3.70%
$s(6), 4.44%$
$n(9), 6.66%$
$n(10), 3.47%$
$\#s(2), \#n(9) 10.37%$

Unstressed Coda (48):
$s#(8), 16.66%$
$n#(7), 14.58%$
$s(2), #s(2) 4.16%$

Segment Total for Onsets and Codas

Onset (288):
#s(38), 13.19%
$n(10), 3.47%$
$s(8), 2.77%$
$\#s(5) 1.73%$

Coda (105):
n(14), 13.33%
n#(9), 8.57%
s#(8), 7.61%
$\#s(6), 5.71%$
$s(4), #s(4) 3.80%$

Segment Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllable Segment (62):
#s(6), 9.67%
$n(3), 4.83%$
$n#(2), \#s(2) 3.22%$

(15):
$\alpha(2) 13.33%$

First Syllable Segment Stressed (130):
#s(27), 20.76%
n(9), #s(9), 6.92%
$\#s(3), 2.30%$
$s(2) 1.53%$

(79):
$\iota(15), 18.98%$
$\alpha(14) 17.72%$

First Syllable Segment Unstressed (25):
#s(5), 20.00%
$n(2) 8.00%$

(19):
$\iota(5), 26.31%$
$\alpha(4), 21.05%$
$\#\alpha(2) 10.52%$
Second Syllable Segment Stressed (29):
\( \mu(4) \), 13.79%
\( n(2), s(2), m(2) \) 6.89%

(16):
\( a(5) \), 31.25%
\( t(3) \) 18.75%

Second Syllable Segment Unstressed (132):
\( \mu(8) \), 6.06%
\( n#(6) \), 4.54%
\( n(5) \), 3.78%
\( *\eta#(4) \), 3.03%
\( s(2), s#(2) \) 1.51%

(64):
\( a(15) \), 23.43%
\( t(8) \), 12.50%
\( a(6) \) 9.37%

Third Syllable Segment Unstressed (39):
\( n(5) \), 12.82%
\( s(4), s#(4), m(4) \) 10.25%

(19):
\( t(5) \), 26.31%
\( \omega#(4) \), 21.05%
\( a(2) \) 10.52%

Fourth Syllable Segment Unstressed (10):
\( s#(2) \) 20.00%

(7):
\( \omega#(4) \) 57.14%

Segment Total by Syllable

First Syllable Segment (155):
\( #s(32) \), 20.64%
\( \mu(11) \), 7.09%
\( n(10) \), 6.45%
\( #\mu(4) \), 2.58%
\( s(3) \) 1.93%

(98):
\( t(20) \), 20.40%
\( a(15) \), 15.30%
\( a(4) \), 4.08%
\( #a(3) \) 3.06%

Second Syllable Segment (161):
\( \mu(12) \), 7.45%
\( n(7) \), 4.34%
\( n#(6) \), 3.72%
\( *\eta#(4), s(4) \), 2.48%
\( #\mu(3) \), 1.86%
\( s#(2) \) 1.24%
(80):
\( \ddot{a}(15), 18.75\% \)
\( \ddot{t}(11), \ddot{a}(11) 13.75\% \)

Third syllable Segment (43):
\( n(6), 13.95\% \)
\( s(4), s\#(4), \ddot{u}(4) 9.30\% \)

(23):
\( \ddot{t}(5), 21.73\% \)
\( \ddot{a}\#(4), 17.39\% \)
\( \ddot{a}(3) 13.04\% \)

Fourth Syllable Segment (10):
\( s\#(2) 20.00\% \)

(7):
\( \ddot{a}\#(4) 57.14\% \)

Segment Stressed and Unstressed Total

Stressed Segment (163):
\( \ddot{s}(27), 16.56\% \)
\( \ddot{j}(13), 7.97\% \)
\( n(12), 7.36\% \)
\( s(4), 2.45\% \)
\( \ddot{#}(3), 1.84\% \)
\( \ddot{\ddot{s}}(2) 1.22\% \)

(99):
\( \ddot{a}(20), 20.20\% \)
\( \ddot{t}(18) 18.18\% \)

Unstressed Segment (206):
\( \ddot{j}(15), 7.28\% \)
\( n(11), 5.33\% \)
\( s(8), s\#(8), 3.88\% \)
\( n\#(7) 3.39\% \)
\( \ddot{s}(5), 2.42\% \)
\( ^*\ddot{\ddot{s}}(4), 1.94\% \)
\( ^*\ddot{\ddot{q}}(2), \ddot{\ddot{s}}(2) .97\% \)

(109):
\( \ddot{a}(21), 19.26\% \)
\( \ddot{t}(19), 17.43\% \)
\( \ddot{\ddot{a}}(2) 1.83\% \)
Supra-Segments: Consonant Clusters

The most frequent consonant clusters were /sw/ and /skw/.

Consonant Cluster Total for Stressed and Unstressed Syllables and Monosyllables according to Syllable Configuration

Monosyllable Consonant Cluster Onset (all entries are word initial) (10):
#sw(2) 20.00%

First Syllable Consonant Cluster Stressed Onset (all entries are word initial) (25):
#sw(5) 20.00%

Second Syllable Consonant Cluster Stressed Onset (4):
skw(2) 50.00%

Consonant Cluster Total for Stressed and Unstressed Onsets and Codas

Stressed Onset (29):
#sw(5), 17.24%
skw(2) 6.89%

Consonant Cluster Total for Onsets and Codas

Onset (46):
#sw(7), 15.21%
#skw(3), 6.52%
skw(2) 4.34%
Consonant Cluster Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllable Consonant Cluster (15):
#sw(2) 13.33%

**First Syllable Consonant Cluster Stressed (26):**
#sw(5) 19.23%

**Second Syllable Consonant Cluster Stressed (5):**
skw(2) 40.00%

Consonant Cluster Total per Syllable

First Syllable Consonant Cluster (29):
#sw(5), 17.24%
#skw(2) 6.89%

Second Syllable Consonant Cluster (11):
skw(2) 18.18%

Consonant Cluster Stressed and Unstressed Total

Consonant Cluster Stressed (31):
#sw(5), 16.12%
skw(2) 6.45%

Consonant Cluster Total (absolute)

Narrow (55):
#sw(7), 12.72%
skw(3), 5.45%
#skw(2) 3.63%

Broad (55):
sw(7), 12.72%
skw(5) 9.09%

55 total consonant clusters

**Supra-Segments: Whole Syllables**

The most frequent whole syllables were /pi/, /nə/, and /zə/.

Whole Syllable Total for Stressed and Unstressed Syllables and Monosyllables

Second Syllable Whole Syllable Unstressed (83):
pi#(4), z#(4) 2.40%

Third Syllable Whole Syllable Unstressed (24):
n#(3) 12.50%

Whole Syllable Total per Syllable

Second Syllable Whole Syllable (99):
pi#(4), z#(4) 2.02%

Third Syllable Whole Syllable (29):
n#(3) 10.34%

Whole Syllable Stressed and Unstressed Total

Whole Syllable Unstressed (135):
pi#(4), n#(4), z#(4) 29.62%
Whole Syllable Total (absolute)

Narrow (249):
\(p^\|#(4), n\#(4), z^\|#(4)\) 1.60%

Broad (249):
\(p(4), n(4), z(4)\) 1.60%

249 total whole syllables

Supra-Segments: Whole Words

Table d.-A

<table>
<thead>
<tr>
<th>Word Length Total</th>
<th>Syllable Receiving Stress</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>None</td>
</tr>
<tr>
<td>Monosyllabic: 15</td>
<td></td>
</tr>
<tr>
<td>Bisyllabic: 71</td>
<td>0</td>
</tr>
<tr>
<td>Trisyllabic: 20</td>
<td>0</td>
</tr>
<tr>
<td>Tetrasyllabic: 8</td>
<td>0</td>
</tr>
<tr>
<td>Pentasyllabic: 0</td>
<td>0</td>
</tr>
<tr>
<td>Total: 114</td>
<td>0</td>
</tr>
</tbody>
</table>

Table d.-B

<table>
<thead>
<tr>
<th>Word Length Total</th>
<th>Syllable Receiving Stress</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>None</td>
</tr>
<tr>
<td>Monosyllabic: 13.15%</td>
<td></td>
</tr>
<tr>
<td>Bisyllabic: 62.28%</td>
<td>0</td>
</tr>
<tr>
<td>Trisyllabic: 17.54%</td>
<td>0</td>
</tr>
<tr>
<td>Tetrasyllabic: 7.01%</td>
<td>0</td>
</tr>
<tr>
<td>Pentasyllabic: 0</td>
<td>0</td>
</tr>
<tr>
<td>Stressed Syllable Total:</td>
<td>78.78%</td>
</tr>
</tbody>
</table>

Table Key: The “Word Length Total” column figure represents the percentage of words that is of that word length. For the cells inside the “Syllable Receiving Stress” columns, the amount on top indicates what percentage of a particular word length was stressed on that syllable. The number on the bottom indicates, for all the words that received stress on a particular syllable, what percentage of these words were of a particular word length. The “Stressed Syllable Total” row indicates what percentage of words was stressed on a particular syllable. Note that monosyllables were not analyzed as receiving stress and the “None” cell in the “Stressed Syllable Total” row is inapplicable.

**Question discussion.**

For Question d. the most frequent segments were consonants /s/, /ʌ/, and /n/ and vowels /ɪ/, /ɑ/, and /ə/. /s/ is a voiceless, alveolar fricative. /ʌ/ is an alveolar approximant. /n/ is an
alveolar nasal. /ɪ/ is an unrounded, lax, high, front vowel. /ɑ/ is an unrounded, lax, low, back vowel. /a/ is an unrounded, intermediate, mid, central vowel. Most segments occurred in the first stressed and second and third unstressed syllables. Fewer occurred in the first and fourth unstressed (which lacked an onset), and the second stressed which was balanced. Unstressed segments outnumbered stressed segments. As a whole, the onset and nucleus housed the most segments. The coda, while not barren, was generally smaller. The monosyllables were lacking two of these segments: /n/ and /ɪ/. (/ɑ/ is not possible in a monosyllable.) Syllabic /n/ was present in second unstressed syllables. Most segments occurred word-medially. /s/ was an exception, frequently occurring word-initially. The most frequent consonant clusters were /sw/ and /skw/. /w/ is a labial-velar approximant. /k/ is an alveolar fricative. /sw/ occurred most frequently in monosyllables and stressed first syllables in the onset, word-initial. /skw/ occurred most frequently in first syllables word-initially and in second stressed syllables in the onset word-medially. The most frequent whole syllables were /pi/, /nə/, and /z̠ɪ/. /p/ is a bilabial plosive. /i/ is an unrounded, tense, high, front vowel. /z/ is a voiced, alveolar fricative. /t̠/ is a retroflex lateral approximant. It was used syllabically. /pi/ and /z̠ɪ/ were exclusively found in the second unstressed syllable, word-final. /nə/ was mostly found in the third unstressed syllable, word-final. For all 114 whole words there were no repeated words.
Results Data Sheet

Images Requiring Words

Question ID: e.

Below is a listing of the most frequent segments and supra-segments of this Question, the environments in which they appeared and the frequency with which they appeared in the indicated environments. In order to qualify for this data set, segments and supra-segments must have accounted for a minimum percentage of the broad total listed at the end of each section. The minimum values are as follows: consonants- >9%, vowels- >13%, consonant clusters- >8%, whole syllables- >1%. For a complete listing of the segments, supra-segments, environments and frequencies of this Question see the various Question e. data sheet sets in the appendix.

Segments

The most frequent consonants were /k/, /ɹ/, /t/, and /n/. The most frequent vowels were /ɑ/, /ɪ/, and /ə/.

Segment Total for Stressed and Unstressed Syllables and Monosyllables according to Syllable Configuration

Monosyllable Onset (26):
μ(4), 15.38%
#tʰ(2) 7.69%

Monosyllable Nucleus (15):
ɑ(6) 40.00%

Monosyllable Coda (16):
μ(2), k#(2) 12.50%

First Syllable Segment Stressed Onset (86):
μ(9), 10.46%
#μ(6), #kʰ(6), 6.97%
#tʰ(5), 5.81%
k(2) 2.32%

First Syllable Segment Stressed Nucleus (66):
ɑ(16), 24.24%
ɪ(10) 15.15%

First Syllable Segment Stressed Coda (32):
μ(6), μ(6), k(6) 18.75%

First Syllable Segment Unstressed Onset (33):
#kʰ(5), 15.15%
t(2), μ(2), #k(2) 6.06%

First Syllable Segment Unstressed Nucleus (31):
ɑ(10), 32.25%
ɪ(7), 22.58%
ɑ(3) 9.67%

First Syllable Segment Unstressed Coda (8):
μ(2) 25.00%
Second Syllable Segment Stressed Onset (32):
\( \mu(7) \), 21.87%
\( t^h(4) \), 12.50%
\( k^h(2) \) 6.25%

Second Syllable Segment Stressed Nucleus (28):
\( a(7) \), 25.00%
\( i(2) \) 7.14%

Second Syllable Segment Stressed Coda (21):
\( n(5) \), 23.80%
\( \mu(3) \), 14.28%
\( n^{#}(2), \#(2), k(2) \) 9.52%

Second Syllable Segment Unstressed Onset (81):
\( t(10) \), 12.34%
\( \mu(7), k(7) \), 8.64%
\( n(6) \) 7.40%

Second Syllable Segment Unstressed Nucleus (72):
\( a(11) \), 15.27%
\( a(10) \), 13.88%
\( i(9) \), 12.50%
\( *n^{#}(3) \) 4.16%

Second Syllable Segment Unstressed Coda (30):
\( k^{#}(5) \), 16.66%
\( t^{#}(4), n^{#}(4) \), 13.33%
\( k(3) \), 10.00%
\( n(2) \) 6.66%

Third Syllable Segment Unstressed Onset (32):
\( t(6) \), 18.75%
\( n(4) \) 12.50%

Third Syllable Segment Unstressed Nucleus (33):
\( i(6) \), 18.18%
\( a(5) \), 15.15%
\( a^{#}(2) \) 6.06%

Third Syllable Segment Unstressed Coda (16):
\( n^{#}(4) \), 25.00%
\( t^{#}(2) \) 12.50%

Fourth Syllable Segment Unstressed Nucleus (8):
\( a^{#}(2) \) 25.00%

Segment Total for Stressed and Unstressed Onsets and Codas

Stressed Onset (120):
\( \mu(17) \), 14.16%
\( \#(6), \#k^{h}(6) \), 5.00%
\( \#t^{h}(5), t^{h}(5) \), 4.16%
\( \#k(3) \), 2.50%
\( k^{h}(2), k(2) \) 1.66%
Stressed Coda (54):
n(12), 22.22%
ɹ(9), 16.66%
k(8), 14.81%
n#(2), ɹ#(2) 3.70%

Unstressed Onset (154):
t(18), 11.68%
n(11), 7.14%
ɹ(10), 6.49%
k(9), 5.84%
#kʰ(5), 3.24%
#k(2), 1.29%

Unstressed Coda (57):
n#(8), 14.03%
k#(7), 12.28%
t#(6), 10.54%
tʰ#(3), k(3), 5.26%
n(2), ɹ(2), ɹ#(2) 3.50%

Segment Total for Onsets and Codas

Onset (300):
ɹ(31), 10.33%
t(18), 6.00%
#kʰ(14), 4.66%
n(12), k(12), 4.00%
#ɹ(8), 2.66%
#tʰ(7), 2.33%
#k(6), 2.00%
tʰ(5), 1.66%
kʰ(3) 1.00%

Coda (127):
n(14), 11.02%
ɹ(13), 10.23%
k(12), 9.44%
n#(10), 7.87%
k#(9), 7.08%
t#(7), 5.51%
tʰ#(4), ɹ#(4) 3.14%

Segment Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllable Segment (52):
ɹ(6), 11.53%
#kʰ(3), 5.76%
#tʰ(2), k(2), k#(2) 3.84%

(15):
ɑ(6), 40.00%
First Syllable Segment Stressed (118):

<table>
<thead>
<tr>
<th>Segment</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>ɹ</td>
<td>15</td>
<td>12.71%</td>
</tr>
<tr>
<td>k</td>
<td>8</td>
<td>6.77%</td>
</tr>
<tr>
<td>n</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>ɹ</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>kʰ</td>
<td>6</td>
<td>5.08%</td>
</tr>
<tr>
<td>tʰ</td>
<td>5</td>
<td>4.23%</td>
</tr>
<tr>
<td>k</td>
<td>3</td>
<td>2.54%</td>
</tr>
</tbody>
</table>

(66):

<table>
<thead>
<tr>
<th>Segment</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>ɹ</td>
<td>16</td>
<td>24.24%</td>
</tr>
<tr>
<td>t</td>
<td>10</td>
<td>15.15%</td>
</tr>
</tbody>
</table>

First Syllable Segment Unstressed (41):

<table>
<thead>
<tr>
<th>Segment</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>ɹ</td>
<td>4</td>
<td>9.75%</td>
</tr>
<tr>
<td>t</td>
<td>2</td>
<td>4.87%</td>
</tr>
</tbody>
</table>

(31):

<table>
<thead>
<tr>
<th>Segment</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>a</td>
<td>10</td>
<td>32.25%</td>
</tr>
<tr>
<td>t</td>
<td>9</td>
<td>22.58%</td>
</tr>
<tr>
<td>a</td>
<td>3</td>
<td>9.67%</td>
</tr>
</tbody>
</table>

Second Syllable Segment Stressed (53):

<table>
<thead>
<tr>
<th>Segment</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>ɹ</td>
<td>10</td>
<td>18.86%</td>
</tr>
<tr>
<td>n</td>
<td>6</td>
<td>11.32%</td>
</tr>
<tr>
<td>tʰ</td>
<td>4</td>
<td>7.54%</td>
</tr>
<tr>
<td>l</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>n#</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>ɹ#</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>kʰ</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>k</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

(28):

<table>
<thead>
<tr>
<th>Segment</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>a</td>
<td>7</td>
<td>25.00%</td>
</tr>
<tr>
<td>t</td>
<td>2</td>
<td>7.14%</td>
</tr>
</tbody>
</table>

Second Syllable Segment Unstressed (123):

<table>
<thead>
<tr>
<th>Segment</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>t</td>
<td>10</td>
<td>8.13%</td>
</tr>
<tr>
<td>k</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>n</td>
<td>8</td>
<td>6.50%</td>
</tr>
<tr>
<td>ɹ</td>
<td>7</td>
<td>5.69%</td>
</tr>
<tr>
<td>k#</td>
<td>5</td>
<td>4.06%</td>
</tr>
<tr>
<td>t#</td>
<td>4</td>
<td>3.25%</td>
</tr>
<tr>
<td>*#</td>
<td>3</td>
<td>2.43%</td>
</tr>
</tbody>
</table>

(60):

<table>
<thead>
<tr>
<th>Segment</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>a</td>
<td>11</td>
<td>18.33%</td>
</tr>
<tr>
<td>a</td>
<td>10</td>
<td>16.66%</td>
</tr>
<tr>
<td>t</td>
<td>9</td>
<td>15.00%</td>
</tr>
</tbody>
</table>

Third Syllable Segment Unstressed (53):

<table>
<thead>
<tr>
<th>Segment</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>t</td>
<td>6</td>
<td>11.32%</td>
</tr>
<tr>
<td>n</td>
<td>4</td>
<td>7.54%</td>
</tr>
<tr>
<td>t#</td>
<td>2</td>
<td>3.77%</td>
</tr>
</tbody>
</table>

(28):

<table>
<thead>
<tr>
<th>Segment</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>t</td>
<td>6</td>
<td>21.42%</td>
</tr>
<tr>
<td>a</td>
<td>5</td>
<td>17.85%</td>
</tr>
<tr>
<td>a#</td>
<td>2</td>
<td>7.14%</td>
</tr>
</tbody>
</table>
Fourth Syllable Segment Unstressed:

(7):
ə#(2) 28.57%

Segment Total by Syllable

First Syllable Segment (159):
ɹ(2), 11.94%
#kʰ(11), 6.91%
k(8), 5.03%
#(7), 4.40%
n(6), 3.77%
#tʰ(5), #k(5), 3.14%
t(3) 1.88%

(97):
ɑ(19), 19.58%
ɪ(17), 17.52%
ə(10), 10.30%
#ɑ(2) 2.06%

Second Syllable Segment (176):
ɹ(17), 9.65%
n(14), 7.95%
k(12), 6.81%
t(10), s(10), 5.68%
k#(5), 2.84%
tʰ(4), t#(4), 2.27%
*#(3), #(3), kʰ(3) 1.70%

(88):
ɑ(17), 19.31%
ɪ(11), ə(11) 12.50%

Third Syllable Segment (56):
t(6), 10.71%
n(5), 8.92%
n#(4), 7.14%
t#(2), ɹ(2), k#(2) 3.57%

(30):
t(6), 20.00%
ə(5), 16.66%
ə#(2) 6.66%

Fourth Syllable Segment:

(7):
ə#(2) 28.57%
Segment Stressed and Unstressed Total

**Stressed Segment (174):**
\( \mu(26), 14.94\% \)
\( \nu(13), 7.47\% \)
\( \kappa(10), 5.74\% \)
\( \#\mu(6), \#\kappa(6), 3.44\% \)
\( \#\nu^h(5), \nu^h(5), 2.87\% \)
\( \#\kappa(3), 1.72\% \)
\( \nu\#(2), \mu\#(2), \kappa^h(2) 1.14\% \)

(96):
\( \alpha(23), 23.95\% \)
\( \tau(12) 12.50\% \)

Unstressed Segment (229):
\( \tau(18), 7.86\% \)
\( \nu(13), 5.67\% \)
\( \mu(12), \kappa(12), 5.24\% \)
\( \nu\#(8), 3.49\% \)
\( \kappa\#(7), 3.05\% \)
\( \tau\#(6), 2.62\% \)
\( \#\kappa^h(5), 2.18\% \)
\( \#\eta^h(4), 1.74\% \)
\( \tau^h(2), \#\eta(2), \kappa(2) .87\% \)

(127):
\( \alpha(27), 21.25\% \)
\( \tau(23), 18.11\% \)
\( \alpha(14), 11.02\% \)
\( \alpha\#(5) 3.93\% \)

Segment Total (absolute)

Narrow (455):
\( \mu(44), 9.67\% \)
\( \nu(26), 5.71\% \)
\( \kappa(24), 5.27\% \)
\( \tau(19), 4.17\% \)
\( \#\kappa^h(14), 3.07\% \)
\( \nu\#(10), 2.19\% \)
\( \kappa\#(9), 1.97\% \)
\( \#\mu(8), 1.75\% \)
\( \#\nu^h(7), \nu^h(7), 1.53\% \)
\( \#\kappa(6), 1.31\% \)
\( \tau^h(5), 1.09\% \)
\( \#\eta^h(4), \#\eta(4) .87\% \)
\( \tau^h(2), \mu^h(2), \#\eta(2) .43\% \)

(238):
\( \alpha(43), 18.06\% \)
\( \tau(35), 14.70\% \)
\( \alpha(27), 11.34\% \)
\( \alpha\#(5), 2.10\% \)
\( \#\alpha(2), \alpha\#(2) .84\% \)
Supra-Segments: Consonant Clusters

The most frequent consonant clusters were /tɹ/ and /kɹ/.

Consonant Cluster Total for Stressed and Unstressed Syllables and Monosyllables according to Syllable Configuration

First Syllable Consonant Cluster Unstressed Onset (all entries are word initial) (3):
#kʰɹ(2) 66.66%

Second Syllable Consonant Cluster Stressed Onset (4):
tʰɹ(3) 75.00%

Consonant Cluster Total for Stressed and Unstressed Onsets and Codas

Stressed Onset (21):
tʰɹ(3) 14.28%

Unstressed Onset (10):
#kʰɹ(2) 20.00%

Consonant Cluster Total for Onsets and Codas

Onset (39):
#kʰɹ(4), 10.25%
tʰɹ(3) 7.69

Consonant Cluster Total for Stressed and Unstressed Syllables and Monosyllables

First Syllable Consonant Cluster Unstressed (3):
#kʰɹ(2) 66.66%

Second Syllable Consonant Cluster Stressed (6):
tʰɹ(3) 50.00%

Consonant Cluster Total per Syllable

First Syllable Consonant Cluster (21):
#kʰɹ(3) 14.28%

Second Syllable Consonant Cluster (18):
tʰɹ(3) 16.66%

Consonant Cluster Stressed and Unstressed Total

Consonant Cluster Stressed (24):
tʰɹ(3) 12.50%

Consonant Cluster Unstressed (17):
#kʰɹ(2) 11.76%
Consonant Cluster Total (absolute)

Narrow (53):
#kʰj(4), 7.54%
tʰj(3) 5.66%

Broad (53):
ɾj(5), kj(5) 9.43%

53 total consonant clusters

Supra-Segments: Whole Syllables

The most frequent whole syllables were /tən̩/ and /ɾəł̩/.

Whole Syllable Total for Stressed and Unstressed Syllables and Monosyllables

Supra-Segments: Whole Words

Table e.-A

<table>
<thead>
<tr>
<th>Word Length Total</th>
<th>Syllable Receiving Stress</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>None</td>
</tr>
<tr>
<td>Monosyllabic:</td>
<td>15</td>
</tr>
<tr>
<td>Bisyllabic:</td>
<td>63</td>
</tr>
<tr>
<td>Trisyllabic:</td>
<td>28</td>
</tr>
<tr>
<td>Tetrasyllabic:</td>
<td>7</td>
</tr>
<tr>
<td>Pentasyllabic:</td>
<td>1</td>
</tr>
<tr>
<td>Total:</td>
<td>114</td>
</tr>
</tbody>
</table>

258 total whole syllables
Table e.-B

<table>
<thead>
<tr>
<th>Word Length Total</th>
<th>Syllable</th>
<th>Receiving Stress</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>None</td>
<td>First</td>
</tr>
<tr>
<td>Monosyllabic: 13.15%</td>
<td>1.58%/100%</td>
<td>80.95%/75.00%</td>
</tr>
<tr>
<td>Bisyllabic: 55.26%</td>
<td>0</td>
<td>57.14%/23.52%</td>
</tr>
<tr>
<td>Trisyllabic: 24.56%</td>
<td>0</td>
<td>14.28%/1.47%</td>
</tr>
<tr>
<td>Tetrasyllabic: 6.14%</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Penta-syllabic: .87%</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Stressed Syllable Total:</td>
<td>69.38%</td>
<td>28.57%</td>
</tr>
</tbody>
</table>

Table Key: The “Word Length Total” column figure represents the percentage of words that is of that word length. For the cells inside the “Syllable Receiving Stress” columns, the amount on top indicates what percentage of a particular word length was stressed on that syllable. The number on the bottom indicates, for all the words that received stress on a particular syllable, what percentage of these words were of a particular word length. The “Stressed Syllable Total” row indicates what percentage of words was stressed on a particular syllable. Note that monosyllables were not analyzed as receiving stress and the “None” cell in the “Stressed Syllable Total” row is inapplicable.

**Question discussion.**

For question e. the most frequent segments were consonants /k/, /ʃ/, /t/, and /n/ and vowels /ɑ/, /ɪ/, and /ə/. /k/ is a voiceless, velar plosive. /ʃ/ is an alveolar approximant. /t/ is a voiceless, alveolar plosive. /n/ is an alveolar nasal. /ɑ/ is an unrounded, lax, low, back vowel. /ɪ/ is an unrounded, lax, high, front vowel. /ə/ is an unrounded, intermediate, mid, central vowel. Most segments occurred in the first stressed, second stressed and unstressed and third unstressed syllables. The first unstressed syllable contained slightly fewer segments but was balanced and the fourth unstressed syllable consisted only of a nucleus. Unstressed segments outnumbered stressed segments. Segments were fairly evenly distributed throughout the onsets, nuclei and codas. The monosyllables did not contain /n/ and /t/. (/ɑ/ will never appear in a monosyllable.) Syllabic /n/ was present in the second unstressed syllable nucleus. /k/ was roughly equal in its distribution between word-initial, -medial and -final environments. /n/ was
spread between word-medial and word-final positions for the most part. The other segments
were predominantly word-medial. The most frequent consonant clusters were /tɹ/ and /kɹ/. All
constituents of the consonant clusters are present in the most frequent segments. /tɹ/ is primarily
located in second stressed syllable onset environments, word-medial. /kɹ/ is primarily located in
first unstressed syllables in the onset, word-initial. The most frequent whole syllables were /təŋ/
and /ɾəł/. /ɾ/ is an alveolar tap. /ɭ/ is a retroflex lateral approximant. /ɭ/ and /ŋ/ are syllabic.
/təŋ/ and /rəɭ/ were almost exclusively word-final. For all 114 whole words there were no
repeated words.
Results Data Sheet

Images Requiring Words

Question ID: f.

Below is a listing of the most frequent segments and supra-segments of this Question, the environments in which they appeared and the frequency with which they appeared in the indicated environments. In order to qualify for this data set, segments and supra-segments must have accounted for a minimum percentage of the broad total listed at the end of each section. The minimum values are as follows: consonants - >9%, vowels - >13%, consonant clusters - >8%, whole syllables - >1%. For a complete listing of the segments, supra-segments, environments and frequencies of this Question see the various Question f. data sets in the appendix.

Segments

The most frequent consonants were /n/, /s/, /k/ and /ɹ/. The most frequent vowels were /ɑ/, /ə/, /u/ and /ɪ/.

Segment Total for Stressed and Unstressed Syllables and Monosyllables according to Syllable Configuration

Monosyllable Onset (40):
μ(6), 15.00%
#kʰ(5), 12.50%
k(2), 5.00%

Monosyllable Nucleus (27):
ɑ(7), 25.92%

Monosyllable Coda (32):
n(3), s#(4), 12.50%
k#(3), 9.37%
μ(2), k(2), 6.25%

First Syllable Segment Stressed Onset (74):
#s(17), 22.97%
k(7), 9.45%
μ(5), #kʰ(5), 6.75%
#n(4), 5.40%
#μ(3), 4.05%

First Syllable Segment Stressed Nucleus (59):
ɑ(10), 16.94%
uʰ(5), 8.47%
#ɑ(3), 5.08%
τ(2), 3.38%

First Syllable Segment Stressed Coda (21):
n(8), 38.09%
μ(3), k(3), 14.28%
First Syllable Segment Unstressed Onset (20):
#k(3), 15.00%
#s(2) 10.00%

First Syllable Segment Unstressed Nucleus (25):
ųʰ(5), #t(5) 20.00%
α(4), 16.00%
α(3), 12.00%
#α(2) 8.00%

First Syllable Segment Unstressed Coda (5):
n(2) 40.00%

Second Syllable Segment Stressed Onset (30):
m(5), 16.66%
u(4), kʰ(4), 13.33%
tʰ(3), 10.00%
s(2), l(2) 6.66%

Second Syllable Segment Stressed Nucleus (22):
α(9), 40.90%
ųʰ#(3), 13.63%
t(2) 9.09%

Second Syllable Segment Stressed Coda (14):
n(5), 35.71%
s(2), 14.28%

Second Syllable Segment Unstressed Onset (73):
s(7), 9.58%
k(6), 8.21%
n(4), 5.47%
u(2) 2.73%

Second Syllable Segment Unstressed Nucleus (52):
α(10), 19.23%
τ(8), 15.38%
ų#(3), α(3), 5.76%
ųʰ(2) 3.84%

Second Syllable Segment Unstressed Coda (25):
kʰ(4), 16.00%
n#(3), 12.00%
n(2), 8.00%

Third Syllable Segment Unstressed Onset (34):
τ(4), 11.76%
s(2) 5.88%

Third Syllable Segment Unstressed Nucleus (29):
α(6), 20.68%
τ(3), 10.34%
α#(2), α(2) 6.89%

Third Syllable Segment Unstressed Coda (12):
s#(3), 25.00%
n#(2) 16.66%
Fourth Syllable Segment Unstressed Nucleus (7):
\( \hat{a}(2) \) 28.57%

Fourth Syllable Segment Unstressed Coda (3):
\( \hat{s}(3) \) 100%

Segment Total for Stressed and Unstressed Onsets and Codas

<table>
<thead>
<tr>
<th>Stressed Onset (98)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>#s(17), 17.34%</td>
<td></td>
</tr>
<tr>
<td>( \hat{r}(9) ), 9.18%</td>
<td></td>
</tr>
<tr>
<td>( k(7) ), 7.14%</td>
<td></td>
</tr>
<tr>
<td>#k(5), 5.10%</td>
<td></td>
</tr>
<tr>
<td>#n(4), ( k(4) ), 4.08%</td>
<td></td>
</tr>
<tr>
<td>#(3), 3.06%</td>
<td></td>
</tr>
<tr>
<td>s(2) 2.04%</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Stressed Coda (35)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>n(13), 37.14%</td>
<td></td>
</tr>
<tr>
<td>( \hat{r}(5) ), 14.28%</td>
<td></td>
</tr>
<tr>
<td>s(3), k(3) 8.57%</td>
<td></td>
</tr>
</tbody>
</table>

Unstressed Onset (122):
|  |
| s(9), 7.37% |  |
| n(8), 6.55% |  |
| k(7), 5.73% |  |
| \( \hat{r}(6) \), 4.91% |  |
| \#k(3), 2.45% |  |
| \#s(2) 1.63% |  |

Unstressed Coda (45):
|  |
| \#(7), 15.55% |  |
| n(5), n#(5), 11.11% |  |
| k#(4), 8.88% |  |
| \#(3) 6.66% |  |

Segment Total for Onsets and Codas

| Onset (260) |  |
| #s(21), \( \hat{r}(21) \), 8.07% |  |
| k(16), 6.15% |  |
| s(11), 4.23% |  |
| \#k(10), 3.84% |  |
| n(9), 3.46% |  |
| \#n(5), 1.92% |  |
| \#(4), k#(4), 1.53% |  |
| \#k(3), 1.15% |  |
| \#s(2) .76% |  |

<p>| Coda (112) |  |
| n(22), 19.64% |  |
| s#(11), 9.82% |  |
| k#(8), 7.14% |  |
| n#(7), ( \hat{r}(7) ), 6.25% |  |
| k(6), 5.35% |  |
| s(4), 3.57% |  |
| #(3) 2.67% |  |</p>
<table>
<thead>
<tr>
<th>Segment Type</th>
<th>Total</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monosyllable Segment (72)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ɹ(8)</td>
<td>11.11%</td>
</tr>
<tr>
<td></td>
<td>ň(4), ň#(4), s#(4), k(4)</td>
<td>5.55%</td>
</tr>
<tr>
<td></td>
<td>k#(3)</td>
<td>4.16%</td>
</tr>
<tr>
<td></td>
<td>ň#(2)</td>
<td>2.77%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>First Syllable Segment Stressed (95)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ň#(17)</td>
<td>17.89%</td>
</tr>
<tr>
<td></td>
<td>k(10)</td>
<td>10.52%</td>
</tr>
<tr>
<td></td>
<td>ň(8), ɹ(8)</td>
<td>8.42%</td>
</tr>
<tr>
<td></td>
<td>ň#(5)</td>
<td>5.26%</td>
</tr>
<tr>
<td></td>
<td>ň(4)</td>
<td>4.21%</td>
</tr>
<tr>
<td></td>
<td>ň(3)</td>
<td>3.15%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>First Syllable Segment Unstressed (25)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ň#(3)</td>
<td>12.00%</td>
</tr>
<tr>
<td></td>
<td>ň#(2)</td>
<td>8.00%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Second Syllable Segment Stressed (44)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ň(6)</td>
<td>13.63%</td>
</tr>
<tr>
<td></td>
<td>ň(5)</td>
<td>11.36%</td>
</tr>
<tr>
<td></td>
<td>s(4), k#(4)</td>
<td>9.09%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Second Syllable Segment Unstressed (94)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>s(7)</td>
<td>7.44%</td>
</tr>
<tr>
<td></td>
<td>ň(6), k(6)</td>
<td>6.38%</td>
</tr>
<tr>
<td></td>
<td>k#(4)</td>
<td>4.25%</td>
</tr>
<tr>
<td></td>
<td>ň#(3), ň#(3)</td>
<td>3.19%</td>
</tr>
<tr>
<td></td>
<td>ň(2), ň#(2)</td>
<td>2.12%</td>
</tr>
</tbody>
</table>
Third Syllable Segment Unstressed (48):

- n(5), 10.41%
- μ(4), 8.33%
- s#(3), 6.25%
- n#(2), s(2) 4.16%

(27):
- a(6), 22.22%
- ι(3), 11.11%
- a#(2), a(2) 7.40%

Fourth Syllable Segment Unstressed (9):

- s#(3) 33.33%

(6):
- a(2) 33.33%

Segment Total by Syllable

First Syllable Segment (120):

- #s(19), 15.83%
- k(11), 9.16%
- n(10), 8.33%
- μ(8), 6.66%
- #n(5), kʰ(5), 4.16%
- ι(3), k(3), 2.50%
- s(2) 1.66%

(84):
- a(13), 15.47%
- u*(10), 11.90%
- #ι(5), 5.95%
- a(4), 4.76%
- #a(3), 3.57%
- #u*(2), ι(2), #a(2) 2.38%

Second Syllable Segment (138):

- n(11), s(11), 7.97%
- μ(8), 5.79%
- k(6), 4.34%
- kʰ(5), 3.62%
- kʰ(4), 2.89%
- n#(3), η(3), 2.17%
- μ#(2) 1.44%

(74):
- a(12), 16.21%
- ι(10), a(10), 13.51%
- u#(4), 5.40%
- u*(2) 2.70%
Third syllable Segment (49):
- n(6), 12.24%
- ɹ(4), 8.16%
- s#(3), 6.12%
- n#(2), s(2) 4.08%

(28):
- ə(6), 21.42%
- ɪ(3), 10.71%
- ə#(2), ɹ(2) 7.14%

Fourth Syllable Segment (9):
- s#(3) 33.33%

(6):
- ə(2) 33.33%

Segment Stressed and Unstressed Total

Stressed Segment (140):
- #s(17), 12.14%
- n(14), ɹ(14), 10.00%
- k(10), 7.14%
- s(5), #k#(5), 3.57%
- #n(4), k#h(4), 2.85%
- #ɪ(3) 2.14%

(82):
- ə(19), 23.17%
- u*(5), 6.09%
- ɪ(4), 4.87%
- u*#(3), #a(3) 3.65%

Unstressed Segment (176):
- n(13), 7.38%
- s(10), 5.68%
- k(8), 4.54%
- s#(7), 3.97%
- ɹ(6), 3.40%
- n#(5), 2.80%
- s#h(3), 2.27%
- ə(3), ə#(3), ɪ#(3), #k(3), 1.70%
- #s(2) 1.13%

(110):
- ə(22), 20.00%
- ɪ(12), 10.90%
- ɹ(8), 7.27%
- u*(7), 6.36%
- #ɪ(5), 4.54%
- ə#(4), 3.63%
- u*#(2), #ə(2) 1.81%
Segment Total (absolute)

Narrow (388):
- n(31), 2.98%
- t(28), 7.21%
- #s(23), 5.92%
- k(22), 5.67%
- s(15), 3.86%
- s(#)(11), 2.83%
- #k(10), 2.57%
- k(#)(8), 2.06%
- n(#)(7), 1.80%
- #n(5), 1.28%
- #t(4), #k(4), 1.03%
- *n(3), *n#(3), t(#)(3), k(#)(3) .77%

(219):
- a(34), 15.52%
- a(22), 10.04%
- t(16), 7.30%
- u*(12), 5.47%
- u#(5), t(5), 2.28%
- a#(4), 1.82%
- #a(3), 1.36%
- #u*(2), #a(2), a#(2) .91%

Broad (388):
- n(49), s(49), 12.62%
- k(47), 12.11%
- t(35) 9.02%

(219):
- a(40), 18.26%
- a(28), 12.78%
- u(21), t(21) 9.58%

607 total segments

Supra-Segments: Consonant Clusters

The most frequent consonant clusters were /st/ and /sk/.

Consonant Cluster Total for Stressed and Unstressed Syllables and Monosyllables according to Syllable Configuration

Monosyllable Consonant Cluster Onset (all entries are word initial) (12):
- #st(2) 16.66%

First Syllable Consonant Cluster Stressed Onset (all entries are word initial) (21):
- #sk(5), #st(5) 23.80%

Third Syllable Consonant Cluster Unstressed Onset (4):
- st(2) 50.00%
Consonant Cluster Total for Stressed and Unstressed Onsets and Codas

**Stressed Onset (25):**

- #sk(5), #st(5) 20.00%

**Unstressed Onset (9):**

- st(2) 22.22%

Consonant Cluster Total for Onsets and Codas

**Onset (46):**

- #st(7), 15.21%
- #sk(6), 13.04%
- st(2) 4.34%

Consonant Cluster Total for Stressed and Unstressed Syllables and Monosyllables

**Monosyllable Consonant Cluster (22):**

- #st(2) 9.09%

**First Syllable Consonant Cluster Stressed (21):**

- #sk(5), #st(5) 23.80%

**Third Syllable Consonant Cluster Unstressed (5):**

- st(2) 40.00%

Consonant Cluster Total per Syllable

**First Syllable Consonant Cluster (24):**

- #sk(5), #st(5) 20.83%

**Third Syllable Consonant Cluster (5):**

- st(2) 40.00%

Consonant Cluster Stressed and Unstressed Total

**Consonant Cluster Stressed (27):**

- #sk(5), #st(5) 18.51%

**Consonant Cluster Unstressed (14):**

- st(2) 14.28%

Consonant Cluster Total (absolute)

**Narrow (63):**

- #st(7), 11.11%
- #sk(6), 9.52%
- st(2) 3.17%

**Broad (63):**

- st(9), 14.28%
- sk(8) 12.69%

63 total consonant clusters
Supra-Segments: Whole Syllables

The most frequent whole syllables were /u/, /a/, /sʰm̩/, and /mɑ/.

Whole Syllable Total for Stressed and Unstressed Syllables and Monosyllables

First Syllable Whole Syllable Unstressed (all entries are word initial) (26):
#ə(2) 7.69%

Second Syllable Whole Syllable Unstressed (61):
sʰm̩#(3) 3.27%

Whole Syllable Total per Syllable

First Syllable Whole Syllable (all entries are word initial) (86):
#uʷ(2), #ə(2) 2.32%

Second Syllable Whole Syllable (86):
sʰm̩#(3), 3.48%
mə(2) 2.32%

Whole Syllable Stressed and Unstressed Total

Whole Syllable Stressed (86):
mə(2) 2.32%

Whole Syllable Unstressed (124):
sʰm̩#(3), 2.41%
#ə(2) 1.61%

Whole Syllable Total (absolute)

Narrow (238):
sʰm̩#(3), 1.26%
#uʷ(2), #ə(2), mə(2) .84%

Broad (238):
u(3), ə(3), sʰm̩(3), mə(3) 1.26%

238 total whole syllables

Supra-Segments: Whole Words

Table f.-A

<table>
<thead>
<tr>
<th>Word Length</th>
<th>Syllable Receiving Stress</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>None</td>
</tr>
<tr>
<td>Monosyllabic</td>
<td>27</td>
</tr>
<tr>
<td>Bisyllabic</td>
<td>54</td>
</tr>
<tr>
<td>Trisyllabic</td>
<td>25</td>
</tr>
<tr>
<td>Tetrasyllabic</td>
<td>7</td>
</tr>
<tr>
<td>Pentasyllabic</td>
<td>0</td>
</tr>
<tr>
<td>Total: 113</td>
<td>0</td>
</tr>
</tbody>
</table>
Table f-B

<table>
<thead>
<tr>
<th>Word Length Total</th>
<th>Syllable</th>
<th>Receiving</th>
<th>Stress</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>None</td>
<td>First</td>
<td>Second</td>
</tr>
<tr>
<td>Monosyllabic: 23.89%</td>
<td>0</td>
<td>83.33%/ 76.27%</td>
<td>16.66%/ 34.61%</td>
</tr>
<tr>
<td>Bisyllabic: 47.78%</td>
<td>0</td>
<td>48.00%/ 20.33%</td>
<td>52.00%/ 50.00%</td>
</tr>
<tr>
<td>Trisyllabic: 22.12%</td>
<td>0</td>
<td>28.57%/ 3.38%</td>
<td>57.14%/ 15.38%</td>
</tr>
<tr>
<td>Tetrasyllabic: 6.19%</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Pentasyllabic: 0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Stressed Syllable Total: 68.60% 30.23% 1.16% 0 0

Table Key: The “Word Length Total” column figure represents the percentage of words that is of that word length. For the cells inside the “Syllable Receiving Stress” columns, the amount on top indicates what percentage of a particular word length was stressed on that syllable. The number on the bottom indicates, for all the words that received stress on a particular syllable, what percentage of these words were of a particular word length. The “Stressed Syllable Total” row indicates what percentage of words was stressed on a particular syllable. Note that monosyllables were not analyzed as receiving stress and the “None” cell in the “Stressed Syllable Total” row is inapplicable.

**Question discussion.**

For Question f. the most frequent segments were consonants /n/, /s/, /k/, and /ɹ/ and vowels /ɑ/, /ə/, /u/, and /ɪ/. /n/ is an alveolar nasal. /s/ is a voiceless, alveolar fricative. /k/ is a voiceless velar plosive. /ɹ/ is an alveolar approximant. /ɑ/ is an unrounded, lax, low, back vowel. /ə/ is an unrounded, intermediate, mid, central vowel. /u/ is a round, tense, high, back vowel. /ɪ/ is an unrounded, lax, high, front vowel. Most segments occurred in the first stressed, second stressed and unstressed and third unstressed syllables. Fewer occurred in the first unstressed syllable. The fourth unstressed syllable had the fewest and was lacking an onset. The unstressed segments outnumbered the stressed segments. In general, the onsets and nuclei contained more segments than the codas. The monosyllables were lacking /u/ and /ɪ/. (/ə/ can never appear in a monosyllable.) Syllabic /n/ appears in the second unstressed syllable nucleus. /s/ and /k/ were frequently word-initial and word-final. /ɪ/ showed quite a few word-initial
examples, which is unusual. The other segments tended to be word-medial for the most part.

The most frequent consonant clusters were /st/ and /sk/. /t/ is a voiceless, alveolar plosive. /st/ occurred most frequently in monosyllables, word-initially, in the onset and in the first stressed syllable in the onset, word initial. It also occurred in the third unstressed syllable, word-medial. /sk/ occurred primarily in the first stressed syllable in the onset, word-initial. The most frequent whole syllables were /u/, /a/, /sʰm/, and /ma/. /m/ is a bilabial nasal. /u/ occurred primarily in the first syllable, word-initial. /a/ occurred primarily in the first unstressed syllable, word-initial. /sʰm/ occurred primarily in the second unstressed syllable, word final. It exhibited a syllabic /l/. /ma/ occurred most frequently in the second unstressed syllable, word-medial. For all 114 whole words there were no repeated words.
Results Data Sheet

Images Requiring Words

Question ID: g.

Below is a listing of the most frequent segments and supra-segments of this Question, the environments in which they appeared and the frequency with which they appeared in the indicated environments. In order to qualify for this data set, segments and supra-segments must have accounted for a minimum percentage of the broad total listed at the end of each section. The minimum values are as follows: consonants- >9%, vowels- >13%, consonant clusters- >8%, whole syllables- >1%. For a complete listing of the segments, supra-segments, environments and frequencies of this Question see the various Question g. data sheet sets in the appendix.

Segments

The most common consonants were /ɹ/, /s/, and /k/. The most common vowels were /ə/, /a/, and /ɪ/.

Segment Total for Stressed and Unstressed Syllables and Monosyllables according to Syllable Configuration

Monosyllable Onset (30):
#s(4), ɹ(4) 13.33%

Monosyllable Nucleus (22):
a(5) 22.72%

Monosyllable Coda (33):
k#(5), s(4), ɹ(3) 15.15%, 12.12%, 9.09%

First Syllable Segment Stressed Onset (73):
ɹ(13), 17.80%
#kʰ(8), 10.95%
#ɹ(7), 9.58%
#s(6) 8.21%

First Syllable Segment Stressed Nucleus (58):
a(18), 31.03%
ɪ(10) 17.24%

First Syllable Segment Stressed Coda (28):
s(5), ɹ(5) 17.85%

First Syllable Segment Unstressed Onset (35):
#ɹ(5), 15.28%
#s(4), ɹ(4), 11.42%
#k(3) 8.57%

First Syllable Segment Unstressed Nucleus (34):
a(14), 41.17%
ɪ(3) 8.82%
a(2) 5.88%
First Syllable Segment Unstressed Coda (7):
- \( \mu(2) \) 28.57%

Second Syllable Segment Stressed Onset (33):
- \( \mu(5) \), 15.15%
- \( k^h(2) \), 6.06%

Second Syllable Segment Stressed Nucleus (28):
- \( \alpha(7) \), 25.00%
- \( \iota(2) \), 7.14%

Second Syllable Segment Unstressed Onset (71):
- \( \mu(9) \), 12.67%
- \( s(6) \), 8.45%
- \( k(4) \), 5.63%

Second Syllable Segment Unstressed Nucleus (64):
- \( \alpha(13) \), 20.31%
- \( \iota(8) \), 12.50%
- \( \alpha(5) \), 7.81%

Second Syllable Segment Unstressed Coda (20):
- \( s^h(3) \), 15.00%

Third Syllable Segment Unstressed Onset (39):
- \( \mu(5) \), \( k(5) \), 12.82%
- \( s(3) \), 7.69%

Third Syllable Segment Unstressed Nucleus (38):
- \( \alpha(7) \), 18.42%
- \( \iota(6) \), 15.78%
- \( \alpha^h(2) \), 5.26%

Third Syllable Segment Unstressed Coda (18):
- \( k^h(4) \), 22.22%
- \( s^h(3) \), 16.66%
- \( s(2) \), 11.11%

Fourth Syllable Segment Unstressed Onset (7):
- \( k(2) \), 28.57%

Fourth Syllable Segment Unstressed Nucleus (10):
- \( \alpha(2) \), \( \alpha^h(2) \), 20.00%

Segment Total for Stressed and Unstressed Onsets and Codas

**Stressed Onset (111):**
- \( \mu(19) \), 17.11%
- \( \#k^h(8) \), 7.20%
- \( \#\alpha(7) \), 6.30%
- \( \#s(6) \), 5.40%
- \( k^h(3) \), 2.70%

**Stressed Coda (42):**
- \( s(5) \), \( \mu(5) \), 11.90%
- \( k(2) \), 4.76%
Unstressed Onset (152):
\( \mu(18) \), 11.84%
\( k(11) \), 7.23%
\( s(10) \), 6.57%
\#(5), 3.28%
\#(4), 2.63%
\#(3), 1.97%

Unstressed Coda (46):
\( s#(6) \), 13.04%
\( k#(4) \), 8.69%
\( s(3) \), 6.52%
\( \mu(2), \#(2) \) 4.34%

Segment Total for Onsets and Codas

Onset (293):
\( \mu(41) \), 13.99%
\#s(14), 4.77%
\#(13), \( k(13) \), 4.43%
\( s(11) \), 3.75%
\#(10), 3.41%
\#(9), 1.36%
\#(3), 1.02%

Coda (121):
\( s(12) \), 9.91%
\( \mu(10) \), \#(10), 8.26%
\#s(7), 5.78%
\( k(3) \), 2.47%
\#(2) 1.65%

Segment Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllable Segment (63):
\( \mu(7) \), 11.11%
\#(5), 7.93%
\#s(4), \#(4) 6.34%

(22):
\( a(5) \) 22.72%

First Syllable Segment Stressed (101):
\( \mu(18) \), 17.82%
\#(8), 7.92%
\#(7), 6.93%
\#s(6), 5.94%
\( s(5) \) 4.95%

(58):
\( a(18) \), 31.03%
\( \mu(10) \) 17.24%
First Syllable Segment Unstressed (42):
\( \mu(6) \), 14.28%
\#\( \mu(5) \), 11.90%
\#s(4), 9.52%
\#k(3) 7.14%

(34):
\( a(14) \), 41.17%
\( \mu(3) \), 8.82%
\#\( a(2) \), \( a(2) \) 5.88%

Second Syllable Segment Stressed (14):
\( \mu(5) \), 35.71%
k\( ^{\text{h}}(2) \) 14.28%

(28):
\( a(7) \), 25.00%
\( \mu(2) \) 7.14%

Second Syllable Segment Unstressed (104):
\( \mu(9) \), 8.65%
s(7), 6.73%
k(4), 3.84%
s\#(3) 2.88%

(51):
\( a(13) \), 25.49%
\( \mu(8) \), 15.68%
\( a(5) \) 9.80%

Third Syllable Segment Unstressed (99):
s(5), \( \mu(5) \), k(5), 5.05%
k\#(4) 4.04%
s\#(3) 3.03%

(32):
\( a(7) \), 21.87%
\( \mu(6) \), 18.75%
\( a\#(2) \) 6.25%

Fourth Syllable Segment Unstressed (10):
k(2) 20.00%

(8):
\( a(2) \), \( a\#(2) \) 25.00%

Segment Total by Syllable

First Syllable Segment (143):
\( \mu(24) \), 16.78%
\#\( \mu(12) \), 8.39%
\#s(10), 6.99%
\#k\( ^{\text{h}}(9) \), 6.29%
s(5), 3.49%
\#k(4), 2.79%
k(2) 1.39%
(92):
α(20), 21.73%
α(14), 15.21%
τ(13), 14.13%
#α(2), #α(2) 2.17%

Second Syllable Segment (118):
μ(14), 11.86%
ς(8), 6.77%
κ(5), 4.23%
ς(4), 3.38%
κ(2) 1.69%

(79):
α(13), 16.45%
α(12), 15.18%
τ(10) 12.65%

Third syllable Segment (105):
μ(6), κ(6), 5.71%
ς(5), 4.76%
κ(4), 3.80%
ς(3) 2.85%

(35):
α(7), 20.00%
τ(6), 17.14%
α(2), α(2) 5.71%

Fourth Syllable Segment (10):
κ(2) 20.00%

(8):
α(2), α(2) 25.00%

Segment Stressed and Unstressed Total

Stressed Segment (121):
μ(24), 19.83%
#κ(8), 6.61%
#μ(7), 5.78%
#ς(6), #ς(6), 4.95%
k(3), k(3) 2.47%

(89):
α(26), 29.21%
τ(12) 13.48%
Unstressed Segment (255):
ɹ(20), 7.84%
s(13), 5.09%
k(12), 4.70%
s#(6), 2.35%
#ɹ(5), 1.96%
#s(4), k#(4), 1.56%
#k(3), 1.17%
ɹ#(2) .78%

(125):
ə(36), 28.80%
ɪ(17), 13.60%
ɑ(8), 6.40%
ə#(5), 4.00%
#ə(2) 1.60%

Segment Total (absolute)

Narrow (439):
ɹ(51), 11.61%
s(23), 5.23%
k(16), 3.64%
#s(14), 3.18%
#ɹ(13), 2.96%
#kʰ(10), k#(10), 2.27%
s#(7), 1.59%
#k(4), .91%
kʰ(3), .68%
ɹ#(2) .45%

(236):
ə(39), 16.52%
ə(36), 15.25%
ɪ(30), 12.71%
ə#(5), 2.11%
#ɪ(2), #ə(2), #ə(2) .84%

Broad (439):
ɹ(66), 15.03%
s(44), k(44) 10.02%

(236):
ə(43), 18.22%
ə(41), 17.37%
ɪ(32) 13.55%

675 total segments
Supra-Segments: Consonant Clusters

The most frequent consonant clusters were /st/ and /kt/.

Consonant Cluster Total for Stressed and Unstressed Syllables and Monosyllables according to Syllable Configuration

Monosyllable Consonant Cluster Onset (all entries are word initial) (9):

\#st(2), \#kt(2) 22.22%

Monosyllable Consonant Cluster Coda (all entries are word final) (10):

\st(2) 20.00%

First Syllable Consonant Cluster Stressed Onset (all entries are word initial) (19):

\#kt(5) 26.31%

First Syllable Consonant Cluster Unstressed Onset (all entries are word initial) (5):

\#st(2) 40.00%

Second Syllable Consonant Cluster Stressed Onset (7):

\st(2) 28.57%

Third Syllable Consonant Cluster Unstressed Coda (2):

\st(2) 100%

Consonant Cluster Total for Stressed and Unstressed Onsets and Codas

Stressed Onset (29):

\#kt(5), 17.24%
\st(2) 6.89%

Unstressed Onset (11):

\#st(2), \st(2) 18.18%

Unstressed Coda (4):

\st(3) 75.00%

Consonant Cluster Total for Onsets and Codas

Onset (49):

\#kt(7), 14.28%
\#st(5), 10.20%
\st(4) 8.16%

Coda (16):

\st(5) 31.25%

Consonant Cluster Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllable Consonant Cluster (19):

\#st(2), \st(2), \#kt(2) 10.52%

First Syllable Consonant Cluster Stressed (19):

\#kt(5) 26.31%

First Syllable Consonant Cluster Unstressed (5):

\#st(2) 40.00%

Second Syllable Consonant Cluster Stressed (9):

\st(2) 22.22%

Third Syllable Consonant Cluster Unstressed (3):

\st(2) 66.66%
Consonant Cluster Total per Syllable

First Syllable Consonant Cluster (24):
#kʰɿ(5), 20.83%
#st(3) 12.50%

Second Syllable Consonant Cluster (16):
st(3) 18.75%

Third Syllable Consonant Cluster (6):
st#(2) 33.33%

Consonant Cluster Stressed and Unstressed Total

Consonant Cluster Stressed (31):
#kʰɿ(5), 16.12%
st(2) 6.45%

Consonant Cluster Unstressed (15):
st#(3) 20.00%
#st(2), st(2) 13.33%

Consonant Cluster Total (absolute)

Narrow (65):
#kʰɿ(7), 10.76%
#st(5), st#(5), 7.69%
st(4) 6.15%

Broad (65):
st(14), 21.53%
kɿ(9) 13.84%

65 total consonant clusters

Supra-Segments: Whole Syllables

The most frequent whole syllable was /ɹɑ/.

Whole Syllable Total for Stressed and Unstressed Syllables and Monosyllables

First Syllable Whole Syllable Stressed (all entries are word initial) (58):
#ɿ(4) 6.89%

Second Syllable Whole Syllable Stressed (30):
ɿ(2) 6.66%

Whole Syllable Total per Syllable

First Syllable Whole Syllable (all entries are word initial) (92):
#ɿ(4) 4.34%

Second Syllable Whole Syllable (92):
ɿ(2) 2.17%

Whole Syllable Stressed and Unstressed Total

Whole Syllable Stressed (91):
#ɿ(4), 4.39%
ɿ(2) 2.19%
Whole Syllable Total (absolute)

Narrow (257):
\#s \(\text{ra}(4)\) 1.55%

Broad (257):
\#s \(\text{ra}(6)\) 2.33%

257 total whole syllables

Supra-Segments: Whole Words

Whole Word Total per Word Length

Whole Monosyllables (22):
forst \([\text{f}\text{u}\text{s}t]\(2)\) 9.09%

Whole Word Total (absolute)

Broad (114):
forst \([\text{f}\text{u}\text{s}t]\(2)\) 1.75%

Table g.-A

<table>
<thead>
<tr>
<th>Word Length Total</th>
<th>Syllable Receiving Stress</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>None</td>
</tr>
<tr>
<td>Monosyllabic: 22</td>
<td></td>
</tr>
<tr>
<td>Bisyllabic:</td>
<td>51</td>
</tr>
<tr>
<td>Trisyllabic:</td>
<td>31</td>
</tr>
<tr>
<td>Tetrasyllabic:</td>
<td>10</td>
</tr>
<tr>
<td>Pentasyllabic:</td>
<td>0</td>
</tr>
<tr>
<td>Total: 114</td>
<td>1</td>
</tr>
</tbody>
</table>

Table g.-B

<table>
<thead>
<tr>
<th>Word Length Total</th>
<th>Syllable Receiving Stress</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>None</td>
</tr>
<tr>
<td>Monosyllabic: 19.29%</td>
<td></td>
</tr>
<tr>
<td>Bisyllabic: 44.73%</td>
<td>0</td>
</tr>
<tr>
<td>Trisyllabic: 27.19%</td>
<td></td>
</tr>
<tr>
<td>Tetrasyllabic: 8.77%</td>
<td>0</td>
</tr>
<tr>
<td>Pentasyllabic:</td>
<td>0</td>
</tr>
<tr>
<td>Stressed Syllable Total:</td>
<td>63.73%</td>
</tr>
</tbody>
</table>

Table Key: The “Word Length Total” column figure represents the percentage of words that is of that word length. For the cells inside the “Syllable Receiving Stress” columns, the amount on top indicates what percentage of a particular word length was stressed on that syllable. The number on the bottom indicates, for all the words that received stress on a particular syllable, what percentage of these words were of a particular word length. The “Stressed Syllable Total” row indicates what percentage of words was stressed on a particular syllable. Note that monosyllables were not analyzed as receiving stress and the “None” cell in the “Stressed Syllable Total” row is inapplicable.
**Question discussion.**

For Question g. the most frequent segments were consonants /ɹ/, /s/, and /k/ and vowels /ə/, /ɑ/, and /ι/. /ɹ/ is an alveolar approximant. /s/ is a voiceless, alveolar fricative. /k/ is a voiceless velar plosive. /ə/ is an unrounded, intermediate, mid, central vowel. /ɑ/ is an unrounded, lax, low, back vowel. /ι/ is an unrounded, lax, high, front vowel. Most segments were located in the first stressed and unstressed syllables and the second and third unstressed syllables. The second stressed syllable and the fourth unstressed syllable were both much smaller and missing a coda. The unstressed segments outnumbered the stressed segments. The onsets and the nuclei housed more segments overall than the codas. The monosyllables were an exception to this. They also had every segment present except for /ι/. (/ə/ can never be present in a monosyllable.) /k/ and /s/ were evenly split between word-initial, -medial and -final positions. /ɹ/ occurred primarily in word-medial positions. The vowels occurred almost always in word-medial positions. The most frequent consonant clusters were /st/ and /kɹ/. /t/ is a voiceless, alveolar plosive. /st/ occurred in monosyllables word-initially in the onset and word-finally in the coda. It occurred word-initially in the first unstressed syllable onset and word-medially in the second stressed syllable onset. It occurred word-finally in the third unstressed syllable coda. /kɹ/ occurred in monosyllables word-initially in the onset. It also occurred word-initially in the first stressed syllable onset. The most frequent whole syllable was /ɹɑ/. It occurred in the first stressed syllable, word-initial, and in the second stressed syllable, word-medial. Among all the Questions, this was the only one to have an example of a repeated whole word.
CHAPTER 5
DISCUSSION
Experimental Conclusions

Part 1: Words Requiring Definitions

Questions A., B., C., and D.- monosyllables

A. smitch [smitʃ].

There appears to be something about smitch that suggested 1) smallness or limitation 2) an objectionable person or action 3) a spot or blemish or 4) something harsh to the participants. Overall the word seemed to carry an essentially negative connotation.

B. jube [dʒuːb].

For the participants, the word jube was reminiscent of something round, something fruit-like or a quick movement. It should be noted that the sound similarities between jube and the candy Jujubes was an utter coincidence. It was not realized until after the interview process had already ended that this was even a potential area of interference. Considering some of the definitions given that fell under the pertaining to fruit and candy categories, I strongly suspect that these definitions were the result of extra-stimulus motivation that the participants could not look past.

Questions A.—R. were designed prior to the formulation of the antonymic hypothesis.
C. keeve [kʰiv].

There is something in keeve that suggested, on the one hand, lowness or sinking or, on the other hand, a piercing or cutting that can be either literal or figurative. Some participants also perceived a general violent action. This is potentially related to the piercing or cutting aspect. Finally, a smaller but significant group interpreted the sounds as being representative of food, particularly a fruit or, less frequently, bread.

D. wam [wam].

Wam presented two main branches of meaning: 1) a noise or impact and 2) peace and comfort. There are also noteworthy trends relating to food (primarily Asian), water and activities relating to water, large spaces and finally, emotional discontent.

Monosyllable discussion.

Of the four monosyllables, Question B. presented the only evidence for possible iconism with its largest category, a round shape, amounting to nearly 33% of all responses. Hypothetically speaking, the combined presence of the rounded vowel with the bilabial plosive, which can cause the lips and cheeks to inflate when held closed, could be iconically consistent with something that was described by so many participants as round. Considering the presence of the bilabial plosive, the only connection between the antonymic hypothesis and the category of a round shape that can be offered is that this consonant is a stop as opposed to a continuant which allows for the inflation of the lips and cheeks already mentioned. This is highly speculative, however, and does not conform well to the stated parameters of the hypothesis. The words that possibly inspired extra-stimulus motivation for the category a round shape were boob and tube. Questions A., C. and D. did not present any convincing evidence for iconism. Question C. exhibited evidence that seemed to conflict with the antonymic hypothesis. Its top
category, a **hole, depression or falling**, is phonosemantically antithetical to the high vowel in its nucleus, its only vowel. A possible explanation for this seeming contradiction is that the participants were influenced by extra-stimulus motivation: *cave*. All four Questions could have been influenced in the same manner. All the suggested words of interference can be viewed in the *Results* chapter. Arbitrary designation was undoubtedly a factor in this tetrad.

*Questions E., F., G., and H.-bisyllables*

**E. easloff** ['ɪzˌɔlf].

For the participants, this word suggested elevation or superiority in position in a literal, physical sense. Another important branch of meaning is encapsulated by relaxation and leisure. Other branches include food, religion (of the Middle East in particular), load bearing and moving and, perhaps related to this, quick movement.

**F. kedid** ['kɛd].

There are two large branches of meaning in Question F.. First, there was something that suggested to listeners the concept of distance, be it great or small. The second branch, not wholly unrelated, suggested limitation, truncation and feelings of restriction. There is also clustering around the concepts of food, sports, and the related concepts of impact, damage and disfigurement. Question F. appeared to be one of the purer questions in this data set in terms of the interference that English might have played in its definitions.

**G. mavar** ['meɹˌva].

*Mavar* suggested to many participants elements of boats or sailing. Many envisioned a color, typically a bright one. Others found something in Question G. that reminded them of food, frequently dairy. Other semantic groupings included sharp or pointed things, discontent, flying (which could be related to sailing), the intellect, animals and something picturesque.
Upon hearing the word *eyeyu*, a fair group of participants perceived an element of water or something water-related. For an even larger group, the word was suggestive of a land-based animal, though it is difficult to be any more precise for this category. There was also a tendency to associate Question H. with Eskimos and the arctic. Finally the word sounded to several participants as though it should be a type of salutation.

*Bisyllable discussion.*

Question E. presented the only evidence for iconism among the bisyllables with its category, **elevation or a superior position**, comprising over 18% of the total number of responses. Relative to the antonymic hypothesis, the word-initial, high vowel of Question E. is iconically consistent with the theme of this greatest category. The words that might have interfered with this category through extra-stimulus motivation were *loft* and *lift*. Questions F., G. and H. were not evaluated as having any iconic elements. Potential areas of extra-stimulus motivation were identified for all four Questions. All the suggested words of interference can be viewed in the *Results* chapter. The presence of arbitrary designation was undeniable in this tetrad.

*Questions I., J., K., and L.- trisyllables*

*I. narathooze* ['næɹəθuʷz].

There seems to have been something about *narathooze* that suggested medication or medical procedures, particularly those of the nose. Related to this is the category of confined passageways which is also consistent with the nose. Other trends included mental acuity, festivity, sleep and the related storytelling. Owing to the number of people who associated Question I. with a nasal spray, I think this is an indication of one of the practical applications of
phonosemantic studies: its use in marketing through making determinations regarding the appropriateness and reception of product names.

*J. phillontave* ['fɪləntəv].

This was one of the least fertile Questions of the data set for finding patterns. What patterns were present indicate that Question J. suggested 1) some kind of tool, usually a simple, mechanical one or 2) some kind of liquid adhesive.

*K. lulurode* ['luəlʊrəd].

There is something in Question K. that was suggestive of something twisty or serpentine. Another branch of meaning circled around games and play. Still another significant branch clustered around a small flower, frequently purple or a related color. There were two smaller categories as well. The first was comprised of definitions all sharing common elements of dance, which could be related to the games category. The second category involved great size and mass.

*L. goxiwall* ['ɡəksəwal].

There appears to have been something in Question L. that was reminiscent of something that was different than is customary. On a related note, there was also an element of fear or negative outcome. Almost half of all definitions contain these elements. Another large branch includes animals of various types. The animals mentioned are too diverse to draw precise interpretations. The remaining categories include adhesives, architecture and various types of food and drink.

*Trisyllable discussion.*

Questions I. and K. both presented large categories. The largest of Question I., a medical procedure, medicine or an illness, comprised over 31% of the total number of responses. There
was nothing in Question I.’s top category that could be identified as iconic. Two smaller categories of Question I., the nose, and a confined passageway, could, theoretically, be candidates for iconicity. In terms of the antonymic hypothesis, given that definitions related to the nose and tight spaces were so frequent, its possible that the homogenous nature of this word in terms of its continuants might iconically represent the flow of air through the nasal passage. Extra-stimulus motivation could have been a factor in these categories: snooze, narrow. The largest category of K., windy, twisty or curvy, comprised over 29% of the total number of responses. There also could have been interference from the word loop. Question L.’s top two categories, fantastical, non-sensical or different than the norm, something to be feared or otherwise negative, accounted for nearly half of its responses. Regarding the antonymic hypothesis, there were several phones, consonants and vowels, with back articulations which could be iconic of darkness, obscurity or things hidden and, by extension, fear. Question J. was one of the least compelling Questions of the first part as far as indications of iconicity. Question K. on the other hand could have been host to iconic processes with the connection between the reduplication of the first and second syllables and its top category. The concept of something winding or twisting back on itself is a reduplicative process. No relations can be drawn between the antonymic hypothesis and Question K. Potential words of extra-stimulus motivation were isolated for each Question. All the suggested words of interference can be viewed in the Results chapter. Arbitrary designation was widespread in this tetrad.

Questions M., N., O., P., Q., and R.-tetrasyllables

M. cengastumine [sɪnˈɡæs.tə·maɪn].

For many participants, there was something in Question M. suggestive of gastrointestinal disease. There also appears to be something in it that reminded people of minerals, mines and
trenches, chemicals, warfare and, combining everything in a most logical way, chemical warfare.

There was also an intriguing category centered on duplication.

\[ N. \text{poncrilader} \ [\text{'pʰɑŋ·kə·leʃ·rə]}. \]

There is one great over-arching trend with this Question: the almost irresistible urge to define Question N. as some type of machine. The only exception of any size was the small category of intellectual issues. This seems to be unrelated to the machine trend and therefore could potentially be thought of as a more legitimate candidate for a phonosemantic trend.

Looking beyond the interference of the -er suffix, there could be deeper trends lurking in the types of machines selected. For instance, the category of domestic tools was quite large. The measuring device category was also decently-sized. Another tendency was for the machines to favor the complex over the simple. Almost all tools and machines mentioned would involve several moving parts.

\[ O. \text{bowertilldde} \ [\text{ˈba·wə·tʰɪ·dəu]}. \]

There seems to have been something in Question O. that evoked elements of farming and planting. There was also something in it which was reminiscent of tools, particularly agricultural tools. For fewer people, it suggested the deferral of an activity. Other minor semantic clusters included modes of transportation, nobility and fantasy worlds (which frequently go hand-in-hand), wooded places which is potentially related to farming and fantasy worlds and, finally, clothing.

\[ P. \text{chocksheeble} \ [\text{ˈtʃɛk·sə·hi·bəl}]}. \]

There seems to have been something in Question P. that suggested clusters or piles of repeated objects. It also frequently evoked images of food, particularly candy. The food and pile categories are probably not unrelated. In addition to this, the sounds of the Question P.
suggested a tool to some, Indians to others. There was a fair bit of interrelatedness between these two categories. Various types of animals, emotions and physical activities rounded out the significant categories.

*Q. whoagsafflerick [woˈæfərɪk].*

For many participants, Question Q. suggested something negative. Often this negativity was defined as an emotion of some type, though other, non-negative emotions were mentioned, too. For others, this question was suggestive of some kind of tool or machine. A substantial amount of participants perceived an animal or, probably related to this, something furry or fuzzy. There was a smaller group whose responses clustered around textiles which could also be related to the animal and fuzzy categories. A smaller group thought of things pertaining to different varieties of spectacle-type entertainment, frequently like one would see on a stage. Finally, a substantial group was reminded of things pertaining to water.

*R. tobecraydrub [tʰoˈæ·ˈkreɪ·dɹəb].*

Question R. suggested to over half of the participants related elements of massiveness and impeded motion. Many of these same definitions also had aspects of darkness and cold. Other semantic clustering occurred around varieties of food, plants, animals, disease and misfortune, and storage. The storage category could be related to impeded movement.

*Tetrasyllable discussion.*

Questions M. and N. were replaced by Q. and R. because their potential for evoking extra-stimulus motivation was judged to strong. Therefore, no reliable conclusions can be drawn from them. Question R. exhibited the greatest potential for iconicity. The three interrelated top categories—**massive, oversized or relatively large, cold, dark or hard** and **impeded movement, confinement or slow** accounted for roughly half of all responses. These all share
elements of large size and impeded motion. Question R. exhibited 5 total stop consonants. If there is an iconic force in this question, this is what I hypothesize to be it. The lack of flow is evident during articulation. This connection is something the antonymic hypothesis would predict. Question P. also presented an interesting result with its top category, a cluster, pile or group of repeated objects, comprising nearly 29% of the total number of responses. There are three phones articulated low in the back followed two high and in front. If this is viewed through the lens of the antonymic hypothesis, this could be iconic of the stature of the pile from its base to its apex. This is highly speculative, though. Question P.’s top category could have been influenced by heap. Neither Question O. nor Q. showed any evidence for iconism in terms of the antonymic hypothesis. Question Q. was not suspected of wide-spread extra-stimulus motivation however while this might have been possible with Question O.. This tetrad, especially R., presented some of the best evidence of the first part. With every Question there was the possibility of extra-stimulus motivation, although with this group it was the slightest of all four syllable lengths. All the suggested words of interference can be viewed in the Results chapter.

General Remarks-Part 1: Words Requiring Definitions

There was a tendency for the longer words (tri-and tetrasyllables) to present fewer opportunities for extra-stimulus motivation. This seems to be because the longer a word is, the easier it is to construct a word that little resembles anything real. There were a few examples present that might offer support for the antonymic hypothesis, with Question R. offering the strongest evidence. These were so few in number however that nothing definitive can be said regarding this. There were many Questions that did not offer any evidence of iconism and all eighteen Questions of part one could have been influenced to some extent by extra-stimulus motivation. This is more likely with some than others. There is a chance that more evidence of
iconism could have come out of part one if this interference had been curtailed. Regardless, the evidence in favor of iconism coming from the first part is extremely isolated and, where it is found, it is never overwhelming. The only overwhelming aspect of part one is the impact that arbitrary designation had on the data.

Part 2: Definitions Requiring Words

Questions S., T., and U.- the three states of matter: solid, liquid, gas

S. the wad of hair removed when cleaning a hairbrush.

Question S. presented two frequent consonant clusters: /sk/ and /gl/. The former was seen again only once in a Question from part 3 while the latter was unique to this Question. How to classify the velar consonants is uncertain. In terms of the antonymic hypothesis, the abundance of velar consonants could be significant but the connection is difficult to make. A wad of hair is light and airy so this seems contradictory. Extra-stimulus motivation can not be ruled out of the process by which these clusters were formed: skim, skinny, gloop, glop, etc.

T. the grease that accumulates on top of a hot pizza.

Question T. presented one frequent consonant cluster that was unique to it: /sl/. Statistically this cluster was the most frequent of all clusters in the second part. The fact that both phones are continuants could be significant for the antonymic hypothesis. This could represent the flow of the liquid. Extra-stimulus motivation was a possibility: slime, slick, slide, etc.

19 Only selected consonant clusters are discussed here. See General Remarks-part 2 below for a discussion of the remaining consonant clusters plus the segments and whole syllables.
U. an unexpected cool breeze on a sultry day.

Question U. presented one unique, frequent consonant cluster: /sw/. The fact that both phones are continuants could be significant for the antonymic hypothesis. The articulations of the alveolar fricative and the labial-velar approximant could be seen as iconic of the flow of air. Extra-stimulus motivation was a possibility: swish, swash, swirl, swoon, sweat, etc.

Questions V., W., and X.- three primary emotions: joy, sadness, fear

V. the feeling experienced by a death-row inmate after being pardoned or exonerated.

Question V. presented no unique consonant clusters. /gɹ/ was statistically rare however, being present in only one other Question. No connections between the antonymic hypothesis and this cluster could be made. Extra-stimulus motivation was a likely factor: groan, grief, grovel, grant, grateful, etc.

W. a feeling of extreme disappointment.

Question W. was the other environment that frequently hosted cluster /gɹ/. This cluster could present evidence that is consistent with the antonymic hypothesis. The velar plosive is situated in the back of the mouth in relative darkness which could be iconic of the sentiment. Extra-stimulus motivation may very well have been a factor: growl, groan, grudge, etc.

X. the feeling of being woken in the middle of the night by a strange noise.

Question X. presented no unique, frequent clusters. /kɹ/ was present here and in one other Question in this section. No connections between the antonymic hypothesis and this cluster could be made. Extra-stimulus motivation was a possibility: cry, croak, creep, scream, screech, etc.
Question Y. - independent: isolation

Y. the name of the remotest island on earth.

Question Y. presented one unique cluster: /kl/. No connections between the antonymic hypothesis and this cluster could be made. Extra-stimulus motivation was a possibility in this case: clear, cloud, cloister, etc.

General remarks-part 2: definitions requiring words.

All seven Questions from the second part tended to favor the same consonants and vowels with little exception. They were not identical for each Question but they were consistently selected from the same pool of five consonants /s, t, k, l, n/ and three vowels /ɪ, a, æ/. These consonants and vowels happen to be roughly identical to the ones most frequently used in English (Whissell, 1999). The most likely explanation for this is that the words were created within an English framework of extra-stimulus motivation. A great effort was made to prevent this from happening but it may not have been enough. If direct extra-stimulus motivation was not the cause, this leads to the difficult question of what force or motivation did cause the participants to use these consonants and vowels. It would be very challenging to explain why the participants fell back on these sounds. The difficulty in making a case for iconism under these circumstances is twofold: the general lack of contrast in the responses from English and the lack of antonymic contrast among the consonants and vowels that were used. Iconism per the antonymic hypothesis necessitates articulations from the extreme ends of the vocal apparatus or an abundance of stops or continuants. This is how the readily identifiable characteristics of antonymic contrast come into play. Most of these consonants and vowels on the list, the ones so common in English, don’t meet these criteria. There are some exceptions, like the seemingly ubiquitous low, back vowel /ɑ/ and the velar plosive /k/. However, most of
these sounds are not conducive to the required contrast and the presence of a few potential iconic exceptions fails to render the group more iconically viable to any significant degree.

One tentative idea to explain this trend, though it has nothing to do with iconism, is that these sounds were created as a matter of habit in English speakers. If the participants were not semantically associating the stimulus with real words and there were no iconic forces at work, the unconscious predilection for familiar sounds may have been impossible to circumvent. The fact that sounds not native to English were rare, especially among native speakers, could support this idea. But, the difference between this situation and the participants blatantly using English as their model is very fine; it’s impossible to say where the subconscious preference for familiar sounds would end and the willful decision to use actual words begins. Non-native speakers of English did utilize more non-native English sounds in their responses but, given the behavior of the English speakers, this is not surprising. The possibility for iconism in part two is an exceptionally slim one. The only certainty here is that arbitrary designation played a large if not exclusive role in the creation of the words.

There were two exceptions to the above trend among the segments. The first involved the vowel /i/ from Question U. This was the most frequent vowel for this Question which is the only reason why it is being singled out. It is one of the phones that conforms to the antonymic hypothesis. In this particular question this high vowel could be iconic of the wind high above one’s head as well as of the high temperature. The second was the consonant /d/ from Question W. Unlike the previous example, no antonymic connections were identified with this segment. The stimuli were designed to be highly varied so the fact that the participants used largely the same sounds to represent high levels of variation is strong evidence against iconism. Extra-
stimulus motivation could have snuffed it out but this can not be proven. The most likely answer in this situation is that there was no iconism present.

The consonant clusters that were specific to one or two Questions were discussed above. Ones that were used several or all Questions were not discussed for the same reason that the consonants and vowels spread over several or all Questions were not discussed. Considering the segments, consonant clusters and whole syllables, the clusters seem to have the most iconic potential but even here it is exceptionally tenuous. They did demonstrate the most diversity among themselves. Almost every Question bore a consonant cluster that was specific to it. The situation with the clusters is interesting given that what is traditionally defined as a phonestheme is also a consonant cluster. Phonesthemes can include a vowel, turning them into part or all of a whole syllable, but this in not as frequent as the basic consonant cluster. Based on the present data, it appears that clusters, a traditional focus of phonosemantic studies, do demonstrate more potential for iconism compared to sound segments and whole syllables. Even so, these clusters fail to present convincing evidence confirming the existence of iconism. The best evidence part two has to offer is that which supports arbitrary designative processes.

The whole syllables presented the same problem as the segments in that they were not unique to a particular Question. The schwa was nearly ubiquitous which was not surprising given the apparent influence of English. Another problem common to the whole syllables was their length. They were all composed of either one or two segments with a single, three segment example. The three segment example came from a Question that exhibited eleven equally frequent whole syllables. It is the preponderance of examples such as this which present the combination of common constituents and short length which leads to the whole syllables’ failure to provide any evidence for the existence of iconism. Statistically speaking, the shorter a
syllable is, the more common it is bound to be because there are fewer criteria to replicate. A longer syllable, of four or more segments for example, would statistically be much more difficult to account for by chance. In addition, when taken into account that even the most frequent whole syllables almost always accounted for less than two percent of the total number of whole syllables for any given Question, it becomes clear that the whole syllables do not present much evidence in favor of iconism.

On the whole word level, there was nothing remarkable about the manner in which word length or stress was manifest in any Question. There were Question to Question variations, but none were deemed phonosemantically significant. There were always more mono- and bisyllables than tri-, tetra- and pentasyllables, which is to be expected. Stress patterns tended to mimic those of English according to the length of the word.

If any definitive conclusions are to be drawn, it could only be that the data presented strong evidence for arbitrary designation. The evidence for iconism was uniformly spotty and ever subject to extra-stimulus motivation. This renders it untrustworthy as far as it’s ability to make a positive case for phonosemantic processes.
Questions Z., a., and b.- color dominant; the three primary colors: red, yellow, blue

Question Z. presented no frequent, unique consonant clusters. It does contain the cluster /bl/, which was also present in another Question of the third part. No connections between the antonymic hypothesis and this cluster could be made. Extra-stimulus motivation can not be counted out: blush, blaze, blanket, blood, etc.

Question a. presented two frequent consonant clusters. /fl/ was unique to it and /bɹ/ was observed in one other Question of this section. Through the lens of the antonymic hypothesis, the front articulation of the bilabial in the second cluster could be iconic of light or brightness. Extra-stimulus motivation was a possibility here: flare, flash, fly, flower, fluorescent, brilliant, bright, etc.

---

20 Only selected consonant clusters are discussed here. See General Remarks-part 3 below for a discussion of the remaining consonant clusters plus the segments and whole syllables.
Question b. presented two frequent consonant clusters: /bl/ and /pl/. The former was found in another Question from this part and the latter was unique. No connections between the antonymic hypothesis and these clusters could be made. It is possible that extra-stimulus motivation affected these clusters. Obviously blue might have been one of these influences. Others include *placid*, *plesiosaur*, *pluvial*, etc.

*Questions c., d., and e.* - *a balance between abstract shapes and colors*

Question c. presented two frequent clusters: /bɹ/ was found in one other Question of this section and /fɹ/ was unique. No connections between the antonymic hypothesis and these clusters could be made. Extra-stimulus motivation could have influenced the responses: *bramble, briar, bright, broken*, etc.

Question d. presented two unique, frequent clusters: /sw/ and /skw/. They are among the most similar pairs found in all the data. Relative to the antonymic hypothesis, the first cluster could be iconic due to its composition of continuants. Though the second cluster has the same
continuants, it also contains a stop which makes it non-conforming to the hypothesis. This Question is one where I suspect even more influence of extra-stimulus motivation than normal, particularly from *swirl* and related forms. *Swish, swash, swipe, sweep, squiggle, squeegee, squirt*, etc. It is possible that the <S> shape of the image inspired some to use this consonant.

e.

Question e. presented no frequent, unique consonant clusters. /ts/ was present here and in another Question of this part. No connections between the antonymic hypothesis and this cluster could be made. Extra-stimulus motivation could have played a part here: *trace, track, trail*, etc.

*Questions f. and g.* - **shape dominant**

f.

Question f. presented one unique, frequent consonant cluster: /sk/. There could be iconic processes occurring with this cluster. No connections between the antonymic hypothesis and this cluster could be made. Extra-stimulus motivation could have influenced this cluster: *skeleton, skull, scuff, scrub, scratch, scrap, scrape, scour*, etc.
Question g. presented no frequent, unique clusters. It did exhibit cluster /st/ which was one of the most unremarkable, widespread clusters throughout all the data. The reason why this cluster merits attention here is because unlike all the other Questions, g. contained 14 examples of it. This was the highest frequency for any single cluster in all the data. No connections between the antonymic hypothesis and this cluster could be made. Extra-stimulus motivation could have been a factor, however. I suspect that *rust* might have influenced the judgments of many participants as this cluster was frequently appeared in word-final position.

*General remarks-part 3.*

As above, all eight Questions from the third part tended to favor the same consonants and vowels with little exception. They were not identical for each Question but they were consistently selected from the same pool of five consonants /s, ʃ, k, l, n/ and three vowels /ɪ, ə, ə/. The discussion above in the *General Remarks* section of Part 2 outlining possible reasons why this may have been the case applies here to. Please see that discussion again if necessary. As above, there are also two exceptions to this trend. Question b. had vowel /i/ among its most frequent segments. Unlike above, there is no explanation involving the antonymic hypothesis for why the vowel appeared with such regularity here. Question e., the other exception, exhibited consonant /t/ among its most frequent segments. While there is a crossing of lines that resembles the letter <T>, this really does not seem like a satisfactory explanation. No worthwhile explanation involving the antonymic hypothesis can be offered for this consonant’s
frequency. The situation with the consonant clusters in part three was essentially the same as in part two. See the General Remarks section of part two for further discussion of the clusters. The situation with the whole syllables and whole words was essentially the same as above. One minor difference was that there were no frequent whole syllables of three segments in part three, only one or two. Any conclusions that could be drawn from the data in part three would have to involve an affirmation of overwhelming arbitrary designation, as in part two.

**Experimental Conclusions Summary**

Data which presented potential evidence for iconism and the antonymic hypothesis was hard to come by in all three parts. From part one, Questions B., K., and R. offer the best evidence with R. being the strongest among that group. From part two, Questions T. and X. are the strongest. From part three, Questions a. and f. offer the best evidence. But even the best evidence the data has to offer does not shift the favor towards the existence of iconism. The data shows without a doubt that arbitrary designation is a powerful force. Of the meager amounts of evidence that could potentially support the antonymic hypothesis, the most compelling is Question R. in my opinion. This accounts for such a small percentage of the data though that it is difficult to call the results anything other than powerful evidence for arbitrary designative processes. The only way further experimental endeavors could be justified would be if more Questions like R. could be developed that bare scant resemblance to existing words and these were utilized in the strictest of interview protocols where extra-stimulus motivation could be held to an absolute minimum.
The Present Experimental Process in Hindsight

Throughout the experimental process, I became aware of certain things I had done that I wished I could do over again in a different way. I’m including the following section for the primary benefit of those who read this research and decide they are interested in a similar undertaking. I want to pass on what I’ve learned through experience so that their experience might be improved and the field of phonosemantics might be advanced. The stages of the experimental process that I would most like to change are the Question creation stage and the interview stage. I will address the question creation stage first.

Regarding invented words that require definitions, it is my determination that monosyllables and bisyllables should be avoided altogether when pursuing an experimental model similar this one. It is just too difficult to invent words of this length that do not bear a close resemblance to real words. Trisyllables should be approached with caution but, with attention to detail, a unique sounding word can be created. Tetrasyllables are the ideal length in my opinion, and this was borne out in the present research. In fact, if a researcher wished to use only tetrasyllables, I think this would be fine.21

When creating the words I used in this research I spent considerable time and effort appraising permutation after permutation trying to invent words that were not reminiscent of existing words. In hindsight, I wish I had invested even more into this process. Even if it takes several hours just to arrive at one pristine word, this would be time well spent. When engaged in this process I think it would be a good idea to keep a comprehensive dictionary close by so that

21 I selected one of the monosyllables, Question B., to be among the best examples of positive evidence for iconism. In the bigger picture, it still does not offer very strong evidence as it probably was influenced by extra-stimulus motivation. In the future I would circumvent this dilemma by abstaining from monosyllables completely.
one might know for sure if the individual syllables and the complete words one creates are truly original.

Apart from designing something original, one must also incorporate an articulatory theme into each word. Even though I invested much in designing words with particular articulatory features, I wish I would have done even more. I would recommend creating words in accordance with the antonymic hypothesis, focusing on themes of front articulations, back articulations, high articulations, low articulations, front to back, high to low, all stops, all continuants, etc. Be methodical in trying out different combinations. This kind of focus will simplify one’s evaluations and lead to more solid conclusions. Anyone considering this type of research should anticipate a lengthy process when creating words.

For invented definitions that require created words, I don’t feel it is absolutely necessary to have a theme for various sub-groups the way I did. While it is good for organizational purposes, it did not appear to have any effect on the interview process. I also think one would be better off creating definitions that are more semantically focused than a couple were in the present research. One must still be certain that the invented definition does not resemble any real definitions too closely. But, the more focused a definition is, the easier it will be to draw conclusions from. One can expect for this process to take some time to complete.

When selecting images for which participants will be required to create a word, I also determined the simpler the better. Images that are extremely busy will be difficult to evaluate because one can never be certain if it was one, several or all aspects that influenced the decision of the participant. One must also be careful to not select images that are too simple as this could lead to the same results as asking participants to define invented monosyllables. This process will require a significant investment of time just like the first two.
The interview process is very important to the success of a project like this one as this is where the all data is gathered and there are several things I would do differently. Even though I don’t see the age of the participants as being a crucial factor in the integrity of the data, I would have liked to interview more middle aged and elderly people and not so many young people. A perfectly balanced group in terms of age and gender is ideal. Prior to the actual interview, I think it would be a good idea to have written directions available, explaining the entire process to the participant. This way there is assurance that each participant was informed of the same information in the same manner. The room in which the interviews take place needs to be different than what I had had access to. Ideally, the interview should take place in an empty room where there is nothing on the walls or any other kind of decorative distraction, something similar to an interrogation room although it doesn’t have to be referred to in that manner for the interview. The reason is because when asking participants to create words and definitions from scratch, their mind will be frantically grasping for ideas to form an answer to the stimulus. In this desperation, if there are words or pictures on the walls, the participants could easily cheat instead of relying on their own linguistic creativity, which is the whole point of the experimentation. I tried to be vigilant when it came to identifying occurrences of extra-stimulus motivation. But, in hindsight, I wish I had been even more selective of what constituted an acceptable response. It’s hard to be too selective when it comes to this. One should never be reticent to ask a participant to try again.
Ideas for Future Experimentation

When it comes to the manner of experimentation used in the present research, the field of phonosemantics is still largely virgin territory. These are some ideas for future endeavors. One manner of experimentation that has not been tried much is a truly cross-linguistic approach that includes not only different languages within a language family but transcends language families. There have been some lexical, cross-linguistic studies that included various European languages plus one Asian language, such as Magnus (2001) for example. But there have been very few invented word and definition studies that systematically involved participants from multiple, unrelated language families. It is quite exciting to imagine the possibilities of a study such as the present one conducted on such a scale. Logistically, this would be very challenging which probably explains this dearth in the first place but, if one were in a position to do it, it would fill a large gap in the current research.

If one does not wish to pursue the nonsense word and definition method, there are lexical approaches that can be undertaken. One area in need of bolstering is the study of languages of non-technological societies. Many within this field view languages spoken by people groups in less developed parts of the world as potentially being more iconically fertile compared to languages from more developed places (Magnus, 2001). This includes many languages of Africa, North and South America, Southeast Asia, Australia and various islands of the Pacific. There already has been some work done in places like this, studies by those such as Doke (1935, 1954), Samarin (1972), and Childs (1994), but the languages that have not been studied far outnumber those that have been. It is only through empirical studies that one could ever determine if certain languages are more iconically active than others, and if they are, why and how.
An approach that has rarely been tried is that of analyzing a particular language’s entire lexicon. This is highly desirable because many languages will show spotty evidence for iconism when selectively and partially analyzed. If an entire lexicon were analyzed, it would be a great means to determine where the truth lies within that language, one way or the other. McCune (1983) is one of the few studies to undertake this.

Another area in need of attention is that of tonal languages. Some who have investigated this area are Lapolla (1994) and Diffloth (1994). Tonal languages represent an unresolved problem within phonosemantics because, as a typological group, they show comparatively much less evidence of iconism than non-tonal languages. The field has yet to have an individual fully explain this conundrum. These are just a few of the areas within the field that need attention. There are certainly more approaches out there that have yet to be tried.

Practical Applications of Phonosemantic Studies

What good does it do to research possible ways in which sounds convey inherent meaning? How can this apply to the real world? One application which is omnipresent in our society is the means by which brands and products are named (Lowery & Shrum, 2007). How do manufacturers arrive at the invented names that adorn their products, particularly prescription drugs? Every made-up name emblazoned on a product box is there by design. There must have been something in the sounds of the name that felt appropriate for designating the product. Why were the sounds deemed appropriate? Whether they realize it or not, those in advertising are working according to the perceived meanings of sounds. The sounds that feel appropriate for designating a sedative are probably going to be different from the sounds that designate a stimulant. The sounds that designate an antidepressant will more than likely differ from those
that designate an osteoporosis drug. Frequently the product names will incorporate parts of real words or invented words that intentionally sound like real words. Consider the antidepressant Zoloft. The significance of -loft is apparent but how did the advertiser arrive at the conclusion that zo- is appropriate for such a drug? Consider the osteoporosis drug Boniva. Obviously bone played a part in this name but why -iva? Why do the drug manufacturers feel these sounds would garner a positive reception? Clearly there is some force or perception motivating those who create product names. With untold amounts of time and money at stake, these individuals are highly motivated to see their products do well in the marketplace. One can be guaranteed that much forethought went into names like Zoloft and Boniva. While these determinations of appropriateness don’t necessarily have to be based in iconism, there are factors guiding those who name products as it’s a near certainty that certain sounds would have been deemed inappropriate and rejected during the naming process. Though product naming may be the most practical application of phonosemantics, the desire to name something or somebody appropriately is universal. The same guiding forces that influence product naming influence many other aspects of daily life. What could influence a pet owner to choose the name they do for their pet? What influences an author or a screen writer to name a character the way they do? How do nicknames come into being? While strict iconism is not necessarily the answer, associations between sound and meaning of some sort are being made.

There are also applications in the creation of poetry (Jakobson & Waugh, 1987; Tsur, 1992; Violi, 2000). Poets have always been keenly aware of the fact that it’s not just what one says but, also, it is how one says it. The sounds of words are just as important as the meaning of words in this context. Whether there is any truth or not in the phonosemantic and antonymic
hypotheses, the poet’s relationship with language involves a deep appreciation of the impact that form can have on content.

Final Remarks

The overwhelming majority of evidence accumulated from this experimentation indicates that arbitrary designation and the double articulation are ubiquitous factors in language. Though the phonosemantic hypothesis and, stemming from this, the antonymic hypothesis challenge the traditional notion of the morpheme as the smallest meaning-bearing unit, essentially no data was gathered in the present research that would pose any kind of threat to this principle. For the best positive evidence of iconism, see the results for Question R. Even the best evidence, however, fails to make a convincing case in support of linguistic iconism. Extra-stimulus motivation was widely suspected during the interview process and this is the only reason why further experimentation may be warranted before even stronger judgments are made. It is my assessment that future experimental endeavors in this field should focus on ascertaining the instincts of human subjects regarding created words and definitions. The lexical methods that have been so heavily favored in the past have largely run their course, in my opinion. It seems a distinct possibility that they will never offer convincing proof, if there is any to be had, as the specter of common etymological descent looms too large. Perhaps more broad, cross-linguistic lexical studies involving strictly one representative language from every major language family e.g. one from Indo-European, one from Sino-Tibetan, one from Austronesian, etc. might be justified. But, even in this situation, I would not expect results indicative of anything other than cross-linguistic arbitrary designation. I am convinced that the only way forward in this field is to refine the stimulus creation and interview process so that extra-stimulus motivation can finally
be contained and individuals’ phonosemantic instincts can be accurately assessed. If such approaches are not forthcoming, this area of study will most likely succumb to the overwhelming presence of arbitrary designation and permanently assume the role of a once provocative question that ultimately became a settled issue.
BIBLIOGRAPHY


312


Participant Data Sheet

Participant #: 1 Age: 20 Sex: F Linguistic Background: native speaker: English; beginning learner: French

Question ID

A. smitch [smitʃ]: a place in a wall
B. jube [ʤuːb]: a hard, strawberry candy
C. keee [kʰiː]: a small damp place in a cave
D. wam [wɔm]: a pen with a dangling object attached
E. easloff [ɪz·ɔf]: a Jewish name
F. kedid [ˈkʰɛ·ɾəd]: a way of kicking a ball
G. mavar [ˈmeʲ·vaɾ]: a pirate’s ship
H. eyeyu [aʲ·juː]: a dog-like animal with a bushy tail and a long nose
I. narathooze [ˈnæ·ɹə·Ɵuːz]: a Greek god of sleep
J. phillontave [ˈfɪ·lə·nə·t̚əv]: a very cold, small, distant island
K. luluod [ˈlu·u·o·d]: a small, red, fragrant flower
L. goxiwall [ˈɡɑk·sə·wɔl]: a white, vegetarian, ox-like animal
M. cengastumine [sɪn·ˈɡæs·tə·maʲn]: a skin disease of the legs
N. poncrilader [ˈpʰɑŋ·kɹə·leʲ·ɾɚ]: a machine which helps keep the muscles strong
O. boweritlilwe [ˈba·wə·ɪ·tʃɪ·lɪ·wɛ]: a dance frequently performed at weddings involving jiggling the hips
P. chockaheeble [ˈtʃɑk·sə·hi·bəl]: a purple, unfriendly, reptile-like animal
Q. whoagsafflerick [ˈwɔg·ˈzæ·fəl·ɹɪk]: a forest where the plants are red
R. tobecraydrub [tʰoʊ·bə·ˈkɹɛ·dɹuː]: an insect

Definitions Requiring Words

S. the wad of hair removed when cleaning a hairbrush: WIKsul [ˈwɪk·səł]
T. the grease that accumulates on top of a hot pizza: GRAHpul [ˈɡɹɑ·pʰəɬ]
U. an unexpected cool breeze on a sultry day: KEEzee [ˈkʰiʲ·ziʲ]
V. the feeling experienced by a death-row inmate after being pardoned or exonerated: jibz [dʒibz]
W. a feeling of extreme disappointment: KAHlow [ˈkʰɑ·ləʊ]
X. the feeling of being woken in the middle of the night by a strange noise: eekt [iʲkt]
Y. the name of the remotest island on earth: iNEEzo [ɪl·ˈniʲ·zoː]

Images Requiring Words

Z. a. b. c. d. e. f. g.
Participant Data Sheet

Participant #: 2  Age: 19  Sex: F  Linguistic Background: native speaker: English; beginning learner: French

Question ID

Words Requiring Definitions

A. smitch [smitʃ]: something you can do with your mouth
B. jube [dʒuːb]: a fat tube
C. keeve [kʰiv]: to encrust something
D. wam [wɔm]: denotes an impact
E. easloff [eɪsˌlɔf]: a Norwegian food
F. kedid [ˈkʰɛɾəd]: beaten into shape
G. mavar [ˈmæɾvə]: a description of scenery in a painting
H. eyeyu [ˈeɪjuː]: a description of a place
I. narathooze [ˈnæəˌθuːz]: nose spray
J. phillontave [ˈfɪləntʰeɪv]: to fill something unequally
K. lulurode [ˈluˌluːrəd]: an uneven street
L. goxiwall [ˈɡɑk·səˌwɔl]: a type of goggles
M. cengastumine [sɪnˈɡæstəˌmaːn]: a gas chamber in the Holocaust
N. poncirilader [ˈpɔnˈsɪrəˈleɪdə]: a toy that changes shape, like a Transformer
O. bowertilldew [ˈboʊəˌtɪlˈdɛʊ]: an article of clothing
P. choocksaheeble [ˈtʃoʊksəˈhiːbəl]: a hot drink, like tea, taken when ill or in the winter
Q. whoagsafflerick [ˈwɔgˈzæfəlˈrɪk]: a type of squirrel
R. tobecraydrub [tʰoʊˈbrɛˈkɹeɪdrʌb]: a mushy, bitter, African dish with rice

Definitions Requiring Words

S. the wad of hair removed when cleaning a hairbrush: KHAbul [ˈkʰɑˌbʌl]
T. the grease that accumulates on top of a hot pizza: GOOgulwiks [ˈɡuˌgəlˌwɪks]
U. an unexpected cool breeze on a sultry day: STREEzee [ˈstɹiˌzi]
V. the feeling experienced by a death-row inmate after being pardoned or exonerated: PAHRsuhljuhn [ˈpʰɑɹˌsuːlˌdʒən]
W. a feeling of extreme disappointment: flooHAYvuhn [ˈfluˌheɪˌvʊn]
X. the feeling of being woken in the middle of the night by a strange noise: disROWduhn [dɪsˌɹoʊˌdʌn]
Y. the name of the remotest island on earth: sinKLAIR [sɪnˈklɛər]

Images Requiring Words

Z.

a. WINstruhn [ˈwɪnˌstrʊn]

b. BUHbultuh [ˈbʌ·bʌˌbʌltʊn]

c. poe [pʰoʊ]

d. LOWthursuhm [ˈloʊˌθɜrsəm]

e. WORDsuhm [ˈwɜːrdˌsuːm]

f. NAKsuhmunce [ˈnækˌsuːmənς]

g. GRAHvuhlvail [ˈɡɹɑ·vəˌvləˌvai]
Participant Data Sheet

Participant #: 3  Age: 28  Sex: M  Linguistic Background: native speaker: English; fluent speaker: French; beginning learner: Spanish

Question ID

A. smitch [smitʃ]: a stain
B. jube [dʒuˈbɪː]: a bug like a beetle
C. keeve [kʰɪv]: a hole
D. wam [wam]: a long, narrow stick
E. easloff [ˈɛɪs·lɔf]: a food with something melted and oozing on top
F. kedid [ˈkʰɛ·ɾɪd]: an adjective meaning ‘adjacent to’
G. mavar [ˈmævə]: an old wooden boat like those of Columbus’ day
H. eyeyu [ˈæ·juː]: a designation for one’s ancestor
I. narathooze [ˈnæ·ɹə·θuːz]: a dark (evil) character from Greek or Roman mythology
J. phillontave [ˈfɪ·ɬoʊ·ntə·veɪ]: a group of random objects that you might place into a backpack
K. luluroad [luˈrɑːd]: a windy road like in the game Candyland
L. goxiwall [ˈɡɑksə·wɔl]: something without coherence, nonsensical
M. cengastumine [sɪn·ˈɡæs·tə·mɪn]: a replication, mimesis or parroting
N. poncrilader [ˈpɑŋ·kɹɪ·lɑːd]: a pacemaker for the pancreas
O. bowertilldew [ˌbɔ·wɜ·ˈtɪld·dəʊ]: a balance (scale)
P. chocksahsheeb [ˈtʃɑks·ə·ʃi·bɪ]: a large gathering of people
Q. whoagstafflick [ˈwɔ·ɡə·sɑf·tfə·kɪ]: relating to a pulley mechanism, an archaic mans of hoisting something
R. tobecraydrub [tʰoˈbrɛ·ˈkɹə·dɜːb]: a device for steering a boat

Definitions Requiring Words

S. the wad of hair removed when cleaning a hairbrush: treats [tʰɹiʧ]
T. the grease that accumulates on top of a hot pizza: bleek [bliŋk]
U. an unexpected cool breeze on a sultry day: forGORN [fɔɹ·ˈgɔːn]
V. the feeling experienced by a death-row inmate after being pardoned or exonerated: purSOON [pʰɜ·ˈsuːn]
W. a feeling of extreme disappointment: PAsunt [pʰæ·sənt]
X. the feeling of being woken in the middle of the night by a strange noise: FLUHburd [ˈflʌ·bɜːd]
Y. the name of the remotest island on earth: POURsun [ˈpʰɔɹ·sʊn]

Images Requiring Words

A. bleesh [blɪʃ]
B. slurREHsunt [ˈlɜɹ·ɹɛ·sʊn̩t]
C. sihRAYshis [sɪ·ˈɹeɪ·ʃɪs]
D. kuHNKWURuld [kʰæ·ʃkwɑɾ·ld]
E. KYOUpuhtime [ˈkʰju·pə·taɪm]
F. pahnd [pʰɑnd]
G. GAHRshuhnd [ˈɡɑɹ·ʃənd]
**Participant Data Sheet**

**Participant #: 4  Age: 20  Sex: F**

**Linguistic Background:** native speaker: English; beginning learner: Spanish, French

**Question ID**

**Words Requiring Definitions**

A. smitch [smitʃ]: a pinch of something you cook with

B. jube [dʒuːb]: an orb-shaped thing

C. keeve [kʰiv]: a trench

D. wam [wam]: Asian food

E. easloff [ˈeɪ·sə·fʌl]: a Hebrew person

F. kedid [ˈkɛ·ɾəd]: to catch things, like fish

G. mavar [ˈmeɪ·vəʊ]: a bright, sunny time of year

H. eyeyu [ˈaʲ·juʷ]: a type of collage

I. narathooze [ˈnæ·ɹə·Ɵuːz]: a sickness of the nose

J. phillontave [ˈfɪ·lən·tʰeʲv]: a thief

K. luluode [ˈlu·lə·ɹəd]: bright, colorful flowers

L. goxiwall [ˈɡɑk·sə·wɔl]: a mean person

M. cengastumine [sɪn·ˈɡæs·tə·mɑːn]: something having to do with warfare and trenches

N. poncrilader [ˈpʰɑŋ·kɹə·leʲ·ɾɚ]: a car part

O. boweritlde [ˈbɔ·wə·tʰɪl·dɹəb]: descriptive of English nobility long ago

P. chocksahlebe [ˈtʃɑk·sə·hi·bəɫ]: a type of candy

Q. whoagsafflerick [ˈwɑ·ɡˈzæ·fəł·ɹɪk]: furry or fuzzy

R. tobecraydrub [tʰoʷ·bə·ˈkɹeʲ·dɹəb]: a leaky sink

**Definitions Requiring Words**

S. the wad of hair removed when cleaning a hairbrush: LOObul [ˈlu·bəl]

T. the grease that accumulates on top of a hot pizza: NOYuhl [ˈnɔʲ·əl̩]

U. an unexpected cool breeze on a sultry day: LAYlye [ˈleʲ·laʲ]

V. the feeling experienced by a death-row inmate after being pardoned or exonerated: GREKsned [ˈɡɹɛk·snɛd̚]

W. a feeling of extreme disappointment: FULLso [ˈfʊł·soʷ]

X. the feeling of being woken in the middle of the night by a strange noise: nihkuhPANnuh [nɪ·kə·ˈpʰæ·nə]

Y. the name of the remotest island on earth: UHLsuhlow [ˈʌł·sə·loʊ]

**Images Requiring Words**

Z. ROOZHlow [ˈrʊ·z̩·ləʊ]

a. LOWsun [ˈləʊ·sən̩]

b. yurb [ˈjɑb]

c. Apuhmuh [ˈæ·pə·mə]

d. YURlee [ˈjʊ·liː]

e. melGLOW [mɛl·ˈɡloʊ]

f. SKWAHkum [ˈskwɑ·kəm]

g. kuhROWsuhmuh [kɑ·ˈjoʊ·sə·mə]
Participant Data Sheet

Participant #: 5  Age: 22  Sex: M  Linguistic Background: native speaker: English; beginning learner: French, Spanish, Classical Greek

Question ID

Words Requiring Definitions

A. smitch [smitʃ]: to scratch
B. jube [dʒuˈbɛ]: to con
C. keeve [kʰrɛː]: to retain
D. wam [wəm]: a type of gin
E. easloff [iːz·lɔf]: an eastern religion
F. kedid [kʰɛ·ɾəd]: a kenning
G. mavar [ˈmeɾ·vɔ]: a vineyard
H. eyeyu [ˈa·juː]: a Native American tribe
I. narathooze [ˈnæ·ɹə·ˈtʃɪz]: to become excited over
J. philloontave [ˈfɪ·lə·ɹə·ˈtʃɪv]: to study human culture, like anthropology
K. luluorde [ˈlu·rə·ˈdɔːd]: a game, maybe a video game
L. goxiwall [ˈɡɑk·sə·wɔl]: a James Joyce-inspired word
M. cengastumine [sɪn·ˈgæ·stə·mɪn]: oil refining
N. poncrilader [ˈpʰɑŋ·kɹə·ˈlɪdə]: a medical device
O. bowertilldew [ˌba·wɚ·ˈtɪl·dəu]: to mold or decay
P. chocksahchee [ˈtʃɑks·ə·hi·ˈbɛ]: to become angry over something
Q. whoagsafflerick [ˈwɔ·ɡ·ˈzæ·fə·ˈlɪk]: log riding
R. tobecraydrub [tʰo·ˈkɹe·ɹə·bʊ]: spelunking

Definitions Requiring Words

S. the wad of hair removed when cleaning a hairbrush: inkeeshmooz [ɪŋ·kʰiʲ·ʃmu·ˈz]
T. the grease that accumulates on top of a hot pizza: prayst [pʰɹe·st]
U. an unexpected cool breeze on a sultry day: ozholLEE [ɔ·ʒo·ˈliː]
V. the feeling experienced by a death-row inmate after being pardoned or exonerated: dekSTEENgwisht [dɛk·ˈstɪŋ·gwɪʃt]
W. a feeling of extreme disappointment: roose [ˈrʊs]
X. the feeling of being woken in the middle of the night by a strange noise: ekSPANdwuhmayke [ɛk·ˈspæn·də·ˈmɛk]
Y. the name of the remotest island on earth: ooMEESHkuh [u·ˈmɪ·ʃə·ˈkuː]

Images Requiring Words

Z. a. b. c. d. e. f. g.
Participant Data Sheet

Participant #: 6  Age: 19  Sex: F  Linguistic Background: native speaker: English; beginning learner: French

Question ID

Words Requiring Definitions

A. smitch [smɪtʃ]: mean (not nice)
B. jube [dʒuˈbə]: funny
C. keeve [kʰəv]: stupid
D. wam [wʌm]: mother
E. easloff [ɪˈzəl]: a type of food, like rice
F. kedid [kʰɛd]: hurt, injured
G. mavar [ˈmeɹəʊ]: smart, intelligent
H. eyeyu [əˈju]: to care for something
I. narathooze [ˈnæɹəθʊz]: silly
J. phillontave [ˈφɪˌθɒntəv]: a tropical island
K. lulurode [ˈluˌlu̯roʊd]: a rock
L. goxiwall [ˈɡɑkɪˌwɔl]: a small, green-yellow, flowering plant
M. cengastumine [sɪnˈɡæs.təˈmaɲ]: an explosion
N. pencerlader [ˈpʰɛs.ə.ɬɛɾə]: a cooking utensil
O. bowertilldew [ˈbəwəˌtɪldəw]: a fluffy object, like snow or cotton
P. chocksaheeble [ˈtʃɑkˌʃəˌhiˌbəl]: a type of hard, cinnamon candy
Q. whoagsafflerick [ˈwɔˌɡæs.əˈfɛl.ɹɪk]: a short, ugly dwarf
R. tobecraydrub [tʰəˈbɛˌkɹeˈdrʌb]: a food like a pita with a spicy filling

Definitions Requiring Words

S. the wad of hair removed when cleaning a hairbrush: BOKshoo [ˈbɑkˌʃu]
T. the grease that accumulates on top of a hot pizza: POORoo [ˈpʰuˌɹu]
U. an unexpected cool breeze on a sultry day: SYtun [ˈsaˌtʰən]
V. the feeling experienced by a death-row inmate after being pardoned or exonerated: GAStee [ˈgæ.ʃti]
W. a feeling of extreme disappointment: EGzis [ˈɛgˌzi]
X. the feeling of being woken in the middle of the night by a strange noise: HAHKtin [ˈhɑkˌtɪn]
Y. the name of the remotest island on earth: fuhROORoo [fəˌˈrʊˌɹu]

Images Requiring Words


d. SAYvis [ˈseɪˌvɪs] e. BYtint [ˈbəˌtɪnt] f. YOUfay [ˈjuˌfə] g. DINkee [ˈdɪnˌki]
Participant #: 7  
Age: 19  
Sex: F  
Linguistic Background: native speaker: English, Spanish; intermediate learner: French, Hebrew

Question ID

Words Requiring Definitions

A. smitch [smtʃ]: an expression of disappointment like “aw shucks!”
B. jube [ʤuːb]: a ball-shaped thing, like a toy
C. keeve [kʰiv]: a tool like a saw
D. wam [wɔm]: a mythical, silly animal
E. easloff [ɪə·sɹ]: to shovel something
F. kedid [kʰɛ·ɾəd]: a type of sport, like soccer
G. mavar [məɹ·vaɾ]: a type of minivan
H. eyeyu [aɪ·juː]: a slang form of greeting
I. nararowee [ˈnær·ə·Thəuwəz]: a computer program
J. phillontave [ˈfɪ·ləntʰəv]: an unspecified academic discipline
K. lulurode [ˈlu·lə·ɹəd]: a little kid
L. goxiwall [ˈɡɑk·sə·wɔl]: a weird town in a valley
M. cengastumine [sɪn·ˈɡæs·tə·maɲ]: a poisonous chemical
N. poncrilader [ˈpʰɑŋ·kɹə·leɹ]: something squishy or spongy
O. bowertildelew [ˈbɔ·wə·tɹəl·duɹ]: a happy type of drink, like lemonade
P. choksaheeble [ˈʧɑk·sə·hi·bəl]: a material like bricks or cement
Q. whoagsafflerick [woʊ·ɡ·ˈzæ·fəɹ·ɹɪk]: a complex machine used for moving things
R. tobecraydrub [tʰɔɹ·ɾɚ·kɹəb]: a liquid medicine

Definitions Requiring Words

S. the wad of hair removed when cleaning a hairbrush: nyak [njæk]
T. the grease that accumulates on top of a hot pizza: rluh [ɹlɜ]
U. an unexpected cool breeze on a sultry day: fyoul [fʲuɬ]
V. the feeling experienced by a death-row inmate after being pardoned or exonerated: Azuhnuh [ˈæ·zə·nə]
W. a feeling of extreme disappointment: TORdur [ˈtʰɔɹ·ɾɚ]
X. the feeling of being woken in the middle of the night by a strange noise: hadge [hæʤ]
Y. the name of the remotest island on earth: KENnuhluh [ˈkʰɪ·nə·lə·ɹə]

Images Requiring Words

Z. hahlm [hɑl̂m]  
ah [a]  
SAHlow [ˈsə·ləʊ]  
pahrg [pʰəɹ]  
WHURTul [ˈwə·ɹtʊ̃]  
tard [tʰaɾd]  
dev [dɛv]  
SHIHmuh [ʃi·mə]
Participant Data Sheet

Participant #: 8  Age: 19  Sex: F  Linguistic Background: native speaker: English

Question ID

A. smitch [smɪtʃ]: to be comfortable with something
B. jube [dʒuˈbɪ]: a bottle of something
C. keee [kʰɪv]: a state of being perturbed
D. wam [wəm]: an open place
E. easloff ['iːz·lɔf]: a surface to paint or draw on
F. kedid [ˈkʰɛ·ɾəd]: the feeling experienced upon seeing somebody you haven’t seen in a long time
G. mavar ['meɾ·vaɾ]: something handmade
H. eyeu ['aʲ·ju']: a furry, passive animal
I. narathooze ['næ·ɹə·Ɵuʷz]: something that would make you happy, like a movie
J. phillontave [ˈfɪ·lən·tʰeʲv]: a type of gel used to caulk
K. lulurode [ˈluʷ·lə·ɹəd]: a windy, country road
L. goxiwall [ˈgɑk·sə·wɔl]: a circus freak, maybe an animal-man
M. cengastumine [sɪn·ˈgæs·tə·maʲn]: something dangerous, a poisonous murder weapon
N. poncrilader [ˈpʰɑŋ·kɹə·leʲ·ɾɚ]: a defibrillator
O. bowertilldew [ˌba·wɚ·ˈtʰɪl·dɛː]: a genre of writing, creative non-fiction that uses embellishments to enrich the story
P. chocksaheeble [ˈtʃɑk·sə·hi·bəl]: someone who eats a lot
Q. whoagsafflerick [ˈwʰo·ɡ·ˈzæ·fəl·ɹɪk]: something amazing
R. tobecraydrub [tʰoʷ·bə·ˈkɹeʲ·dɹəb]: a big, heavy piece of furniture, like a dresser

Definitions Requiring Words

S. the wad of hair removed when cleaning a hairbrush: FROmunjine [ˈfɹə·mən·ʃən]
T. the grease that accumulates on top of a hot pizza: SALuhgrees [ˈsæ·lə·ɡɹiʲ]
U. an unexpected cool breeze on a sultry day: proFIHthitoode [pʰɹo·ˈfɪ·ƫə·tʰjuːd]
V. the feeling experienced by a death-row inmate after being pardoned or exonerated: kuhLAMurmine [kʰə·ˈlæ·mɚ·maʲn]
W. a feeling of extreme disappointment: TIHfinbahtum [ˈtʰɪ·fɪn·bɑ·ɾəˈm̩]
X. the feeling of being woken in the middle of the night by a strange noise: shuhREEF [ʃə·ˈɹɪfː]
Y. the name of the remotest island on earth: sahmunHEYlo [sɑ·ˈmən·ˈheʲ·loʷ]

Images Requiring Words

Z. RAHGflin ['ɹɑg·flɪn]
a. BLASurd ['blæs·tərd]
b. kayneFAYgun [kʰeʲ·fə·ɡən]
c. FREEmah [ˈfɹɪ·məh]
d. WURLside [ˈwɜɾ·səd]
e. RAHKshur ['ɹɑk·ʃər]
f. FEETah [ˈfɪt·əh]
g. SHURloo [ˈʃə·luː]
Participant Data Sheet

Participant #: 9  Age: 20  Sex: M  Linguistic Background: native speaker: English; beginning learner: French, Spanish, German, Italian, Dutch

Question ID

Words Requiring Definitions

A. smitch [smɪtʃ]: the sound of a shoe hitting a nail into a board
B. jube [dʒuːb]: a noise a baby would make
C. keeve [kʰɛv]: the action of a bee striking a car
D. wam [wʌm]: the action of a blade spinning
E. easloff [iˈələf]: the action of a saw sawing through a metal chain
F. kedid [kʰɛdɪd]: the action of a small tire rolling over a gravel surface
G. mavar [ˈmeɪ·və]: the action of a (brake) pad grinding up against metal
H. eyeu [ˈai·ju]: a muffled sneeze
I. narathooze [ˈnær·ə·θuːz]: the action of a marble travelling along a Styrofoam pipe
J. phillontave [ˈfɪ·ləntʰeːv]: the action of a stack of papers being shredded
K. luluve [ˈluː·luːv]: the action of a flower swaying in the wind
L. goxiwall [ˈɡɑk·sə·wɔl]: putty used for sealing up cracks
M. cengastumine [sɪn·ˈɡæs·tə·mæn]: a chemical compound used for making rubber ducks
N. poncrilader [ˈpʰɑŋ·krɪ·lədər]: the next ultimate water sports weapon
O. bowertilldew [ˌba·wɚ·ˈtʰɪldəw]: a bathroom mold
P. choocksheeble [ˈtʃɑk·kɛ·hi·bəł]: a device used for chopping round objects
Q. whoagsafflerick [ˈwɔ·gəs·fəl·rɪk]: a ship made of toilet paper
R. tobecraydrub [tʰo·ˈbrɛ·kɹə·dɹəb]: a candy bar with 100 0 different flavors

Definitions Requiring Words

S. the wad of hair removed when cleaning a hairbrush: skrooch [skɹuːtʃ]
T. the grease that accumulates on top of a hot pizza: FLIHkuhl [ˈflɪ·kəltʃ]
U. an unexpected cool breeze on a sultry day: wahSHOON [wɑ·ˈʃʊn]
V. the feeling experienced by a death-row inmate after being pardoned or exonerated: GRAHturuhl [ˈɡɹɑ·ɾɚ·əltʃ]
W. a feeling of extreme disappointment: fleu [flœ]
X. the feeling of being woken in the middle of the night by a strange noise: fleuREU [flœ·ˈrɛu]
Y. the name of the remotest island on earth: bahb [bɑb]

Images Requiring Words

Z. a. b. c. d. e. f. g.
Participant #: 10  Age: 30  Sex: M  Linguistic Background: native speaker: Spanish; fluent speaker: English

Question ID

A. smitch [smitʃ]: something that injures a person
B. jube [ʤuːb]: to drink something sweet
C. keeve [kɛv]: a tool to open a can
D. wam [wʌm]: a sound to describe the impact of crashing onto the floor
E. easloff [ˈiːsləf]: a tropical island
F. kedid [ˈkɛdɪd]: something to store food inside the refrigerator
G. mavar [ˈmeɪvər]: a utensil to prepare food
H. eyeyu [ˈaɪjuː]: an expression to call attention to someone
I. narathooze [ˈnærəˌθuːz]: an expression used in pleasant conversation
J. phillontave [ˈflɪnəˌtɛv]: something that is artificially heated
K. luluoro [ˈluɭuəɾo]: something used to measure distance
L. goxiwal [ˈɡoʊxiwɔl]: a barrier used to protect the eyes
M. cengastumine [ˈsɛŋəstəˌmaɪn]: a situation where you don’t take somebody’s opinion into consideration
N. poncrilader [ˈpʌŋkɹɪləd]: a tool to measure depth
O. bowertilad [ˈbəʊərtɪləd]: a tool used for cleaning
P. choksahleek [ˈtʃɔksəˌhleɪk]: a barking animal
Q. whoagsaffirick [ˈhuəɡsəˌfɪrɪk]: a type of pain medicine

Definitions Requiring Words

S. the wad of hair removed when cleaning a hairbrush: PIEyah [ˈpaɪə]  
T. the grease that accumulates on top of a hot pizza: KAHskah [ˈkʰaːska]  
U. an unexpected cool breeze on a sultry day: TAHcho [ˈtɑːtʃo]  
V. the feeling experienced by a death-row inmate after being pardoned or exonerated: hoom [ˈhʊm]  
W. a feeling of extreme disappointment: nok [nɔk]  
X. the feeling of being woken in the middle of the night by a strange noise: grood [ɡrʊd] 
Y. the name of the remotest island on earth: EEleen [ˈiːlɛn]  

Images Requiring Words

Z. HAHdeh [ˈhɑːˌde]  
a. treen [trin]  
b. shoun [ʃaʊn]  
c. kultoN AHtah [ˈkʊltəˌnɑːtə]  
d. groONdoh [ˈɡrʊnˌdɔ]  
e. KAHRkoil [ˈkærˌkɔɪl]  
f. KARtay [ˈkærˌte]  
g.
Participant Data Sheet

Participant #: 11  Age: 38  Sex: F  Linguistic Background: native speaker: Catalan, Spanish; fluent speaker: English

Question ID

Words Requiring Definitions

A. smitch [smitʃ]: a tunneling animal like a groundhog
B. jube [dʒuˈb]: an ideology, partly religious and partly philosophical
C. keeve [kʰɪv]: a hammer-like tool
D. wam [wam]: a type of bird, large and pink
E. easloff ['iːz·lɔf]: type of food consisting of meat and sauce
F. kedid [ˈkʰɛ·ɾəd]: a cabinet
G. mavar ['meɪ·vɑr]: (turquoise) jewelry
H. eyeyu ['aɪ·ju]: a Native American tribe
I. narathooze ['næ·ə·θu·zu]: a fairy tale for children, like a fable
J. phillontave ['fɪ·lɒnt·ɛv]: an ideology
K. lulurode ['lu·lə·ɹəd]: a children’s game
L. goxiwall ['gɑk·sə·wɔl]: a wolf-like animal
M. cengastumine [sɪn·ˈɡæs·tə·maɪn]: to take a meeting
N. poncrilader ['pʰɑŋ·kɹə·leɪdə]: a pidgin language
O. bowertilldew ['ba·wɚ·ˈtʰɪldɔ']: a formal greeting
P. chocksheemelik ['tʃɑk·ʃɛ·hi·mɛlɪk]: a puppet from a kid’s show
Q. whoagsafflerick [wo·ˈɡæ·ʃɛ·fal·ɹɪk]: a bathroom towel hanger

Definitions Requiring Words

S. the wad of hair removed when cleaning a hairbrush: broop [brup]
T. the grease that accumulates on top of a hot pizza: pahf [paf]
U. an unexpected cool breeze on a sultry day: boov [buv]
V. the feeling experienced by a death-row inmate after being pardoned or exonerated: wush [wʊʃ]
W. a feeling of extreme disappointment: ahh [ɑx]
X. the feeling of being woken in the middle of the night by a strange noise: krak [kræk]
Y. the name of the remotest island on earth: SEENlah ['sin·tæ]

Images Requiring Words

Participant #: 12  
Age: 25  
Sex: M  
Linguistic Background: native speaker: English; fluent speaker: German

**Question ID**

A. smitch [smitʃ]: to steal a kiss
B. jube [ʤuːb]: to talk nonsense
C. keee [kʰɪv]: a Russian city
D. wam [wɔm]: a small, brown, arboreal animal
E. easloff [ɪˈzə·bf]: a small donkey
F. kedid [kʰɛ·ɾəd]: a secret
G. mavar [ˈmeɪ·vaʊ]: a yellow cake
H. eyeyu ['aɪ·ju']: a type of beetle
I. narathooze ['næ·ɪə·θuːz]: a Greek philosopher
J. phillontave ['fɪ·lən·tʰeˑv]: a type of sandwich
K. lulurode [lu紫外线·ə·joʊd]: a girl punk band
L. goxiwall [ˈgɑk·sə·wɔːl]: an old Nordic hero
M. cengastumine [ˈsɪn·ˈɡæs·tə·maˑn]: something poisonous, like asbestos
N. poncrilader ['pʰɑŋ·kɹə·leˑɾɚ]: a medical device to revive people who have passed out
O. bowertilldew ['ba·wɚ·ˈtʰɪl·duˑ]: a fantasy novel, like Lord of the Rings
P. chocksasheeble ['tʃɑk·sə·hi·bəł]: an American Indian tribe
Q. whoagsafflerick [ˈwɔ·ɡ·ˈzæ·fəł·ɹɪk]: a huge, Viking battleaxe
R. tobecraydrub [tʰoˑbə·ˈkɹeˑdɹəb]: a type of spicy food from the Pacific eaten with the fingers

**Definitions Requiring Words**

S. the wad of hair removed when cleaning a hairbrush: ruff [rʌf]
T. the grease that accumulates on top of a hot pizza: slek [slɛk]
U. an unexpected cool breeze on a sultry day: froosh [f्रʊʃ]
V. the feeling experienced by a death-row inmate after being pardoned or exonerated: FRIMdun [ˈfɹɪm·dʌn]
W. a feeling of extreme disappointment: zumf [zʌmf]
X. the feeling of being woken in the middle of the night by a strange noise: FRIMtin [ˈfɹɪm·tɪn]
Y. the name of the remotest island on earth: LAHNGun [ˈlɑŋ·ən]

**Images Requiring Words**

Z.  
kluhVET [ˈklu·ˈwɛt]  
a.  
FLYtus [ˈflaˑtəs]  
b.  
BLEKtus [ˈblek·təs]  
c.  
frepsh [fɾepʃ]

d.  
RIHzul [ˈrɪˑzʊl]  
e.  
RAHNuh [ˈraˑn·ə]  
f.  
brant [blænt]  
g.  
swust [swʌst]
Participant #13
Age: 25
Sex: F
Linguistic Background: native speaker: English; fluent speaker: German

Question ID

A. smitch [smɪtʃ]: something spread on bread
B. jube [ʤuːb]: a Caribbean style of music
C. keeve [kʰɛːv]: to push something over
D. wam [wɑm]: the sound a trombone makes
E. easloff [ɪz·fɪ]: easily achieved
F. kedid [kʰɛ·ɾɛd]: tangled
G. mavar [meɪ·vaɹ]: a family member name, like an aunt
H. eyeyu [ˈaʲ·juː]: an igloo
I. narathooze [ˈnæ·ɹə·THəz]: an algorithm
J. phillontave [fɨ·ɹən·tɒv]: to pump gas
K. lulurode [ˈlu·ɹə·ɹəd]: a small, yellow flower
L. goxiwall [ˈɡɑk·sə·wal]: a mechanical clock
M. cengastumine [sɪn·ˈɡæs·tə·man]: chemical explosion
N. poncrilader [ˈpʰɑŋ·kɹə·leʲ·ɾɚ]: a fancy stereo
O. bowertildew [ˈbə·wɜ·tɪldə]: men’s casual pants
P. chocksaheeble [ˈtʃɑk·sə·hi·bəl]: a violent act
Q. whoagsafflerick [ˈwɑ·ɡ·ˈzæ·fəl·ɹɪk]: a time machine
R. tobecraydrub [tʰə·bɹə·ˈkɹeʲ·drəb]: a turtle

Definitions Requiring Words

S. the wad of hair removed when cleaning a hairbrush: BLIKsee [ˈbliːk·si] = BLIK see
T. the grease that accumulates on top of a hot pizza: PLAsee [ˈplæ·si] = PLA see
U. an unexpected cool breeze on a sultry day: TORreelore [ˈtʰɔ·ɹiʲ·lɔɹ] = TORM Lorem
V. the feeling experienced by a death-row inmate after being pardoned or exonerated: vlahfahNAHtah [vlɑ·fɑ·ˈnɑ·tɑ] = vlahfah NAHT ah
W. a feeling of extreme disappointment: wahz [wɑz] = waz
X. the feeling of being woken in the middle of the night by a strange noise: YAIzee [ˈjaː·ziː] = YAE see
Y. the name of the remotest island on earth: koh [kʰo] = KOH
Participant #: 14  Age: 39  Sex: F  Linguistic Background: native speaker: English

Question ID

A. smitch [smɪtʃ]: to like something

B. jube [ʤuːb]: a religion, like Islam

C. keeve [kʰɪv]: an exotic, sweet, green fruit

D. wam [wɔːm]: a spicy, Latino food

E. easloff [ˈiːz·lɔːf]: a greeting

F. kedid [ˈkʰɛ·ɾəd]: to dislike or badmouth

G. mavar [ˈmeɪ·vɔː]: a color close to purple

H. eyeyu [ˈaɪ·juː]: a long, short, white mammal

I. narathooze [ˈnæ·ɹə·Ɵuːz]: confused

J. phillointave ['fɪ·lən·tʰɛɪv]: a cave

K. lulurode ['luː·lə·ɹəd]: a fun, happy, comfortable place

L. goxiwall ['ɡɑk·sə·wɔl]: reminiscent of Halloween, scary ghosts

M. cengastumine [sɪn·ˈgæs·tə·maɪn]: a stomach disease

N. pencerilder ['pʰɛn·ɾə·ɬɛ·ɾɛd]: a car part

O. bowertrillied ['baʊ·wɔr·trɪ·lɪd]: a tool for breaking up dirt

P. chocksasheble ['tʃɑk·sə·hi·bəl]: somebody who got sick and threw up

Q. whoagaffle [ˈwɔ·ɡæ·fəl]: something wooly or furry

R. tobecraydrub [tʰə·bə·ˈkɹeɪ·drʌb]: a game for several people involving a ball

Definitions Requiring Words

S. the wad of hair removed when cleaning a hairbrush: WAHduhlood [ˈwɑ·ɹə·luːd]

T. the grease that accumulates on top of a hot pizza: KRUHstuhgook [ˈkʰɹʌ·stə·ɡuːk]

U. an unexpected cool breeze on a sultry day: WAHbuh [ˈwɑ·bə]

V. the feeling experienced by a death-row inmate after being pardoned or exonerated: aZOOS [æ·ˈzuːs]

W. a feeling of extreme disappointment: ayEHsyo [e·ˈɛ·sɨʊ]

X. the feeling of being woken in the middle of the night by a strange noise: HAHDoon [ˈhɑ·duːn]

Y. the name of the remotest island on earth: LOWhoe [ˈlu·ho]

Images Requiring Words

Z. suhLOWST [sə·ləʊˈst]  a. YAHstah [ˈjɑ·sta]  b. KOOstah [ˈkʰʊsta]  c. ahnahTEHgoh [ɑ·ˈna·ˈtʰɛ·ɡoʊ]  d. BOOguhvihih [ˈbʊ·ɡə·vi·hi]  e. pecYAHtsah [ˈpi·ˈja·tsə]  f. EHStah [ˈɛs·tə]  g. SPRAYgo [ˈspɹeɪ·ɡoʊ]
Participant Data Sheet

Participant #: 15  Age: 55  Sex: F  Linguistic Background: native speaker: Spanish, English; advanced learner: French; beginning learner: Italian, Russian, Farsi

Question ID

Words Requiring Definitions

A. smitch \(\text{[smɪtʃ]}\): when somebody treats you in a manner that causes you to feel insecure

B. jube \(\text{[ʤuːb]}\): a very small particle that sparkles

C. keev \(\text{[kʰɪv]}\): a tool for weaving

D. wam \(\text{[wɒm]}\): a furry, long-haired, arboreal animal

E. easloff \(\text{[ˈeɪsɿf]}\): a person who likes to choose the easy way out

F. kedid \(\text{[ˈkʰɛdɪd]}\): short and to the point

G. mavar \(\text{[ˈmeɹvə]}\): a mythical or extinct winged creature

H. eyeyu \(\text{[ˈaɹju]}\): a tuberous, bitter food plant

I. narathooze \(\text{[ˈnærəθuɹz]}\): a geographical term for a densely vegetated place which is hard to cross

J. phillontave \(\text{[ˈfɪlənˈtʰeɹv]}\): to coerce somebody into doing something

K. lulurode \(\text{[ˈluɹəɹdo]}\): a toy for children consisting of interlocking hoops

L. goxiwall \(\text{[ˈgɑksəˈwɔɿl]}\): a ferocious animal the size of a raccoon, arboreal, nocturnal, and carnivorous

M. cengastumine \(\text{[ˌsɪnˈɡæsˈtəmɪn]}\): to poison with an inhalant

N. poncrilader \(\text{[ˈpʰɑŋˈkɹɪlɑɿɭə]}\): a person obsessed with punctuation

O. bowertilldew \(\text{[ˈbɜːtɪlˈdəw]}\): a wind instrument of low register

P. choocksahheeble \(\text{[ˈʃɔksəˈhɪbəl]}\): a large desert plant with thick branches and spines

Q. whoagsafflerick \(\text{[ˈwɔɡˈzæfəlɹɪk]}\): describes a person who has gone through an experience that gave them both sadness and happiness at the same time

R. tobecraydrub \(\text{[ˌtʰoɹˌbɹəˈkɹeɹdɹəb]}\): type of earthworm that lives in a colony that could cause problems if there are too numerous

Definitions Requiring Words

S. the wad of hair removed when cleaning a hairbrush: GLUHMpul \(\text{[ˈɡlʌmˈpʊl̩]}\)

T. the grease that accumulates on top of a hot pizza: BUMfroo \(\text{[ˈbʌmˌfɹu]}\)

U. an unexpected cool breeze on a sultry day: FRUHMpul \(\text{[ˈfɹʌmˌpʊl]}\)

V. the feeling experienced by a death-row inmate after being pardoned or exonerated: SPLINshus \(\text{[ˈsplɪnˈʃəs]}\)

W. a feeling of extreme disappointment: DINtruf \(\text{[ˈdɪnˌtɹəf]}\)

X. the feeling of being woken in the middle of the night by a strange noise: strahmt \(\text{[ˈstrɑm]}\)

Y. the name of the remotest island on earth: WEEbul \(\text{[ˈwiɹəˈbul]}\)

Images Requiring Words

Z. flim \(\text{[ˈflɪm]}\)

a. splaht \(\text{[ˈsplɑt]}\)

b. TRAHMyoulus \(\text{[ˈtʰɹəmˌjʊɿɭəs]}\)

c. VUHguhbul \(\text{[ˈvʌ·ɡəˈbʊɿ]}\)

d. SLYthee \(\text{[ˈslaɹˈðiɹ]}\)

e. GHIMblee \(\text{[ˈɡɪmˈblɪɹ]}\)

f. ehTRISK \(\text{[ɛ·ˈtʰɹɪsk]}\)

g. RAHMbyouluhs \(\text{[ˌrɑmˌbɹɹəˈlʊɿɭəs]}\)

332
Participant Data Sheet

Participant #: 16  Age: 58  Sex: F  Linguistic Background: native speaker: Slovenian; fluent speaker: French, English, Italian, Serbo-Croatian; advanced learner: Swedish, Spanish, German; intermediate learner: Latin, Sanskrit, Classical Greek

Words Requiring Definitions

A. smitch [smitʃ]: to smack or smother
B. jube [ʤuːb]: an exclamation, like ‘darn!’
C. keeve [kʰiːv]: to direct somebody in a precise direction
D. wam [wɔm]: to completely relax on the beach
E. easloff [iːzɔːf]: something difficult to manage
F. kedid [kʰɛ·ɾəd]: something cool or swell
G. mavar [ˈmeːl · vaːr]: a box of candy
H. eyeyu [ˈaː·juː]: brightness in the morning
I. narathooze [ˈnæ·ə·θuːz]: nonsense
J. philmontave [ˈfɪ·lɔn·tɛ·v]; a bragging, obnoxious person
K. lulurode [luˌləˈɾəɾd]: flowery, embellished
L. goxiwall [ˈɡɑk·sə·wɔːl]: pushing for a result
M. cengastumine [sᵢn·ˈɡæs·tə·maːn]: resolute
N. poncrilader [pʰɑŋ·kɹə·leːɾɚ]: a car made into an object of art
O. bowertilldew [ˌba·wɚ·ˈtʰɪl·duː]: a gathering of people to celebrate a ritual
P. chocksahpee [tʃɒk·sa·hi·bæ]: something to grill on a campfire
Q. whoagsafflerick [ˈwɔ·g·ˈzæ·fəɾ·ɪk]: stupidity, arrogance, obnoxiousness
R. tobecraydrub [tʰoː·ˈbɛ·ˈkɹɛ·dɹəb]: a special victory in a sport, like baseball

Definitions Requiring Words

S. the wad of hair removed when cleaning a hairbrush: NESɪaf
T. the grease that accumulates on top of a hot pizza: SPOOknes
U. an unexpected cool breeze on a sultry day: swahsh
V. the feeling experienced by a death-row inmate after being pardoned or exonerated: WAHFnes
W. a feeling of extreme disappointment: GRURbeeng
X. the feeling of being woken in the middle of the night by a strange noise: SKAtuhrehnes
Y. the name of the remotest island on earth: keepuhDAYleeuh

Images Requiring Words

Z. skuhNAYshus [skə·ˈneːʃəs]  a. duhBITEnes [dɑ·ˈbaɪt · ˈnes]  b. bruuhBEHuhtee [bɹə·ˈbɛː·ɾə·ti]  c. bruuhBEHuhtee [bɹə·ˈbɛ·ɹə·ti]  d. skWAHNduhmnes [ˈskwɑːn·də·ˈnes]  e. hooMUHNstuhtee [ˈxuː·mʌn·stə·ti]  f. VROONsuhdee [ˈvrʊn·sə·di]
Participant Data Sheet

Participant #: 17  Age: 19  Sex: F  Linguistic Background: native speaker: English

Question ID

Words Requiring Definitions

A. smitch [smɪtʃ]: a little bit of something
B. jube [ʤuːb]: a sweet, seedless fruit
C. keeve [kʰɪv]: a hole you dig in the ground
D. wam [wɔm]: a wind instrument in a marching band
E. easloff [ˈɛz·lɔf]: a library, a place of peace
F. kedid [ˈkʰɛ·ɾəd]: a dog kennel
G. mavar [ˈmeɪ·væ]: a residential street
H. eyeyu [ˈaʲ·juː]: a small reptile
I. narathooze [ˈnæ·ɹə·Ɵuʷz]: an upper respiratory or nasal infection
J. phillontave [ˈfɪ·lən·tʰeʲv]: something done in way that is different than is customary
K. lulurode [ˈluʷ·lə·ɹəd]: a toy
L. goxiwall [ˈɡɑk·sə·wɔł]: a long sword
M. cengastumine [sɪn·ˈɡæs·tə·maʲn]: a tank or related weapon
N. poncrilader [ˈpʰɑŋ·kɹə·leʲ·ɾɚ]: a small arms weapon
O. bowertilldew [ˌba·wɚ·ˈtʰɪl·duʷ]: an activity that you wish to avoid
P. chocksaheeble [ˈtʃɑk·sə·hi·bəł]: a family game involving dice
Q. whoagsafflerick [woʊ·ˈgæ·sə·fə·rik]: a rusted, long sword
R. tobecraydrub [tʰoʷ·bə·ˈkɹeʲ·dɹəb]: a pink and purple plant with circular leaves

Definitions Requiring Words

S. the wad of hair removed when cleaning a hairbrush: KLÂBuhləf [ˈkʰlɑ·bəł̩·hɑf]
T. the grease that accumulates on top of a hot pizza: N安ddeəfər [ˈnæn·diʲ·fəɾ]
U. an unexpected cool breeze on a sultry day: SNÂVɚpʰɑ [ˈsnæ·vɚ·pʰɑ]
V. the feeling experienced by a death-row inmate after being pardoned or exonerated: hɑɭf [hɑɭf]
W. a feeling of extreme disappointment: SApulwahsh [ˈsæ·pəł̩·wɑʃ]
X. the feeling of being woken in the middle of the night by a strange noise: AZnuf [ˈæz·nəf]
Y. the name of the remotest island on earth: PLEHfʊrtəw [ˈpʰlɛ·fɚ·tʰəw]

Images Requiring Words

Z.   a.   b.   c.   d.   e.   f.   g.
Participant #: 18  Age: 19  Sex: F  Linguistic Background: native speaker: English; beginning learner: French, Spanish

**Question ID**

**Words Requiring Definitions**

A. smitch [smitʃ]: a glove used in sports, like a baseball mit
B. jube [ʤuːb]: a pejorative term for a person, a dork
C. keev [kʰiv]: a valuable keepsake
D. wam [wɔm]: a medium-sized animal with a short tail that lives in the jungle
E. easloff [ˈeɪ·sə·fɒl]: a muscular, tall person
F. kedid [ˈkʰɛ·ɾəd]: to dust something
G. mavar [ˈmeɪ·vər]: a large wooden boat
H. eyeyu [ˈaʲ·juː]: a computer program
I. narathooze [ˈnæ·ɹə·ʈʃ]: a cold medicine, nasal spray
J. phiʃontave [ˈfiː·ʃəntəv]: a bone or cartilage in the nose
K. luluode [ˈluː·lə·ɹəd]: a pipe snake
L. goxiwall [ˈɡɑk·sə·wɔl]: a type of tropical bird
M. cengastumine [ˈsɪn·ˈɡæs·tə·maʲn]: to ignore something
N. ponceilader [ˈpɑŋ·kɹə·leʲ·ɾɚ]: a portable heart monitor
O. bowertilldew [ˌba·wɚ·ˈtʰɪl·duː]): implying the wish to procrastinate
P. chockasheeble [ˈtʃɑk·sə·hi·bəl]: a clown’s prop, general term for a whimsical object
Q. whoagasafflerick [ˌwʰoʊ·ˈɡæz·ə·fəl·ɹɪk]: to be astonished
R. tobecraydrub [tʰoʊ·ˈbə·ˈkɹeʲ·rʌb]: a tall plant with a purple flower

**Definitions Requiring Words**

S. the wad of hair removed when cleaning a hairbrush: mair [maɪər]
T. the grease that accumulates on top of a hot pizza: splaynk [spleŋk]
U. an unexpected cool breeze on a sultry day: flīsh [flɪʃ]
V. the feeling experienced by a death-row inmate after being pardoned or exonerated: VLASks [ˈvlæs·kɪs]
W. a feeling of extreme disappointment: MAHNnuhree [ˈmɑ·nə·ɹiʲ]
X. the feeling of being woken in the middle of the night by a strange noise: METHruhl [ˈmɛθ·ɹəl̩]
Y. the name of the remotest island on earth: bihZAHro [bɪ·ˈzɑ·ɹoʷ]

**Images Requiring Words**

Z. WIHzuhree [ˈwɪ·zə·ɹiʲ]
A. yorsh [jɔɹʃ]
b. blass [blæs]
c. AHRnuhmik [ˈɑɹ·nə·mɪk]
d. SLAdik [ˈslæ·ɾɪk]
e. FYOUnuhr [ˈfjuʊ·nɚ]
f. KRAHnuhr [ˈkʰɑŋ·nɚ]
g. MARmis [ˈmɑɹ·mɪs]
Participant Data Sheet

Participant #: 19  Age: 19  Sex: F  Linguistic Background: native speaker: Spanish; beginning learner: English, French

Question ID

Words Requiring Definitions

A. smitch [smɪtʃ]: a smoothie
B. jube [ʤuːb]: something to scuba dive in
C. keeve [kʰɪv]: to give
D. wam [wɔm]: swimming
E. easloff [ɨɛsalˈf]: something soft, like a pillow
F. kedid [ˈkʰɛdɪd]: a cowboy hat
G. mavar [ˈmævər]: an insect like a moth
H. eyeyu [ˈaijˌu]: Chinese seafood
I. narathooze [ˈnærəˌθuːz]: a parade
J. phillontav [ˈfiːlanˈtəv]:
K. luluroid [ˈluːˌlʊəˈrɑd]: a hippopotamus
L. goxiwall [ˈɡɑksəˈwɔl]:
M. cengastumine [sɪnˈɡæstəˈmaɪn]: a stomach ache
N. poncrilader [ˈpɔŋkrɪˌlədər]:
O. bowertilldew [ˈbəʊərˈtɪldəw]:
P. chocksامة [ˈtʃɒksəˈbɑ]:
Q. whoagsafflerick [wɔʊˈɡæsəˌfælˈrɪk]:
R. tobecraydrub [təˈbrəˌkrɛdəb]:

Definitions Requiring Words

S. the wad of hair removed when cleaning a hairbrush:
T. the grease that accumulates on top of a hot pizza: OQgas [ˈoʊˌɡæs]
U. an unexpected cool breeze on a sultry day: REEchee [ˈrɛ·tʃi]
V. the feeling experienced by a death-row inmate after being pardoned or exonerated: NAHnee [ˈnɑ·ni]
W. a feeling of extreme disappointment:
X. the feeling of being woken in the middle of the night by a strange noise: SOOpēsh [ˈsu·piʃ]
Y. the name of the remotest island on earth: KOKo [ˈko·ko]

Images Requiring Words

Z. a. soul [soʊl]
b. c.
d. shahn [ʃən]
e. kreek [kɾɪk]
f. g. durk [dɑːk]
Participant #: 20  Age: 65  Sex: M  Linguistic Background: native speaker: English; beginning learner: Spanish, Italian, Latin, Japanese

**Question ID**

A. smitch [smitʃ]: a traitor
B. jube [dʒuˈbə]: a gentile
C. keeve [kʰeˈvə]: a scoundrel
D. wam [wɔm]: a wig
E. easloff [ˈɛslof]: a pulley
F. kedid [ˈkʰɛdɪd]: cantered
G. mavar [ˈmeɪˌvɑː]: a nave
H. eyeù [ˈæjɛː]: an igloo
I. narathooze [ˈnærəˌθuːz]: happy
J. phillontave [ˈfɪləntɑːv]: dumb (not intelligent)
K. luhurode [ˈluhəˌroʊd]: exuberant
L. goxiwall [ˈɡɒksɪˌwɔl]: smacked
M. cengastumine [sɪnˌˈɡæstəˌmaɪn]: odd
N. poncrilader [ˈpɑŋkrɪˌlɑdər]: a gasket
O. bowertilldew [ˈbəʊəˌtɪlˈdjuː]: a garden
P. chocksaheeble [ˈtʃɒksəˌhiˈbɛl]: an Indian tribe
Q. whoagsafflerick [ˈwɔɡsəˌfəlˈrɪk]: folly
R. tobecraydrub [təˈbəˌkrɛəˈdrʌb]: craven

**Definitions Requiring Words**

S. the wad of hair removed when cleaning a hairbrush: SKAHMful [ˈskɑməl]  
T. the grease that accumulates on top of a hot pizza: OHleeyus [ˈoʊˌliːjəs]  
U. an unexpected cool breeze on a sultry day: kuhlDIHfish [kʰuˈləˌdɪʃ]  
V. the feeling experienced by a death-row inmate after being pardoned or exonerated: reeHULLuhnt [rɪˈhʌltən]  
W. a feeling of extreme disappointment: dihzastuhrfihKAYshin [dɪˌˈhæstəˈfəˌkʰeɪʃ]  
X. the feeling of being woken in the middle of the night by a strange noise: SLIHpook [ˈslɪˌpʰuːk]  
Y. the name of the remotest island on earth: WAYflæ [ˈweɪˌflæ]  

**Images Requiring Words**

Z. fanTAYshin [fænˌˈtʰeɪʃən]  
al. pruhst [pʰuˈst]  
b. ZOOluf [ˈzuʊˌlʊf]  
c. puhLAYshis [pəˌˈleɪʃəs]  
d. SOHfand [ˈsoʊˌfænd]  
e. kwihLAYshin [kʰwiˈlɛɪˌʃən]  
f. infihNEEshis [ɪnˈfɪˌniˈeʃəs]  
g. RANjurd [ˈræŋjərd]
Participant Data Sheet

Participant #: 21  Age: 65  Sex: M  Linguistic Background: native speaker: English; beginning learner: French, Spanish

Question ID

Words Requiring Definitions

A. smitch [smɪtʃ]: a quilting term
B. jube [dʒuːb]: a round fruit like a grape or an avocado
C. keeve [kʰɛːv]: a Russian dialect
D. wam [wɔm]: Asian food
E. easloff [ɪˈzəf]: having to do with roads, highways, bridges
F. kedid [kʰɛˈɾid]: food cooked just right, between raw and burned
G. mavar [ˈmeɪvə]: a color like mauve
H. eyeyu [ˈaɪjʊ]: a term of kinship
I. narathooze [ˈnæɹəθuːz]: the path and shape of a river
J. phillontave [ˈfɪləntəv]: a distinguished and retired person
K. lulurode [ˈluːləɹəd]: a child’s game
L. goxiwall [ˈgɑksiwɔl]: describes the architecture of a castle
M. cengastumine [sɪnˈɡæstəmɪn]: something’s chemical composition
N. pomerlader [ˈpɔmɜrlədә]: a mathematical device for making calculations
O. bowerilude [ˈbɔwərɪldә]:
P. chockaheeble [ˈtʃɔkəhiˈbɛl]:
Q. whoaatasilick [wɔ́ˈzɑːtəsiˈlɪk]: a small animal, like a squirrel
R. tobecraydrub [tʰəˈbɛkˈreɪdruːb]: descriptive of classical architecture

Definitions Requiring Words

S. the wad of hair removed when cleaning a hairbrush: glaht  [ɡlaɪt]
T. the grease that accumulates on top of a hot pizza: slurm  [slaɪm]
U. an unexpected cool breeze on a sultry day: KAtik  [ˈkʰætɪk]
V. the feeling experienced by a death-row inmate after being pardoned or exonerated: fihNELL  [fɪˈnɛl]
W. a feeling of extreme disappointment: laht  [lɑt]
X. the feeling of being woken in the middle of the night by a strange noise: FORshan  [ˈfɔɹʃæn]
Y. the name of the remotest island on earth: DEEtehk  [ˈdɪtɛhk]

Images Requiring Words

Z. a. b. c.
d. e. f. g.
Participant Data Sheet

Participant #: 22  Age: 25  Sex: M  Linguistic Background: native speaker: English; beginning learner: Spanish, German

Question ID

A. smitch [smɪtʃ]: a short, bulky guy
B. jube [dʒu*b]: jambalaya-type food
C. keeve [kʰɪv]: a bright orange fruit
D. wam [wɔːm]: flying squirrel
E. easloff [ɪzɔf]: an Arab man
F. kedid [kʰɛ·ɾəd]: describes a drunk person
G. mavar [ˈmeɪ·və]: a car part
H. eyeyu [ˈaʲ·ju*]: a cough drop
I. narathooze [ˈnæ·ɹə·Ɵuːz]: a medicine for nasal congestion
J. phillontave [ˈfɪ·lən·tʰeʲv]: a skinny, short person
K. lulurode [lu*lə·ɹəd]: a dance
L. goxiwall [ˈgɑk·sə·wɔːl]: a type of waterfowl
M. cengastumine [sɪn·ˈgæs·tə·maːn]: an element from the periodic table
N. poncrilader [ˈpʰɑŋ·kɹə·leʲ·ɾɚ]: an air pump
O. bowertilldew [ˈbɪ·wɚ·tʰɪl·dəw*]: a fast dance where you shake your hips
P. chocksheeble [tʃɑk·sə·hi·bəɫ]: a medicine like Pepto Bismol
Q. whoagsafflerick [ˈwʊ·ɡə·ʃə·fə·rik]: a plant like a fern
R. tobecaydrub [tʰo*bə·kɾə·dɹəb]: a hypochondriac

Definitions Requiring Words

S. the wad of hair removed when cleaning a hairbrush: WUHgee [ˈwʊ·ɡɪː]
T. the grease that accumulates on top of a hot pizza: suhNITE [sə·ˈnaːt]
U. an unexpected cool breeze on a sultry day: woosh [wu*]
V. the feeling experienced by a death-row inmate after being pardoned or exonerated: AHya [ˈaʲ·ja]
W. a feeling of extreme disappointment: huhMAD [hə·ˈmæd]
X. the feeling of being woken in the middle of the night by a strange noise: AIyee [ˈaʲ·jiʲ]
Y. the name of the remotest island on earth: shand [ʃænd]

Images Requiring Words

Z. ruhWOOD [ɾə·ˈwʊd]
a. helt [hɛlt]
b. welb [wɛlb]
c. kuhPAN [kə·ˈpʰæn]
d. SWIHtrip [ˈswɪ·tɹɪp]
e. muhKAHN [mə·ˈkʰæn]
f. uhTYE [ə·ˈtʰə]
g. dribDIB [dɾɪb·ˈdɪb]
Participant Data Sheet

Participant #: 23  Age: 71  Sex: M  Linguistic Background: native speaker: English; beginning learner: Hindi, Arabic

Question ID

A. smitch [smɪtʃ]: a liar
B. jube [ʤuːb]: a grease monkey
C. keeve [kʰɪv]: a type of bread
D. wam [wɔm]: an island
E. easloff [ɪˈzʃǀ ʃ]: a war novel
F. kedid [kʰɛd]: something stamped
G. mavar [ˈmeɹ·vɑ]: a friend
H. eyeyu [aɹ·ɟu]: a jackal-type animal
I. narathooz [ˈnæ·ɹə·ʃuɹz]: a tree like an elm
J. phillontave [ˈfɪ·lə·ɹə·təv]: a gas station
K. lulurode [ˈluɹ·lə·ɹəd]: a mountain trail
L. goxiwall [ˈɡɑk·sə·wɔl]: a medium-sized, dog-like animal
M. cengastumine [sɪn·ˈɡæs·tə·mæn]: a disease of the stomach
N. poncrilader [ˈpʰɑŋ·kɹə·leɾɚ]: a coffee pot
O. bowertilldew [ˈba·wɚ·ˈtʰɪl·duɹ]: a ship’s bilge
P. chocksahcheeb: [tʃɔksək·ɑʃ·bi̞]: Chinese food
Q. whoagsafflerick [ˈwɔ·ɡzæ·ʃəlfɹɪk]: a judge’s robe
R. tobecraydrub [tʰoɹ·bə·ˈkɹeɹdɹəb]: a stevedore

Definitions Requiring Words

S. the wad of hair removed when cleaning a hairbrush: grunch [ɡɹʌntʃ]
T. the grease that accumulates on top of a hot pizza: STEErk [ˈstɪɹ·ɹək]
U. an unexpected cool breeze on a sultry day: zwihsh [zwɪʃ]
V. the feeling experienced by a death-row inmate after being pardoned or exonerated: RIBish [ˈɹɪ·bɪʃ]
W. a feeling of extreme disappointment: BOOgah [ˈbuɹ·ɡɑ]
X. the feeling of being woken in the middle of the night by a strange noise: ARbisch [ˈɑɹ·bɪʃ]
Y. the name of the remotest island on earth: AHBstun [ˈɑb·ʃtən]

Images Requiring Words

Z. a. RANnuhk [ˈɹæ·nəh]  b. abSHOO [ˈaɹ·ʃuɹ]  c. AHboosh [ˈɑɹ·buɹʃ]  d. abBAHSH [ˈaɹ·boɹʃ]  e. ZHERKnik [ˈʒɜɹ·kɪɾɪk]  f. NAKish [ˈnæ·kɪʃ]  g. WUHNgur [ˈwʌn·ɡɜɹ]
Participant Data Sheet

Participant #: 24  Age: 69  Sex: F  Linguistic Background: native speaker: English

Question ID

Words Requiring Definitions

A. smitch [smɪtʃ]: a little bit
B. jube [ʤuːb]: a color like purple
C. keeve [kʰɪv]: a narrow passageway
D. wam [wʌm]: a big, wide-open space
E. easloff [iːzə ˈbaʃ]: a feline-type animal
F. kedid [kʰɛˈɾəd]: to be in a hurry
G. mavar [ˈmeɪ vʌ]: reminiscent of a Mexican
H. eyeyu [ˈaɪ ju]: to hit something
I. narathooze [ˈnæɹəˈθuːz]: a type of cloud composed of distinct ice crystals
J. philontave [fɪləntəv]: a salad
K. lulurode [ˈluːlər]: a chocolate candy bar
L. goxiwall [ˈɡɑk·sə·wɔl]: a big, tropical bird
M. cengastumine [sɪnˈɡ æs·tə·ˈmaɪn]: a type of car
N. poncrilader [ˈpʰɑŋ·kɹə·lɛɾə]: a tool used in car repair
O. bowertilldew [ˌba·wɚ·ˈtɪl·dɹəw]: a building game involving connecting pieces
P. chocksahcheble [ˈʧɑksə·hi·bəl]: a mixture of various snack foods, like a Chex mix
Q. whoagsafflerick [ˈwʊ·ɡæ·fə·lɪk]: a tropical island
R. tobecraydrub [tʰo·ˈkɹe·dɹəb]: a snow-covered, cold mountain

Definitions Requiring Words

S. the wad of hair removed when cleaning a hairbrush: youMUHtuh [juˈmʌ·tə]
T. the grease that accumulates on top of a hot pizza: PEHKmoo [ˈpʰɛk·muʷ]
U. an unexpected cool breeze on a sultry day: yahnBEARin [jɑn·ˈbæ·ɹɪn]
V. the feeling experienced by a death-row inmate after being pardoned or exonerated: YIMmeeyay [ˈjɪ·miʲ·jeʲ]
W. a feeling of extreme disappointment: WOEbahn [ˈwoː·bɑn]
X. the feeling of being woken in the middle of the night by a strange noise: WOEyak [ˈwoː·jæk]
Y. the name of the remotest island on earth: YAIwahn [ˈjaˑwɑn]

Images Requiring Words

Z. SLYdud [ˈslaˑ·rʌd]
   a. YAKmee [ˈjæk·miː]
   b. HAHRlee [ˈhɑː·liː]
   c. DINGfuhrrah [ˈdɪŋ·fu·ɹə]
   d. KYOUzeec [ˈkʰjuˑz·ə·ʃə]
   e. WEEnophone [ˈwiˑn·oʊ·fəˈnə]
   f. GAYden [ˈɡeˑ·ɹɛn]
   g. STRAHevis [ˈstrə·ˈvɪs]
Participant #: 25  Age: 73  Sex: F  Linguistic Background: native speaker: English

Question ID

A. smitch [smitʃ]: a small amount
B. jube [ʤuˈbɛ]: a quantity expression for a group of things, like a dozen
C. keee [kʰɪː]: a quantity of fruit
D. wam [wɔm]: stormy weather
E. easloff [iʔ·ʃlo]: a cart to carry things
F. kedid [kʰɛ·ɹd]: to gather things together
G. mavar [mɛl·vau]: a group of things
H. eyeyu [ˈaɪ·juː]: an ordinal number
I. narathooze [ˈnæ·ɹə·θuʔz]: one's thoughts
J. phillontave [ˈfɪ·ɬənt·əvɛ]: a measurement of time
K. lulurode [ˈlu·ɹo·ʁe]: something heavy
L. goxiwall [ˈɡɑk·sə·wɔl]: a thatched roof
M. cengastumine [si·ˈɡæs·ə·maːn]: a stomach disease
N. poncrilader [pʰɑŋ·kɪ·lə·ɹɚ]: a meter for determining volume
O. bowertilldew [ˈbɔ·wɛ·ɹtɪl·dɛ]: to lift something
P. choockshheeb [ˈtʃʊ·ʃə·hi·bɛ]: to draw or sketch
Q. whoagsafflerick [ˈwʊ·ɡə·ʃə·lɛ·ɹɪk]: reminiscent of a wolf
R. tobecraydrub [tʰo·ˈbɛ·ɹe·dᵉ]: something that is falling apart

Definitions Requiring Words

S. the wad of hair removed when cleaning a hairbrush: NURdeec [ˈnɚ·diː]
T. the grease that accumulates on top of a hot pizza:
U. an unexpected cool breeze on a sultry day:
V. the feeling experienced by a death-row inmate after being pardoned or exonerated:
W. a feeling of extreme disappointment:
X. the feeling of being woken in the middle of the night by a strange noise:
Y. the name of the remotest island on earth:

Images Requiring Words

Z. a. b. c. d. e. f. g.
Participant #: 26  Age: 64  Sex: F  Linguistic Background: native speaker: English; beginning learner: French, German, Spanish, Latin

Question ID

Words Requiring Definitions

A. smitch [smitʃ]: a smear of color on a wall
B. jube [dʒuːb]: a new type of liquid makeup used to make you look younger
C. keeve [kʰɪv]: a type of martini that is a spinoff of the cosmopolitan
D. wam [wɔm]: something warm and fuzzy that wraps around you
E. easloff [ɪˈzɔːf]: a defense attorney who hasn’t done his homework
F. kedid [kʰɛ·rəd]: an item that has fallen into the possession of a dog and is destroyed
G. mavar [ˈmeʊˌvɑː]: a type of rose that has the fragrance of lavender
H. eyeyu [ˈə Já·juː]: a stimulant added to green tea
I. narathooze [ˈnær·ə·θʊəˌz]: an emollient for the feet
J. phillontave [ˈfɪ·ləntəv]: an oriental grass that grows in a marsh
K. luluode [ˈluːˌə·joʊd]: an ingredient in a perfume that Angelina Jolie is working on
L. goxiwall [ˈɡɑk·sə·wɔːl]: a seasoning salt for cooking shellfish
M. cengastumine [sɪn·ˈgæs·tə·maʊn]: a city in Croatia that one would enjoy visiting
N. poncrilader [pɑˌkɹəˌleːˌrɚ]: a flavor of ice cream with cherries and nuts
O. bowertilldew [ˌbəˌtɪlˌdʌ]: a mountain in Siberia that one would like to climb
P. chocksaheeble [ˈtʃɑk·sə·hiˈbəl]: a newly described lung disease found in people who live on a dirt road
Q. whoagsafflerick [ˈwɔ·ɡˌzæ·fəˌlɪk]: a Himalayan mountain camp
R. tobecraydrub [tʰoʊˌbəˌkɹeɪˈdrʌb]: a type of leafy, oriental vegetable

Definitions Requiring Words

S. the wad of hair removed when cleaning a hairbrush: SPRINGuhluh [ˈspɹɪŋ·ɡəˌlə]
T. the grease that accumulates on top of a hot pizza: yish [jɪʃ]
U. an unexpected cool breeze on a sultry day: Evunz [ˈɛ·vən̩z]
V. the feeling experienced by a death-row inmate after being pardoned or exonerated: yeefs [jiˈefs]
W. a feeling of extreme disappointment: ahs [ɑʃ]
X. the feeling of being woken in the middle of the night by a strange noise: yiks [jɪks]
Y. the name of the remotest island on earth: EYESbyeyulz [ˈə Ja·ˌbəˌjɪˌəˌləz]

Images Requiring Words

Z. a. b. c. d. e. f. g.
Participant Data Sheet

Participant #: 27  Age: 24  Sex: F  Linguistic Background: native speaker: English, Spanish; beginning learner: Italian

Question ID

A. smitch [smitʃ]: a measurement for a perfect fit
B. jube [dʒuˈbɛ]: an instrument like a trumpet
C. keeve [kʰɛːv]: a collision between objects
D. wam [wɔm]: a metallic pot
E. easloff [ˈiːs·lɔf]: a mountainous location
F. kedid [ˈkɛ·dɪd]: to scurry away
G. mavar [ˈmevər]: a military airplane
H. eyeu [ˈaɪ·juː]: a small, furry rodent
I. narathooze [ˈnær·ə·θuːz]: a disease
J. phillontave [ˈfɪ·lɒ·ntəv]: a type of chemical
K. lulurode [ˈluː·lʊ·roʊd]: a planet
L. goxiwall [ˈɡɔks·wɔl]: a parrot
M. cengastumine [sɪn·ˈɡæs·tə·meɪn]: an internal organ
N. ponrilader [pɔnˈɾɪlədər]: (like) a lump on a log, something sluggish
O. bowertilldew [ˈbɔ·wɛ·tɪ·ld̪əw]: a drill-like tool used to fashion wood
P. chooksahcheelb [ˈtʃɔ·kɪ·sæ·kʃeɪ·lɪ·bɛ]: name of an ancient tribe of Native Americans
Q. whoagsafflerick [ˈhɔ·ɡə·sæ·fə·lɪ·rɪk]: an animal in the Zebra family
R. tobecraydrub [tʰə·bɛ·ˈkɾɛ·drəb]: a type of East Indian food

Definitions Requiring Words

S. the wad of hair removed when cleaning a hairbrush: SKOObul [ˈskuɔ·bʊl]
T. the grease that accumulates on top of a hot pizza: ROWjuhn [ˈrɔ·wɜːn̩]
U. an unexpected cool breeze on a sultry day: SLAzihfy [ˈslaɪ·zɪ·faɪ]
V. the feeling experienced by a death-row inmate after being pardoned or exonerated: TEEturd [ˈtʰiː·tɜːrd]
W. a feeling of extreme disappointment: JOOstihfy [ˈdʒuː·stɪ·faɪ]
X. the feeling of being woken in the middle of the night by a strange noise: klookt [kʰluʊkt]
Y. the name of the remotest island on earth: ZEEpuhluhthahn [ˈzi·ˈpʰə·lu·hθæn]

Images Requiring Words

Z. a. [ziˈljo·ntn] b. [ə·ˈluw·va] c. [ˈmi·li·jəm] d. [skluwkt] e. [riˈʤd] f. [gusˌə·fə·gaɪ] g. [ˈtʰu·tɛk·ta·kɪt]
Participant Data Sheet

Participant #: 28  Age: 32  Sex: M  Linguistic Background: native speaker: English; beginning learner: Spanish

Question ID

Words Requiring Definitions

A. smitch [smitʃ]: a small quantity of something
B. jube [dʒuˈbə]: an oblong, round shape
C. keeve [kʰəv]: to push something out of the way
D. wam [wəm]: an object you would sit in
E. easloff [iˈzərəf]: a feeling of happiness
F. kedid [kʰəd]: to be shorted on something
G. mavar [ˈmeɪ·və]: a small, southern town
H. eyeyu [ˈæ·juˈ]: an African animal like a deer, with antlers
I. narathooze [ˈnæ·ɹə·Ɵuˈz]: a small passageway
J. phillontave [ˈfɪ·lənt·əˈvə]: to exchange something for something else
K. lulurode [ˈlu·lə·ɹəd]: a fast-paced dance
L. goxiwall [ˈɡɑk·sə·wɔl]: a mistake you would want to cover up
M. cengastumine [sɪn·ˈɡæs·tə·maɪn]: a place you’ve never been before
N. nacerpled [ˈnæ·ɹə·pled]: an intermediary in an argument
O. bowertilldew [ˌbɔ·wɜ·ˈtɪld·əw]: an event to celebrate something
P. chocksaheeble [ˈtʃɑk·sə·hi·bə]: a big mess
Q. whoagsafflerick [ˈwɑ·ɡə·ʃɛ·rɪk]: to exaggerate about something, to stretch the truth
R. tobecraydrub [tʰə·ˈkɹæ·drəb]: a mathematical equation

Definitions Requiring Words

S. the wad of hair removed when cleaning a hairbrush: SHMEguhluh
T. the grease that accumulates on top of a hot pizza: SIHneeaytur
U. an unexpected cool breeze on a sultry day: TIPSuhlayteeng
V. the feeling experienced by a death-row inmate after being pardoned or exonerated: LIHgunstyne
W. a feeling of extreme disappointment: SHAHniksaymin
X. the feeling of being woken in the middle of the night by a strange noise: BLAYZleeng
Y. the name of the remotest island on earth: PIGguhnaree

Images Requiring Words

Z. RIZlin
a. SINtree
b. WELLfur
c. SUNfrin
d. GANgurleeng
e. PIHdulaytur
f. GRAPshur
g. BLAHZleeng
Participant Data Sheet

Participant #: 29  Age: 64  Sex: F  Linguistic Background: native speaker: English; beginning learner: Spanish

Question ID

A. smitch [smitʃ]: small
B. jube [dʒu′bə]: a stone
C. keeve [kʰəv]: to keel over
D. wam [wam]: silent
E. easloff [ˈiːz·lɔf]: to begin
F. kedid [ˈkʰɛ·ɾəd]: close
G. mavar [ˈmeɪ·və]: work
H. eyeu [ˈæ·ju]: to begin
I. narathooze [ˈnæ·ɹə·Ɵuːz]: playful
J. phillontave [ˈfɪ·lən·tʰəv]: to dig
K. lulurode [ˈlu·lə·ɹəd]: an old, WW2-style airplane
L. goxiwall [ˈɡɑk·sə·wɔl]: an alien monster
M. cengastumine [ˈsɪn·ˈgæs·tə·maɪn]: an illness of the immune system
N. poncrilader [ˈpʰɑŋ·kɹə·leɪ·ɾɚ]: a balloon
O. bowertilldew [ˈbɑ·wɚ·ˈtʰɪl·duː]: an army tank
P. chocksasheeb [ˈtʃɑk·sə·hi·ə]: a stand of logs
Q. whoagsafflerick [ˈwoʊ·gæ·ʃə·fɛ·rɪk]: weeds
R. tobecraydrub [tʰoˈbə·ˈkɹeɪ·drəb]: a religious denomination

Definitions Requiring Words

S. the wad of hair removed when cleaning a hairbrush: buhDUNK [bə·ˈdʌŋk]
T. the grease that accumulates on top of a hot pizza: slesh [slɛʃ]
U. an unexpected cool breeze on a sultry day: POOteek [ˈpʰu·tɪk]
V. the feeling experienced by a death-row inmate after being pardoned or exonerated: THANkree [ˈθæŋ·kɹiː]
W. a feeling of extreme disappointment: SEEkuhm [ˈsiː·kəm]
X. the feeling of being woken in the middle of the night by a strange noise: freeg [fɹiɡ]
Y. the name of the remotest island on earth: uhTOOwul [ə·ˈtʰʊ·wəl]
Participant #: 30  Age: 71  Sex: M  Linguistic Background: native speaker: English; beginning learner: Spanish

Question ID

Words Requiring Definitions

A. smitch [smitʃ]: a small quantity of something
B. jube [dʒuˈbɹ]: a stocky, little guy
C. keeve [kʰiv]: to cave in, collapse
D. wam [wɑm]: something wound up
E. easloff [ɛzˈlɔf]: a big, Scandinavian man
F. kedid [kɛˈɾəd]: a completed activity
G. mavar [‘meɹ·vaɹ]: an agenda
H. eyeyu [‘aɹ·jʊ]: an inlet on an island
I. narathooze [‘nær·ə·θʊz]: to be close in proximity
J. phillontave [ˈfɪ·lɔnt·ə·vɛ]: a tree like an orange tree
K. lulurode [ˈluɹ·ro·dɹ]: a (small) rope
L. goxiwall [ˈgɑk·sə·wɔl]: a short walk
M. cengastumine [sɪn·ˈgæs·tə·mən]: a stomach problem
N. poncrilader [pɔn·kɹə·lɚ]: the means of achieving an end
O. bowertilldew [ˈbɔ·wɛr·tɪl·duɹ]: a time late in the day
P. choocksheeble [ˈtʃɑk·sə·hi·bəɫ]: something that hasn’t been done
Q. whoagsafflerick [ˈwɑɡ·sə·fə·lɪɹk]: a type of natural material for a garment
R. tobecraydrub [təˈbɹ·kɹ·eɪ·drʌb]: a garment to protect against rain or snow

Definitions Requiring Words

S. the wad of hair removed when cleaning a hairbrush: FOLkuhn [ˈfɔl·kən]
T. the grease that accumulates on top of a hot pizza: zihk [zɪk]
U. an unexpected cool breeze on a sultry day: OHkuhn [‘oɹ·kən]
V. the feeling experienced by a death-row inmate after being pardoned or exonerated: ALLfuhn [ˈɑl·fən]
W. a feeling of extreme disappointment: DRAdun [ˈdɹæ·ɾən]
X. the feeling of being woken in the middle of the night by a strange noise: ARTfuhn [ˈɑɹt·fən]
Y. the name of the remotest island on earth: ALLmed [ˈɑl·mɛd]

Images Requiring Words

Z. states [steɪts]
a. LEEtuhn [ˈliɹ·tən]
b. DEHpuhn [ˈdɛ·pən]
c. MOOnee [ˈmuɹ·ni]
d. SUREe [ˈʃɜ·ri]
e. LOOzee [ˈluɹ·ziɹ]
f. AHRvee [ˈɑɹ·vɹ]
g. Anihkul [ˈæ·nɪ·kəl]
Participant #: 31  Age: 71  Sex: M  Linguistic Background: native speaker: English; beginning learner: German, Slovenian, Italian, Spanish, Latin, Classical Greek

Question ID

Words Requiring Definitions

A. smitch [smɪtʃ]: small
B. jube [dʒuˈbɪ]: to stop
C. keeve [kʰɛv]: something sharp, pointed
D. wam [wʌm]: a Chinese soup
E. easloff [ɛəsˌlɒf]: something smooth, relaxed
F. kedid [kʰɛdɪd]: something sharp, pointed
G. mavar [ˈmeɪ·vʌr]: something comfortable, soft
H. eyeu [ˈeɪ·juː]: a worm
I. narathooze [ˈnærə·θuːz]: something to do with the nose, smell
J. phillontave [ˈfɪ.lən·tʰəv]: a mechanical tool used for levering
K. lulurode [ˈlu.ə·ɬoːd]: a small, purple flower
L. goxiwall [ˈɡɑk·sə·wɔɬ]: someone raspy in voice
M. cengastumine [sɪn·ˈɡæs·tə·mɪn]: a medicine for the sinuses
N. poncrilader [ˈpɒn·krɪ·ləd]: a tool like an awl
O. bowertilldew [ˈbəʊ·wɜ·tʰɪl·dɹ]: a wooded place
P. chocksahkeeble [ˈtʃɒks·ə·kɪ·bəl]: a mechanical device like a clamp
Q. whoagsafflerick [ˈwəʊ·ɡə·sə·fə·lɪk]: a water dam
R. tobecraydrub [tʰə·bə·ˈkɹeɪ·dɹəb]: a snow sled

Definitions Requiring Words

S. the wad of hair removed when cleaning a hairbrush: smuch [smɪtʃ]
T. the grease that accumulates on top of a hot pizza: FLAjee [ˈflæ·ʤiː]
U. an unexpected cool breeze on a sultry day: oom [u*əm]
V. the feeling experienced by a death-row inmate after being pardoned or exonerated: wuh [wuːh]
W. a feeling of extreme disappointment: gruh [ɡɹʌh]
X. the feeling of being woken in the middle of the night by a strange noise: yuh [jʌχ]
Y. the name of the remotest island on earth: EEjee [ˈiː·ʤiː]

Images Requiring Words

Z. bluh [blʌh]
  a. brah [bɹɑh]
  b. woo [wu*ə]
  c. kras [kʰræs]
  d. spuhr [spɚɹ] (schwa raised)
  e. hah [hɑ]
  f. oo [u*ə]
  g. stah [stɑh]
Participant Data Sheet

Participant #: 32  Age: 65  Sex: M  Linguistic Background: native speaker: English; beginning learner: French

Question ID

A. smitch [smɪtʃ]: a muddy substance
B. jube [dʒu*b]: a jar
C. keeve [kʰɪv]: a small opening
D. wam [wɑm]: represents an explosion
E. easloff [ɪˈzətʰfl]: access to a highway
F. kedid [ˈkʰɛɾəd]: something soft, like a pillow
G. mavar [ˈmæɾ vɑː]: an exceptional person
H. eyeyu [ˈaɾ ju]: a mountain pass
I. narathooze [ˈnæɾəˈθuːz]: the deck of a U-boat
J. phillontave [tʃɪˈlɔntʊv]: a big spender
K. lulurode [ˈluːlərəd]: a crazy woman
L. goxiwall [ˈɡɑkəˈwɔːl]: an inland sea passageway
M. cengastumine [sɪnˈɡæsəˈmaɾən]: to break through a surface
N. poncrilader [ˈpʰɑŋkɾɪlədər]: a guy with a tanker truck
O. bowertilldew [ˌbaˈwɜrtɪlˈdɪw]: a highway through the Amazon
P. chocksaheeble [ˈtʃɒksəhiˈbəl]: a temple in Mexico
Q. whoagsafflerick [ˈwɜˌɡæsəˈfəlriːk]: a really mad person
R. tobecraydrub [tʰoˈbɛkɹeɪdrʌb]: drunks at a bar

Definitions Requiring Words

S. the wad of hair removed when cleaning a hairbrush: drek [dɹɛk]
T. the grease that accumulates on top of a hot pizza: skrum [skɜm]
U. an unexpected cool breeze on a sultry day: kuhMAstik [kəˈmAstɪk]
V. the feeling experienced by a death-row inmate after being pardoned or exonerated: puhDAnik [pəˈdænɪk]
W. a feeling of extreme disappointment: ROWCHnis [ˈɹʊtʃnɪs]
X. the feeling of being woken in the middle of the night by a strange noise: KREHrunc [kʰɹəˈdɑnzo]
Y. the name of the remotest island on earth: SNARvunce [ˈsnaɾvɑn̩s]

Images Requiring Words

d. likwuhNYzuh [lɪˈkwɑ·ˈnɑːˌza]  e. kruhDAHNzo [kʰɹəˈdɑnˌzɑ]  f. SPLIHnik [ˈsplɪnɪk]  g. ruhDâzə [ɹəˈdæ·zəˌɹiː]
<table>
<thead>
<tr>
<th>Question ID</th>
<th>Words Requiring Definitions</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. smitch [smɪtʃ]: to tell on someone</td>
<td></td>
</tr>
<tr>
<td>B. jube [dʒuˈbɛ]: a fast dance step</td>
<td></td>
</tr>
<tr>
<td>C. keeve [kʰɪv]: a spicy chicken dish</td>
<td></td>
</tr>
<tr>
<td>D. wam [wɔm]: the sound of an impact</td>
<td></td>
</tr>
<tr>
<td>E. easloff [ɪˈæ·ʃluːf]: a country like those in Tolkien’s “Lord of the Rings”</td>
<td></td>
</tr>
<tr>
<td>F. kedid [kʰɛ· ɾɑd]: a type of lettuce, like kale</td>
<td></td>
</tr>
<tr>
<td>G. mavar [ˈmeɪ· vaɬ]: a fencing sword</td>
<td></td>
</tr>
<tr>
<td>H. eyeu [ˈeɪ· juː]: a small boat the Eskimos would use</td>
<td></td>
</tr>
<tr>
<td>I. narathooze [ˈnæ· ɹə· ˈtʃuːz]: an old, grey-headed man</td>
<td></td>
</tr>
<tr>
<td>J. phillontave ['fɪ· ɹən· tʰəv]: a smooth, upholstered fabric</td>
<td></td>
</tr>
<tr>
<td>K. lulurode [ˈlu· ɬə· roʊd]: a carefree person</td>
<td></td>
</tr>
<tr>
<td>L. goxiwall [ˈɡɑk· sə· wɔl]: Spanish-type architecture</td>
<td></td>
</tr>
<tr>
<td>M. cengastumine [sɪn· ˈgæs· tə· maˈn]: a synonym</td>
<td></td>
</tr>
<tr>
<td>N. poncrilader ['pʰoŋ· kɹə· leˈɹə]: a coffee pot</td>
<td></td>
</tr>
<tr>
<td>O. bowertilldew [ˈbə· wə· tʰɪ· ɫə· duˈ]: an anchor on a boat</td>
<td></td>
</tr>
<tr>
<td>P. chocksahheeble [ˈtʃɑk· sə· hi· ˈbɛl]: a pile of various, countable pieces</td>
<td></td>
</tr>
<tr>
<td>Q. whoagsafflerick [ˈwɔ· ɹg· ˈzfə· ɬɪk]: someone who commits a serious crime</td>
<td></td>
</tr>
<tr>
<td>R. tobecraydrub [tʰo· ba· ˈkɹe· drəb]: a slothful creature of the forest</td>
<td></td>
</tr>
</tbody>
</table>

Definitions Requiring Words

| S. the wad of hair removed when cleaning a hairbrush: POpuluhs [ˈpʰɑ· pə· laʊs] |
| T. the grease that accumulates on top of a hot pizza: SWIHgal [ˈswɪ· ɡəl] |
| U. an unexpected cool breeze on a sultry day: LAHFtoo ['lɑf· tuʊ] |
| V. the feeling experienced by a death-row inmate after being pardoned or exonerated: URgaḥ [ˈɚ· ɡɑ] |
| W. a feeling of extreme disappointment: bleuf [bløf] |
| X. the feeling of being woken in the middle of the night by a strange noise: ark [ɑɹk] |
| Y. the name of the remotest island on earth: SANfahr [ˈsæn· faɬ] |

Images Requiring Words

| d. naysh [neʃ] | e. ploag [pʰloʊɡ] | f. neeYOWF [nɪɬ· jɑˈfɹ] | g. maynk [meŋk] |
Participant Data Sheet

Participant #: 34  Age: 20  Sex: M  Linguistic Background: native speaker: English; beginning learner: French, Spanish, Portuguese

Question ID

Words Requiring Definitions

A. smitch [smɪtʃ]: a small portion of something
B. jube [dʒuːb]: a round bouncing object
C. keeve [kʰɪv]: a small crevice in a rock wall
D. wam [wɒm]: a wind instrument, like a didgeridoo
E. easloff [ɪəz·ɒf]: a Germanic language
F. kedid [kʰɛ·rɑ̃d]: to terminate a game early when a probable outcome has been determined
G. mavar [ˈmeɪ·vɑː]: arthritis medication
H. eyeyu [ˈæ·jʊ]: a hut like those in Africa
I. narathooze [ˈnærə·θuːz]: to sneak around and rifle through somebody’s things
J. phillontave [ˈfɪ·lɑn·tʰəv]: to compose a piece of music
K. lulurode [ˈlu·lə·ɹəd]: a shortcut on a road trip
L. goxiwall [ˈɡɑk·sə·wɔː]: supports a building like a flying buttress
M. cengastumine [sɪn·ˈɡæs·ta·maɪn]: a proud, over-the-top person
N. poncrilader [ˈpʰɑŋ·kɹə·le:]. somebody whose mind jumps from one place to another
O. bowertilldew [ˌbɑ·wɚ·ˈtʰɪl·duː]: a tool for setting up a tent
P. chocksaheeble [ˈtʃɑk·sə·hi·bəl]: a rich, foreign (to Americans) candy
Q. whoagsafflerick [wɔ·ˈɡæ·fə·lɪk]: a xenophobic feeling
R. tobecraydrub [tʰo·ˈbɛ·kɹə·bɹ]: a gigantic, above-ground reservoir

Definitions Requiring Words

S. the wad of hair removed when cleaning a hairbrush: fruss [fɹʌs]
T. the grease that accumulates on top of a hot pizza: OOgruhm [ˈuʷ·ɡɹəm]
U. an unexpected cool breeze on a sultry day: twyce [tʰwaːs]
V. the feeling experienced by a death-row inmate after being pardoned or exonerated: SPANduhtoree [ˈspæn·da·tʰə·ɹiː]
W. a feeling of extreme disappointment: DEHfrist [ˈdɛ·fɹɪst]
X. the feeling of being woken in the middle of the night by a strange noise: KUMbyuhluhtiv [kʰʌm·bʲə·lə·tɪv]
Y. the name of the remotest island on earth: meduhRYEleeuh [mɛ·ɾə·ˈɹɛ·li·ə]

Images Requiring Words

Z. ruhFYOUzhun [ɾu·ˈfjuː·zʊn]
ruhANauh [ɾu·ˈæ·nə]
beːl·æ·na
b. wihlowBArik [wi·ˈloʊ·ˈbæ·ɹik]
ruhDARK [ɾu·ˈdɑk]
c. SHWAzul [ˈʃwæ·zʊl]
KYOUtyuhlus [ˈkjʊ·tjə·ləs]
YOUnyuhlus [ˈjuː·nɪ·ləs]
SPRASStuhkul [ˈspɹɑ·s·tə·kʊl]
Participant #: 35  Age: 19  Sex: F  Linguistic Background: native speaker: English; beginning learner: French

**Question ID**

A. smitch [smitʃ]: a person you don’t like very much
B. jube [dʒuˈbɛ]: a ball you use in a game
C. keeve [kʰɛːɪd]: a type of bread, like a bagel
D. wam [wɔm]: a short, flat house
E. easloff [ˈiːsˌlɔf]: a religious holiday
F. kedid [ˈkɛdɪd]: somebody who talks a lot and is loud
G. mavar [ˈmeɪvə]: a journey
H. eyeyu [ˈaɪˌjʊ]: a big bird, like an ostrich
I. narathooze [ˈnæˌrəθuˈzuː]: a mental disorder
J. phillontave [ˈfɪləntəv]: to crave, salivate
K. lulurode [ˈluˌlʊˌroʊd]: a colorful, South American vest
L. goxiwall [ˈɡɑksəˈwɔl]: to move laterally across a rock face
M. cengastumine [sɪnˌˈgaŋstəˈmaɪn]: a family gathering
N. poncrilader [ˈpɔŋˌkrɪlədər]: a part of a car engine
O. boweritldeew [ˈbaˌwərtɪˈlɪdəˌw]: a round tower with many windows
P. choocksahvehkle [ˈtʃoʊksəˈhɛvkl]: a group of loud children
Q. whoagsafflerick [woʊˈɡæsəˈflɛrɪk]: an ill-tempered person
R. tobecraydrub [tʰəˌˌbɹeɪˈdrʊb]: an animal like a wolf

**Definitions Requiring Words**

S. the wad of hair removed when cleaning a hairbrush: GANgrin [ˈɡæŋɡɹɪn]
T. the grease that accumulates on top of a hot pizza: SOOwus [ˈsuˌwəs]
U. an unexpected cool breeze on a sultry day: GRUHsuhn [ˈɡɹʌhˌsʌn]
V. the feeling experienced by a death-row inmate after being pardoned or exonerated: TRANsin [ˈtɹænˈsɪn]
W. a feeling of extreme disappointment: GRAnuhr [ˈɡɹænˌuɹ]
X. the feeling of being woken in the middle of the night by a strange noise: SHEHree [ˈʃɛˌrɪ]
Y. the name of the remotest island on earth: GONzinbread [ˈɡɑnˌzinˈbrɛd]

**Images Requiring Words**

Z. BOWun [ˈbəˌwʌn]

a. SOOess [ˈsuˌɛs]
b. buhNEER [bəˈnɪə]
c. arBREEzhun [ˈɑrbɹɪʒən]
d. LARuhd [ˈlæˌrʌd]
e. MURdik [ˈmɤːˌɹɛk] (first schwa raised and fronted)
f. KLEPtik [ˈkʰleptɪk]
g. DEHfrin [ˈdɛfɹɪn]
Participant Data Sheet

Participant #: 36  Age: 22  Sex: F  Linguistic Background: native speaker: English; beginning learner: French, Spanish, Arabic

Question ID

Words Requiring Definitions

A. smitch [smitʃ]: a cracker or something crunchy
B. jube [ʤuːb]: a small shack or rental property
C. keev [kʰɛːv]: to fall or bust
D. wam [wɔm]: to complain
E. easloff [ˈiːs·lɔːf]: an internal organ
F. kedid [ˈkʰɛ·ɾəd]: to chat
G. mavar ['meɪ·vʌ]: a hot color, like orange or yellow
H. eyeyu ['ɛ·j̩ɯ]: somebody short
I. narathooze ['næ·ɹə·Ɵuːz]: the tube used to help a patient breathe
J. phillontave ['fɪ·lənt·ɔːv]: to cross-examine somebody
K. lulurome [luː·rə·om]: a town on the beach
L. goxiwall [ˈgɑk·sə·wɔl]: a small plant or shrub
M. cengastumine [sɪn·ˈgæs·tə·mʌn]: a poisonous by-product from a factory
N. poncrilader [ˈpɔŋ·kɹə·leɾ]: a cleaning utensil
O. bowertillde [ˈbə·wɚ·ˈtʰɪl·duː]: a dark lager beer
P. chocksahcheeble ['tʃɔk·sə·hɪ·bəl]: an Indian shelter, like a teepee
Q. whoagsafflerick [woʊ·ˈgæ·ʃə·fə·rik]: an instrument that makes a deep sound, like a brass instrument
R. tobecraydrub [tʰoʊ·bə·ˈkɹe·dɹəb]: a malignant growth, like on the skin

Definitions Requiring Words

S. the wad of hair removed when cleaning a hairbrush: gahk  [gaŋk]
T. the grease that accumulates on top of a hot pizza: HEEjeegloo  [ˈhiː·ʤiː·ɡluː]
U. an unexpected cool breeze on a sultry day: WIHshur  [ˈwɪ·ʃɚ]
V. the feeling experienced by a death-row inmate after being pardoned or exonerated: AHsun  [ˈɑ·sən̩]
W. a feeling of extreme disappointment: REEvik  [ˈɹiː·vɪk]
X. the feeling of being woken in the middle of the night by a strange noise: ak  [æk]
Y. the name of the remotest island on earth: LOOpah  [ˈluː·pəh]

Images Requiring Words

Z. shwed [ʃwed]
A. BREEo [ˈbɹiː·oʊ]
B. SHOOful [ʃu·fə·l̩]
C. MEHdeeyahd [ˈmɛ·dɹiː·əd]
D. GRASuhd [ˈɡæs·ə·dʌd]
E. MAHdreaht [ˈmɑ·dɹɪ·ət]
F. NAYvoom [ˈneɪ·vʊ·m]
G. KRISuhm [ˈkɹɪs·dəm]
Participant Data Sheet

Participant #: 37  Age: 19  Sex: F  Linguistic Background: native speaker: English; beginning learner: German, French

Question ID

A. smitch [smɪtʃ]: a tack
B. jube [dʒuˈbə]: a fruit spread
C. keeve [kʰɪv]: to fall down
D. wam [wʌm]: to be at peace
E. easloff [ɪˈzəf]: a big desk
F. kedid [kʰɛd]: to find something
G. mavar [ˈmeɪvə]: to cut something
H. eyeu [ˈæju]: a computer accessory, like a USB
I. narathoose [næθuˈzoʊ]: a story passed down
J. phillontave [ˈfɪləntəv]: a foyer or a hallway
K. lulurode [luˈluːd]: a writing pen
L. goxiwall [ˈɡɑkəwɔl]: a type of knife
M. cengastumine [sɪnˈɡæstəmaɪn]: a chemical element
N. poncrilader [ˈpɔnkrɪləd]: a pump for filling up tires
O. bowertilldew [ˈbərɪltəd]: a long sword
P. chocksaheeble [ˈtʃɔksəhiˈblə]: a foreign candy
Q. whoagsafflerick [ˈwaʊgsəfərɪk]: to hide
R. tobecraydrub [tʰəˈkɹeɪdrəb]: a disease like cancer

Definitions Requiring Words

S. the wad of hair removed when cleaning a hairbrush: TİHzul [ˈtʰɪzʊl]
T. the grease that accumulates on top of a hot pizza: lak [læk]
U. an unexpected cool breeze on a sultry day: tim [tʰɪm]
V. the feeling experienced by a death-row inmate after being pardoned or exonerated: ZYElee [ˈzaɪli]
W. a feeling of extreme disappointment: TAHMbur [ˈtʰɑmˌbɚ]
X. the feeling of being woken in the middle of the night by a strange noise: ride [rайд]
Y. the name of the remotest island on earth: so [ˈsoʊ]

Images Requiring Words

a. leem [liːm]  b. KOlo [ˈkʰoʊloʊ]  c. SIMbrik [ˈsɪmbrɪk]
d. SYlahn [ˈsaɪlɑn]  e. TIMbree [ˈtʰɪmbrɛ]  f. EYEsum [ˈaɪˌsʌm]  g. nik [nɪk]
Participant Data Sheet

Participant #: 38  
Age: 27  
Sex: M  
Linguistic Background: native speaker: English; advanced learner: Spanish

Question ID

Words Requiring Definitions

A. smitch [smitʃ]: a tool for fletching
B. jube [ʤuːb]: an animal, like a frog
C. keeve [kʰiːv]: a small kingdom
D. wam [wɔːm]: an animal like a bat
E. easloff [ˈɛːs.lɔf]: a sinister person
F. kedid [ˈkɛdɪd]: an introverted person
G. mavar [ˈmeɹ ˈvaɹ]: an edgy, countercultural person
H. eyeyu [ˈaɹ.ˈjuɹ]: to instill fear in somebody
I. narathooze [ˈnæɹ.ˈθuɹ.ˈzɹ]: a feeling of nervousness
J. phillontave [ˈfɪlənˈtʰeɹv]: a member of a royal court
K. lulurode [ˈluɹ.ˈləɹ.ˈdɹ]: a whimsical animal with a long tail, like a lemur
L. goxiwall [ˈgɑkˌsəˌwɔl]: a Scottish alcoholic beverage
M. cengastumine [sɪnˈɡæsˌtaˌmən]: a filibuster
N. poncrilader [ˈpɔŋˌkɹɪˌlərɪd]: describes a person who tries to be funny but isn’t
O. bowertilldew [ˌbɔɹˌˈtʰɪlˌduɹ]: a female ballet dance
P. chocksahcheel [tʃəˌkəˌʃɛˌχɪʃ]: pertaining to Sasquatch
Q. whoagsafflerick [ˈwɔɹˌgəˌʃæˌfəˌlɪk]: a happy reaction
R. tobecraydrub [təˈbɛ.ˈkɹɛ.ˈdɹəb]: a large piece of construction equipment, like a dump truck

Definitions Requiring Words

S. the wad of hair removed when cleaning a hairbrush: AHRhahr  [ˈɑɹ.ˈhɑɹ]
T. the grease that accumulates on top of a hot pizza: BRAYho  [ˈbɹeʲ·hʊ̀]
U. an unexpected cool breeze on a sultry day: blooveeYES  [ˈbluɹˌvɪˌɛs]
V. the feeling experienced by a death-row inmate after being pardoned or exonerated: jampuhFEEL  [dʒæmˌpə.ˈfiʲl]
W. a feeling of extreme disappointment: MAΛuhfay  [ˈmæ·lə·feʲ]
X. the feeling of being woken in the middle of the night by a strange noise: arkTOOwin  [əɹkˌˈtʰuɹ.ˈɪn]
Y. the name of the remotest island on earth: suhRHnuhlahng  [səˌɹɪˌnəˌlɑŋ]

Images Requiring Words

Z. a. uHLAHNdruahd  [əˌlɑn.ˈdɹəɹ.ˈdɹ]  b. FLOreeahl  [ˈflɔ·ɹiʲ·ɑɹ]  c. KAHluhrn  [ˈkɑɹˌləɹ.ˈnɹ]
   d. SMORguhn  [ˈsɔɹ·ɡən̩]  e. karPORNGE  [kɑɹ.ˈpʊɹ.ˈɡəɹ]  f. FLOWtahn  [ˈflɔɹˌtʰəɹ]  g. garBORayul  [ɡɑɹˌˈbɔ·ɹəˌjʊ]
Participant Data Sheet

Participant #: 39  Age: 19  Sex: F  Linguistic Background: native speaker: English; beginning learner: French, Latin

Question ID

A. smitch [smɪtʃ]: a kiss
B. jube [dʒuˈbɛ]: a duplicate
C. keeve [kʰɪv]: a jacket
D. wam [wʌm]: to watch
E. easloff [ˈiːz·lɔf]: quickly
F. kedid [ˈkʰɛ·ɾɪd]: to cook
G. mavar [ˈmeɪˌvɑː]: money (in general)
H. eyeyu [ˈaˌjuː]: to influence
I. narathooze [ˈnær·ə·θuˌzɛ]: a nasal strip
J. phillontave [fɪˈləntəv]: to study
K. lulurode [ˈluˌləˌɾəˌd]: to play
L. goxiwall [ˈɡɑk·səˌwɔl]: to search
M. cengastumine [sɪnˌˈɡɛnstəˈmaɪn]: to do surgery
N. poncrilader [ˈpʰɑŋˌkɹɪləˈdɛr]: exploring new places
O. bowertilldew [ˈbaˌwɜrˌtɪldəw]: a large domesticated dog
P. chocksheeele [ˈtʃɔksˌʃiˈhɛl]: to prepare a food you never prepared before
Q. whoagsafflerick [wəˈɡzəˌfɛlˌrɪk]: to sew clothes
R. tobecraydrub [tʰəˈbɛˌkɹɛdrəb]: elaborate jewelry

Definitions Requiring Words

S. the wad of hair removed when cleaning a hairbrush: KRAKsahn [ˈkʰrækˌsɑn]
T. the grease that accumulates on top of a hot pizza: suhLOneeyum [səˈloʊˌnɪˌəm]
U. an unexpected cool breeze on a sultry day: KLAYzahn [ˈkʰleɪˌzɑn]
V. the feeling experienced by a death-row inmate after being pardoned or exonerated: REEsuhreks [ˈɹɪˌrɛsəˌɹɛks]
W. a feeling of extreme disappointment: suhLAYzahn [səˈleɪˌzɑn]
X. the feeling of being woken in the middle of the night by a strange noise: AKsum [ˈækˌsʌm]
Y. the name of the remotest island on earth: reeDEKS [ɹiˈdɛks]

Images Requiring Words

Z. SWAYzahn [ˈswɛiˌzɑn]
 a. PREKsahn [ˈpʰrɛkˌsɑn]
 b. surREZ [səˌrɛz]
 c. PLAYzahn [ˈpʰlɛzəˌzɑn]
d. SWAYez [ˈswɛiˌɛz]
 e. DREKsahn [ˈdʌrɛkˌsɑn]
 f. STAYtez [ˈsteɪˌtɛz]
g. uhVYNZ [əˌvaˈnɛz]
Participant Data Sheet

Participant #: 40  Age: 19  Sex: F  Linguistic Background: native speaker: English; beginning learner: French, German

Question ID

A. smitch ['smitʃ]: sneaky
B. jube [ʤu'b]: greasy
C. keeve [kʰv]: a little bit of something
D. wam [wɔm]: a lot of something
E. easloff ['iːz·əf]: a deceptive person
F. kedid ['kʰɛ·ɾəd]: to joke around with someone
G. mavar ['meɾ·və]: a styling gel for hair
H. eyeyu ['aɪ·juː]: a fluffy, white animal found in cold climates
I. narathooze ['næ·ɹə·z]: a dark color like blue
J. phillontave ['fɪ·lənt·əv]: a writing utensil
K. lulurode ['luɾə·dəd]: whimsical, girlish, childhood play
L. goxiwall ['ɡɑk·sə·wɔl]: a disease of the skin, a rash
M. cengastumine [ˈsɪn·ˈgæs·tə·maɾ]: nausea
N. poncrilader [ˈpʰɑŋ·kɹə·leɾə]: a bouncy toy
O. bowertilldew [ˈba·wɚ·ˈtʰɪldəw]: something royal
P. chocksahheeb [ˈtʃɑk·sə·həb]: a pile of meaningless crap
Q. whoagsafflerick [ˈwʊz·ˈæ·fə·lɪk]: an organizational tool, like a syllabus
R. tobecraydrub [tʰə·ˈkɹe·drəb]: a sitting object, like a vase, used for aesthetic purposes

Definitions Requiring Words

S. the wad of hair removed when cleaning a hairbrush: WIHzuhl [ˈwɪ·zəl̩]
T. the grease that accumulates on top of a hot pizza: GIHmuhl ['ɡɪ·məl̩]
U. an unexpected cool breeze on a sultry day: flush [flʊʃ]
V. the feeling experienced by a death-row inmate after being pardoned or exonerated: TAlee [ˈtʰæ·liʲ]
W. a feeling of extreme disappointment: kuhRAND [kʰə·ˈɹænd]
X. the feeling of being woken in the middle of the night by a strange noise: suhRAND [sə·ˈɹænd]
Y. the name of the remotest island on earth: booWAY [buˈweʲ]

Images Requiring Words

Z.

a. jay [ʤeə]
b. grite [ɡɹə't]
c. BLAYmee [ˈblɛj·mi]
d. SINGkee [ˈsɪŋ·kiʲ]

e. KAHRdee [ˈkʰə·rɪ]
f. UPshoolee [ˈʌp·ʃʊə·lɪ]
g. KAHtoe [ˈkʰə·tɔ́]
Participant #: 41  Age: 19  Sex: F  Linguistic Background: native speaker: English; advanced learner: Spanish; beginning learner: French

<table>
<thead>
<tr>
<th>Question ID</th>
<th>Words Requiring Definitions</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. smitch [smɪtʃ]: a small animal like a mouse</td>
<td></td>
</tr>
<tr>
<td>B. jube [dʒuˈb]: a round kind of candy, like a jelly bean</td>
<td></td>
</tr>
<tr>
<td>C. keeve [kʰeːv]: a type of difficult, precise dive performed off a diving board</td>
<td></td>
</tr>
<tr>
<td>D. wam [wɒm]: a colorful, African shirt</td>
<td></td>
</tr>
<tr>
<td>E. easloff [ˈiːz·lɔf]: a sly person</td>
<td></td>
</tr>
<tr>
<td>F. kedid [ˈkʰɛ·ɾəd]: a bright color like orange or red</td>
<td></td>
</tr>
<tr>
<td>G. mavar [ˈmeɪ·vər]: a war helmet</td>
<td></td>
</tr>
<tr>
<td>H. eyeyu [ˈaʲ·juː]: a medium-sized, ground-dwelling, brown animal with a short tail</td>
<td></td>
</tr>
<tr>
<td>I. narathooze [ˈnær·ə·θuːz]: a disease of the immune system that makes you feel drowsy</td>
<td></td>
</tr>
<tr>
<td>J. phillontave [ˈfɪ·lən·tʰəv]: a packaging material used at the post office</td>
<td></td>
</tr>
<tr>
<td>K. lulurode [ˈlu·lə·ɹəd]: a dance, like the aloha dance</td>
<td></td>
</tr>
<tr>
<td>L. goxiwall [ˈɡɑk·sə·wɔl]: a surgical procedure</td>
<td></td>
</tr>
<tr>
<td>M. cengastumine [sɪn·ˈɡæs·tə·mən]: an acrobat</td>
<td></td>
</tr>
<tr>
<td>N. poncrilader [ˈpʰɑŋ·kɹə·leʲ·ɾɚ]: a timekeeper</td>
<td></td>
</tr>
<tr>
<td>O. bowertilldew [ˌbə·wɚ·ˈtʰɪl·duː]: a place with a lake where people vacation</td>
<td></td>
</tr>
<tr>
<td>P. chocksaheeble [ˈtʃɑk·sə·hi·bəl]: a sweet, thick, European food served in a bowl</td>
<td></td>
</tr>
<tr>
<td>Q. whoagsafflerick [ˈwɑ·ɡ·ˈzæ·fəl·ɹɪk]: a book having to with numbers, like an accounting book</td>
<td></td>
</tr>
<tr>
<td>R. tobecraydrub [tʰə·ˈkɹeʲ·dɹəb]: an appliance for cleaning in the kitchen</td>
<td></td>
</tr>
</tbody>
</table>

Definitions Requiring Words

| S. the wad of hair removed when cleaning a hairbrush: IGmuhloe [ˈɪg̚·mə·loʊ] |
| T. the grease that accumulates on top of a hot pizza: slimps [slɪmps] |
| U. an unexpected cool breeze on a sultry day: FAYlee [ˈfɛ·li] |
| V. the feeling experienced by a death-row inmate after being pardoned or exonerated: igSNAstid [ɪg·ˈsnæ·stɪd] |
| W. a feeling of extreme disappointment: deeANdred [dɪ·ˈæn·dɹɛd] |
| X. the feeling of being woken in the middle of the night by a strange noise: INstray [ˈɪn·stɹeʲ] |
| Y. the name of the remotest island on earth: LOONduhrahd [ˈlu·nə·ɹɑːd] |

Images Requiring Words

| Z. DRAsuhnayte [ˈdræ·sə·neːt] |
| a. FLANteek [ˈflæn·tiːk] |
| b. WAHvree [ˈwɑ·vɹi] |
| c. fuhNEEK [fə·ˈniːk] |
| d. AHNGyet [ˈɑŋ·jɛt] |
| e. LAHkuhmair [ˈla·kə·nɛɾ] |
| f. RANfluhd [ˈræn·fləd] |
| g. STEEkut [ˈstɪ·kat] |
Participant #: 42  Age: 19  Sex: M  Linguistic Background: native speaker: English; beginning learner: French

Question ID

Words Requiring Definitions

A. smitch [smɪtʃ]: to scribble
B. jube [dʒuˈbə]: a type of bouncy ball
C. keeve [kʰɛ· ɾəd]: a type of dry dog food, like kibble
D. wam [wʌm]: an echoing sound
E. easloff ['meɪ· vʌs]: spreadable food in general, like PB&J or Vegemite
F. philontave ['fɹ· ɹæn· tʰəˈvə]: a shovel used in the garden
G. narathooze ['næ· ɹə· Ɵuˌz]: an allergy medicine
H. goxiwall ['ɡɑk· ˈsə· wɔl]: a bird, like a seagull
I. cengastumine [sɪn· 'gæs· tə· maˈn]: a toxic, chemical compound
J. poncrilader ['pʰɑŋ· kɹə· leˈɾɚ]: a paper hole puncher
K. chocksaheeble [ˈtʃɑk· sə· hiˌ bəl]: a big mess, a cluster
L. phillontave ['fɪ· lə· ɹə]: a mountain range
M. cengastumine [sɪn· 'gæs· tə· maˈn]: a toxic, chemical compound
N. broeen ['bɹoˌ ən]: motor oil or engine coolant
O. souñuh ['suˌ nə]: an unexpected cool breeze on a sultry day
P. tobecraydrub ['tʰoʊˌ bə· ˈkɹeʤdɹəb]: an exotic type of tree, thin, short with unique leaves
Q. ahnTAHveeng [ɑn· 'tɑ· vɪŋ]: a feeling experienced by a death-row inmate after being pardoned or exonerated
R. uhVAYveeng [ɑ· 'veį· bɪŋ]: a feeling of extreme disappointment
S. BROomeen ['bɹoʊˌ mɪn]: the grease that accumulates on top of a hot pizza
T. SOOnuh ['suˌ nə]: the wad of hair removed when cleaning a hairbrush
U. beesh [biʃ]: an unexpected cool breeze on a sultry day
V. weem [wi)m]: the feeling experienced by a death-row inmate after being pardoned or exonerated
W. fakuhTOOHuh ['fæ· kə· tʰə· wəˌ ə]: a feeling of extreme disappointment
X. BRAYkuh ['bɹɑˌ kɪŋ]: the feeling of being woken in the middle of the night by a strange noise
Y. muhSOWN [məˌ 'soʊn]: the name of the remotest island on earth

Definitions Requiring Words

S. the wad of hair removed when cleaning a hairbrush: TRIHkuht ['tʰɹɪˌ kət]
T. the grease that accumulates on top of a hot pizza: neez [niiez]
U. an unexpected cool breeze on a sultry day: beesh [bɪʃ]
V. the feeling experienced by a death-row inmate after being pardoned or exonerated: weem [wiˈm]
W. a feeling of extreme disappointment: fakuhTOOHuh ['fæ· kə· tʰə· wəˌ ə]
X. the feeling of being woken in the middle of the night by a strange noise: BRAYkuh ['bɹɑˌ kɪŋ]
Y. the name of the remotest island on earth: muhSOWN [məˌ ‘soʊn]

Images Requiring Words

Z. BROomeen ['bɹoʊˌ mɪn]
B. SOOnuh ['suˌ nə]
C. ahnTAHveeng [ɑnˌ 'tɑˌ vɪŋ]
D. uhVAYveeng [ɑˌ 'veį· bɪŋ]
E. BRAHkeeng ['bɹɑˌ kɪŋ]
F. imPRYveeng [ɪmˌ 'pɹəˌ vɪŋ]
G. duhSHEEveeng [dəˌ 'ʃɪˌ vɪŋ]
Participant #: 43  Age: 26  Sex: F
Linguistic Background: native speaker: Spanish; fluent speaker: English; intermediate learner: French; beginning learner: Arabic

Question ID

A. smitch [smɪtʃ]: a crack, like in a sidewalk
B. jube [dʒuˈbɛ]: a boring person
C. keeeve [kʰɪv]: to jump off of something or to dive
D. wam [wɑm]: soft or fluffy, like a blanket
E. easloff [ˈeːsˌlɑf]: a holiday celebrating the harvest
F. kedid [ˈkʰɛ·ɾəd]: bent, folded or wrinkled
G. mavar [ˈmeɪ·vɑː]: a quantity of water
H. eyeyu [ˈæ·juː]: a landform, like a delta
I. narathooze [nær·ə·θu·ˈzɛ]: an intellectual person
J. phillontave [ˈfɪ·lən·tʰeʲv]: a writing pen
K. lulurode [ˈlu·lʊ·ro·d]: a cloth napkin
L. goxiwall [ˈɡɑk·sə·wɔl]: an extraterrestrial being
M. cengastumine [sɪn·ˈgæs·tə·ˈmeːn]: a blood disease
N. poncrilader [pʰɑŋ·kɹə·leʲ·ɾɚ]: an electrical appliance, like a blender or toaster
O. bowertilldew [ˌbɑ·wɚ·ˈtʰɪl·duʷ]: pants, like jeans
P. chocksheeble [tʃɑk·sə·hi·bəł]: a concert, like Woodstock
Q. whoagsafflerick [woː·ˈɡæ·fə·fɛ·rɪk]: a wild canine
R. tobecraydrub [tʰo·ˈbɛ·kɹə·ˈdɹuːb]: a classification of paintings

Definitions Requiring Words

S. the wad of hair removed when cleaning a hairbrush: krush [kʰɹʌʃ]
T. the grease that accumulates on top of a hot pizza: blake [bleˈk]
U. an unexpected cool breeze on a sultry day: floo [fluː]
V. the feeling experienced by a death-row inmate after being pardoned or exonerated: waah [wɑːh]
W. a feeling of extreme disappointment: dahk [dɑk]
X. the feeling of being woken in the middle of the night by a strange noise: roo [rʊ]
Y. the name of the remotest island on earth: guhraht [ɡə·ˈɹɑt]

Images Requiring Words

Z. pruht [pʰˈʌst]
A. deeYAHN [diˈjæn]
B. plaht [pʰˈʌt]
C. KLAHuhhtahn [ˈkɫə·θə·tʰɑn]
D. fret [fret]
E. TRIHuhrbite [tɾɪ·ˈθɑ·ˈbɑːt]
F. rah [ɾɑ]
G. mark [ˈmɑrk]
Participant Data Sheet

Participant #: 44  Age: 20  Sex: F  Linguistic Background: native speaker: English; beginning learner: French

Question ID

A. smitch [smitʃ]: something hidden
B. jube [ʤuˈbe]: a hair color like brownish-red
C. keeve [kʰiːv]: a bath sponge
D. wam [wɑm]: a big drum or other percussion instrument
E. easloff [iːsˈlof]: an East Indian food, like curry or rice
F. kedid [kʰeˈdiːd]: something that has an uneven surface
G. mavar [ˈmeɪ·vaː]: a king or a ruler
H. eyeyu [ˈaɪ·juː]: a canoe paddle
I. narathooze [ˈnæ·ə·θuːz]: a pain reliever, like Icy Hot
J. phillontave [ˈfɪ·lən·tʰeʲv]: a large, wooden sailboat
K. lulurode [ˈluː·lu·ɾəd]: a horse's bit
L. goxiwall [ˈɡɑk·sə·wɔl]: floor sealant
M. cengastumine [sɪnˈgæs·tə·maːn]: systematically searching for a treasure
N. poncrilader [ˈpʰɑŋ·kɹə·leʲ·ɾɚ]: a water purifier
O. bowertilldew [ˌba·wɚ·ˈtʰɪl·duʷ]: vomit
P. chocksaheeble [ˈtʃɑk·sə·hi·bəl]: a large, mysterious monster, like Bigfoot
Q. whoagsafflerick [ˈwʊ·ɡə·ʃə·fə·rik]: a nomad
R. tobecraydrub [tʰə·ˈkɹeʲ·drəb]: a tool, like a hammer

Definitions Requiring Words

S. the wad of hair removed when cleaning a hairbrush: NAtlur [ˈnæ·ə·ɾɚ]
T. the grease that accumulates on top of a hot pizza: LAHtoo [ˈlɑ·tuː]
U. an unexpected cool breeze on a sultry day: PYURin [ˈpʰjʊɹ·ɪn]
V. the feeling experienced by a death-row inmate after being pardoned or exonerated: SAthund [ˈsæ·ðʊnd]
W. a feeling of extreme disappointment: DISlow [ˈdɪs·loʊ]
X. the feeling of being woken in the middle of the night by a strange noise: WODuh [ˈwʊd·wɑŋk]
Y. the name of the remotest island on earth: LINVIT [ˈlɪn·lɪt]

Images Requiring Words

Z. KILLkin [kʰɪ·lɪ·kʰɪn]
a. mooLAY [muː·ˈleɪ]
b. KALuh [kʰæ·luː]
c. KILtuhr [kʰɪ·lə·tʰə]
d. ROWvuh [ˈrəʊ·vʊn̩]
e. WUDwahnk [ˈwʊd·wɑŋk]
f. STRAHfo [ˈstɹɑ·foʊ]
g. TILLmar [tʰɪ·lə·mɑɹ]

361
Participant Data Sheet

Participant #: 45  Age: 19  Sex: F  Linguistic Background: native speaker: English; beginning learner: French

Question ID

Words Requiring Definitions

A. smitch [smtʃ]: to sew rapidly
B. jube [ʤuˈb]: a type of candy, shaped like a jelly bean
C. keeve [kʰɪv]: a type of small house plant
D. wam [wɔm]: a Chinese noodle
E. easloff ['meɪˌvau]: a small, green, ringed planet
F. kedid [ˈkʰɛɾəd]: to truncate something
G. mavar ['meɪˌvaʊ]: a small, green, ringed planet
H. eyeyu ['aɪˌjuː]: to benefit someone
I. narathooze ['nærəˈθuːz]: a medicine for the brain
J. phillontave ['fɪˌləntəˈv]: to overthrow a ruler
K. lulurode ['luːˌluːroʊd]: to bypass something
L. goxiwall ['ɡɔkˌsəˌwɔl]: to saunter
M. cengastumine [ˈsɪnˌɡæsˈtʌˌmən]: carbonation
N. poncrilader ['pʰɑŋˌkrɪləˈdər]: an extension cord
O. bowertilldew [ˌbɔ·ˈwɛrˈtɪlˌduː]: to be subservient
P. chocksasheeble ['tʃɒksˌəˌʃi·ˈbəl]: an ox-driven plow
Q. whoagsafflerick [ˈwɔˌɡəˌfəlˈrɪk]: a castle
R. tobecraydrub [tʰoˌbəˌˈkɾeɪˈdrʌb]: to release something

Definitions Requiring Words

S. the wad of hair removed when cleaning a hairbrush: UNthrub  [ˈʌnˌθʌbr]
T. the grease that accumulates on top of a hot pizza: PLAYtul  [ˈpʰleɪˌtʌl]
U. an unexpected cool breeze on a sultry day: AYvree  [ˈaɪˌvri]
V. the feeling experienced by a death-row inmate after being pardoned or exonerated: surNASHT  [səˌˈnæʃt]
W. a feeling of extreme disappointment: FLEEkizm  [ˈfliˌkɪzm]
X. the feeling of being woken in the middle of the night by a strange noise: SKRUHpul  [ˈskɹʌˌpəl]
Y. the name of the remotest island on earth: freesh  [fɹiʃ]

Images Requiring Words

362
Participant #: 46  Age: 23  Sex: F  Linguistic Background: native speaker: English; beginning learner: French, Spanish

**Question ID**

Words Requiring Definitions

A. smitch [smɪʧ]: to fall
B. jube [dʒuˈbɛ]: to jump
C. keeve [kʰɪv]: an SUV or a jeep
D. wam [wɑm]: a fruity candy
E. easloff [ɪzˈlɔf]: a rural town
F. kedid [kʰɛˈɾɛd]: to kick
G. mavar [ˈmeɪr]: to dance
H. eyeyu [ˈeɪjuː]: a sad feeling
I. narathooze ['næ·ɹə·Ɵuːz]: a cold (illness)
J. phillontave [ˈfɪ·ɬə·tʰə·vɛː]: bad weather with tornadoes
K. lulurode [ˈlu·ɬə·ɾə·də]: a large beach
L. goxiwall [ˈɡɑk·sə·wɔːl]: a movie monster
M. cengastumine [ˈsɪŋ·ˈɡæs·tə·mən]: a large booming noise
N. poncrilader [ˈpɔŋ·kɹə·lədə]: to go on a retreat when tired
O. bowertilldew [ˌbɔ·wɛ·ˈtʰɪl·dəw]: a plastic mask
P. choocksheeble [ˈtʃə·kə·ʃə·bl]: Indian face paint
Q. whoagsafflerick [ˈwəʊ·ɡə·ʃə·frɪk]: some kind of trouble or misfortune
R. tobecraydrub [tʰə·ˈkɛ·rə·dəb]: an ice cream topping, like syrup

Definitions Requiring Words

S. the wad of hair removed when cleaning a hairbrush: Awur [ˈæ·wə]
T. the grease that accumulates on top of a hot pizza: OOwur [ˈʊ·wə]
U. an unexpected cool breeze on a sultry day: WOOyah [ˈwu·jɑ]
V. the feeling experienced by a death-row inmate after being pardoned or exonerated: Awur [ˈæ·wə]
W. a feeling of extreme disappointment: LOOum [ˈlu·əm]
X. the feeling of being woken in the middle of the night by a strange noise: AHhum [ˈɑ·həm]
Y. the name of the remotest island on earth: FAHLsum [ˈfɑ·lə·səm]

Images Requiring Words

Z. LEEzum [ˈli·ɬə·m]  a. tuhneyeLAYShus [ˈtə·nə·ɬə·ʃəs]  b. KORduhlizm [ˈkʰɔɹ·ɾə·lɪ·zəm]  c. vehjuhNAluhsis [vɛ·ʤə·ˈnæ·lə·sɪs]  d. juruhLASHum [dʒu·ɬə·ʃə·m]  e. SAYsum [ˈse·ɬə·səm]  f. STATsum [ˈstæt·səm]  g. mulTAHsum [məl·tə·səm]
Participant Data Sheet

Participant #: 47  
Age: 59  
Sex: F  
Linguistic Background: native speaker; English

Question ID

Words Requiring Definitions

A. smitch [smɪtʃ]: a small quantity
B. jube [ʤuːb]: a wind instrument, like the clarinet
C. keeve [kʰɪv]: a small cabinet
D. wam [wɔm]: a thick, reddish-brown sauce
E. easloff [ˈeɪ·ʃlɔf]: an area like an attic for storing things
F. kedid [ˈkʰɛ·ɾəd]: to be brusque
G. mavar [ˈmeɪ·vɑr]: a technical piece of equipment, like with a telescope
H. eyeyu [ˈeɪ·juː]: a specialized piece of sewing equipment
I. narathooze [ˈnæ·ɹə·Ɵuːz]: an inlet
J. phillontave [ˈfɪ·lən·tʰeʲv]: an apology
K. luluorde [ˈluː·ɾo·d]: a special toy with moving parts
L. goxiwall [ˈgɑk·sə·wɔl]: a fantastical Tolkien character
M. cengastumine [sɪn·ˈgæs·ta·maːn]: a conundrum or a predicament
N. poncrilader [ˈpʰɑŋ·kɹə·leʲ·ɾɚ]: a concrete mixer
O. bowertilldew [ˌba·wɚ·ˈtʰɪl·duː]: a lamp that hangs in the garden
P. chocksasheble [ˈtʃɑk·sə·hi·bəł]: a part in a furnace
Q. whoagsafflerick [ˌwɔ·ˈɡæ·ʃə·fə·lɪk]: a barge
R. tobecraydrub [tʰoʷ·bə·ˈkɹeʲ·dɹəb]: an artifact, like a hammer, from an Indian village

Definitions Requiring Words

S. the wad of hair removed when cleaning a hairbrush: GRIHshuhlz [ˈɡɹɪ·ʃəl̩z]
T. the grease that accumulates on top of a hot pizza: GLEEsahn [ˈɡlɪ·sɑn]
U. an unexpected cool breeze on a sultry day: spleel [ˈsplɪl]
V. the feeling experienced by a death-row inmate after being pardoned or exonerated: GRIKsuhld [ˈɡɹɪk·səł̩d]
W. a feeling of extreme disappointment: UNdahld [ˈʌn·dɑłd]
X. the feeling of being woken in the middle of the night by a strange noise: glikSANdurdahld [ɡlɪk·ˈsæn·dɚ·dɑłd]
Y. the name of the remotest island on earth: TYkandur [ˈtʰaʲ·kʰæn·dɚ]

Images Requiring Words

Z. UHnurest [ˈʌ·nɚ·ɹɛst]
FRAGmyur [ˈfɹæg·maʲ·ɚ]
BLINdahr [ˈblɪn·dɑɹ]
nahdoonlee [nɑ·duⁿ·liʲ]

a. MAvuhlhr [ˈmeɪ·və·ləɾ]
kwairMEER [kʰweɪ·ˈmiːr]
suhKWAMhair [sə·ˈkʰwə·miːɾ]
meeYANdak [miʲ·ˈjæn·dæk]
Participant #: 48  Age: 26  Sex: M  Linguistic Background: native speaker: English

Question ID

A. smitch [smɪtʃ]: poster board
B. jube [dʒuːb]: a cut
C. keeve [kʰɪv]: to overburden yourself
D. wam [wʌm]: chopsticks
E. easloff [iːz•lɔf]: an elf
F. kedid [kʰɛ•ɾɪd]: to cut somebody off in a car
G. mavar [ˈmeɹ·vɒ]: a warlock
H. eyeu [ˈɛj•juː]: to take a dump
I. narathooze [ˈnær•ʔʊ•z]: a drug to treat ADD
J. phillontave [ˈfɪ•lən•tʰeɪv]: peculiar
K. lulurode [ˈlu•ɾʊ•d]: ambiguous
L. goxiwall [ˈɡɑk•sə•wɔl]: to screw up majorly
M. cengastumine [sɪn•ˈɡæs•tə•mæn]: to erupt, like a volcano
N. poncrilader [ˈpʰɑŋ•kɹə•leɹ•də]: a very fancy car
O. bownteildew [ˈba•wɪ•tʰɪldəʊ]: a small, colorful bird of the rainforest
P. chocksheeble [ˈtʃɑk•sə•hɪ•bə]: to balance
Q. whoasafflerick [ˈwɑ•zə•ʃæ•fə•ɹɪk]: to stop something from happening
R. tobecraydrub [tʰə•ˈkɹe•ɹə•b]: a sedentary person who eats just to eat

Definitions Requiring Words

S. the wad of hair removed when cleaning a hairbrush: chroSTAsheeo [tʰ•jo•ˈstæ•ʃoʊ]
T. the grease that accumulates on top of a hot pizza: jarfuhRAHrow [dʒɑɹ•fə•ˈɹɑ•ɹəʊ]
U. an unexpected cool breeze on a sultry day: WAHpee [ˈwɑ•pli]
V. the feeling experienced by a death-row inmate after being pardoned or exonerated: reeVEENdoe [rɪ•ˈvi•n•doʊ]
W. a feeling of extreme disappointment: peekeeAIfin [pʰi•ki•ˈæ•fɪn]
X. the feeling of being woken in the middle of the night by a strange noise: VEENGgo [vɪŋ•gəʊ]
Y. the name of the remotest island on earth: OOso [ˈu•wʊ]

Images Requiring Words

Z. EEkoe [iː•kʰoʊ]
  a. seeNEEV [siː•ˈniːv]
  b. haiFOOtoe [hæ•ˈfʊ•tʰo]
  c. KAItzee [ˈkʰæ•tʃ]
  d. BIHzo [ˈbɪ•zʊ]
  e. seenguy [sɪŋ•ɡaɪ]
  f. OOwee [ˈu•wi]
  g. finkeyeyou [ˈfɪŋ•kɪ•jʊ•əʊ]
Participant Data Sheet

Participant #: 49  Age: 28  Sex: M  Linguistic Background: native speaker: English; beginning learner: Spanish, Italian, Latin

Question ID

A. smitch [smitʃ]: untrustworthy
B. jube [ʤuˈbɛ]: a mechanic’s tool
C. keeve [ˈkʰeɪv]: a peninsula
D. wam [wɔm]: exotic cuisine
E. easloff [ˈeɪsˌlɑf]: a ladder
F. kedid [ˈkʰɛ·ɾəd]: a type of wheat
G. mavar ['meɪ·væ]: a brand of makeup
H. eyeyu ['aɪ·juː]: a kitchen tool
I. narathooze ['næ·ɹə·Ɵuːz]: a philosopher
J. phillontave [ˈfɪ·ləntəv]: a tribal people
K. lulurode [ˈlu·lə·ɹɔd]: a tool for weaving
L. goxiwall [ˈɡɑk·sə·wɔl]: a type of adhesive
M. cengastumine [ˈsɪn·ˈɡæs·tə·maɲ]: a volatile chemical
N. poncrilader [ˈpʰɑŋ·kɹə·leɹɚ]: a device for measuring pressure or temperature
O. bowertilldew [ˌbɑ·wɚ·ˈtʰɪl·duː]: an infection of the bowels
P. chocksheeeble [ˈtʃɑ·kks·ʃə·bi·bəl]: a tool used by native people for hunting
Q. whoagsafflerick [ˈwɔ·ɡˌzæ·fəl·ɹɪk]: a long sword
R. tobecraydrub [tʰoʊ·bə·ˈkɹeʲ·dɹuː]: a catatonic condition

Definitions Requiring Words

S. the wad of hair removed when cleaning a hairbrush: GUNKsis [ˈɡʌŋk·sɪs]
T. the grease that accumulates on top of a hot pizza: splag [ˈsplæg]
U. an unexpected cool breeze on a sultry day: SWIFTur [ˈswɪftə]
V. the feeling experienced by a death-row inmate after being pardoned or exonerated: ekSPUHLshis [ɛk·ˈspʊł·ʃɪs]
W. a feeling of extreme disappointment: SPRAsis [ˈspɹæ·sɪs]
X. the feeling of being woken in the middle of the night by a strange noise: klahSTOWD [klɑ·ˈstaʊd]
Y. the name of the remotest island on earth: ekSPLEET [ɛk·ˈspliʲt]

Images Requiring Words

Participant Data Sheet

Participant #: 50  Age: 19  Sex: M  Linguistic Background: native speaker: English; intermediate learner: French

Question ID

A. smitch [smitʃ]: sly
B. jube [dʒuːb]: to take
C. keeve [kʰiv]: to think about
D. wam [wɔm]: confused
E. easloff ['iːzˌlɔf]: a backyard deck
F. kedid [kʰid]: excited
G. mavar ['meɹ·vɔɹ]: complex
H. eyeyu ['aɹ·ju']: a meditation or prayer
I. narathooze ['nær·æ·ˈθu·zəz]: a competition
J. Phillontave ['fɪ·ləntəv]: a measuring device, like a beaker
K. lulurode ['lu·lə·ɹəd]: oil
L. goxiwall ['ɡɑk·sə·wɔł]: a strategic maneuver
M. cengastumine [sɪn·ˈɡæs·tə·ˈmæn]: to startle or surprise
N. poncider [pəˈnɔɾ·də]: a grater or bulldozer
O. bowertilldew [ˌbə·ˈtɪld·dɛɾ]: a soft part of the human body, like the earlobe
P. chocksheeble [ˈtʃɔks·hi·bəl]: to be cocky
Q. whoagsafflerick [ˈwɔ·ɡə·ˈzæ·fəl·rɪk]: aggressive
R. tobecraydrub [ˈtʰo·bə·ˈkɹeʲ·dɹəb]: stylish

Definitions Requiring Words

S. the wad of hair removed when cleaning a hairbrush: GLAHMshin  ['ɡlɑm·ʃɪn]
T. the grease that accumulates on top of a hot pizza: kwag [kʰwæg]
U. an unexpected cool breeze on a sultry day: rahSHOWvees [ˈrɑ·ˈʃə·ˈvɪ·əs]
V. the feeling experienced by a death-row inmate after being pardoned or exonerated: ahlbichooLAYshun  [ɑːl·bɪ·ˈʃu·ˈleʲ·ʃən]
W. a feeling of extreme disappointment: suhSOWnuhmis [sə·ˈsoʊ·nə·ˈmɪs]
X. the feeling of being woken in the middle of the night by a strange noise: huhFAYkwihtee [hə·ˈfeʲ·kwɪ·ɾɪ]
Y. the name of the remotest island on earth: boeNIHdeeuh [boʊ·ˈnɪ·ɾiʲ·ə]

Images Requiring Words

Z. duhFIHneeun [də·ˈfɪ·ni incontri]  a. kahlSHneeun [kɑl·ˈʃɪ·ni incontri]  b. ehlPHkwihtee [ɛ·ˈpʰɪ·kwɪ·ɾɪ]  c. kradGOnneuhn [kʰɾæd·ˈɡoʊ·ni incontri]  d. aluhSTAYshus [æ·ˈle·ˈsteɪ·ʃəs]  e. zimFREHtiik [zɪm·ˈfɹɛ·rɪk]  f. shmrahk [ʃmɹək]  g. DEVruhkaytud [ˈdɛv·rə·ˈkeʊ·tɹd]
Participant Data Sheet

Participant #: 51  Age: 38  Sex: F  Linguistic Background: native speaker: English; fluent speaker: French, Spanish; beginning learner: Italian

Question ID

Words Requiring Definitions

A. smitch \([\text{smitʃ}]\): to stain something
B. jube \([\text{dʒu}^*\text{b}]\): a candy like a jelly bean
C. keeve \([\text{k}^\text{h}^*\text{v}]\): to break something in half
D. wam \([\text{wam}]\): to cuddle up with a blanket
E. easloff \([\text{i}^\text{ʃ}^*\text{b}]\): to purposefully not do something
F. kedid \([\text{k}^\text{h}^*\text{d}]\): incomprehensible
G. mavar \([\text{m}^*\text{v}^*\text{a}]\): something very far away
H. eyeyu \([\text{a}^*\text{...}]\): someone very nice
I. narathooze \([\text{na}^*\text{...}]\): to daydream
J. phillontave \([\text{f}^*\text{i}^*\text{...}]\): to put something on a shelf
K. lulurode \([\text{l}^*\text{u}^*\text{...}]\): to meander
L. goxiwall \([\text{g}^*\text{x}^*\text{...}]\): to glue something together
M. cengastumine \([\text{s}^*\text{i}^*\text{...}]\): to talk nonstop
N. poncrilader \([\text{p}^*\text{n}^*\text{...}]\): earthenware
O. bowertilldew \([\text{b}^*\text{o}^*\text{...}]\): to be obsequious
P. chocksaheeble \([\text{t}^*\text{c}^*\text{...}]\): to run over something in the road
Q. whoagsafflerick \([\text{w}^*\text{o}^*\text{...}]\): to be lazy on the sofa
R. tobecraydrub \([\text{t}^*\text{b}^*\text{...}]\): to snack

Definitions Requiring Words

S. the wad of hair removed when cleaning a hairbrush: SHIHfur \([\text{ʃi}^*\text{f}]\)
T. the grease that accumulates on top of a hot pizza: GREHtul \([\text{ɡr}^*\text{...}]\)
U. an unexpected cool breeze on a sultry day: kuhNESsur \([\text{k}^*\text{n}^*\text{...}]\)
V. the feeling experienced by a death-row inmate after being pardoned or exonerated: zuhGREthuhrus \([\text{za}^*\text{...}]\)
W. a feeling of extreme disappointment: GAthuhkur \([\text{ɡa}^*\text{...}]\)
X. the feeling of being woken in the middle of the night by a strange noise: STRAHpul \([\text{st}^*\text{...}]\)
Y. the name of the remotest island on earth: buhDAHrhu \([\text{ba}^*\text{...}]\)

Images Requiring Words

Z. [SHWEHshur \([\text{ʃwe}^*\text{...}]\)]
A. [wahRAHvoo \([\text{wa}^*\text{...}]\)]
B. [SRAHNtee \([\text{sra}^*\text{...}]\)]
C. [GROWfahr \([\text{ɡro}^*\text{...}]\)]
D. [recMAHrhu \([\text{rɛcma}^*\text{...}]\)]
E. [vuhRAHnts \([\text{vua}^*\text{...}]\)]
F. [hooMAHrow \([\text{hu}^*\text{...}]\)]
G. [uhRAHtih \([\text{u}^*\text{...}]\)]
Participant Data Sheet

Participant #: 52  Age: 28  Sex: F  Linguistic Background: native speaker: English; fluent speaker: French; beginning learner: German

Question ID

Words Requiring Definitions

A. smitch [smitʃ]: a fleeting feeling
B. jube [ʤuːb]: a shade of yellow
C. keeve [kʰiv]: a canoe
D. wam [wɔm]: a skinny person (lady)
E. easloff [ɪz·lɔf]: a kite
F. kedid [kʰɛ·ɾɔd]: a shy person
G. mavar ['meɪ·vɔɾ]: a barge
H. eyyu ['aɪ·juː']: a child's toy
I. narathooze ['nær·əθuːz]: a natural passageway
J. phillontave ['fɪ·ləntəv]: a store that sells staples
K. lulurode ['luː·lə·ɹəd]: a baby blanket
L. goxiwall ['ɡɑk·sə·wɔl]: a reference book
M. cengastumine [sɪn·ˈɡæs·tə·maɲ]: an Indian spice
N. poncrilader ['pɔŋ·kɹə·lɛɾ]: a machine that tests air pressure
O. bowertilldew [ˈbɑ·wɚ·ˈtɪldə]: a very high mountain
P. chocksahcheble ['tʃoʊk·sɑ·kɪ·bɛl]: a food made from a mashed up root
Q. whoagsafflerick [wʊˈɡæ·fəl·ɹɪk]: the action of carjacking
R. tobecraydrub [tʰoʊ·bə·ˈkɹeɪ·drʊb]: a boxy, older kind of car

Definitions Requiring Words

S. the wad of hair removed when cleaning a hairbrush: KRAstur [ˈkʰɹæ·stɚ]
T. the grease that accumulates on top of a hot pizza: slash [slæʃ]
U. an unexpected cool breeze on a sultry day: blesh [blɛʃ]
V. the feeling experienced by a death-row inmate after being pardoned or exonerated: weel [wiʲł]
W. a feeling of extreme disappointment: bah [bɑh]
X. the feeling of being woken in the middle of the night by a strange noise: ahr [ɑɬ]
Y. the name of the remotest island on earth: pahr [pʰɑɹ]

Images Requiring Words

a. GAHRmin [ˈɡɑɹ·mɪn]
b. belv [bɛlv]
c. BAYluh [ˈbeɪ·lə]
d. time [tʰaˈmɛ]
e. karse [kʰaɹs]
f. fruhk [fɾɑk]
g. skwehl [skweɪ]
Participant Data Sheet

Participant #: 53  Age: 60  Sex: M  Linguistic Background: native speaker: English

Question ID

Words Requiring Definitions

A. smitch [smitʃ]: a tool used in a game
B. jube [dʒuˈbɛ]: movement to the left
C. keeve [kʰiv̠]: to hide away treasure as a kid
D. wam [wɔː]: balance
E. easloff [ˈiːsˌlɔf]: when a plane pulls back prior to takeoff
F. kedid [ˈkɛdid]: when you’re in the outfield and you try to get the ball but miss it
G. mavar [ˈmeɪr̥ˈvæ]: the process of applying a light skin of color to a canvas
H. eyeyu [ˈeɪjʊ]: underwear for either sex
I. narathooze [ˈnærəˈθuːz]: a trough in the earth
J. philloontave [ˈfɪloʊnˈtæv]: a piece of hardware that tightens down a lamp fixture
K. lulurode [ˈluːˈluːrəd]: a bright purple flower
L. goxiwall [ˈɡɔksəˈwɔl]: a last train stop village before reaching the big city
M. cengastumine [sɪnˈɡæstəˈmɪn]: a feeling a man gets when he loses his integrity
N. poncrilader [ˈpɔŋkrɪˈlʌdər]: a savvy move in poker
O. bowertilldew [ˌboʊəˈtɪldəw]: a way you negotiate according to our American cultural norms
P. chocksaheeble [ˈtʃɒksəˈhiːbəl]: the bend in a river where sediment has a collected and it makes the area un-navigable
Q. whoagsafflerick [ˈwɔgˌzæfəˈlɪk]: to fertilize using organic material
R. tobecraydrub [təˈbəˈkrɛdrəb]: a shallow body of water with lots of grass which provides shelter for ducks

Definitions Requiring Words

S. the wad of hair removed when cleaning a hairbrush: glahp [ɡlɑp]
T. the grease that accumulates on top of a hot pizza: GWAHRguhfide [ˈɡwɔːˌɡəˌfəd]
U. an unexpected cool breeze on a sultry day: luhVOOreus [løˌvoˌjoʊˌəs]
V. the feeling experienced by a death-row inmate after being pardoned or exonerated: ahsahWUSH [ɑˌsɑˌwʊʃ]
W. a feeling of extreme disappointment: WAHMpust [ˈwɑmˌpʊst]
X. the feeling of being woken in the middle of the night by a strange noise: uhLAHpuhd [əˌˈlæpʊd]
Y. the name of the remotest island on earth: heePEEzhioe [hɪˈpɪəˌʒiə]

Images Requiring Words

Z. a. b. c. d. e. f. g.
Participant Data Sheet

Participant #: 54 Age: 20 Sex: F Linguistic Background: native speaker: English; beginning learner: French, Spanish, Italian

Question ID

Words Requiring Definitions

A. smitch [smɪtʃ]: a pet toy for a cat
B. jube [dʒuːˈbəʊ]: a hand mixer
C. keeve [kʰɪəv]: a vase for flowers
D. wam [wɒm]: to throw a punch
E. easloff [ˈiːsləf]: a tool for cutting things in two like a saw
F. kedid [ˈkɛdɪd]: a type of bed, low to the ground and boxy
G. mavar [ˈmeɪvər]: a type of cornstarch
H. eyeyu [ˈaɪjə]: a peaceful, fishing Indian tribe
I. narathooze [ˈnærəθuːz]: to take something from
J. phillontave [ˈfɪləntəv]: an earth-tone color, like moss
K. luluurod [luːˈluːəˈroʊd]: a vegetable, like a pear, that grows on a vine
L. goxiwall [ˈɡɔksɪˌwɔːl]: an animal with scales and feet, like an iguana
M. cengastumine [ˈsɛnɡəstəˌmɪn]: wise and knowledgeable
N. poncilader [ˈpɒŋkɹəˌleɪdər]: a part of an engine, like the fuel injectors
O. bowertilldew [ˈbaʊərˌtɪldjuː]: a type of tree that produces only pine cones
P. chocksaheeble [ˈtʃɒksəˌhiːbəl]: a game involving coordination and chance, like twister
Q. whoagsafflerick [ˈwɔɡˌzæfəˈlɪk]: a duck habitat
R. tobecraydrub [tʰəˈkɹeɪˌdrʌb]: a leader in an African country, like a president

Definitions Requiring Words

S. the wad of hair removed when cleaning a hairbrush: thrudge [θrʌdʒ]
T. the grease that accumulates on top of a hot pizza: slihz [slɪz]
U. an unexpected cool breeze on a sultry day: whoom [wʰuːm]
V. the feeling experienced by a death-row inmate after being pardoned or exonerated: prikYOUNE [pɹɪˈkʰjʊn]
W. a feeling of extreme disappointment: blort [blɔrt]
X. the feeling of being woken in the middle of the night by a strange noise: RAKshuhnayte [ˈɹækʃəˌneɪt]
Y. the name of the remotest island on earth: FLINdurahld [ˈflɪnˌdʌrəl]

Images Requiring Words

Participant #: 55  Age: 21  Sex: M  Linguistic Background: native speaker: English; beginning learner: French

Question ID

A. smitch [smɪtʃ]: to cloister
B. jube [dʒuːb]: to throw
C. keeve [kʰɛːv]: a knife
D. wam [wɒm]: a type of currency
E. easloff [ɪːz·lɒf]: a principle or standard
F. kedid [kʰɛ·dɪd]: close together
G. mavar ['meɪ·vɔː]: an early, metal ship
H. eyeyu ['aɪ·juː']: a grey rabbit-like animal
I. narathooze ['nærə·θuːz]: a sea monster like Loch Ness
J. phillontave ['fɪ·lan·tʰɪv]: a leather-working tool
K. lulurode ['lu·la·ɾə·də]: a slingshot
L. goskwall ['ɡɔk·wɔl]: a computer part, something technical
M. cengastumine ['sɪŋ·ɛstə·mɪn]: an ocean trench
N. pocrilader ['pʰɔ·kɹɪ·le·də]: a hat a ruler might wear
O. bowertilldew ['bə·wɜ·tʰɪl·duː]: an ornate robe
P. chocksaheeble ['tʃɒk·sə·hi·bə]: an old piece of farming equipment, like for tilling
Q. whoagsafflerick [ˈwʊɡ·sæ·fə·lɪk]: a small fly
R. tobecraydrub [tʰə·bɛ·kɹe·dɹʌb]: a mountainous place, like Nepal

Definitions Requiring Words

S. the wad of hair removed when cleaning a hairbrush: skaz [skæz]
T. the grease that accumulates on top of a hot pizza: BLOOuhl ['bluːh]\nU. an unexpected cool breeze on a sultry day: pip [pʰɪp]
V. the feeling experienced by a death-row inmate after being pardoned or exonerated: ekSTROKE [ɛk·ˈstɹəʊk]
W. a feeling of extreme disappointment: shim [ʃɪm]
X. the feeling of being woken in the middle of the night by a strange noise: plam [pʰlæm]
Y. the name of the remotest island on earth: theLAHL [ðə·ˈlɑl]
Participant Data Sheet

Participant #: 56  Age: 21  Sex: M  Linguistic Background: native speaker: English; beginning learner: French

Question ID

Words Requiring Definitions

A. smitch [smɪtʃ]: a little bit of something
B. jube [dʒuˈbɛ]: a ball
C. keeve [kʰɪv]: a slick surface
D. wam [wɔm]: to make a noise
E. easloff ['iːzəf]: someone foreign who likes to read
F. kedid [kʰɛd]: skipped
G. mavar [ˈmeɹˈvaɹ]: an accident
H. eyeyu ['æɹˌjuː]: a skin irritation
I. narathooze ['næɹəˈƟuːz]: to sneeze
J. phillontave ['fɪləntəv]: watching something
K. lulurode ['luˌloɹəd]: doing something new
L. goxiwall [ˈɡɑksaˈwɔl]: a type of slime or sludge
M. cengastumine [ˈsɪŋəstaˌmiɲ]: an element
N. poncrilader [ˈpʰɑŋˌkrɪləd]: a machine that hammers
O. bowertilldew [ˈbəwəˌtɪldəʊ]: a castle
P. chocksaheeble [ˈtʃɑksəhiˈbɛl]: the handle on a drawer
Q. whoagsafflerick [woˈɡzæˌʃæflərɪk]: a system of pulleys
R. tobecraydrub [ˈtʰəˌkraɪdɹəb]: a large, plastic, box-shaped container

Definitions Requiring Words

S. the wad of hair removed when cleaning a hairbrush: DAKsik [ˈdæk·stɪk]
T. the grease that accumulates on top of a hot pizza: smlair [smlɛɹ]
U. an unexpected cool breeze on a sultry day: GAthee [ˈɡæ·θɪ]
V. the feeling experienced by a death-row inmate after being pardoned or exonerated: MLOUstig [ˈmlaʊˌstɪg]
W. a feeling of extreme disappointment: MAHRtahr [ˈmɑɹ·tɑɹ]
X. the feeling of being woken in the middle of the night by a strange noise: PLEKsik [ˈpʰlɛksɪk]
Y. the name of the remotest island on earth: KLAKtik [ˈklæk·tɪk]

Images Requiring Words

Z. VINC Etik [ˈvɪns·tɪk]
a. TYpoov [ˈtʰælːpuˈʊv]
b. BLAYthik [ˈbлеj·tɪk]
c. ZLAKtik [ˈzlæk·tɪk]
d. wampt [wæmpt]
e. BLAHRtee [ˈblɑɹ·ɾi]
f. RAKtiɪk [ˈræk·tɪk]
g. EYErup [ˈæɹ·ʃʊp]
Participant Data Sheet

Participant #: 57  Age: 20  Sex: M  Linguistic Background: native speaker: English; beginning learner: French

Question ID

Words Requiring Definitions
A. smitch [smitʃ]: a nerdy person without a lot of friends
B. jube [ʤuˈbɛ]: a fast dance with a lot of weird motions
C. keeve [kʰəˈvɛ]: a bland food that poor people would eat
D. wam [wəm]: an exclamation of astonishment
E. easloff [ˈeɪəslɑf]: a hearty sandwich with a dressing on it
F. kedid [kɛˈdɪd]: a type of shirt or blouse
G. mavar [ˈmeɹəˈvæɹ]: a profession available to many which is liberal arts-based
H. eyeu [ˈeɪju]: a tropical, fruity, alcoholic drink
I. narathooze [ˈnærəˈθuəz]: a medical instrument for internal x-rays
J. phillontave [ˈfɪləntəv]: a post-exercise snack
K. luluoro [luˈluɹəˈro]: a game that small children play at recess
L. goxiwall [ˈɡɑksəˈwɔl]: a small herbivore animal hunted for its meat
M. cengastumine [ˈsɪnəˈɡæstəˌmaɪn]: describes something unpleasant in the body, uneasiness
N. poncrilader [ˈpɑŋkɹəˌleɪɹə]: a device to mix drinks
O. bowertilldew [ˈbɔwəˌtɪlˈdju]: a light soup
P. choocksahcheeble [ˈtʃoʊksəˌhɛʃəˈblɛ]: a children’s game
Q. whoagsafflerick [ˈwɔʊɡˌsæfəˌlɪk]: a profession which requires math and science skills
R. tobecraydrub [tʰəˈbɛɹəˈdrʌb]: a small, wild animal, potentially dangerous, that some find cute

Definitions Requiring Words
S. the wad of hair removed when cleaning a hairbrush: GURzhuhrahn [ˈɡɚəˌræ̇hən]
T. the grease that accumulates on top of a hot pizza: lamBAYstoe [læmˈbeɪˌsto]
U. an unexpected cool breeze on a sultry day: MARish [ˈmærɪʃ]
V. the feeling experienced by a death-row inmate after being pardoned or exonerated: DENtul [ˈdɛnˌtʊl]
W. a feeling of extreme disappointment: MAHRlee [ˈmɑrli]
X. the feeling of being woken in the middle of the night by a strange noise: URLiuf [ˈɜɹˌliuf]
Y. the name of the remotest island on earth: druhGANtoe [ˈdrʊəˌɡænˌto]

Images Requiring Words
Z. a.
Z. b.
Z. c.
Z. d.
Z. e.
Z. f.
Z. g.
Participant Data Sheet

Participant #: 58  Age: 19  Sex: F  Linguistic Background: native speaker: English; beginning learner: French

Question ID

A. smitch [smitʃ]: a baseball
B. jube [dʒuˈbɛ]: happy
C. keeve [kʰiːv]: a robot
D. wam [wɔm]: big
E. easloff [ˈiʲz·lɔf]: a couch
F. kedid [ˈkʰɛ·ɾəd]: to do very well at something
G. mavar [ˈmeʰ·vaː]: a very bad person
H. eyeyu [ˈaʲ·juː]: a trash can
I. narathooze [ˈnæ·ɹə·ʔuːz]: a type of anesthesia
J. phillontave [ˈfɪ·lən·tʰeʲv]: somebody smart
K. lulurode [ˈluʷ·lə·ɹəd]: a type of toy
L. goxiwall [ˈɡɑk·sə·wɔl]: a big, mean monster, like Grendel
M. cengastumine [ˈsɪn·ˈɡæs·tə·maʲn]: a swordsman
N. poncrilader [ˈpʰɑŋ·kɹə·leʲ·ɾɚ]: a machine that stamps things
O. bowertilldew [ˌba·wɚ·ˈtʰɪl·duː]: something’s backside
P. chocksheeble [ˈtʃɑk·sə·hi·bəl]: pertaining to a rooster
Q. whoagsafflerick [ˈwʊg·ˈzæ·fəl·ɹɪk]: a torture chamber
R. tobecraydrub [tʰoː·bə·ˈkɹeʲ·dɹəb]: an above-ground cave

Definitions Requiring Words

S. the wad of hair removed when cleaning a hairbrush: CHEEnis [ˈtʃiʲː·nɪs]
T. the grease that accumulates on top of a hot pizza: SKRUMjuhs [ˈskɹʌm·ʤəs]
U. an unexpected cool breeze on a sultry day: LUMdahr [ˈlʌm·dɑɹ]
V. the feeling experienced by a death-row inmate after being pardoned or exonerated: PEEDmint [ˈpʰiʲd·ɪ·mɪnt]
W. a feeling of extreme disappointment: uhbl [ʌbl]
X. the feeling of being woken in the middle of the night by a strange noise: WUHdrahr [ˈwʌ·dɹɑɹ]
Y. the name of the remotest island on earth: kanTEEkur [kʰæn·ˈtʰiʲ·kɚ]

Images Requiring Words

AHRfiht [ˈɑɚɹ·fɪt]  RAYahr [ˈreʲ·ɑɹ]  EEvurneer [ˈiʲ·vɚ·niʲɹ]
urTASik [ə·ˈtʰæ·stɪk]
grihSAHR [ɡɹɪ·ˈsɑɹ]  GUNdoor [ˈgʌn·dɔɹ]  PIHjuhr [ˈpʰi·ʤɚ]  IHruhtahr [ɪ·ɹə·tɑɹ]
Participant Data Sheet

Participant #: 59  Age: 19  Sex: F  Linguistic Background: native speaker: English; beginning learner: French

Question ID

Words Requiring Definitions

A. smitch [smɪtʃ]: a small amount of something
B. jube [ʤuˈbɛ]: footwear for the rain
C. keeve [kʰɪv]: a small branch off a river
D. wam [wɑm]: a type of wide-brimmed hat
E. easloff [ɪˈzɔːf]: to cut something short
F. kedid [ˈkʰɛ·ɾəd]: a hard ball between the size of a softball and a basketball
G. mavar [ˈmeɹ·vaɹ]: to destroy something
H. eyeyu [ˈaɹ·ju]: a small, one-person boat
I. narathooze [ˈnæ·ɹə·Ɵuʔz]: to calm somebody down
J. phillovente [ˈfi·ɹənt·tʰev]: a tool like a pick used in archaeology
K. lulurode [ˈlu·ɾə·ɹəd]: a tribal dance
L. goxiwall [ˈɡɑk·sə·wɔł]: a construction tool for measuring
M. cengastumine [ˈsɪn·ˈɡæs·tə·maɲ]: to confuse or stump
N. poncrilader [ˈpʰɑŋ·kɹə·leɾɚ]: a time keeper, like a watch
O. bowertilldew [ˌba·wɚ·ˈtʰɪl·duː]: a type of wild plant, like a bush
P. chockaheeble [ˈtʃɑk·sə·hi·bəł]: something that helps find direction, like a map or a compass
Q. whoagsafflerick [ˈwəŋ·ˈɡæ·fə·ɾɪk]: something fantastic or amazing
R. tobecraydrub [tʰoʊ·bə·ˈkɹeʲ·drəb]: something sad or melancholy

Definitions Requiring Words

S. the wad of hair removed when cleaning a hairbrush: ZYlandul [ˈzaɹ·læn·dəl]
T. the grease that accumulates on top of a hot pizza: tyklairAHL [tʰaɹ·kɪˈlæ·ɹɑɫ]
U. an unexpected cool breeze on a sultry day: WIStran [ˈwɪs·tɹæn]
V. the feeling experienced by a death-row inmate after being pardoned or exonerated: ALTühray [ˈɑltə·ɹay]
W. a feeling of extreme disappointment: disTYEgoe [dɪs·tʰæ·ɹɪɡə]
X. the feeling of being woken in the middle of the night by a strange noise: WUNdurstun [ˈwʌn·də·ɹʊstən]
Y. the name of the remotest island on earth: ahpuhZOray [ɑ·pə·ˈzɔ·ɹeɾ]

Images Requiring Words

Z. LEHsunsoul [ˈlɛ·sən̩·soʊl]
 a. uhRAYzul [ɑ·ˈɹæ·ɪ·zʊɫ]
 b. dyTHNsun [daɹ·tʰɪn·sʊɲ]
 c. FYhue [ˈfæ·hjuː]
 d. suhRANnuh [sə·ˈɹæ·nə]
 e. vySINtay [vaɹ·ˈsɪn·teɪ]
 f. uhRANduh [ɑ·ˈɹæ·nə·da]
 g. kuhDYzul [kə·ˈdɑɹ·zʊɫ]
Participant #: 60  Age: 29  Sex: M  Linguistic Background: native speaker: Spanish; fluent speaker: English; intermediate learner: French; beginning learner: Italian

Question ID

A. smitch [smitʃ]: a small smudge
B. jube [ʤuˈbɛ]: something attention-grabbing
C. keeve [kʰʌv]: the manner in which two things fit together
D. wam [wɔm]: to steal
E. easloff ['iːz·lɔf]: to remove something
F. kedid [kʰɛˌɾɛd]: a manner of striking something
G. mavar ['meɹ·vaɹ]: a large structure, maybe for housing
H. eyeyu ['aʲ·juː']: a type of aquatic animal
I. narathooze ['nær·ə·ˈθuːz]: relates to the esophagus
J. phillontave ['fɪ·lə·tɛv]: done in a thorough manner
K. lulurode ['lu·ɭə·ɹəd]: a passageway
L. goxiwall ['ɡɑksə·wɔl]: a sturdy rock
M. cengastumine [ˈsɪn·ˈɡæs·tə·maɲ]: a disease where sweating is one of the symptoms
N. poncrilader ['pʰɑŋ·kɹə·leɹ]: something to punch through concrete
O. bowertilldew ['bə·wɜ·ˈtɪl·duɭ]: a mythical creature greatly revered in a civilization
P. chocksaheeble ['tʃɔk·sə·hi·bəɫ]: a wooden spear
Q. whoagsafflerick [ˈwɔŋ·ɡæ·fəˈlɛk]: terrific
R. tobecraydrub [tʰəˌbɛ·ˈkɹeɭəb]: a big, multi-purpose tub

Definitions Requiring Words

S. the wad of hair removed when cleaning a hairbrush: HAKEe [ˈhæk·li]
T. the grease that accumulates on top of a hot pizza: AKEsfil ['æk·sfɪl]
U. an unexpected cool breeze on a sultry day: REEkah ['rɪ·ˈka]
V. the feeling experienced by a death-row inmate after being pardoned or exonerated: rayLEEsah [re·ˈli·sa]
W. a feeling of extreme disappointment: maHOH ['ma·ˈhoʊ]
X. the feeling of being woken in the middle of the night by a strange noise: aHEE [ˈa·hi]
Y. the name of the remotest island on earth: bayreeSOsah [bə·ri·ˈso·sa]

Images Requiring Words

Participant Data Sheet

Participant #: 61  Age: 19  Sex: F  Linguistic Background: native speaker: English; beginning learner: French

Question ID

A. smitch [smɪtʃ]: to mix something up
B. jube [dʒuːb]: something lame-o
C. keeve [kʰɛːv]: a manner of working with wood
D. wam [wɔm]: your home
E. easloff [ɪːsˌlɒf]: an insult
F. kedid [kɛdɪd]: a type of bucket or container
G. mavar [ˈmeɪrəv]: pertaining to fabric
H. eyeyu [ˈaɪˌjuː]: a general place where kids hang out
I. narathooze [ˈnærəˌθuːz]: a Neanderthal
J. phillontave [ˈfɪləntəv]: something unnecessary
K. lulurode [ˈluˌluˌroʊd]: something that goes on and on and on
L. goxiwall [ˈgɑksiwɔl]: a weird (drinking) bar
M. cengastumine [ˈsɛnˌgæstəˌmaɪn]: a way of destroying something
N. poncrilader [ˈpɔŋˌkɾɪləd]: a machine for time travel
O. bowertilldew [ˈbɔˌwɛrtɪlˌdju]: a piece of farming equipment that plants seeds
P. chocksaheeble [ˈtʃɔksəˈhiːbəl]: a big furry monster that eats people
Q. whoagsafflerick [ˈwɔˌgæsəˌfərɪk]: a machine to help you do your hair
R. tobecraydrub [ˈtəˈbɛkrɛədɹəb]: a new backpack that floats behind you

Definitions Requiring Words

S. the wad of hair removed when cleaning a hairbrush: JIHbrɪnaht [ˈdʒɪˌbrɪ·nɑt]
T. the grease that accumulates on top of a hot pizza: IZwahd [ˈɪz·wɔd]
U. an unexpected cool breeze on a sultry day: GOOPtuhn [ˈɡuʊp·tʊn]
V. the feeling experienced by a death-row inmate after being pardoned or exonerated: PAHjuhnahd [ˈpɑ·ʤə·nɑd]
W. a feeling of extreme disappointment: LADtunt [ˈlæd·tənt]
X. the feeling of being woken in the middle of the night by a strange noise: UNlit [ˈʌn·lɪt]
Y. the name of the remotest island on earth: MAHDsun [ˈmɑd·sʊn]

Images Requiring Words

Z. LOOBnaht [ˈluˌb̚·nɒt]  a. SAHmul [ˈsɑ·mʊl]  b. UPled [ˈʌp·lɛd]  c. BINSid [ˈbɪn·sɪd]

L. KEHNled [ˈkʰənˌlɛd]  e. TINsahnt [ˈtɪnˌsɑnt]

M. NAHZdahn [ˈnɑz·dɑn]  g. KAHMpow [ˈkʰəmˌpɔʊ]
Participant #: 62  Age: 19  Sex: F  Linguistic Background: native speaker: English, Urdu; beginning learner: French, Latin

Question ID

Words Requiring Definitions

A. smitch [smitʃ]: a tool like a hammer or a wrench
B. jube [ʤuːb]: a round, fruity candy
C. keeve [kʰiv]: a baby toy
D. wam [wɔm]: spicy chicken
E. easloff [ɪˈzɔ·bf]: a type of misbehavior
F. kedid [kʰɛ·rd]: to throw something away
G. mavar [ˈmeɪ·vaʊ]: something on a ship, maybe for navigation
H. eyeu [ˈaɪ·ju]: a fish or some other aquatic creature
I. narathooze [ˈnæ·ɹə·ˈƩuːz]: a type of lotion, soap or face wash
J. phillontave [ˌfɪ·ˈlɑn·tʰə·ˈvɛ]: a shoe, like a loafer
K. lulurode [ˈlu·ˈlə·ɹə·d]: a flower bed
L. goxiwall [ˈɡɑk·ˌsə·wɔl]: something old
M. cengastumine [sɪn·ˈɡæs·tə·ˈmaːn]: two things that are alike
N. poncrilader [ˈpʰɑŋ·kɹə·ˈleːrd]: a measuring device
O. bowertilldew [ˌba·ˈwɚ·ˈtʰɪl·dɹəb]: an electronic gadget for measuring
P. chocksaheeble [ˈtʃɑk·sə·ˈhi·ˈbɛl]: reminiscent of bamboo
Q. whoagsafflerick [ˈwɔ·ˈɡæ·sə·ˈfɛl·ɹɪk]: a small insect
R. tobecraydrub [tʰo·ˈbɛ·ˈkɹe·ˈdɹəb]: a large enclosed object

Definitions Requiring Words

S. the wad of hair removed when cleaning a hairbrush: SKUHfee [ˈskʌ·fiː]
T. the grease that accumulates on top of a hot pizza: CHEEyahz [ˈtʃi·jɑz]
U. an unexpected cool breeze on a sultry day: VOOhah [ˈvu·ˈhɑ]
V. the feeling experienced by a death-row inmate after being pardoned or exonerated: HAHfee [ˈhɑ·fiː]
W. a feeling of extreme disappointment: BIDno [ˈbɪ·də·ˈnoʊ]
X. the feeling of being woken in the middle of the night by a strange noise: TERno [ˈtɛɹ·noʊ]
Y. the name of the remotest island on earth: FAHrinz [ˈfɑ·ɹɪnz]

Images Requiring Words

Z. ZEErahd [ˈzi·ɹɑd]  a. dan [dæn]  b. WINair [ˈwɪ·nɛɹ]  c. breeYELzin [ˈbɹi·ˈjɛl·zɪn]
d. KAHNtruhp [ˈkʰɑn·ˈtɹəp]  e. PIKrain [ˈpʰɪk·ɹɛn]  f. burMAHRlin [ˈbɚ·maɪ·ˈlɪn]  g. feeDAHNzuh [fi·ˈdɑn·ˈzu]
Participant #: 63  Age: 19  Sex: F  Linguistic Background: native speaker: English; beginning learner: Spanish

Question ID

A. smitch [smitʃ]: a speck
B. jube [dʒuːb]: a blob of something
C. keeve [kʰiv]: a green fruit like a lime (NOT a kiwi)
D. wam [wɔm]: a baseball bat
E. easloff [ˈiːs·lɔf]: to ski
F. kedid [ˈkʰɛ·ɾəd]: skittish
G. mavar [ˈmeɾ·vaɾ]: to travel
H. eyeyu [ˈeɪ·juː]: a greeting
I. narathooze [ˈnæ·ɹə·ˈtuːz]: to read
J. phillontave [fɪ·lən·təˈveɪ]: to think
K. lulurode [ˈluː·lʊ·roʊd]: pink candy, like bubble gum
L. goxiwall [ˈgɑk·sə·wɔl]: to look at something
M. cengastumine [ˈsɪn·ˈɡæs·tə·maɪn]: to scratch
N. poncrilader [ˈpɑŋ·kɹə·leɾ]: a type of motorbike, like a dirt bike
O. bowertilldew [ˈbɑ·wɜ·ˈtɪl·də]: to be mean
P. chocksheeble [ˈtʃɑk·ʃə·bi]: to chop something
Q. whoagsafflerick [ˈwɔ·ɡæ·sə·ˈfɛ·lərk]: a raft
R. tobecraydrub [tʰə·ˈbɹɛ·ˈdrəb]: a big rock, like a boulder

Definitions Requiring Words

S. the wad of hair removed when cleaning a hairbrush: KEEruhshoo [ˈkʰiʲ·ɹə·ʃuː]
T. the grease that accumulates on top of a hot pizza: NEHsofil [ˈnɛ·soʊ·fil]
U. an unexpected cool breeze on a sultry day: ahWAHha [ɑ·ˈwɑ·hɑ]
V. the feeling experienced by a death-row inmate after being pardoned or exonerated: VEduhlil [ˈvɛ·də·lɪl]
W. a feeling of extreme disappointment: SASuhtur [ˈsæ·sə·ˈtʊə]
X. the feeling of being woken in the middle of the night by a strange noise: uhBAHtruh [ɑ·ˈbaʊ·ˈtrɪʊ]
Y. the name of the remotest island on earth: ahBOOwahaha [ɑ·ˈbu·wɑ·ˈhɑ]

Images Requiring Words

Z. vuhRAHnuh [və·ˈɹɑ·nə]
   a. LAHtuhkuh [ˈlɑ·ɾə·kə]
   b. PEHruhtahl [ˈpɛ·ɾʊˌtɑl]
   c. BURlah [ˈbɚ·lɑx]
   d. kahlahMOO [kɑ·lɑ·ˈmuʊ]
   e. ruhBUNduh [ˈrʊ·bʌŋ·də]
   f. SKEHtuhkai [ˈskɛ·ɾə·ˈkɑɪ]
   g. ZEHruhfa [ˈzɛ·ˈtʊə·ˈfɑ]
Participant Data Sheet

Participant #: 64  Age: 20  Sex: F  Linguistic Background: native speaker: English; beginning learner: Spanish

Question ID

A. smitch [smitʃ]: black
B. jube [dʒuˈbɛ]: vanilla coke
C. keeve [kʰɪv]: to jump
D. wam [wɔm]: to throw
E. easloff [iːsˈlɔf]: high
F. kedid [kʰɛ·ɾəd]: a blanket
G. mavar [ˈmeɪ·və]: a wire
H. eyeyu [ˈæ·jʊ]: bright
I. narathooze [ˈnæ·ə·θu·zə]: clothes
J. phillontave [ˈfɪ·ləntəv]: to pull
K. luluode [ˈlu·ə·dood]: erratic motion
L. goxiwall [ˈgɑk·sə·wɔl]: blocked in
M. cengastumine [sɪn·ˈɡæs·tə·mæn]: clouds
N. poncrilader [ˈpʰɑŋ·kɹə·leʲ·ɾɚ]: to poke
O. bowertilldew [ˌba·wɚ·ˈtʰɪl·duː]: a toilet
P. choocksheeble [ˈtʃɔk·sə·hi·bəl]: sweet
Q. whoagsafflerick [woʊˈg·ˈzæ·fəl·ɹɪk]: awake
R. tobecraydrub [tʰo·ˈbɪ·ɹɛ·bərub]: to hit

Definitions Requiring Words

S. the wad of hair removed when cleaning a hairbrush: OOVlah [ˈuʊv·lə]
T. the grease that accumulates on top of a hot pizza: HAllah [ˈhɑː·lə]
U. an unexpected cool breeze on a sultry day: myklahOO [maʲ·kla·ˈuʊ]
V. the feeling experienced by a death-row inmate after being pardoned or exonerated: aiYET [aʲ·ˈjɛt]
W. a feeling of extreme disappointment: uhrowKEE [oʊ·ˈrɔ·ˈkʰiː]
X. the feeling of being woken in the middle of the night by a strange noise: glice [ɡlaˈs]
Y. the name of the remotest island on earth: wole [woʊˈl]

Images Requiring Words


d. LAHRgow [ˈlɑɹ·ɡʊ]  e. PRAHklek [ˈpɾɑk·ltɛk]  f. WURrowbro [ˈwɔ·ɹəʊ·bɾoʊ]

g. GRAHblo [ˈɡɹæ·bɫʊ]
Participant Data Sheet

Participant #: 65  Age: 19  Sex: F  Linguistic Background: native speaker: English; beginning learner: French, Spanish

Question ID

Words Requiring Definitions

A. smitch [smitʃ]: to flash a smile
B. jube [ʤuˈbə]: a tube
C. keeve [kʰəv]: a weapon, like a dagger
D. wam [wɔm]: pertaining to a religious ritual
E. easloff [ˈiːzas·loʊf]: a plant like oleander
F. kedid [ˈkʰɛɹəd]: twisted together in a pile
G. mavar [ˈmeɹ·vaɹ]: a big ship
H. eyeyu [ˈaɹ·juɹ]: a fruit like a papaya
I. narathooze [ˈnæɹə·θuɹz]: nose medicine
J. philloantave [ˈfeɹ·θæn·təvə]: something sticky and gritty
K. luurode [ˈluɹə·doʊd]: fresh irises
L. goxiwall [ˈɡɑk·sə·ˈwɔl]: large, powerful castles, maybe with gargoyles
M. cengastumine [sɪn·ˈɡæs·tə·ˈmæn]: a strong, alcoholic drink
N. poncillerader [ˈpʰɑŋ·kɹə·ləɹdə]: a machine that shoots out balls
O. bowertilldew [ˈbɔɹ·tʰɪl·dɹəw]: a sailboat
P. choocksheeble [ˈtʃɑk·kɛ·hi·bəɬ]: reminiscent of a rodeo
Q. whoagsafflerick [ˈwɔɡ·ˈzæ·fəɬɹɪk]: pertaining to knitting
R. tobecraydrub [tʰoɹ·ˌbə·ˈkɹeɹəb]: reminiscent of hobbits because they’re short

Definitions Requiring Words

S. the wad of hair removed when cleaning a hairbrush: OOwuhlak [ˈuɹ·waɹ·læk]
T. the grease that accumulates on top of a hot pizza: SNILtee [ˈsniɹ·tɹi]
U. an unexpected cool breeze on a sultry day: TREELful [ˈtʰɹiɹ·fəɬ]
V. the feeling experienced by a death-row inmate after being pardoned or exonerated: shupt [ʃʌpt]
W. a feeling of extreme disappointment: LAduhn [ˈlæ·ɹən]
X. the feeling of being woken in the middle of the night by a strange noise: peekt [pʰiɹkt]
Y. the name of the remotest island on earth: AHmuhnahn [ˈɑ‧ma·nɑn]
Participant Data Sheet

Participant #: 66  Age: 19  Sex: F  Linguistic Background: native speaker: English; beginning learner: Spanish

Question ID

A. smitch [smitʃ]: a scratch
B. jube [dʒuˈbэ]: a tube in a ‘J’-form
C. keeve [kʰɪv]: leaves in the wind
D. wam [wam]: a splash
E. easloff [ɪˈzэ·bэf]: pertaining to ease and flow
F. kedid [kʰэ·rэd]: to hit something
G. mavar [ˈmeɻ·vэ]: to push something
H. eyeyu [ˈaɻ·juɻ]: an iron
I. narathooze [ˈnæ·ɻə·θэzɻ]: to influence someone
J. phillontave [ˈfr·ɻæn·tэ·vэ]: to film someone
K. lulurode [ˈlu·ɻə·joʊdэ]: to swerve down the road
L. goxiwall [ˈɡɑk·sэ·wɔɻ]: to make a weird noise
M. cengastumine [sɪn·ˈgæs·tэ·maɻэ]: to write something
N. poncilader [pˈəŋ·kɻə·leɻ·ɻэ]: a technological device for pushing or opening things
O. bowertilldew [ˈbэ·wɻə·ˈtэl·dэ]: the capability to act
P. chooksheeble [ˈtʃэk·sэ·hi·bэɻэ]: being able to do something
Q. whoaassafflerick [ˈw̃ɡ·ˈzэ·ʃэ·ʃэ·ʃэ·ʃэ]: something woven
R. tobecraydrub [tʰэ·bэ·ˈkэ·rэ·dэ]: reminiscent of a cave

Definitions Requiring Words

S. the wad of hair removed when cleaning a hairbrush: skruhWOW [skə·ˈwэ·wэ]
T. the grease that accumulates on top of a hot pizza: skyur [skˈэ]
U. an unexpected cool breeze on a sultry day: WOOloo [ˈwu·ˈluɻ]
V. the feeling experienced by a death-row inmate after being pardoned or exonerated: NOwo [ˈno·ˈwoɻ]
W. a feeling of extreme disappointment: JOno [ˈʤэ·nэ·ˈnoɻ]
X. the feeling of being woken in the middle of the night by a strange noise: wowsh [ˈwэʃ]
Y. the name of the remotest island on earth: shuhRAH [ˈʃэ·ˈɹэ]

Images Requiring Words

Z. suhWED [ˈsэ·ˈwэdэ]
   suhROO [ˈsэ·ˈjuɻэ]
   suhWAID [ˈsэ·ˈweɻdэ]
   oash [ɔˈʃэ]
Participant Data Sheet

Participant #: 67  Age: 21  Sex: F  Linguistic Background: native speaker: English; beginning learner: Spanish

Words Requiring Definitions
A. smitch [smɪtʃ]: a thief
B. jube [dʒuˈbɛ]: to run
C. keeve [kʰɛv]: to dig
D. wam [wɑm]: to listen
E. easloff [ɪˈzəlf]: to eat
F. kedid [kɛdɪd]: popcorn
G. mavar [ˈmeɪ·vɑɹ]: a ship, like a yacht
H. eyeyu [ˈaɪ·juː]: the universe
I. narathooze [ˈnaɪ·θə·θuʊz]: the jungle
J. phillontave [fɪ·lɒ·ntə·væ]: to drop on the ground
K. lulurode [ˈluː·lə·roʊd]: curves, like in a road OR a rose
L. goxiwall [ˈɡɑk·sɪ·wɔl]: an old castle
M. cengastumine [sɪn·ˈɡɛn·stɔ·mɪn]: a human
N. poncrilader [ˈpɑn·krɪ·lɑdə]: destruction
O. bowertilldew [ˈbaʊ·ə·tɪ·ldw]:
P. chocksaheeble [ˈtʃɔk·sə·hi·bɛl]: chewy candy
Q. whoagsafflerick [ˈhuː·ɡæ·sæ·fɛ·lɪk]: a quilt
R. tobecraydrub [tʰoʊ·bɛ·ˈkɹɛ·drʌb]: evil

Definitions Requiring Words
S. the wad of hair removed when cleaning a hairbrush: sunBAlis [sʌn·ˈbæ·lɪs]
T. the grease that accumulates on top of a hot pizza: buhLAstik [bə·ˈlɑ·stɪk]
U. an unexpected cool breeze on a sultry day: LAwureez [ˈlæ·wʊ·rɛz]
V. the feeling experienced by a death-row inmate after being pardoned or exonerated: zoucht [zaʊ·tʃt]
W. a feeling of extreme disappointment: feen [fiən]
X. the feeling of being woken in the middle of the night by a strange noise: ZAvich [ˈzæ·vɪ·ʃ]
Y. the name of the remotest island on earth: zouVAR [zoʊ·ˈvɑɹ]

Images Requiring Words
Z. duhMOWSE [də·ˈmɔʊs]

a. LAzit [ˈlæ·zɪt]
b. SAreez [ˈsæ·ɹiʲz]
c. juhMEESH [dʒə·ˈmɪʃ]
Participant Data Sheet

Participant #: 68  Age: 19  Sex: M  Linguistic Background: native speaker: English; beginning learner: Spanish, Latin

Question ID

Words Requiring Definitions

A. smitch [smɪtʃ]: clapping
B. jube [ʤuˈbɛ]: a bathtub
C. keeve [kʰɪv]: a telephone
D. wam [wɒm]: to slap
E. easloff [ˈiːz-lɒf]: a powder room
F. kedid [ˈkʰɛ-diːd]: something to cook in, like a pan
G. mavar [ˈmeɪ-və]: grass
H. eyeyu [ˈeɪ-juː]: a swing
I. narathooze [ˈnær-ə-thuːz]: a bed
J. phillontave [ˈfɪl-ən-təv]: duct tape
K. lulurode [ˈluː-lə-roʊd]: cough medicine
L. goxiwall [ˈgɑk-ə-wɔl]: cotton ball
M. cengastumine [sɪn-ˈgæs-tə-maɪn]: a water heater
N. poncrilader [ˈpɑŋ-kɾɪlədər]: tongs
O. browertilldew [ˈbaʊ-ər-tɪλdəʊ]: tomorrow
P. chocksheebie [tʃɒks-ə-biː]: a horse barn
Q. whoagsafflerick [ˈwɔɡ-ˈzæf-əl-rɪk]: a way of saying “see you later”
R. tobecraydrub [tʰoʊ-ˌbɛ-krɛ-ə-ˈdʌb]: a type of cough syrup

Definitions Requiring Words

S. the wad of hair removed when cleaning a hairbrush: WAHthul [ˈwɑ·θʊl]
T. the grease that accumulates on top of a hot pizza: SAthul [ˈsæ·θʊl]
U. an unexpected cool breeze on a sultry day: loomf [luˈmɛf]
V. the feeling experienced by a death-row inmate after being pardoned or exonerated: AHthrow [ˈɑ·θɔʊr]
W. a feeling of extreme disappointment: SIMfuhno [ˈsɪm-fə·nəʊ]
X. the feeling of being woken in the middle of the night by a strange noise: KRATHul [ˈkʰræ·θʊl]
Y. the name of the remotest island on earth: DEHzuhmd [ˈdɛ·zəm]

Images Requiring Words

Z. WAHthul [ˈwɑ·θʊl] 
          a. RIMfum [ˈrɪm·fʊm] 
          b. AHkul [ˈɑ·kʊl] 
          c. PARthum [pʰɑɹ·θʊm]

          d. SMURthur [ˈsmər·θʊr] 
          e. URdum [ˈɜ·dʊm] 
          f. SKAthum [ˈskæ·θʊm] 
          g. KREEdul [ˈkʰɹi·dʊl]

385
Participant Data Sheet

Participant #: 69  Age: 19  Sex: F  Linguistic Background: native speaker: English; beginning learner: French, Latin

Question ID

Words Requiring Definitions

A. smitch [smɪtʃ]: smelly
B. jube [ʤuˈbə]: jelly
C. keeve [kʰɪv]: mysterious
D. wam [wɑm]: a type of fruity gum
E. easloff [ˈiːlˌɑs]: an apartment
F. kedid [ˈkʰɛdɪd]: a doll
G. mavar [ˈmeɪvə]: escargot
H. eyeyu [ˈɛjɪː]: a board game
I. narathooze [ˈnærəθuːz]: Native American clothing
J. philontave [ˈfɪləntəv]: a biologist
K. lulurode [ˈluːləroʊd]: a swing dance
L. goxiwall [ˈɡɔkɪwɔl]: a ghost
M. cengastumine [sɪnˈɡæstəmɪn]: an extinct spider
N. poncrilader [ˈpɒŋkɹələdər]: a psychotherapist
O. bowertilldew [ˈbəʊətɪldə]: someone in charge
P. chocksheebhe [ˈtʃɔksɪˌʃiːbɪ]: performing a type of yoga
Q. whoagsafflerick [ˈhuæɡˌsæfəlɪk]: a color like dark blue
R. tobecraydrub [tʰəˈkɹeɪdrʌb]: a musical instrument, like the tuba

Definitions Requiring Words

S. the wad of hair removed when cleaning a hairbrush: pahd [pʰæd]
T. the grease that accumulates on top of a hot pizza: RIHzul [ˈɹɪzəl]
U. an unexpected cool breeze on a sultry day: wowld [wɑʊ ld]
V. the feeling experienced by a death-row inmate after being pardoned or exonerated: buhks [bʌhks]
W. a feeling of extreme disappointment: lad [læd]
X. the feeling of being woken in the middle of the night by a strange noise: IKEtin [ˈaɪkɪtɪn]
Y. the name of the remotest island on earth: WOOdoe [ˈwuːdə]

Images Requiring Words

Participant Data Sheet

Participant #: 70  Age: 19  Sex: F  Linguistic Background: native speaker: English; beginning learner: Spanish

Question ID

A. smitch [smitʃ]: to go fetch something
B. jube [dʒuːbi]: a greeting
C. keeve [kʰəv]: an unpleasant person
D. wam [wɔm]: a small animal, like a domesticated dog
E. easloff [ɪz·lof]: a giraffe
F. kedid [kʰəd]: to leave
G. mavar [ˈmeɪ·vɜ]: a fruit like an orange
H. eyyu [ˈaɪ·ju]: a purse
I. narathooze [ˈnaː·ri·θuːz]: socks
J. phillontave [ˈfɪ·lənt·əv]: to run
K. luluode [ˈluː·lo·dəd]: to hang out
L. goxiwall [ˈgɑk·si·wɔl]: to be lazy
M. cengastumine [sɪn·ˈɡæs·tə·maɪn]: to think deeply
N. poncrilader [pʌŋ·krɪ·là·də]: an intelligent person
O. bowertilldew [ˈboʊ·tɪl·də]: to procrastinate
P. choicksaheeble [ˈtʃɑk·sə·hi·bəl]: to be productive
Q. whoagsafflerick [ˈwəʊ·ɡs·ˈæ·fə·lɪk]: something amazing
R. tobecraydrub [tʰə·ˈkɹe·drəb]: to call a duck

Definitions Requiring Words

S. the wad of hair removed when cleaning a hairbrush: FUMbahr [ˈfʌm·bɑr]
T. the grease that accumulates on top of a hot pizza: GOOMbuh [ˈɡuːm·bə]
U. an unexpected cool breeze on a sultry day: SOOweesh [ˈsuː·wiʃ]
V. the feeling experienced by a death-row inmate after being pardoned or exonerated: grish [ɡɹɪʃ]
W. a feeling of extreme disappointment: JOOMbye [ˈʤuːm·baɪ]
X. the feeling of being woken in the middle of the night by a strange noise: ekSTRAYneeuh [ɛk·ˈstrɛ·ni·juə]
Y. the name of the remotest island on earth: KOOwith [ˈkʰuː·wɪθ]

Images Requiring Words

Z. a. flooEESH [fluː·ˈiʃ]  b. BREElite [ˈbriː·laɪt]  c. FLIMbee [ˈflɪm·bi]  d. suhKLEEzeeuh [sə·ˈkʰli·zə]  e. POYnuth [ˈpʰoʊ·nəθ]  f. SEElayg [ˈsi·leɪg]  g. HEEMlin [ˈhiːm·lɪn]
Participant Data Sheet

Participant #: 71  Age: 19  Sex: F  Linguistic Background: native speaker: English; beginning learner: Spanish

Question ID

A. smitch [smitʃ]: to quiet somebody
B. jube [dʒuˈbə]: a big, round rock
C. keeve [kʰəv]: a sudden movement
D. wam [wam]: describes a moaning noise
E. easloff [ˈiːs·lɔf]: a plain, wooden chair
F. kedid [ˈkʰə·ɾəd]: something that has been shortened
G. mavar [ˈma·vɑː]: a small, ground-dwelling mammal
H. eyeyu [ˈa·juː]: a country path
I. narathooze [ˈnæ·rə·θuːz]: a decongestant
J. phillontave [ˈfɪ·lən·tʰeʲv]: a light fixture like those you see in the movie theater
K. lulurode [ˈlu·lə·ɹəd]: a field on the plains with tall grass
L. goxiwall [ˈɡɑk·sə·wɔl]: a stained glass window
M. cengastumine [ˈsɪn·ˈɡæs·tə·mɪn]: an 18 wheeler
N. poncirilader [ˈpʰɑŋ·kɹə·leʲ·ɾə]: a know-it-all
O. bowertilldew [ˈbə·wɜ·ˈtʰɪl·duː]: a lawn mower
P. chocksaheeble [ˈtʃɑk·sə·hi·bəl]: a kitchen table
Q. whoagsafflerick [ˈwɔ·ɡəs·ˈfæ·lɪ·ɾɪk]: a steamboat
R. tobecraydrub [tʰo·bə·ˈkɹeʲ·drəb]: a closet

Definitions Requiring Words

S. the wad of hair removed when cleaning a hairbrush: DAHsul [ˈdɑ·səɬ]
T. the grease that accumulates on top of a hot pizza: LYkreese [ˈla·kɹiʲs]
U. an unexpected cool breeze on a sultry day: SEEmuh [ˈsiʲ·mə]
V. the feeling experienced by a death-row inmate after being pardoned or exonerated: disTINshun [dɪs·ˈtɪn·ʃən]
W. a feeling of extreme disappointment: PURniks [ˈpʰɚ·nɪks]
X. the feeling of being woken in the middle of the night by a strange noise: NURjip [ˈnɚ·ʤɪp]
Y. the name of the remotest island on earth: GASlahn [ˈgæs·lɑn]

Images Requiring Words

Z. SEERguhn [ˈsɪl·ɹə·ɡən]
a. JESSlahv [dʒɛs·lɑv]
b. uhWEERdreh [a·ˈwi·ɹə·dɹə]
c. GREFuhr [ˈɡɹɛf·tɚ]
d. SHURwell [ˈʃɚ·wɛɬ]
e. KAMtuhn [ˈkʰæm·tən]
f. ANDurve [ˈæn·ɹə·və]
g. KRISlodge [ˈkʰɜ·lɑdʒ]
Participant #: 72  Age: 19  Sex: F  Linguistic Background: native speaker: English; intermediate learner: Latin; beginning learner: Spanish

Question ID

Words Requiring Definitions

A. smitch [smɪtʃ]: a small animal, like a squirrel
B. jube [ʤuˈbɛ]: a gathering place, maybe for worship
C. keeve [kʰɪv]: a computerized tool for making various types of calculations
D. wam [wʌm]: a wooden sailboat
E. easloff [ˈɛ·ɪzlɔf]: a soup with noodles, maybe homemade
F. kedid [kʰɛ·ɹɛd]: an athletic event similar to hopping and jumping
G. mavar [ˈmeɪ·vaɾ]: sharp medical tools
H. eyeyu [ˈaʲ·juː]: an animal like a bear that walks on two legs
I. narathooze [ˈnæ·ɹə·ɨz]: a bubbly, alcoholic beverage
J. phillontave [ˈfɪ·lən·tʰɛv]: toothpaste
K. luluode [ˈlu·lʊ·oʊd]: a disease of the lymph nodes
L. goxiwall [ˈɡɑk·sə·wɔl]: a tool used around the yard to dig things up or break up soil
M. cengastumine [sɪn·ˈgæs·tə·mən]: a medicine that treats abdominal pain
N. pomerilader [ˈpɔmə·lɛ·dɛɾ]: something that makes holes
O. bowertildeed [ba·wɔ·tɛ·lɪd]: a hot desert location
P. chockasheeble [ˈtʃɔk·sɨ·hi·bəl]: a portable display used in the stock market which shows the quotes
Q. whoaasiflerick [ˈwɔ·əsə·fɪ·lɛrɪk]: a building whose top is pentagonal, the columns are square and the structure is open like the Parthenon
R. tobecraydrub [tʰo·bɛ·kɹɛ·dɹəb]: a type of putty used by a sculptor

Definitions Requiring Words

S. the wad of hair removed when cleaning a hairbrush: gooSTAHbrah [guʷ·ˈstɑ·bɹɑ]
T. the grease that accumulates on top of a hot pizza: ahstAYnahday [ˈɑ·steɪ·nɑ·deɪ]
U. an unexpected cool breeze on a sultry day: hevuhndɪskahnee [hɛ·ˈvən̩·dɪskə·ni]
V. the feeling experienced by a death-row inmate after being pardoned or exonerated: MEEbret [ˈmiʲ·bɹɛt]
W. a feeling of extreme disappointment: ahBAHstay [ˈɑ·ˈbɑ·steɪ]
X. the feeling of being woken in the middle of the night by a strange noise: diskɛRtoe [dɪs·ˈkɛɹ·toʊ]
Y. the name of the remotest island on earth: duhbestuhTAHray [dɑ·ˈbɛ·tə·ˈtʰɑ·ɹɛ]
Participant #: 73  Age: 19  Sex: F  Linguistic Background: native speaker: English; beginning learner: French, Spanish

Question ID

A. smitch [smitʃ]: to be sarcastic
B. jube [ʤuˈbɛ]: a liquid, like oil
C. keeve [kʰɪv]: a green vegetable, like a pea
D. wam [wɔm]: something woven, like a basket or quilt
E. easloff [ˈɛsˌlofl]: walking
F. kedid [kʰɛˈrid]: a sport with balls
G. mavar [ˈmeɾˌvɔɾ]: a food like chocolate
H. eyeyu [ˈaɪˌju]: an internet research site, like Wikipedia
I. narathooze [ˈnæˌroʊz]: to influence someone
J. phillontave [ˈfiˌloʊntəv]: to find something you lost
K. lulurode [ˈluˌluˌroʊd]: a line of people
L. goxiwall [ˈgɑkˌsəwɔl]: to freak out
M. cengastumine [sɪnˈɡæstəˌmaɪn]: to experiment with chemicals
N. poncrilader [ˈpɔŋˌkɹɪlədər]: a chewy candy
O. bowertilldew [ˌboʊˌtɪld̪əw]: a RPG-type video game
P. choksasheeble [ˈtʃɑksəˈʃiːbl]: a type of rock, small and smooth
Q. whoagaflerick [ˈwʰəˌɡɑfləˈrik]: soft material, like cashmere
R. tobecraydrub [ˈtʰoʊˌbɛˌkɹeɪˌdrʌb]: something to be feared

Definitions Requiring Words

S. the wad of hair removed when cleaning a hairbrush: shuhSWOOzee [ʃəˌˈswuˈziː]
T. the grease that accumulates on top of a hot pizza: mahrKEE [mɑɹ·ˈkʰi]
U. an unexpected cool breeze on a sultry day: LANmahr [ˈlænˌmɑɹ]
V. the feeling experienced by a death-row inmate after being pardoned or exonerated: FLAsuhree [ˈflæˌsəˈrɪː]
W. a feeling of extreme disappointment: BAHRmin [ˈbɑɹˌmɪn]
X. the feeling of being woken in the middle of the night by a strange noise: KAHRNuhree [ˈkʰɑɹˌnʌriː]

Y. the name of the remotest island on earth: SEHkuhl [ˈsɛˌkʰʊl̩]

Images Requiring Words

Participant #: 74  Age: 21  Sex: F  Linguistic Background: native speaker: English; beginning learner: French

Question ID

A. smitch [smɪtʃ]: to snatch
B. jube [dʒuːb]: a glob of something
C. keeve [kʰɛv]: a swinging motion
D. wam [wɔm]: something that’s wet
E. easloff [ˈɛsɬɔf]: something that’s high up, like the top floor
F. kedid [ˈkɛdɪd]: something that’s riveted or studded
G. mavar [ˈmeɬ.vʌ]: an old boat with sails
H. eyeyu [ˈɛj.əj]: a small bird around parks
I. narathooze [ˈnær.əθuːz]: a category of tall people
J. phillomtave [ˈfɪləmtəv]: a videocassette
K. lulurode [ˈluɬ.əɹəd]: describes a human-powered mode of transportation
L. goxiiwall [ˈɡɒk.ɪwɔl]: the action of breaking something
M. cengastumine [sɪn.ˈɡæs.tə.mən]: a cavern
N. poncrilader [ˈpɔŋ.kɾɪləd]: a food like popcorn
O. bowertillde [bə.ˈtɪld]: a boss or leader, like a mayor
P. choxasaheeble [ˈtʃɒksə.ˈhɪbl]: to cook something in a wok
Q. whoagsafflereck [ˈwɔg.ˈzæfəl.ɾɛk]: a big, furry, wild, dangerous animal
R. tobecraydrub [ˈtəb.roʊkɛ.ˈdɪb]: a recliner with a footrest

Definitions Requiring Words

S. the wad of hair removed when cleaning a hairbrush: OOguhfish [ˈuːˌɡə.ﬁʃ]
T. the grease that accumulates on top of a hot pizza: KAHRduhklast [ˈkʰɑr.ɚ.klæst]
U. an unexpected cool breeze on a sultry day: SASSmiil [ˈsæs.mɪl]
V. the feeling experienced by a death-row inmate after being pardoned or exonerated: EKstuhboyce [ˈɛk.ɵ.ˌbɔɪs]
W. a feeling of extreme disappointment: hurRAW [hɚ.ˈɹəʊ]
X. the feeling of being woken in the middle of the night by a strange noise: slich [slɪtʃ]
Y. the name of the remotest island on earth: LOWfakul [ˈloʊ.ˌfæ.kəl̩]

Images Requiring Words

Participant Data Sheet

Participant #: 75  Age: 19  Sex: M  Linguistic Background: native speaker: English; beginning learner: French

Question ID

A. smitch [smɪtʃ]: a limping way of walking
B. jube [ʤuˈbɛ]: a small ball
C. keeve [kʰɛː]: a type of hearty soup
D. wam [wɔm]: a shouting way of speaking
E. easloff [ɪˈzɔˑf]: to pray
F. kedid [ˈkʰɛˑɾəd]: a how-to book
G. mavar ['meˑvə]: a big, automatic gun
H. eyeyu ['aˑjʊ]: a procedure done at the doctor’s office, like blood work and scanning
I. narathooze ['næˑəˑθuˑz]: a state of being numb
J. phillontave ['fɪˑλəˑtʌv]: reading
K. luluode ['luˑɑˑd]: a small, quaint town
L. goxiwall ['ɡɑkˑəˑwɔl]: vomiting
M. cengastumine [sɪnˑˈɡæsˑtəˑmæˑn]: to think
N. poncrilader ['pʰɑŋˑkɹəˑleˑɾɚ]: to push
O. bowertilldew [ˈbaˑwɚˑˈtɪlˑduˑw]: to be angry
P. chocksaheeble [ˈtʃɑkˑsəˑhiˑbəˑl]: to be confused
Q. whoagsafflerick [wɔˑɡˑˈzæˑfəˑlˑɹɪˑk]: a rave
R. tobecraydrub [tʰoˑbəˑˈkɹeˑdɹəb]: jumping in place

Definitions Requiring Words

S. the wad of hair removed when cleaning a hairbrush: GAHko ['ɡəˑkəˑ]
T. the grease that accumulates on top of a hot pizza: KREEtahd ['kʰəˑtəˑd]
U. an unexpected cool breeze on a sultry day: AHZfah ['əzˑfaˑ]
V. the feeling experienced by a death-row inmate after being pardoned or exonerated: DINtahrn ['dɪnˑtɑˑm]
W. a feeling of extreme disappointment: FEEgul ['fiˑgəˑ]
X. the feeling of being woken in the middle of the night by a strange noise: BAHLtuhz [ˈbɑɹˑtənˑz]
Y. the name of the remotest island on earth: TEEgo ['tʰiˑɡəˑ]

Images Requiring Words

Z. REKrahd ['reˑkˑəˑd]
 a.
 DIHful ['dɪˑfəˑ]
 b.
 KWAgal ['kʰwæˑɡəˑ]
 c.
 JAHRGundeen ['dʒɑɹˑɡəˑnˑd]
 d.
 FEEmuhl ['fiˑməˑ]
 e.
 BAHRTuhzsen ['bɑˑrˑtəˑzˑsn]
 f.
 kwah [ˈkwɔˑt]
 g.
 forst ['fɔˑst]
## Participant Data Sheet

Participant #: 76  
Age: 22  
Sex: F  
Linguistic Background: native speaker: English; beginning learner: French

### Question ID

<table>
<thead>
<tr>
<th>A. smitch [ˈsmɪtʃ]</th>
<th>a bat or racquet</th>
</tr>
</thead>
<tbody>
<tr>
<td>B. jube [dʒuˈbɛ]</td>
<td>a fast dance move that involves shaking the hips</td>
</tr>
<tr>
<td>C. keeve [kʰɛv]</td>
<td>a glass dish for storing cakes</td>
</tr>
<tr>
<td>D. wam [wɔm]</td>
<td>a word game</td>
</tr>
<tr>
<td>E. easloff [ɪˈæs·lɒf]</td>
<td>to flick water off of a surface</td>
</tr>
<tr>
<td>F. kedid [kʰɛdɪd]</td>
<td>mixed up words or thoughts</td>
</tr>
<tr>
<td>G. mavar [ˈmeɪ·vɑː]</td>
<td>a veterinary office or a kennel</td>
</tr>
<tr>
<td>H. eyeu [ˈæ·jjuː]</td>
<td>a type of building material</td>
</tr>
<tr>
<td>I. narathoose [ˈnær·ə·θuːz]</td>
<td>a nose medicine</td>
</tr>
<tr>
<td>J. phillontave [ˈfɪləntəv]</td>
<td>a soft, felt-like material</td>
</tr>
<tr>
<td>K. lulurode [ˈlu·lʊ·roʊd]</td>
<td>a piece of play equipment</td>
</tr>
<tr>
<td>L. goxiwall [ˈɡɑk·sə·wɔl]</td>
<td>something that gets stuck to the bottom of your shoe</td>
</tr>
<tr>
<td>M. cengastumine [sɪn·ˈɡæs·tə·mən]</td>
<td>something majestic or royal</td>
</tr>
<tr>
<td>N. poncrilader [ˈpʰɑŋ·kɹə·leʲ·ɾɚ]</td>
<td>an automated vacuum</td>
</tr>
<tr>
<td>O. bowertilldew [ˌbaw·ə·ˈtɪl·duʷ]</td>
<td>a thick food with big chunks</td>
</tr>
<tr>
<td>P. choocksahcheble [ˈtʃɑk·sə·hə·bəl]</td>
<td>hard, manual labor</td>
</tr>
<tr>
<td>Q. whoagsafflerick [ˈwɔ·ˈgæ·ʃə·fə·lɪk]</td>
<td>a dip in the landscape</td>
</tr>
</tbody>
</table>

### Definitions Requiring Words

| S. the wad of hair removed when cleaning a hairbrush: shoop [ʃuʊp] |
|----------------------|------------------|
| T. the grease that accumulates on top of a hot pizza: slahrf [slaɪrf] |
| U. an unexpected cool breeze on a sultry day: swill [swɪl] |
| V. the feeling experienced by a death-row inmate after being pardoned or exonerated: YOWlin [ˈjaʊ·lɪn] |
| W. a feeling of extreme disappointment: KRUMPlin [ˈkʰɹʌmp·lɪn] |
| X. the feeling of being woken in the middle of the night by a strange noise: URguld [ˈɚ·gəł] |
| Y. the name of the remotest island on earth: splihnk [splɪŋk] |

### Images Requiring Words

![MARsin](marzin.png)  
MARsin [ˈmɑɹ·sɪn]  
kwahn [kʰwɑːn]  
SPLIHnur [ˈsplɪ·nɜː]  
PAHrcoe [ˈpʰæ·rə·kəʊ]  
CAMlin [ˈkʰæm·lɪn]  
WOObuhlroop [ˈwu·bəl·roʊp]
Participant Data Sheet

Participant #: 77  Age: 23  Sex: F  Linguistic Background: native speaker: English; beginning learner: Spanish

Question ID

Words Requiring Definitions

A. smitch [smɪtʃ]: the little ball of lint in the pocket
B. jube [ʤuːb]: a shade of purple seen after the sun sets
C. keeve [kʰɪv]: the little area where you can slide a pen inside the ring of a spiral notebook
D. wam [wʌm]: the chair that gum is stuck under
E. easloff [ˈeɪ·lɒf]: a person who runs around the block with no shoes
F. kedid [ˈkɛ·dɪd]: the scent left after burnt popcorn
G. mavar [ˈmeɪ·vaɹ]: a line of hair care products
H. eyeYu [ˈæ·juː]: a dirty spot on a blanket
I. narathooze [ˈnæ·ɹə·Ɵʊz]: homemade nasal spray
J. phillontave [ˈfɪ·lɑːnt·əv]: the glue for tape or a post-it
K. lulurode [ˈlu·lʊ·ro·d]: a codename for when you break a window
L. goxiwall [ˈɡɑk·sə·wɔːl]: the act of restoring the heel of a worn-down sandal
M. cengastumine [sɪn·ˈgæs·tə·mɪn]: the grooves left in hardwood that comes from heavy furniture
N. poncirilader [pɔn·ˈkɪr·ɪ·læd]: a large aquatic animal smaller only than the whale
O. bowertilldew [ˌbɔ·wɜr·ˈtɪl·djuː]: the art of making small wooden animals
P. chocsaheeble [ˈtʃɔk·sə·hi·bəl]: the skill of leaping on stones that are far away from one another when crossing a creek
Q. whoagsafflerick [wɔ·ˈɡæs·fə·lɪk]: the art of having crumbs fall from the mouth to the beard forming little artistic symbols
R. tobecraydrub [tʰo·ˈbɹe·kɹə·duː]: the level ice filters reach when they need to be replaced

Definitions Requiring Words

S. the wad of hair removed when cleaning a hairbrush: LASpree [ˈlæs·prɪ]
T. the grease that accumulates on top of a hot pizza: SMAHGlin [ˈsmɑ·glɪn]
U. an unexpected cool breeze on a sultry day: JAYdumpree [ˈdʒeɪ·dʌmp·ɹɪ]
V. the feeling experienced by a death-row inmate after being pardoned or exonerated: BWINzuhn [ˈbwɪn·zən]
W. a feeling of extreme disappointment: SEEgunthahlurmin [ˈsi·gən·θə·lʊr·mɪn]
X. the feeling of being woken in the middle of the night by a strange noise: mazGOObul [mæz·ˈgʊ·bəl]
Y. the name of the remotest island on earth: ruhNEZmay [ˈrʊh·nɛz·meɪ]

Images Requiring Words

Z. MYOUZEkik [ˈmju·z·kɪk]

a. wahDROpuhn [ˈwɑ·dɾə·pʊn]
b. KASKuhnine [ˈkɑs·kə·nɪn]
c. BLEFfunkahr [ˈblɛ·fən·kɑɾ]
d. mahmunTEHrus [mɑ·ˈmʊn·tʰə·rʊs]
e. LIHMitsk [ˈlɪ·mɪtsk]
f. SOPunhaygun [ˈsə·pʊn·hɑ·ˈɡʊn]
g. murNESS [mɚ·ˈnes]
Participant Data Sheet

Participant #: 78  Age: 22  Sex: M  Linguistic Background: native speaker: English; advanced learner: Spanish; beginning learner: French, Arabic, Catalan, Portuguese

Question ID

A. smitch [smitʃ]: a car part, like a piston
B. jube [ʤuˈbə]: a brick or a cinderblock
C. keev [kʰiv]: a soft seat, like an airplane seat
D. wam [wɔm]: reminiscent of eggs
E. easloff [ˈiːəˌslov]: a spill
F. kedid [ˈkʰɛ·ɾəd]: cold
G. mavar [ˈmeɹ·vɔɾ]: a wing(s)
H. eyeyu [ˈaʲ·juː]: a pinhole
I. narathooze [ˈnæ·ɹə·ʊz]: therapeutic
J. phillontave [ˈfɪ·lən·tʰeʲv]: calm, easy, peaceful
K. lulurode [ˈlu·lə·ɹəd]: twisty
L. goxiwall [ˈɡɑk·sə·wɔl]: a pinwheel or a windmill
M. cengastumine [ˈsɪn·ˈɡæs·tə·maɲ]: something synthetic or false
N. poncrilader [ˈpʰɑŋ·kɹə·leʲ·ɾɚ]: a grinder
O. bowertilldew [ˌbə·wɚ·ˈtʰɪl·duː]: weird
P. choocksasheeble [ˈtʃəχ·sə·hi·bəl]: light (opposite of darkness)
Q. whoagsafflerick [ˈwɔɡ·ˈzæ·fəl·ɹɪk]: fun
R. tobecraydrub [tʰoˈbə·ˈkɹeʲ·dɹəb]: fat, gigantic

Definitions Requiring Words

S. the wad of hair removed when cleaning a hairbrush: AHKtlahn [ak·ˈtɮan]
T. the grease that accumulates on top of a hot pizza: SPANuk [ˈspæ·nək]
U. an unexpected cool breeze on a sultry day: VEErye [ˈvi·raʲ]
V. the feeling experienced by a death-row inmate after being pardoned or exonerated: AHbultah [ˈɑ·bəł·tɑ]
W. a feeling of extreme disappointment: panWAIR [pʰæn·ˈwɛr]
X. the feeling of being woken in the middle of the night by a strange noise: esTIpik [ɛs·ˈtɪ·pɪk]
Y. the name of the remotest island on earth: THINluh [ˈθɪn·lə]

Images Requiring Words

Z.  a.  b.  c.  d.  e.  f.  g.  
Participant Data Sheet

Participant #: 79  Age: 21  Sex: M  Linguistic Background: native speaker: English; beginning learner: French, Spanish

Question ID

Words Requiring Definitions

A. smitch [smitʃ]: a briar patch
B. jube [dʒuˈb]: a jelly-type substance
C. keeev [kʰiv]: a cutting motion
D. wam [wam]: to wade through water
E. easloff [ˈiː̃lɑːf]: pertaining to a castle
F. kedid [ˈkʰɛ·ɾəd]: a fruit gathering action
G. mavar [ˈmeɪ·vɑː]: a social gathering where dancing might occur
H. eyeyu [ˈaɪ·juː]: the color of ice when it gets dirty
I. narathooze [ˈnæ·ɹə·Ɵuːz]: a thick grained wood
J. phillontave [ˈfɪ·lən·tʰeʲv]: a thrusting action in ultimate frisbee or lacrosse
K. lulurode [ˈluː·ə·ɹə·od]: a shuffling movement
L. goxiwall [ˈɡɑk·sə·wɔł]: a traditional way in which beer is consumed
M. cengastumine [sɪn·ˈɡæs·tə·maɲ]: a type of valve in submarines
N. poncrilader [ˈpʰɑŋ·kɹə·leʲ·ɾɚ]: a vegetable juicer
O. bowertilldew [ˌba·wɚ·ˈtʰɪl·duː]: a barbed spear
P. chocksaheeble [ˈtʃɑk·sə·hi·bəl]: ground corn
Q. whoagsafflerick [ˈwəʊ·g·ˈz æ·fə·ʃeɾk]: a cleat on a wooden boat
R. tobecraydrub [tʰoː·ˈbɹɛ·ɹə·b]: two astral bodies colliding

Definitions Requiring Words

S. the wad of hair removed when cleaning a hairbrush: preets [pʰɹiʲʦ]
T. the grease that accumulates on top of a hot pizza: goosh [ɡuʃ]
U. an unexpected cool breeze on a sultry day: LAHzuhnfeer [ˈlɑ·zən̩·fiʲɹ]
V. the feeling experienced by a death-row inmate after being pardoned or exonerated: KAPungow [ˈkʰæ·pə·ภาวะ]
W. a feeling of extreme disappointment: uhRASthuhnoo [ə·ˈɹæs·ᵽə·>()]
X. the feeling of being woken in the middle of the night by a strange noise: JIHgurboun [ˈʤɪ·gɚ·baːn]
Y. the name of the remotest island on earth: suhRANtheen [sɚ·ˈɹæn·ɪ·ə]

Images Requiring Words

Z. jurRANtheeum [dʒuˈran·Θiː·ə]  a.  hoZAYuhtheen [hoʊ·ˈzɛ·ə·Θiːn]  b.  hoPLYneus [hoʊ·ˈplɪ·ə·ɪ·ə]  c.  bringe [brɪŋ]  d.  swahnt [swant]  e.  uhRANKnoo [ə·ˈɬeŋk·nuː]  f.  KYOUtuhlayus [kʰjuʊ·ɬe·ɪ·ə]  g.  forst [fɔːst]
Participant Data Sheet

Participant #: 80  Age: 19  Sex: M  Linguistic Background: native speaker: English; beginning learner: French, Spanish, Russian

Question ID

A. smitch [smitʃ]: to gain access to something
B. jube [ʤuˈbə]: an insult to lower class guys
C. keeve [kʰiv]: a special kind of knife
D. wam [wɔm]: a chair that sits very close to the ground
E. easloff [iˈẕl̩f]: a floor tile
F. kedid [kʰɛˈɾəd]: a door
G. mavar [ˈmeɾ·vaɾ]: a scientific measurement of electricity
H. eyeyu [ˈaɾ·ju]: a friendly greeting
I. narathooze ['næɾ·ə·θuˈzə]: descriptive of freezing cold
J. phillontave [ˈfɪ·lən·tʰəv]: a musical note in terms of pitch
K. lulurode ['luɾ·ə·ʃo̞d]: a trick involving flips
L. goxiwall [ˈɡɑk·sə·wɔl]: an engine part
M. cengastumine [sɪn·ˈɡæs·tə·maɾ]: a window with one large pane
N. poncrilader ['pʰɑŋ·kɹə·laɾ]: a tiny bone in the human foot
O. bowertilldew [ˌba·wɚ·ˈtʰɪl·duɾ]: a large, hand-operated digging instrument
P. chocksahrehle [tʃɑk·ə·ri·hə·baɾ]: the part of the chair that supports the arm
Q. whoagsafflerick [woˌɡ̊ẕˈæ·fəl·ɹɪk]: an inky part of the printing press
R. tobecraydrub [tʰoˌbə·ˈkɹeːdɹəb]: a suspended flower pot

Definitions Requiring Words

S. the wad of hair removed when cleaning a hairbrush: glulch [glʌltʃ]
T. the grease that accumulates on top of a hot pizza: smairt [smɛˈrt]
U. an unexpected cool breeze on a sultry day: ziks [zɪks]
V. the feeling experienced by a death-row inmate after being pardoned or exonerated: film [fɪlm]
W. a feeling of extreme disappointment: zahng [zɑŋ]
X. the feeling of being woken in the middle of the night by a strange noise: wift [wɪft]
Y. the name of the remotest island on earth: klant [kʰlɑnt]

Images Requiring Words

Z.  a.  b.  c.  d.  e.  f.  g.  

[laft]  [tʰɪz]  [soʰnt]  [gliˈʃ]  [kʰ’am]  [ʃwɑks]  ['rɑ·lə·kəl̩]
Participant Data Sheet

Participant #: 81  Age: 20  Sex: F  Linguistic Background: native speaker: English; beginning learner: French

Question ID

A. smitch [smtʃ]: soot
B. jube [ʤuːb]: glue
C. keeve [kʰiv]: a basket
D. wam [wɔm]: a sack
E. easloff [ɪˈzəf]: running
F. kedid [ˈkʰɛ·ɾəd]: a spoon
G. mavar [ˈmeɹ·vaɹ]: a box
H. eyeyu [ˈe·ju]: floating
I. narathooz [ˈnæ·ə·θuɹz]: driving
J. phillontave [ˈfɪ·lən·tʰeʲv]: a cloud
K. lulurode [ˈluɹ·ə·ɹəd]: a jump rope
L. goxiwall [ˈgɑk·sə·wɔl]: to stop
M. cengastumine [ˈsɪn·ˈgæs·tə·maʲn]: a shell
N. poncrilader [ˈpʰon·kɹə·leʲ·ɾɚ]: a thermostat
O. bowertilldew [ˈba·wə·ˈtʰɪl·duː]: a car
P. choocksahcheel [ˈtʃɑk·sə·hi·bəɫ]: to burn
Q. whoagsafflerick [ˈwɔŋ·ˈgæ·fəl·ɹɪk]: flat
R. tobecraydrub [tʰə·ˈkɹeʲ·drəb]: to sink

Definitions Requiring Words

S. the wad of hair removed when cleaning a hairbrush: looBAspurus [luʷ·ˈbæ·spɚ·ɹəs]
T. the grease that accumulates on top of a hot pizza: WAHNtay [ˈwɑn·teɪ]
U. an unexpected cool breeze on a sultry day: SEEtuh [ˈsɪl·ta]
V. the feeling experienced by a death-row inmate after being pardoned or exonerated: WAHNtie [ˈwɑn·taɪ]
W. a feeling of extreme disappointment: MANdee [ˈmæn·diː]
X. the feeling of being woken in the middle of the night by a strange noise: SAHRdzahr [ˈsɑɹ·ʣɑɹ]
Y. the name of the remotest island on earth: MAHNtie [ˈmɑn·taɪ]

Images Requiring Words

Z. BAHRDsoo [ˈbɑɹd·suʰ]
 a. SANsee [ˈsæn·sil]
 b. TOWNby [ˈtʰaʊn·baɪ]
 c. mahrTOO [ˈmɑɹ·tʰuɹ]
 d. ZEEvee [ˈziɻ·viɻ]
 e. RATsof [ˈrɑt·sof]
 f. KAHRtie [kʰəɹ·taɪ]
 g. BAHTHye [ˈbaθ·jaɪ]
Participant #: 82  Age: 19  Sex: M  Linguistic Background: native speaker: English

Question ID

A. smitch [smɪtʃ]: a mark, maybe on the wall
B. jube [dʒuˈbɛ]: a nickname for a fat friend
C. keeve [kʰiːv]: a cough or an illness
D. wam [wɔm]: deserted area
E. easloff [ˈiːs·lɔf]: to stop or relent
F. kedid [ˈkʰɛ·ɾɛd]: a long, orange fruit or vegetable, like a banana or a cucumber
G. mavar [ˈmeɾ·vɑː]: a big, vicious, hairy animal
H. eyyu [ˈaɾ·juː]: a small, saltwater fish
I. narathooze [ˈnær·ə·θuːz]: a race of tall, hairless people
J. phillontave [ˈfɪ·lə·ŋ·tɛːv]: a utensil, like a spatula
K. luluode [ˈluə·lʊ·dɛ]: a female article of clothing, like a long dress
L. goxiwall [ɡɑksəˈwɔl]: a medicine to help the elderly with their hearts
M. cengastumine [sɪn·ˈɡæs·tə·mæn]: a saw that a surgeon would use
N. pencerilader [ˈpɛn·sɛ·rɪ·le·dɛ]: an instrument for finding heart murmurs
O. bowertilldew [ˌba·wɛ·ˈtɪl·djuː]: an instrument to clean out the intestines
P. chocksaheeble [ˈtʃɑksæ·hɛ·bɛl]: a crushed up grain, maybe red in color
Q. whoagsafflerick [wɔ·ˈɡæs·fɛ·lɪk]: a large, evil monster
R. tobecraydrub [tʰə·ˈbɛ·ˈkɹɛ·dᵊb]: a giant mushroom

Definitions Requiring Words

S. the wad of hair removed when cleaning a hairbrush: SAHruhf [ˈsɑ·ɹəf]
T. the grease that accumulates on top of a hot pizza: MYOUloof [ˈmjuː·luːf]
U. an unexpected cool breeze on a sultry day: kuhLOOuh [kə·ˈluː·wə]
V. the feeling experienced by a death-row inmate after being pardoned or exonerated: ZAfuhrus [ˈzæ·fə·əs]
W. a feeling of extreme disappointment: DIFnahl [ˈdɪf·nɑːl]
X. the feeling of being woken in the middle of the night by a strange noise: reeKRAM [ɹiʲ·ˈkʰɹæm]
Y. the name of the remotest island on earth: reeSIHfuris [ɹiʲ·ˈsɪ·fɚ·ɪs]

Images Requiring Words

Z. MEENtow [ˈmiːn·təʊ]
   a. tooLHfuhrs [tʰuˈrɛ·lʊ·fɛ·əs]
   b. gwarduhMEEum [ɡwɑɹ·də·ˈmiːɨm]
   c. SKROOPchuhmeerd [ˈskɹu·p·tʃə·miːɹd]
   d. stuhLAH Fnun [stʊ·ˈlɑf·nʊn]
Participant Data Sheet

Participant #: 83  Age: 19  Sex: M  Linguistic Background: native speaker: English

Question ID

A. smitch [smɪtʃ]: something you write with
B. jube [dʒuːbə]: a ball
C. keeve [kʰɪv]: a storage place
D. wam [wɔːm]: to do something fast
E. easloff [ɪz·ə·fɔː]: a black sports car
F. kedid [kʰid]: a spice, like garlic
G. mavar [ˈmeɪ·vʊə]: a type of yellow flower
H. eyeyu [ˈaɪ·juː]: a highly absorbent material
I. narathooze [ˈnær·ə·θuːz]: an eraser
J. phillontave [ˈfɪ·ləntə·vɛ]: a mechanical pencil
K. lulurode [ˈluː·lə·roʊd]: a chair
L. goxiwall [ˈɡɒksi·wɔːl]: a green spherical vegetable
M. cengastumine [sɪn·ˈɡɛn·tə·mæn]: an artificial poisonous chemical
N. poncrilader [ˈpɒŋ·kɹɪ·də·rɛ]: a tool, like a hammer
O. bowertilldew [ˈbɒ·wɜrd·dɪ·lɛu]: type of helicopter
P. choocksheeble [ˈtʃʊk·ʃə·bi·bl]: a touchscreen desktop computer
Q. whoagsafflerick [ˈwaʊ·gə·sə·flə·rɪk]: a fishing boat
R. tobecraydrub [tʰə·bɛ·ˈkɹe·drʊb]: a box to store something in

Definitions Requiring Words

S. the wad of hair removed when cleaning a hairbrush: LEHsuhkul [ˈlɛ·sə·kəl]
T. the grease that accumulates on top of a hot pizza: DRIHpite [ˈdrɪ·paɪt]
U. an unexpected cool breeze on a sultry day: bryce [bɹaɪs]
V. the feeling experienced by a death-row inmate after being pardoned or exonerated: FLUHburbul [ˈflʌ·bɜrd·bəl]
W. a feeling of extreme disappointment: ZAPtolz [ˈzæp·tɔlz]
X. the feeling of being woken in the middle of the night by a strange noise: EErite [ˈɪ·ɹaɪt]
Y. the name of the remotest island on earth: NAvuhl [ˈnæ·vʊl]

Images Requiring Words

a. REHzite [ˈrɛ·zaɪt]
b. DANduhful [ˈdæn·də·fʊl]
c. mipe [ˈmaɪp]
d. KIHpee [ˈkʰɪ·pi]
e. DANdurful [ˈdæn·də·fʊl]
f. FLAkuhbul [ˈflæ·kə·bʊl]
g. kruhSTAYshus [kʰɹə·ˈsteɪ·ʃəs]
Participant Data Sheet

Participant #: 84  Age: 19  Sex: M  Linguistic Background: native speaker: English; beginning learner: French

Question ID

Words Requiring Definitions

A. smitch [smitʃ]: a short race of people
B. jube [ʤuːb]: a goofy person
C. keeve [kʰɛːv]: a mound
D. wam [wɔːm]: an awkward looking plant, almost a root, with pink flowers
E. easloff [ɪəsˈloth]: to skip fluidly
F. kedid [kʰɛdɪd]: swimming
G. mavar [mavər]: a large, Viking-like sailboat
H. eyeju ['ai.ə]: a greeting
I. narathooze ['naːrəθuːz]: a prescription sleeping pill
J. phillohtave [fɪ'lɒ·tɛv]: a close relative, like a brother
K. lulurode [luːˈlö.ɾəd]: a vacation
L. goxiwall [ˈɡɑk·sə·wɔːl]: a short woodland creature, like a koala
M. cengastumine [sɪnˈɡæs·tə·maɪn]: a bright orange mineral
N. ponerclar [ˈpɒnər·klær]: a street sweeper
O. bowertilldew [ˈboʊ·ə·tɪl·dɯ̱]: a turtle-like creature, but more agile and aggressive with longer legs
P. chocksaheeble [ˈtʃɔksə·hi·bəl]: a story passed down about ancestors
Q. whoagsafflerick [ˈwɔʊ·ɡæ·saf·lɪrɪk]: a ski lift
R. tobecraydrub [tuˈbə·kɾeɪ·drʌb]: to give somebody a kick

Definitions Requiring Words

S. the wad of hair removed when cleaning a hairbrush: GOOwahb [ˈɡuː·wɑːb]
T. the grease that accumulates on top of a hot pizza: SLOOburis [ˈsluː·bə·ɹɪs]
U. an unexpected cool breeze on a sultry day: KLINsurrite [ˈklɪn·sə·ɹaɪt]
V. the feeling experienced by a death-row inmate after being pardoned or exonerated: argoFLOOgus [əˈgoʊ·ˈfluː·ɡəs]
W. a feeling of extreme disappointment: BULLdahl [ˈbʊl·dɑːl]
X. the feeling of being woken in the middle of the night by a strange noise: LAHRgishe [ˈlɑːr·gɪʃ]
Y. the name of the remotest island on earth: LARZHbahld [ˈlɑːrʒ·bɑːl̩d]

Images Requiring Words

Z. SPORGnahsh [ˈspɔɹg·nɑʃ]  a. ahBYyah [ɑː·ˈbaɪ·ja]  b. WASHburdul [ˈwɑʃ·bɚ·ɾəl̩]  c. SHARkulnart [ˈʃɑɹ·kəɾ·nɑɹt]  d. KAHMbulnahsh [ˈkʰæm·bʊ·ɾə·ɹɪ·nɑʃ]  e. DARGnahdul [ˈdɑɹg·nɑ·ɾəld̩]  f. ZAHRglay [ˈzɑɹ·ɡlɛ]  g. PAHRtul [ˈpʰɑɹ·ɾəł̩]
Participant Data Sheet

Participant #: 85  Age: 19  Sex: M  Linguistic Background: native speaker: English; beginning learner: Spanish

Question ID

Words Requiring Definitions

A. smitch [smɪtʃ]: something subtracted from something else
B. jube [dʒuːb]: a general spherical object
C. keeve [kʰev]: to change
D. wam [wɒm]: to strike
E. easloff [ɪəsˈlɒf]: a charismatic way of acting
F. kedid [kɛdɪd]: taken aback
G. mavar ['meɪvə]: absent minded
H. eyeyu ['ɛiˈjuː]: a small percussion instrument
I. narathooze ['nærəˈθuːz]: ignorant
J. philmontav ['fɪlˌmɒntəv]: abstractly
K. lulurode ['luˈlʊrəd]: laid back
L. goxiwall ['ɡɔksiˈwɔl]: insane
M. cengastumine [ˈsɛŋəstəˈmjn]: euphoric effect
N. poncrilader [ˈpɒŋkriˈlədər]: something to cause absentmindedness
O. bowertilldezw [ˈbɔwərˈtɪlˌdəz]: a garden tool, like an aerator
P. chocksaheeble [ˈtʃɒksəˈhiːbl]: many
Q. whoagsafflerick [ˈhuːɡzæfəlˈrɪk]: a fictitious animal that is large, nocturnal, and winged

Definitions Requiring Words

S. the wad of hair removed when cleaning a hairbrush: GREHluhskyou [ˈɡɹɛhˌlʊxkju]
T. the grease that accumulates on top of a hot pizza: SKUDyoulye [ˈskʌdˌjuːˈlaɪ]
U. an unexpected cool breeze on a sultry day: WOOzhuhree [ˈwuˈʒəˈrɪ]
V. the feeling experienced by a death-row inmate after being pardoned or exonerated: WOOflissi [ˈwuˈflɪʃi]
W. a feeling of extreme disappointment: SAYgruhls [ˈseɪˌɡruːls]
X. the feeling of being woken in the middle of the night by a strange noise: FRITul [ˈfɹɪtˌʌl]
Y. the name of the remotest island on earth: SUKyoulow [ˈsʌkjuˈloʊ]

Images Requiring Words

Z. KRIHsuhnit [ˈkʰriˌsʊhnɪt]
   a. RAHlow [ˈrɔːlʊw]
   b. SWURmul [ˈswɜrˌmʊl]
   c. uhMETruhkuh [əˌmɛˈtɹəˈkʊh]
   d. SKRIMyuhhus [ˈskrɪmˌjʊhhus]
   e. TUGHułuhge [ˈtʌŋˈɡəluhɡ]
   f. smOOR [ˈsmɔˈjuər]
   g. WINdruhlu [ˈwɪnˌdɹəlu]
Participant Data Sheet

Participant #: 86  Age: 20  Sex: M  Linguistic Background: native speaker: English

Question ID

Words Requiring Definitions

A. smitch [smitʃ]: a studious person
B. jube [ʤuˈbː]: a new person on campus
C. keeve [kʰiv]: the guy who takes out the trash
D. wam [wɔm]: to fly
E. easloff [ˈiʲz·lɔf]: a slacker
F. kedid [ˈkʰɛ·ɾəd]: an aggressive person
G. mavar [ˈmeɾ·vaɾ]: a car salesman
H. eyeyu [ˈaˀ·ju̯]: an independent person
I. narathooze [ˈnæ·ɹə·Ɵuˀz]: a person who isn’t very smart
J. phillontave [ˈfɪ·lənt·əv]: a fat guy
K. lulu rode [ˈlu·lʊ·roʊd]: a speed bump
L. goxiwall [ˈɡɑk·sə·wɔl]: to drive a car
M. cengastumine [ˈsɪn·ˈɡæs·tə·maˀn]: to eat very fast
N. poncrilader [ˈpʰɑŋ·kɹə·leˀɾɚ]: a copy machine
O. bowertillde [ˈbɑ·wɚ·ˈtʰɪl·duˀ]: somebody that lays carpet
P. chocksaheeble [ˈtʃɑk·sə·hi·bəl]: a stump grinder
Q. whoagsafflerick [ˈwʊ·ɡ·ˈzæ·fəl·ɹɪk]: a flight attendant
R. tobecraydrub [tʰə·ˈkɹeʲ·drəb]: a medium sized, seasonal tree

Definitions Requiring Words

S. the wad of hair removed when cleaning a hairbrush: VAHNdurleeng [ˈvɑn·dɚ·leŋ]
T. the grease that accumulates on top of a hot pizza: ooweeKOOKshlow [ˈu·wɛ·kˈʃlʊ̃]
U. an unexpected cool breeze on a sultry day: WIHnuhlong [ˈwɪ·nʊ·lɒŋ]
V. the feeling experienced by a death-row inmate after being pardoned or exonerated: WOWkuhnfur [ˈwɑ·kwə·fər]
W. a feeling of extreme disappointment: WOOkuhree [ˈwu·kə·ɹiʲ]
X. the feeling of being woken in the middle of the night by a strange noise: TAIRshureeng [ˈtʰɛɹ·ʃʊ·ɹɪŋ]
Y. the name of the remotest island on earth: wong [wɔŋ]

Images Requiring Words

a. ROWfuhree [ˈɹo·fə·ɹiʲ]

b. TWILEfurvur [ˈtwa·lɹ·fə·ɹɪvə]

c. SWINzee [ˈswɪn·ziʲ]

d. HYponis [ˈhɑ·po·nɪs]

e. PLEKstul [ˈplɛk·stʊl]

f. STABvurnis [ˈstæb·və·ɹɪs]

g. HOlinzee [ˈho·lɪ·zɪ]
Participant Data Sheet

Participant #: 87  Age: 20  Sex: M  Linguistic Background: native speaker: English; beginning learner: French

Question ID

A. smitch [smitʃ]: digging holes
B. jube [dʒuˈbə]: a shopping cart
C. keeve [kʰəv]: to steal
D. wam [wəm]: to bounce
E. easloff [ɪˈzəf]: to rent, maybe a movie
F. kedid [kʰəd]: to catch
G. mavar [ˈmeɹ·vaɾ]: a type of tree, like a walnut
H. eyeu [ˈɛj·ju]: a car part, maybe a hose
I. narathooze [ˈnarə·θuːz]: confusion
J. phillohtave [ˈfɪ·lə·θə·və]: a type of glue
K. lulurode [ˈlu·lə·ɾə]: to run around
L. goxiwall [ˈɡɑk·sə·wɔl]: a type of caulk
M. cengastumine [sɪn·ˈɡæs·tə·mən]: radioactive chemical
N. poncilader [pɔnˈkələ·də]: an elevator part, maybe a gear
O. bowertilldew [ˈbow·ə·tɪl·də]: handicapped rail
P. chocksasheek [ˈtʃɔk·sə·hi·kə]: an ingredient in concrete
Q. whoaguflerick [ˈhu·wɑ·ɡə·flə·rɪk]: a side effect from a drug
R. tobecraydrub [tʰə·bə·ˈkreɪ·drəb]: a tool for spraying on fiberglass, like on a boat

Definitions Requiring Words

S. the wad of hair removed when cleaning a hairbrush: suhPUrnuh [sə·ˈpʰə·ɾə]
T. the grease that accumulates on top of a hot pizza: KAHluhfeen [kʰə·lə·fiˈn]
U. an unexpected cool breeze on a sultry day: teecTARnuh [tʰiˈtə·ɾə·nə]
V. the feeling experienced by a death-row inmate after being pardoned or exonerated: fruhTAMpuhlite [fɹə·ˈtæm·pə·lət]
W. a feeling of extreme disappointment: kuhKAHnuhruh [kə·ˈkʰə·nu·ɾə]
X. the feeling of being woken in the middle of the night by a strange noise: sisKAHneeu [sɪ·ˈskə·nə]
Y. the name of the remotest island on earth: owbuhNOOmuh [ə·ˈbə·nu·ˈnu·mə]

Images Requiring Words

muhKAHNdruh [mə·ˈkʰə·nə·də]
BRIHtuhnuh [ˈbɹɪ·tə·nə]
hahnuhNEEyuh [hɑ·ˈmə·ˈnə·lə]
ZIHburit [ˈzɪ·bə·ɹɪt]
Participant Data Sheet

Participant #: 88  Age: 29  Sex: F  Linguistic Background: native speaker: English; fluent speaker: German; beginning learner: French

Question ID

Words Requiring Definitions

A. smitch [smitʃ]: the skin of a broken branch
B. jube [ʤjuːb]: toe jam
C. keeve [kʰiːv]: a pinkish beige color
D. wam [wɔm]: muddy black ice
E. easloff [eɪsˈlɔf]: a suicidal person
F. kedid [kɛdɪd]: to talk fast
G. mavar ['meɹvə]: a flavor of ice cream: chocolate, toffee and coffee
H. eyeyu ['aɹ juː]: a rotten smell in the fridge
I. narathooze ['næɹəˈθuːz]: a dangerous switchback on a cliff
J. phillontave ['fɪləntəv]: a decorating style that is economical shabby-chic
K. luluode ['luɹəʊd]: to go off on a tangent when speaking
L. goxiwall ['ɡɑksəˈwɔl]: a person who stares a lot
M. cengastumine [ˈsɪn emulate]: a smooth water rock
N. poncrilader ['pɔnkrɪleɹdə]: a person who decorates animal cakes
O. bower till dew ['ˈbəwərtɪldəw]: a backyard party with a maypole
P. choctsheeble ['tʃɒktʃiːbə]: a relay game you play running from pole to pole
Q. whoagsafflerick [ˈwɔɡˌzæfəɬɹɪk]: describing an overdressed man
R. tobecraydrub [ˈtʰəbəˈkrɛdrəb]: yellow soap scum

Definitions Requiring Words

S. the wad of hair removed when cleaning a hairbrush: OLmish ['ɔl·mɪʃ]
T. the grease that accumulates on top of a hot pizza: SAHpid ['sɑ·pіd]
U. an unexpected cool breeze on a sultry day: FEHpul ['fɛpʊl]
V. the feeling experienced by a death-row inmate after being pardoned or exonerated: juhPIHruhmint [ʤə·ˈpʰɪ·ɹə·mɪnt]
W. a feeling of extreme disappointment: SAHNduhr ['sɑn·dɚ]
X. the feeling of being woken in the middle of the night by a strange noise: Akul ['ækəl̩]
Y. the name of the remotest island on earth: ooWAYyou [u·ˈweɹju]

Images Requiring Words

Z. FLAYyur ['fleɹ ˈjɔ]  a. JELbroom ['dʒelˌbruɹm]  b. PEEsum ['pʰɪlm]  c. MISHmish ['mɪʃ·mɪʃ]

D. LURlee ['lə·li]  e. BOONGkoo ['buɾŋ·kʊ]  f. AYlay ['ɛɹ·lɛɪ]  g. ahkseeFLAHKsee [ɔkˌsi·ˈflɔk·si]
Participant Data Sheet

Participant #: 89  Age: 19  Sex: M  Linguistic Background: native speaker: English; beginning learner: German

Question ID

Words Requiring Definitions

A. smitch [smitʃ]: a stain
B. jube [duːb]: a fruit, like an orange
C. keeve [kʰɛːv]: a straight line
D. wam [wɔːm]: a wild animal, like a mountain lion
E. easloff [iːsloːf]: grotesque
F. kedid [kʰɛːd]: to be able
G. mavar [moːvə]: stormy weather
H. eyeyu [ˈeɪˌjuː]: an ending
I. narathooze [ˈnæˌrɑːθuˌzɛ]: brilliant
J. phillontave [ˈfɪˌlɒnˈtæv]: a rhyme
K. lulurode [ˈluˌluˌrəd]: colorful
L. goxiwall [ˈɡɑksəˈwɔːl]: tactile or hands on
M. cengastumine [sɪnˈɡæsˌtəˈmaɪn]: an experiment
N. poncrilader [ˈpɔnˈkrɪləd]: a genre
O. bowertilldew [ˈbaˌwɜrtɪlˌduː]: to clean
P. choocksheeble [ˈtʃuˌkʃəˌbiːl]: a type of artificial lighting
Q. whoagsafflerick [ˈwɔˌɡæsˈfælˌrɪk]: a snack
R. tobecraydrub [ˈtəbˌkɹeˈdrʊb]: medicine, like antibiotics

Definitions Requiring Words

S. the wad of hair removed when cleaning a hairbrush: dreb [dʒɛb]
T. the grease that accumulates on top of a hot pizza: SILfuhr ['sɪl·fʊr]
U. an unexpected cool breeze on a sultry day: reese ['rɛs]
V. the feeling experienced by a death-row inmate after being pardoned or exonerated: tooBASTuhk ['tuˌbæˌstək]
W. a feeling of extreme disappointment: DRIHbul ['drɪˌbʊl]
X. the feeling of being woken in the middle of the night by a strange noise: LAMpur ['læmpər]
Y. the name of the remotest island on earth: EEkwee ['iˌkwiə]

Images Requiring Words

Z. TALKun [ˈtɔlkən̩]
a. muhLAY [məˈleɪ]
b. ahVAIR [əˌvɛr]
c. TEEful [ˈtʃiːfəl̩]
Participant Data Sheet

Participant #: 90  Age: 21  Sex: M  Linguistic Background: native speaker: English; beginning learner: Spanish, German

Question ID

Words Requiring Definitions

A. smitch [smɪʃ]: bitter tasting
B. jube [dʒuˈbɛ]: a gelatinous substance
C. keeve [kʰɛːv]: a large, jagged, free-standing rock
D. wam [wɑm]: a type of candy, chewy and sweet
E. easloff [ʃəl, bɹ]: a type bird with a long tail which is brightly colored
F. kedid [kʰɛdɪd]: to become angry with someone
G. mavar [məˈvɑː]: a color between light blue and lavender
H. eyeu [ˈaɪ·juː]: to look at someone puzzled
I. narathooze [nær·əˈθuːz]: somebody who doubts others
J. phillontave [ˈfi·lənt·ə·vɛ]: to preach at someone
K. lulurode [ˈlu·lu·roʊd]: to evade a question
L. goxiwall [ˈɡɔks·ə·wɔl]: to hit somebody with a bat
M. cengastumine [ˈsɪng·æ·stə·mɪn]: a parasitic insect that sucks blood
N. poncrilader [pənˈkɹɪ·lə·dər]: a new type of fuel pump for a car
O. bowertilldew [ˈba·wɜ·tɪld·wɛ]: a type of fungus
P. choacksheebe [ˈtʃɑks·ə·hi·bɛ]: an animal that lives in a rocky desert
Q. whoagsafflerick [ˈwɔ·ɡə·sə·fɪ·lɛrk]: a blanket used by people in cold places
R. tobecraydrib [təˈbɛ·kɹ·ɛ·dɪb]: a type of doily made of leaves and straw

Definitions Requiring Words

S. the wad of hair removed when cleaning a hairbrush: GRAsib [ˈɡɹæ·sɪb]
T. the grease that accumulates on top of a hot pizza: KISSmur [ˈkʰɪs·mɜː]
U. an unexpected cool breeze on a sultry day: KILLisp [ˈkʰɪ·lɪsp]
V. the feeling experienced by a death-row inmate after being pardoned or exonerated: KRISmuh [ˈkʰɹɪs·mə]
W. a feeling of extreme disappointment: DOWgur [ˈdɑ·wɜ·ɡɜː]
X. the feeling of being woken in the middle of the night by a strange noise: zuhLAST [zə·ˈlæst]
Y. the name of the remotest island on earth: kenTAHwur [kɛn·ˈtʰa·wɜː]

Images Requiring Words

Z. MAHNtihg [ˈmɑntɪg]
  a. klihDAIR [kliˈdæə]  b. TROObur [tɾuˈbʊr]  c. DI Gnahr [ˈdɪ·gnθ]
  d. GASNuH [ˈɡæs·nu]  e. SUMpahr [sʌmˌpʰær]  f. fooLANT [ˈfʊl·lænt]  g. KOONtahl [ˈkʰʊ·ntɒl]
Participant Data Sheet

Participant #: 91  Age: 19  Sex: M  Linguistic Background: native speaker: English; beginning learner: French, German

Question ID

A. smitch [smɪtʃ]: a mean person
B. jube [duˈbɛ]: to dodge
C. keeve [kʰɛ:ɹ]: to cut
D. wam [wɔm]: a large, black dog
E. easloff [ɪˈfɜːtʃ]: a cathedral-type church
F. kedid [kʰɛ·ɹd]: honest
G. mavar [ˈmeɪ·vaɹ]: to think
H. eyeyu [ˈa·jʊ]: a road
I. narathooze [ˈnæ·ɹə·Ɵuʷz]: a good wizard
J. phillontave [ˈfɪ·lən·tʰeʲv]: a battle
K. lulurode [ˈlu·lə·ɹəd]: a crazy person, like a schizophrenic
L. goxiwall [ˈɡɑk·sə·wɔɭ]: a bird, like a gull
M. cengastumine [ˈsɪn·ˈɡæs·tə·mən]: an ore, something that would be mined
N. poncrilader [ˈpʰɑŋ·kɹə·leʲ·ɾɚ]: a police detective
O. bowertilldew [ˌbə·wɚ·ˈtʰɪl·duː]: a medieval castle
P. chocksheeble [ˈtʃɑk·sə·hi·bəɭ]: a board game involving chance
Q. whoagsafflerick [ˈʊɡ·ˈzæ·fəɭ·ɹɪk]: ridiculous
R. tobecraydrub [tʰoʊ·bə·ˈkɹeʲ·dɹuɭ]: a shape with even sides, not circular

Definitions Requiring Words

S. the wad of hair removed when cleaning a hairbrush: GLUHblin [ˈɡʌ·blɪn]
T. the grease that accumulates on top of a hot pizza: linse [lɪns]
U. an unexpected cool breeze on a sultry day: LOOtun [ˈlu·tʊn]
V. the feeling experienced by a death-row inmate after being pardoned or exonerated: LIMfis [ˈlɪm·fɪs]
W. a feeling of extreme disappointment: uhKRIMshuh [ə·kʰɪm·ʃuɭ]
X. the feeling of being woken in the middle of the night by a strange noise: fuRUND [fə·ˈɹʌnd]
Y. the name of the remotest island on earth: RAHNduhlun [ˈɹɑn·də·ɭuŋ]

Images Requiring Words

Z.  a.  b.  c.  d.  e.  f.  g.
Participant #: 92  Age: 19  Sex: M  Linguistic Background: native speaker: English; beginning learner: Spanish, German

Question ID

A. smitch [smtʃ]: a smudge
B. jube [dʒuːb]: excitement
C. keeve [kʰiv]: a necessity
D. wam [wɔm]: to wonder or worry
E. easloff [iːz·əf]: to calm down
F. kedid [kʰε·rəd]: flawed
G. mavar [meɾ·vaɾ]: angry
H. eyeyu [aɾ·ju]: a greeting
I. narathooze [næ·ɹə·Ɵuːz]: to reassure
J. phillontave [fɪ·lən·tʰeʲv]: to take in, assimilate
K. luluode [lʊ·ɬo·d]: joyful
L. goxiwall [ɡɑk·sə·wɔl]: scared, anxious
M. cengastumine [sɪn·ˈɡæs·tə·maɾn]: an epiphany
N. poncrilader [pʰɑŋ·kɹə·leɾɚ]: to hit somebody
O. bowertilldew [ˌba·wɚ·ˈtʰɪl·duː]: surprised
P. chocksheeeble [tʃɑk·sə·hi·bəː]: to lift up or carry
Q. whoagsafflerick [wɔ·w·ˈgə·fə·ɬɪk]: to ponder
R. tobecraydrub [tʰo·bə·ˈkɹeʲ·drəb]: to think

Definitions Requiring Words

S. the wad of hair removed when cleaning a hairbrush: EEwatch [iː·wætʃ]
T. the grease that accumulates on top of a hot pizza: HAYrah [ˈheʲ·ɹɑx]
U. an unexpected cool breeze on a sultry day: CHEEow [ˈtʃiʲ·aˌw]
V. the feeling experienced by a death-row inmate after being pardoned or exonerated: eeKAH [iʲ·ˈkʰɑːh]
W. a feeling of extreme disappointment: sohm [soʊm]
X. the feeling of being woken in the middle of the night by a strange noise: rouk [ɹəʊk]
Y. the name of the remotest island on earth: uhLOUum [ə·ˈlaʊ·əm]

Images Requiring Words

Z. deeROUK [dɪ·ˈjaʊk]  a. RYbur [ə·ˈbaɾ]  b. vuHRAHM [və·ˈraːm]  c. KRAYshaahn [kʰə·ʃən]

d. KEErow [kʰə·ˈjaʊ]  e. CHEEahks [tʃɪ·kəks]  f. WEElunce [wɪ·lʌns]  g. olpθ [ɔlθ]
Participant #: 93  Age: 19  Sex: M  Linguistic Background: native speaker: English; beginning learner: German

Question ID

A. smitch [smitʃ]: an accomplice
B. jube [dʒuˈbɛ]: a sphere
C. keeve [kʰeːv]: to sink
D. wam [wam]: to hit
E. easloff [ˈeɪəlsf]: a nice person
F. kedid [ˈkʰɛˌdɛd]: something that repeats
G. mavar [ˈmeʊər]: chaos
H. eyeu [ˈeaɪu]: something that’s creepy
I. narathooze [ˈnærəθuːz]: a siphon
J. phillontave [ˈfɪləntəv]: a traitor
K. lulurode [ˈluˌluˌroʊd]: whimsical
L. goxiwall [ɡɔksɪˌwɔl]: thick
M. cengastumine [sɪnˈgæstəˌmɪn]: potent
N. poncrilader [ˈpɔnkrɪləd]: attentive
O. bowertilldew [ˈbaʊˌtɪldaʊ]: decisive
P. chocksheeble [ˈtʃɒksəˌðɛl]: something funny
Q. whoagsafflerick [ˈhuˌɡæsəˈfɛlɹɪk]: something that causes pain
R. tobecraydrub [ˈtuˌbɪˌkɹɛdɹəb]: large rocks, like mountains

Definitions Requiring Words

S. the wad of hair removed when cleaning a hairbrush: egZEStunce [ɪɡˈzɛstənz]
T. the grease that accumulates on top of a hot pizza: juhLEHstuhfee [dʒəlɛsˌstəˈfiʃ]
U. an unexpected cool breeze on a sultry day: KAHluhpree [ˈkʰɑˌləpʰɹiʃ]
V. the feeling experienced by a death-row inmate after being pardoned or exonerated: panGORik [pʰænˈɡɔˌrɪk]
W. a feeling of extreme disappointment: ahDALfee [əˈdælfɪʃ]
X. the feeling of being woken in the middle of the night by a strange noise: jesTINKshun [dʒɛˈstɪŋkʃən]
Y. the name of the remotest island on earth: kwinZASTik [kwɪnˈzæstɪk]

Images Requiring Words

d. swelp [swɛlp] e. DOElahkt [ˈdoʊlɑkt] f. jez [dʒɛz] g. TWINDul [tʰwɪndəl]
Participant #: 94  Age: 20  Sex: M  Linguistic Background: native speaker: English; beginning learner: German

Question ID

Words Requiring Definitions

A. smitch [smitʃ]: to mark on the wall
B. jube [dʒuːb]: a soup bowl
C. keeve [kʰɪv]: to pry somebody for help they shouldn’t be giving you
D. wam [wʌm]: when you hit two pens together really loud
E. easloff [iːz·lɒf]: to cut somebody off when driving by accident
F. kedid [kʰɛ·ɾid]: to be shy around your parents but outgoing around everyone else
G. mavar ['meɪ·vaɪ]: a single blade razor
H. eyeyu ['aɪ·juː]: a small bird, like a sparrow
I. narathooze ['næ·ɹə·Ɵuːz]: a product for the nose or sinuses
J. phillontave ['fɪ·ənt·əv]: to do something you didn’t mean to do and you realize it later
K. lulurode ['lu·ɹə·ɹəd]: the handle on top of a pan
L. goxiwall ['ɡɑk·sə·wɔl]: pure mayhem
M. cengastumine [sɪn·ˈɡæs·tə·maɪn]: when you don’t believe somebody because they are a liar
N. poncrilader ['pʰɑŋ·kɹɪ·ɾəd]: a car part, like an oil filter
O. bowertilidew ['bɑ·wɚ·ˈtɪl·dəw']: to push the snooze button on the alarm
P. chocksaheeble ['tʃɑk·sə·hi·bəl]: nonsense
Q. whoagsafflerick [ˈwɔ·ɡə·sə·fə·ɾɪk]: something crazy
R. tobecraydrub [tʰoʊ·ˈbɪ·ɾə·dəb]: a feeling of frustration

Definitions Requiring Words

S. the wad of hair removed when cleaning a hairbrush: ekSPARshun ['ɛk·ˈspɑɹ·ʃən]
T. the grease that accumulates on top of a hot pizza: SANyouwus ['sæn·juː·əs]
U. an unexpected cool breeze on a sultry day: WHYneeng ['wɪ·nɪŋ]
V. the feeling experienced by a death-row inmate after being pardoned or exonerated: eksFLESHtun ['eks·ˈflɛʃ·tən]
W. a feeling of extreme disappointment: RAGmuhlayduh [ˈræg·mə·leɪ·ɾə]
X. the feeling of being woken in the middle of the night by a strange noise: BAHNshoof ['bɑn·ʃuːf]
Y. the name of the remotest island on earth: PEEswahf [ˈpʰi·swɑf]

Images Requiring Words

Z.  a. [vi₁·nat]
    b. [sa₁·kan]
    c. [wɪn·ʃaŋ]
    d. [gɪl·nat]
    e. [kʰoʊ·wat]
    f. [ɪ·noʊz]
    g. [ʻaɪ·bɪ]
Participant #: 95  Age: 20  Sex: M  Linguistic Background: native speaker: English; beginning learner: French, German

Question ID

Words Requiring Definitions

A. smitch [smɪtʃ]: to cut off (lose) a toenail while stomping it
B. jube [dʒuˈbɛ]: to fall going up the stairs
C. keeve [kʰɪv]: to throw a hacky sack
D. wam [wɑm]: to complain
E. easloff [ɪˈzəft]: to perish
F. kedid [kʰɛˈɾɛd]: to declaw a cat
G. mavar [ˈmeɬˈvaɬ]: the first voyage on a new aircraft
H. eyeyu [ˈaɬˈjuʔ]: to see an old friend
I. narathooze [næˈɹəθuːz]: to drive off a cliff
J. phillontave [ˈfɪ·lɒntəv]: to put your shoes on without tying them
K. lulurode [luˈləɹəd]: when you drop a book
L. goxiwall [ˈɡɑk·sə·wɔːl]: to forget your name
M. cengastumine [sɪnˈɡæstə·mɪn]: to receive a donation
N. poncrilader [pʊˈnɛɹ·klɛd]: to think about a test you took earlier
O. bowertilldew [ˈbaˌwɛrtɪldəʊ]: to waste time
P. chocksasheeb [ˈtʃɒks·əˈʃiəb]: to make a cake
Q. whoaasafflerick [wəˈɡɛ·əˈfɛlɪk]: to watch a movie
R. tobecraydrub [təˈbe·kɾɛ·dɹəb]: to break a chair

Definitions Requiring Words

S. the wad of hair removed when cleaning a hairbrush: beɛRveɛ [bɪˈɛɹ·vɪɫ]
T. the grease that accumulates on top of a hot pizza: GAHfoo [ˈɡɑˌfuː]
U. an unexpected cool breeze on a sultry day: murDEEnuh [mɚˈdiːnə]
V. the feeling experienced by a death-row inmate after being pardoned or exonerated: HARnuhgoʊ [ˈhɑɹˌnədɹəʊ]
W. a feeling of extreme disappointment: FONGkway [ˈfɔŋ·kweɪ]
X. the feeling of being woken in the middle of the night by a strange noise: kuhnDERnoo [kənˈdɛɹ·nuː]
Y. the name of the remotest island on earth: kahndagway [kɑnˈdæ·ɡweɪ]

Images Requiring Words

Z. SWINdoo [ˈswɪn·duʊ]
SWAHRnukhm [ˈswəɹ·nə·kɑm]
inFAIRdus [ɪnˈfæɹ·ɹəs]
FAHRdahn [ˈfɑɹ·ɹɑn]
BAHluhkay [ˈbaˌlə·kɛ]'
RYnuhkin [ˈrɑɬ·nə·kɪn]
STAHNut [ˈstɑ·nət]
hyROOD [haˈɹuːd]
Participant #: 96  Age: 20  Sex: M  Lingsistic Background: native speaker: English; beginning learner: French, Spanish

**Question ID**

A. smitch [smitʃ]: somebody who makes art
B. jube [dʒu*ʒ]: a spherical shape
C. keeve [kʰeːv]: to make something out of wood
D. wam [wɔm]: to hit something hard
E. easloff [iːz*əːf]: a ladder
F. kedid [kʰɛːd]: something notched
G. mavar [meɪ*ˈvɑː]: to joke with your students
H. eyeyu [aɪˈjuː]: glasses
I. narathooze [naɾəˈθʊəz]: a type of medicine for arthritis
J. phillontave [ˈfɪlənˌtʰeːv]: a machine used to cut
K. lulurode [ˈluːləɹəd]: a game with a ball
L. goxiwall [ˈɡɔksəˈwɔːl]: a putty to form molds for repairs
M. cengastumine [sɪnˈgæsˈtəmɪn]: a type of chalky rock
N. poncrilader [ˈpʰɑŋkɾɪˈlɑdər]: a machine that moves heavy objects
O. bowertillde [ˈbəwəˈtɪlˈdə]: something used to cut grass
P. chocksaheeble [ˈtʃɔksəˈhiˈbəl]: a fence
Q. whoagsafflerick [ˈhuəgˈzafrəlɪk]: a type of canoe
R. tobecraydrub [ˈtəbəˈkɹeɪdɹəb]: a strong rope

**Definitions Requiring Words**

S. the wad of hair removed when cleaning a hairbrush: hahtahBOO [hɑ·tɑ·ˈbuʷ]
T. the grease that accumulates on top of a hot pizza: SUHLkuhn [ˈsʌl·kən̩]
U. an unexpected cool breeze on a sultry day: kuhTAHMooosh [kə·ˈtʰɑ·muʃ]
V. the feeling experienced by a death-row inmate after being pardoned or exonerated: flaBOO [flæ·ˈbuː]
W. a feeling of extreme disappointment: OOmus [ˈuː·məs]
X. the feeling of being woken in the middle of the night by a strange noise: TAtold [ˈtʰæ·tɔld]
Y. the name of the remotest island on earth: MOfaht [ˈmoʊ·ˈfɑt]

**Images Requiring Words**

Participant Data Sheet

Participant #: 97  Age: 47  Sex: M  Linguistic Background: native speaker: English; fluent speaker: French; beginning learner: Spanish

Question ID

A. smitch [smitʃ]: an interruption
B. jube [ʤuˈbɪ]: a round shape
C. keeve [kʰɪv]: a small, primitive dwelling
D. wam [wɒm]: a rough, sturdy, synthetic material
E. easloff [ˈiəz·lɒf]: a sleeping arrangement involving two or more palates
F. kedid [ˈkʰɛ·ɾəd]: a state of moribund flesh
G. mavar [ˈmeɪ·vaː]: a small mammal from Australia
H. eyeyu [ˈaɪ·juː]: a bead currency
I. narathooze [ˈnæ·ɹə·Ɵuːz]: the attempt to measure something’s dimensions approximately
J. philloantave [ˈfɪ·lənt·ɪv]: climbing up a rock
K. lulurode [ˈlu·lə·ɹoʊd]: a soft and frilly fabric
L. goxiwall [ˈɡɑk·sə·wɔl]: an anatomical part having to do with the circulatory system
M. cengastumine [sɪn·ˈɡæs·tə·maːn]: a chemical product used as a fire retardant
N. poncrilader [ˈpʰɑŋ·kɹə·leʲ·ɹɚ]: something to punch holes in metal
O. bowertilldew [ˌba·wɚ·ˈtʰɪl·duː]: descriptive of boggy soil, like in Scotland
P. chokszahche [tʃɑk·sə·ˈhɛ]: a regular polyhedron
Q. whoagsafflerick [ˈwɔŋ·ɡɛf·ɬɪːk]: somebody down on their luck or depressed
R. tobecraydub [tə·ˈbɛ·ɹə·dʊb]: an arrangement of leaves on a plant

Definitions Requiring Words

S. the wad of hair removed when cleaning a hairbrush: SKAPtha [ˈskæp·θə]
T. the grease that accumulates on top of a hot pizza: SKWILnif [ˈskwɪł·nɪf]
U. an unexpected cool breeze on a sultry day: ISSfahn [ˈɪs·fɑn]
V. the feeling experienced by a death-row inmate after being pardoned or exonerated: ASHlahf [ˈɑʃ·lɑf]
W. a feeling of extreme disappointment: KURgul [ˈkʰɚ·ɡəɫ̩]
X. the feeling of being woken in the middle of the night by a strange noise: VALsahn [ˈvæl·sɑn]
Y. the name of the remotest island on earth: siztk [sɪztk]

Images Requiring Words

Z. SWOolur [ˈswʊ·lʊɹ]  a. SWAHFnip [ˈswɑf·nip]  b. SOOLrik [ˈsu·ɹɪk]  c. ZUKfurl [ˈzʌk·fə·ɹəɫ̩]  d.  e.  f.  g.  URVlin [ˈʊ·ɹɪn]  MAHNkwah [ˈmɑn·kʰwɑt]  Rahnkhw [ˈɹɒn·kʰw ]  shreg [ʃɹɛɡ]
Participant Data Sheet

Participant #: 98  Age: 22  Sex: M  Linguistic Background: native speaker: English; beginning learner: German, Spanish

Question ID

A. smitch [smitʃ]: a type of grittiness
B. jube [ʤuːb]: a clear fluid
C. keeve [kʰiːv]: a green fruit, shaped like a banana but smaller
D. wam [wɒm]: something broad and concave, like a crater
E. easloff [ɛːsˈlɒf]: a type of noodle, like linguini
F. kedid [kʰəd]: an emotion of feeling mild coercion
G. mavar [ˈmeɪl·vaʊ]: a manufactured milk substance
H. eyeyu [ˈɛj·juː]: a situation where a problem cannot be resolved even though one person has complete power over all others
I. narathooze [ˈnær·əθuːz]: a sinus condition where the nasal passages are constricted
J. philontave [ˈfɪl·ənt·əv]: a spinning top that will influence people’s decisions, like a dreidel
K. lulurode [ˈluːləˈroʊd]: something that is permanently curled
L. goxiwall [ˈɡək·si·wɔːl]: a greenish orange color
M. cengastumine [sɪn·ˈɡæs·tə·miːn]: a manufactured compound in a prescription drug
N. poncrilader [pɔnˈkɹələdər]: a large machine that crushes rocks
O. bowertilldew [ˈboʊə·ˈtɪl·duː]: a 16th century men’s cloth hat
P. chocksahelveh [ˈtʃɒks·ə·hel·və]: somebody opposed to an idea even though they know it is the morally right thing to do
Q. whoagsafflerick [wɔʊˈgæs·ə·fɛlˈrɪk]: a steering implement for a boat or maybe an amphibious vehicle
R. tobecraydrub [təˈbɛ·rɛ·ˈkɹeɪ·drʌb]: a volcanic formation, different from a crater or a caldera

Definitions Requiring Words

S. the wad of hair removed when cleaning a hairbrush: SHARstuh [ˈʃɑɹ·stə]
T. the grease that accumulates on top of a hot pizza: mowb [moʊˈb]
U. an unexpected cool breeze on a sultry day: FLOOgish [ˈflʊ·ɡɪʃ]
V. the feeling experienced by a death-row inmate after being pardoned or exonerated: kuhPLAZmeeuh [kə·ˈpʰlæz·miːə]
W. a feeling of extreme disappointment: browd [bɹoʊd]
X. the feeling of being woken in the middle of the night by a strange noise: sihREENgheeuh [sɪ·ˈɹɪŋ·ɡə].
Y. the name of the remotest island on earth: barsuhLUH [bɑɹ·sə·ˈlʌ]

Images Requiring Words

Z. a. aGROWzuh [æ·ˈɡɹəʊzuh]
   b. LIHnul [ˈlɪ·nəl]
   c. wursh [wʊʃ]
   d. broamst [bɹəʊ·mst]
e. mihLAHNGE [mɪ·ˈlɑŋ·dʒ]
   f. kunGAHRdeeuh [kʊnˈɡɑːrdiː]
   g. ihKINzhuh [ɪ·ˈkʰɪŋ·ʒə]
   h. rolm [ˈɹɒlm]
Participant Data Sheet

Participant #: 99  Age: 20  Sex: M  Linguistic Background: native speaker: English; beginning learner: German, Spanish

Question ID

Words Requiring Definitions

A. smitch [smitʃ]: to snatch
B. jube [dʒuˈbː]: red
C. keeve [kʰəv]: an atoll
D. wam [wɔm]: a creek
E. easlof [iəˈsloʊf]: a bastion
F. kedid [kʰɛd]: a mule
G. mavar [ˈmeɪ·vɑː]: a coat of arms
H. eyeu [ˈai·juː]: natural light
I. narathooze [ˈnær·ə·θuːz]: a canal
J. phillontave [ˈfɪ·lɒn·tɛv]: a plateau
K. lulurode [ˈlu·lu·ɹ oʊd]: a forest
L. goxiwall [ˈɡɑk·sə·wɔl]: an axe
M. cengastumine [sɪn·ˈgæs·tə·ˈmaːn]: heraldry
N. poncrilader [pʰɔŋˌkɹɪ·ˈleː•rə]: moak [mɑʊk] (an unidentified word)
O. bowertilldew [ˈbɑ·wɜ·ˈtɪl·dɹ]: a storm
P. chocksheehle [ˈʃʊk·ς·hi·bæl]: a malevolent spirit
Q. whoagsafflerick [ˈho·ɡˌzæ·fəl·ɹɪk]: a traveler
R. tobecraydrub [ˈtʰo·bə·ˈkɹeɪ·dɹ]: a temple

Definitions Requiring Words

S. the wad of hair removed when cleaning a hairbrush: snabz  [snæbz]
T. the grease that accumulates on top of a hot pizza: DOOLthoo  [ˈdu·ʊl·θuː]
U. an unexpected cool breeze on a sultry day: huhZAN  [hə·ˈzæn]
V. the feeling experienced by a death-row inmate after being pardoned or exonerated: KEEruh  [ˈkʰɪ·ɹə]
W. a feeling of extreme disappointment: boeDOOR  [ˈboʊˌdɔɹ]
X. the feeling of being woken in the middle of the night by a strange noise: HOOroo  [ˈhu·ɹʊ]
Y. the name of the remotest island on earth: uhZAIL  [ə·ˈzɛl]

Images Requiring Words

Z. MAYrah  [ˈmeɪ·ɹɑ]
a. yahtSHOOL  [ˈjɑt·ʃuːl]
b. kway  [kʰweɪ]
c. MADstuh  [ˈmæd·stə]
d. OOvahnuh  [ˈu·vɑ·nə]
e. toeTAIR  [tə·ˈtɛɪɹ]
f. SAYlow  [ˈsɛl·əʊ]
g. korVYNd  [kɔ·ˈvaɪnd]
Participant Data Sheet

Participant #: 100  Age: 19  Sex: M  Linguistic Background: native speaker: English; beginning learner: Spanish

Question ID

Words Requiring Definitions

A. smitch [smɪtʃ]: a hard hit in football, like spearying somebody
B. jube [ʤuˈbɛ]: a type of music, a mix of hard rock and a little rap
C. keeve [kʰɪv]: a lie
D. wam [wɔm]: a long, low-pitched, slow noise with a sudden high-pitched part
E. easloff [ɪˈzɔɪɹ]: a valley
F. kedid [kʰeɪd]: a throw to home plate from the outfield
G. mavar [ˈmeɹ.ˈvaɹ]: curious
H. eyeyu [ˈaɹ.ˈju]: to be kicked out of somewhere
I. narathooze [ˈnæɹə.ˈƟuɹ]: a grade of gasoline
J. phillontave [ˈfɪ.ˈlə.ɾɪv]: mimicking
K. lulurode [ˈluɹ.ˈloɹd]: misleading
L. goxiwall [ˈɡɑk.ˈsa.ˈwɔɹ]: an odd, diagonal pattern, like with tiles
M. cengastumine [sɪn.ˈɡæs.ˈtə.ˈmaɹn]: a tragedy, like a natural disaster
N. pomerilader [pʰəˈmeɹ.ˈrəɹdər]: instrument you could use to talk with an animal
O. bowertillde [ˌbɔwɪ.ˈtɪl.ˈdəɹ]: a complete change in direction
P. chocksaheeble [ˈtʃɑk.ˈsə.ˈhɪbəɫ]: a hammer
Q. whoagsafflerick [wʊˈɡæz.ˈfəɹ.ˈrɪk]: an off-road vehicle like the ones used in African safaris
R. tobecraydrub [tʰoʊˈbɾeɪ.ˈdrʌb]: a small Tupperware set

Definitions Requiring Words

S. the wad of hair removed when cleaning a hairbrush: NEEzulkrump [ˈniɹ.ˈzəɹ.ˈkʰɹəmp]
T. the grease that accumulates on top of a hot pizza: kruhNOO [kʰɹə.ˈnuɹ]
U. an unexpected cool breeze on a sultry day: WOOdul [ˈwuɹ.ˈrʌɹ]
V. the feeling experienced by a death-row inmate after being pardoned or exonerated: BAHLwinding [ˈbɑɹ.ˈwɪnd]
W. a feeling of extreme disappointment: muhSTRONE [ˈmaɹ.ˈstɹəɹn]
X. the feeling of being woken in the middle of the night by a strange noise: KRAHnduld [ˈkʰɹɪn.ˈdəɹd]
Y. the name of the remotest island on earth: SEPshus [ˈsɛp.ʃəɹs]

Images Requiring Words

Participant Data Sheet

Participant #: 101  Age: 19  Sex: M  Linguistic Background: native speaker: English; beginning learner: Spanish, German, Latin

Question ID

Words Requiring Definitions

A. smitch [smitʃ]: a pocket watch
B. jube [ʤuːˈb]: a big, flat screen TV
C. keeve [kʰiv]: a long paddle for a boat
D. wam [wɔm]: a headband
E. easloff ['eɪslɔf]: a slacker
F. kedid ['kʰɛɾəd]: a big cooking pot, like a cauldron
G. mavar ['mɛvə]: a hammer
H. eyeyu ['aʲjuʷ]: a non-specific measurement of time
I. narathooze ['næ·ɹə·Ɵuʷz]: a piece of tubing, like a funnel
J. phillontave ['fɪ·ɫənt·vɛ]: a pitcher, like for water
K. lulurode ['lu·lo·ɹəd]: something solid
L. goxiwall [ˈgɑk·sə·wɔl]: a flying animal, not necessarily a bird, dangerous to people
M. cengastumine [sɪn·ˈɡæst·ə·ma'n]: a disease of the intestines
N. poncrilader ['pʰɑŋ·kɹə·leʲ·ɾɚ]: a tool to measure distances
O. bowertilldew ['bə·wə·ˈtɪld·də]: a term for a hard worker
P. chocksaheeble ['tʃɑk·sə·hi·bəl]: a small, furry dinosaur
Q. whoagsafflerick [ˈwɔ·ɡ·ˈzæ·fə·ɾɪk]: a head covering, like a hat or toupee
R. tobecraydrub [tʰə·ˈbɛ·ˈkɹe·dɜ]: a yellow weed flower, like a dandelion

Definitions Requiring Words

S. the wad of hair removed when cleaning a hairbrush: WAHkoe [ˈwɑ·kɹə]
T. the grease that accumulates on top of a hot pizza: greeLAYbah [ˈɡɹiʲ·ˈleʲ·bɑ]
U. an unexpected cool breeze on a sultry day: swove [ˈswɔv]
V. the feeling experienced by a death-row inmate after being pardoned or exonerated: GIHbee [ˈɡɪ·biʲ]
W. a feeling of extreme disappointment: krunts [kʰɹʌnʦ]
X. the feeling of being woken in the middle of the night by a strange noise: SKARfə [ˈskɑɹ·fə]
Y. the name of the remotest island on earth: HINyuhluht [ˈhɪn·jə·l̚t]

Images Requiring Words

Z. RAYzee [ˈrɛi·ziː]
   a. YIHbruh [ˈjɪ·bɹə]
   b. HIIMtuhm [ˈhɪm·təm]
   c. brayTOOS [ˈbɹeʲ·ˈtʰuʷs]
d. SIHNtum [ˈsɪn·təm]
   e. GAHRfəe [ˈɡɑː·frə]
   f. DAHNfər [ˈdɑn·fəɾ]
   g. RUSpree [ˈɹʌs·pɹiʲ]
Participant Data Sheet

Participant #: 102  Age: 20  Sex: M  Linguistic Background: native speaker: English; beginning learner: French, Spanish, German

Question ID

Words Requiring Definitions

A. smitch [smɪtʃ]: to ogle over something
B. jube [ʤuːb]: a fast dance, like a jig
C. keeve [kʰɪv]: to steal something
D. wam [wʌm]: to be tired
E. easloff [ɪz·əlf]: relaxed
F. kedid [kʰɛ·ɾəd]: to put something away for safe keeping or to wrap something up
G. mavar ['meɪˌvɑː]: pretty
H. eyeyu ['aɪ·jʊ]: a washer
I. narathooze ['næ·ɹə·Ʃə]: a medicine for a skin rash
J. phillontave ['fɪ·lan·tʰəv]: a strong glue or cement
K. lulurode ['luˌro·də]: a purple-pink flower, medium sized
L. goxiwall ['ɡɑk·səˌwɔl]: a troll or goblin
M. cengastumine [sɪn·ˈgæs·tə·maːn]: to cut somebody’s leg’s out from underneath them (figuratively)
N. poncrilader [ˈpʰɑŋ·kɹə·leːr]: a switch board or control station
O. bowertilldew [ˈba·wə·ˈtʰɪl·duː]: a nagging affliction
P. choocksheeble [ˈtʃɑk·sə·hiːbəl]: a vitamin or herb useful for steadying the hands
Q. whoagsafflerick [ˈwoʊ·ɡə·ˈzə·fə·lərk]: a support structure inside a building, like a stud
R. tobecraydrub [tʰəˌkɹə·drəb]: an antique wooden writing desk

Definitions Requiring Words

S. the wad of hair removed when cleaning a hairbrush: WAHKsnay [ˈwɑks·neː]
T. the grease that accumulates on top of a hot pizza: PYOUfur [ˈpʰjuː·fə]
U. an unexpected cool breeze on a sultry day: mrow [moʊ]
V. the feeling experienced by a death-row inmate after being pardoned or exonerated: maluhKREEshus [mæ·lə·ˈkʰɹiːʃə]
W. a feeling of extreme disappointment: BOOnayde [ˈbuˌneːd]
X. the feeling of being woken in the middle of the night by a strange noise: vihTREED [vɪ·ˈtʰɹiːd]
Y. the name of the remotest island on earth: kahLAHSkay [kɑ·ˈlɑs·kə]

Images Requiring Words

Z. a. b. c. d. e. f. g.
Participant Data Sheet

Participant #: 103  Age: 20  Sex: M  Linguistic Background: native speaker: English; beginning learner: Spanish

Question ID

Words Requiring Definitions

A. smitch [smitʃ]: an amount of food you consume
B. jube [dʒuːb]: a grass that only grows in the winter
C. keev [kʰiːv]: the speed of sound
D. wam [wɔm]: a material that a baseball bat is made from
E. easloff [ɛəsˈlɒf]: a cushion brought to sporting events to sit on
F. kedid [kɛdɪd]: a leather shoe with a rubber sole and Velcro with some cushioning inside
G. mavar [mæˈvɑːr]: a cleaning agent to remove rust
H. eyeyu [aɪˈjuː]: a game played at the beach involving two Frisbees, an umbrella and a wiffle ball
I. narathooze [nærəˈθuːz]: a drink containing four types of alcohol and fruit juice
J. phillontave [ˈfɪləntəv]: a radar detector used by police and baseball scouts
K. lulurode [ˈluːlərəd]: a vegetarian dish served in the Sears Tower
L. goxiwall [ˈɡɑksəwɔl]: a putty substance used to fix leaks
M. cengastumine [sɪnˈɡæstəmɪn]: a type of English bifocal
N. poncrilader [ˈpɒŋkˈrɪlədər]: a nightstick carried by the police
O. bowertilldew [ˈbaʊərˈtɪldəʊ]: a writing utensil for electronic smart boards, like a stylus
P. chocksaheeble [ˈtʃɒksəhiːbl]: a parking brake for steep inclines
Q. whoagsafflerick [ˈhuːɡˌsæfəlˈrɪk]: a prehistoric lobster
R. tobecraydrub [tʰəˈbɛkrəˈdrʌb]: a new source of renewable energy from cow methane

Definitions Requiring Words

S. the wad of hair removed when cleaning a hairbrush: tanTHAsuhlope [tʰænˈθætsəˈloʊp]
T. the grease that accumulates on top of a hot pizza: fesDUNkul [fɛsˈdʌŋkəl̩]
U. an unexpected cool breeze on a sultry day: kwahLAYshis [kwaˈleɪʃəs]
V. the feeling experienced by a death-row inmate after being pardoned or exonerated: kaleeAYshun [kæˈliːˈeʃən̩]
W. a feeling of extreme disappointment: ohLOOkruhl [oʊˈluʊkˈrʊhl]
X. the feeling of being woken in the middle of the night by a strange noise: GRAStyoulay [ˈɡɹæstʃuːl̩]
Y. the name of the remotest island on earth: DAHRdeeful [ˈdɑːrdəfʊl]

Images Requiring Words

Z. a. SHEEblay [ʃiːˈbleɪ]
   b. VIHbulgail [ˈviːbʊlɡæɪl]
   c. BAKurwahp [ˈbækərˈwɑːp]
   d. SPIHlihkuhs [ˈspɪliˈkʊs]
   e. krihleeTOYdul [kriˈhliˌtəʊˈdʌl]
   f. fikstHOYdale [ˈfɪksˈθɔɪˈdæl]
   g. suhBLOWkrak [səˈbləʊˈkɹæk]
Participant #: 104  Age: 19  Sex: M  Linguistic Background: native speaker: English; intermediate learner: Latin; beginning learner: Spanish

Question ID

A. smitch [smitʃ]: something small
B. jube [ʤuˈbː]: a natural fruit drink
C. keeve [kʰjv]: to do something stupid
D. wam [wəm]: something crumpled up, like paper
E. easloff [iˈzə·bʃ]: to spy on somebody
F. kedid [kʰɛ·rɛd]: to obtain
G. mavar [ˈmeʲ·vaɾ]: ice cream
H. eyeyu [ˈaʲ·juː]: to say goodbye
I. narathooze [ˈnæ·ɹə·θu*z]: to educate somebody
J. phillontave [ˈfɪ·lənt·ə·vɛ]: to be confused
K. lulurode [ˈlu·lə·ɹəd]: to go swimming
L. goxiwall [ˈgɑk·sə·wɔːl]: to throw
M. cengastumine [sɪn·ˈgæs·tə·maɲ]: believing
N. poncrilader [ˈpʰɑŋ·kɹə·leɾə]: a washing machine
O. bowertilldew [ˈba·wɚ·ˈtɪl·du]: to work out
P. chocksaheeble [ˈtʃɑk·sə·hi·bɛl]: to eat
Q. whoagsafflerick [ˈwɔ·ɡ·ˈzæ·fəl·ɹɪk]: a computer
R. tobecraydrub [tʰoˈbə·ˈkɹɛ·dəb]: to jump

Definitions Requiring Words

S. the wad of hair removed when cleaning a hairbrush: dush [dʌʃ]
T. the grease that accumulates on top of a hot pizza: peez [pʰiˈz]
U. an unexpected cool breeze on a sultry day: uhLYEyur [ə·ˈlaɾ·jə]
V. the feeling experienced by a death-row inmate after being pardoned or exonerated: grail [ɡɹɛ]  
W. a feeling of extreme disappointment: DEEum [ˈdi·əm]
X. the feeling of being woken in the middle of the night by a strange noise: faw [fɔ]
Y. the name of the remotest island on earth: barse [bɑrə]

Images Requiring Words

Z. seer [sɪˈɹ]

a. youWITE [juˈwɹ·ˈwæt]
b. hooURru [huˈɹə·ˈʃɾ]
c. BAREsuhluh [ˈbɛɹ·sə·lə]
d. KANEpee [kʰɛˈn·piɲ]
e. RURru [ɾəɾ·ʃɾ]
f. stall [stɔl]
g. juhBITE [dʒə·ˈbaɾt]
Participant Data Sheet

Participant #: 105  Age: 25  Sex: F  Linguistic Background: native speaker: English; fluent speaker: French; beginning learner: German, Italian

Question ID

Words Requiring Definitions

A. smitch [smɪtʃ]: something gross or smutty
B. jube [dʒuˈbɛ]: a chamber pot
C. keeve [kʰɪv]: something that really annoys somebody
D. wam [wɔm]: a thin, water-based soup
E. easloff [ˈiəsɬoʊf]: somebody who’s lazy
F. kedid [ˈkʰɛɾəd]: somebody who has a good head on his shoulders
G. mavar [ˈmeɹəˈvaɹ]: a long, epic voyage
H. eyeu [ˈaɬˈjuː]: a pirogue
I. narathooze [ˈnæɹəˈθuʔəz]: pertains to being thorough, a person or a thing
J. phillontave [ˈfɪlənˈtʰeʲvə]: denture glue, like Fixodent
K. lulurode [ˈluɬəˈɹoʊd]: a winding road
L. goxiwall [ˈɡɑkəˈwɔl]: a food like sausages and sauerkraut
M. cengastumine [ˈsɪnəˈɡæstəˈmaʲn]: bloated
N. poncrilader [pənˈkrɪləd]: a noise-making toy with buttons corresponding to different sounds
O. bowntilldew [ˈbɔntɪləˈdu̯]: cultivation, planting
P. chocksasheeh [ˈtʃɑksəˈsheə]: multi-faceted
Q. whoagsafflerick [ˈuəɡəˈfɛlərɪk]: scratchy
R. tobecraydrub [təˈbɛkəˈraɪdrəb]: the feeling from looking at a mountain range from the sky

Definitions Requiring Words

S. the wad of hair removed when cleaning a hairbrush: fuhLAIR [fəˈlæɹ]
T. the grease that accumulates on top of a hot pizza: smuhSMURCH [smə ˈsməɹʃ]
U. an unexpected cool breeze on a sultry day: bluhTAHKsee [bluθəˈtʰækˌsiˑ]
V. the feeling experienced by a death-row inmate after being pardoned or exonerated: SHMAKsum [ˈʃmækˌsʌm]
W. a feeling of extreme disappointment: SHMOOdeu [ˈʃmyˌdø]
X. the feeling of being woken in the middle of the night by a strange noise: EKSfurgaytud [ˈɛksˌfɜrˌɡeʲˈtud]
Y. the name of the remotest island on earth: kuhLOOshah [kəˈluˌʃə]

Images Requiring Words

Z. MAruhnz [ˈmæɹəˈnɜːz]
a. buhMILyin [bəˈmɪɬɨˈjin]

b. BAHRayve [ˈbɑɬəˈve]
c. muhTURin [məˈtʰuɹəˈlin]

d. spurRIHshus [spərˈɹɪʃəs]
e. PAHmuhduhnz [pəˈmɑɬəˈdʊnɜːz]
f. EYEzunhahf [ˈeɪzənˌhɑf]
g. SHBAHRgust [ʃbəˈɡæst]
Participant Data Sheet

Participant #: 106  Age: 22  Sex: M  Linguistic Background: native speaker: English; beginning learner: German, Spanish

Question ID

A. smitch [sMITʃ]: a small spot
B. jube [DUHb]: like a light bulb
C. keeve [kʰɪv]: a chandelier in a breakfast nook
D. wam [wɑm]: a rat
E. easloff [ɪpricingː]: a giant wall, like on the Parthenon
F. kedid [kʰɛ·kɛd]: to put the top on a pot
G. mavar [ˈmeːɾə]: a spell making wood come alive
H. eyeyu [ˈaː·juː]: reminiscent of a sled dog
I. narathooze [ˈneː·jo·θuːz]: headhunters to be feared
J. phillontave ['fɪ·lən·tʰeːv]: sifting flower
K. lulurode [ˈluːro·də]: a big roll of paper
L. goxiwall [ˈgɔksə·wɔl]: a dance like a high step but with more formality
M. cengastumine [sɪn·ˈgæs·tə·maːn]: writing a satire of satires
N. poncrilader [ˈpʰɑŋ·kɹə·leːd]: a person who calculates scores
O. bowertilldew [ˈbɑ·wɚ·ˈtʰɪl·duː]: a support for a tower
P. choocksahcheeb [ˈʧoːksə·hi·bə]: a large, indefinite number
Q. whoagsafflerick [ˈwɔ·ɡ·ˈzæ·fə·ˈɾɪk]: reminiscent of characters like Don Quixote
R. tobecraydrub [ˈtʰoʊ·bɛ·ˈkɹeː·dɾuː]: a large, flowering bush

Definitions Requiring Words

S. the wad of hair removed when cleaning a hairbrush: BALduhrahnz [ˈbæl·də·ɹɑnz]
T. the grease that accumulates on top of a hot pizza: chaDOOuh [tʃæ·ˈduː·ə]
U. an unexpected cool breeze on a sultry day: VAHRguh [ˈvɑɹ·ɡə]
V. the feeling experienced by a death-row inmate after being pardoned or exonerated: uhSTOReez [ə·ˈstɔ·ɹiːz]
W. a feeling of extreme disappointment: DARrin [ˈdɛ·ɹɪn]
X. the feeling of being woken in the middle of the night by a strange noise: mahrLEED [mɑɹ·ˈliːd]
Y. the name of the remotest island on earth: duhPAHRstuh [dɑ·ˈpʰɑ·stə]

Images Requiring Words

Z. ROHNduhn [ˈɹoʊn·dən]  a. vraht [ˈvɑːt]  b. vair [ˈveɪ]  c. afuhRAHNduh [æ·ˈfə·ˈɹɑn·də]
d. shneel [ʃmiːl]  e. pwahd [pʰˈwad]  f. eks [eks]  g. stuhRAHNduh [sta·ˈɹɑn·də]
Participant Data Sheet

Particpant #: 107  Age: 19  Sex: M  Linguistic Background: native speaker: English; beginning learner: French, Spanish

Question ID

Words Requiring Definitions

A. smitʃ [smɪʃ]: a very small adult person, like an Irish
B. jube [dʒuˈbɛ]: a tree with drooping branches
C. keeʃ [ˈkɛʃ]: to antagonize somebody to the point of an altercation
D. wam [wɒm]: a bat (animal)
E. easloff [ˈeɪs·lɒf]: to be lazy
F. kedid [ˈkɛdɪd]: to be reserved
G. mavar [ˈmeɪ·vɚ]: a bullfight
H. eyeyu [ˈɛ·jju]: computer security software
I. narathooze [ˈnæ·ræ·θuˈzɛ]: medicine that treats breast cancer
J. phillontave [ˈfɪ·lɒn·təˈvɛ]: a car dent remover
K. luluod [ˈlu·lu·oʊd]: a bicycle tire
L. goxiwall [ˈɡɒk·sa·wʊl]: caulk for floor tile
M. cengastumine [sɛn·ˈgæst·ə·mɪn]: a liquid explosive
N. poncrilader [ˈpɒŋ·krɪ·lədər]: a torture device, like a dull guillotine
O. bowertilldew [ˌbə·wɜ·ˈtɪl·dɛw]: reminiscent of a jet engine
P. chocksaheeble [ˈtʃɒk·sə·hɪ·bɛl]: a hatchet
Q. whoagsafflerick [ˌwɔ·ˈɡæ·sə·fə·li·rɪk]: an exceptional piano player
R. tobecraydrub [tʰə·ˈkɹeɪ·drʌb]: like a backpack or a harness, something to be carried on your person

Definitions Requiring Words

S. the wad of hair removed when cleaning a hairbrush: DEEturge [ˈdi·tɜ·dʒə]
T. the grease that accumulates on top of a hot pizza: loust [loʊst]
U. an unexpected cool breeze on a sultry day: fehNEESE [fɛ·ˈniːs]
V. the feeling experienced by a death-row inmate after being pardoned or exonerated: wihZEL [wɪ·ˈzɛl]
W. a feeling of extreme disappointment: tahrd [tʰɑrd]
X. the feeling of being woken in the middle of the night by a strange noise: uhGAZuhm [ə·ˈɡæ·zə·nɪm]
Y. the name of the remotest island on earth: loRAYshun [ˈlo·ræ·ʃən]

Images Requiring Words

Z. STRAzul  [ˈstɹæ·zəl]
a. PEEuhzay  [ˈpʰɪ·ə·zɛ]
b. sahn  [sæn]
c. burRABjuhnee  [ˈbʊ·rə·ˈɹæb·jʊ·ni]
d. SANKtun  [ˈsæŋk·tʊn]
e. loush  [loʊʃ]
f. ihGLAHnoe  [ɪ·ˈɡlɑ·nɔ]
g. DUStr  [ˈdʌs·tɹ]
Participant Data Sheet

Participant #: 108  Age: 19   Sex: M  Linguistic Background: native speaker: English; beginning learner: German, Spanish, Classical Greek

Question ID

Words Requiring Definitions

A. smitch [smitʃ]: a small game bird, similar to a quail
B. jube [ʤuˈbə]: a ball shaped object
C. keeve [kʰɨv]: rowing or steering a ship
D. wam [wɑm]: a food like rice and shrimp or other seafood
E. easloff [ʔiːləf]: an expression of jubilation
F. kedid [ˈkʰɛ·ɾəd]: a plant, like a cabbage or a lettuce
G. mavar [mæl·və]: a military job, maybe a cavalryman
H. eyeju [ˈaɪ·ju]: mediocre or so-so
I. narathooze [naɹəˈƟuːz]: a pass through a canyon
J. phillontave [fɪ·ləntˈəv]: a sport with a ball
K. lulurode [ˈlu·lə·ɹəd]: bizarre or confusing
L. goxiwall [ˈɡɑk·sə·wɔl]: an ugly sea creature with tentacles
M. cengastumine [sɪn·ˈɡæs·tə·maːn]: an unpleasant smell
N. poncrilader [ˈpʰɑŋ·kɹə·leʲ·ɾɚ]: churning butter
O. bowertilldew [ˌba·wɚ·ˈtʰɪl·duː]: a rigged election
P. chockaheebie [ˈtʃɔk·kʰə·biː]: cornmeal-based food
Q. whoagsafflerick [ˈwɔ·ɡəf·fɛ·ɾɪk]: a cleansing
R. tobecraydrub [tʰoʊ·bə·ˈkɹeʲ·dɹəb]: a positive description

Definitions Requiring Words

S. the wad of hair removed when cleaning a hairbrush: AHGdahg [ˈɑg·dɑg]
T. the grease that accumulates on top of a hot pizza: NAHvoe [ˈnɑ·voʊ]
U. an unexpected cool breeze on a sultry day: HUdeewort [ˈhʊ·ɾiʲ·wɔɹ]
V. the feeling experienced by a death-row inmate after being pardoned or exonerated: YEELsuhn [ˈjiʲł·sən̩]
W. a feeling of extreme disappointment: SUMboe [ˈsʌm·boʊ]
X. the feeling of being woken in the middle of the night by a strange noise: AKbahr [ˈæk·bɑɹ]
Y. the name of the remotest island on earth: SEEnoo [ˈsiʲ·nuʊ]

Images Requiring Words

Z. RAHzuhm [ˈɹɑ·zəm]
A. FLEEguhl [ˈfliʲ·ɡəl̩]
B. AHRboe [ˈɑɹ·boʊ]
C. JILuhm [ˈʤɪ·ləm]
D. URgul [ˈɜ·ɡʊl]
E. REEguhm [ˈɹiʲ·ɡəm]
F. AHpul [ˈɑ·pʊl]
G. AHGduhm [ˈɑg·dəm]
Participant Data Sheet

Participant #: 109  Age: 20  Sex: M  Linguistic Background: native speaker: English; beginning learner: German

Question ID

Words Requiring Definitions

A. smitch [smɪtʃ]: smug
B. jube [ʤuːb]: a round bug with dots
C. keeve [kʰɛːv]: a crevice in the earth
D. wam [wɒm]: to be deeply saddened
E. easloff [ˈɛə·ʃʌ·fɒ]: a winter tree found in Canada that can be tall and is flowering
F. kedid [ˈkʰɛ·ɾəd]: cross stitching
G. mavar [ˈmeə·və]: a variety of tobacco, not hallucinogenic
H. eyeu [ˈaɪ·juː]: a power supply from a computer
I. narathooze [ˈnærə·θuːz]: similar to neurons in the brain, they transmit signals
J. phillontave [ˈfɪ·lən·tʰeːv]: a type of caulk
K. lulurode [ˈluː·lə·ɹəːd]: a small, delicate, purple flower, built around a central axis
L. goxiwall [ˈgɑk·sə·wɔl]: a spicy chili from Spain
M. cengastumine [ˈsɪŋ·æs·tə·məʲn]: a gasoline additive
N. poncrilader [ˈpʰɑŋ·kɹə·leʲ·ɬɚ]: an air purifier
O. bowertilldew [ˌbɑ·wɚ·ˈtʰɪl·duː]: an essential piece in a pulley system
P. chocksasheeble [ˈʃɑk·sə·hi·bəɫ]: a rock found in Arizona, can be red or orange and prone to breaking apart
Q. whoagsafflerick [ˈwɔ·ɡæ·ʃə·fə·ɬɪk]: a legendary wolf that walks on two legs
R. tobecraydrub [tʰoʊ·bə·ˈkɹeʲ·dɹəb]: a Caribbean fruit, peach colored, round and the size of a cantaloupe

Definitions Requiring Words

S. the wad of hair removed when cleaning a hairbrush: YUKstun [ˈjʌk·stʊn]
T. the grease that accumulates on top of a hot pizza: DRITfahl [ˈdɹɪt·faːl]
U. an unexpected cool breeze on a sultry day: imFATuhmyzen [ɪm·ˈfæ·ɾə·maʲ·zɪŋ]
V. the feeling experienced by a death-row inmate after being pardoned or exonerated: korahptihNAYshun [kɔ·ɹɑp·tɪ·ˈneʲ·ʃən]
W. a feeling of extreme disappointment: ahntLED [ən·ˈtʰlɛʲd]
X. the feeling of being woken in the middle of the night by a strange noise: REENtun [ˈrɛn·tʊn]
Y. the name of the remotest island on earth: RISlin [ˈɹɪs·lɪn]

Images Requiring Words

Z. inTAYshun [ɪn·ˈtʰeʲ·ʃən]
A. FREEKstuh [ˈfɹɪk·stən]
B. DEStuhtor [ˈdɛ·stə·tɔɹ]
C. FRAHTdor [ˈfɹɑt·dɔɹ]
d. SWAHPshun [ˈswɑp·ʃən]
e. OOMliktuhn [ˈuʊm·lɪk·tən]
f. skreent [skɹiŋt]
g. DRUNGstuh [ˈdɹʌŋ·stən]
Participant Data Sheet

Participant #: 110  Age: 59  Sex: F  Linguistic Background: native speaker: English; fluent speaker: French, German; intermediate learner: Spanish; beginning learner: Japanese, Arabic

Question ID

Words Requiring Definitions

A. smitch [smitʃ]: a tree branch
B. jube [dzuˈb]: a brightly colored, plastic toy consisting of folding pipes that can be formed into different shapes
C. keeve [kʰɪv]: the bank of a river
D. wam [wam]: a fuzzy blanket
E. easloff [ɪˈzə·bfl]: a fruit-flavored, strong alcoholic drink
F. kedid [kʰɛ·rd]: chosen, picked out
G. mavar [ˈmeɪ·vɑ]: a manmade material that comes in sheets
H. eyeyu [ˈaɪ·ju]: a medical device made of metal and plastic for testing, like drawing blood
I. narathooze [ˈnæ·ɹə·ˈθu*z]: soporific
J. phillontave [ˈfɪ·ləntʰeʲv]: a prepared food that is sweet
K. luluorde [ˈlu*·lə·ɹodu]: a mammal that hops and jumps
L. goxiwall [ˈgɑk·sa·wɔl]: an exotic animal, small and grey, harmless to people, maybe found in Australia
M. cengastumine [sɪnˈgæs·tə·maˈn]: a disease of the intestines
N. poncrilader [ˈpʰɑŋ·kɹə·leʲ·ɾɚ]: a steam powered machine that stamps out widgets
O. bowertilde [ˈbə·wɔ·tɪl·diː]: a strong cheese, like brie
P. chocksahbeel [tʃɑk·sə·hi·bəl]: a hard task
Q. whoaasafflerick [ˈwəʊ·ɡə·zə·fəˈlɪɾık]: concerning air pressure as it might relate to a scientific experiment
R. tobecraydrub [tʰoʊ·bə·ˈkɹeʲ·dɹəb]: a negative outcome, trouble

Definitions Requiring Words

S. the wad of hair removed when cleaning a hairbrush: WEESHdah [ˈwiʃ·da]
T. the grease that accumulates on top of a hot pizza: WULdoe [ˈwʊł·doʊ]
U. an unexpected cool breeze on a sultry day: WELO: [ˈwɛl·tə]
V. the feeling experienced by a death-row inmate after being pardoned or exonerated: GAHwoosh [ˈɡɑ·wuʃ]
W. a feeling of extreme disappointment: DOOtah [ˈdu·tɑ]
X. the feeling of being woken in the middle of the night by a strange noise: eeKAH [iːˈkʰɑ]
Y. the name of the remotest island on earth: ahuNehoe [ən·ˈten·a]

Images Requiring Words

Z. LEPloe [ˈlɛp·loʊ]
   a. SIHchoe [ˈsɪ·tʃo]
   b. lahsh [lɑʃ]
   c. gahmBEN [ɡɑm·ˈbɛn]
   d. SOOgahsh [ˈsʊ·gaʃ]
   e. KRAKoe [ˈkʰɾæ·kəʊ]
   f. FEEkoolah [ˈfi·kʉ·lə]
   g. flah [fla]
Participant #: 111  Age: 21  Sex: M  Linguistic Background: native speaker: English; beginning learner: German, Latin

Question ID

Words Requiring Definitions

A. smitch [smɪtʃ]: a short trip
B. jube [dʒuːb]: a color between blue and green
C. keeve [kʰɪv]: the look you make when you have little hope of success
D. wam [wɑm]: two armloads of something
E. easloff [ˈiːs·lɔf]: a dual concept of both a journey and a destination
F. kedid [ˈkʰɛ·ɾəd]: to bring together
G. mavar [ˈmeɪ·vɑr]: no response
H. eyeyu [ˈæ·juː]: a small amount
I. narathooze [ˈnæ·ɹə·Ɵuːz]: something unremarkable
J. phillontave [ˈfɪ· lantern·tʰɪːv]: a color like purple
K. lulurode [ˈlu·lʊ·ro·d]: a positive emotion, like overjoyed
L. goxiwall [ˈgɑk·sə·wɔl]: a beast of the forest, like a small cat, not dangerous to people
M. cengastumine [sɪn·ˈgæ·stə·maɪn]: a door to door salesman
N. poncrilader [ˈpɒn·kɹə·lɛrd]: a legendary hero figure
O. bowertilldew [ˈbə·wɜ·ˈtʰɪl·dəʊ]: an amount of time
P. chocksaheeble [ˈtʃɑk·sə·hi·bəl]: an animal, like a squirrel but with a spiky tail
Q. whoagsafflerick [ˈwəʊ·gæ·sæ·fə·lɛrk]: a disease affecting the whole body
R. tobecraydrub [tʰoʊ·ˈbæk·ɹæb]: a dull color, like flat grey or beige

Definitions Requiring Words

S. the wad of hair removed when cleaning a hairbrush: flehkt [flɛkt]
T. the grease that accumulates on top of a hot pizza: shimp [ʃɪmp]
U. an unexpected cool breeze on a sultry day: WInahn [ˈwɪ·nɑn]
V. the feeling experienced by a death-row inmate after being pardoned or exonerated: oomBAHkra [ʊmˈbɑk·ɹæ]
W. a feeling of extreme disappointment: NEHstahn [ˈnɛ·stɑn]
X. the feeling of being woken in the middle of the night by a strange noise: BAHrook [ˈbɑ·ɹuːk]
Y. the name of the remotest island on earth: toeLEEnee [ˈtʰoʊ·ˈliːnːi]

Images Requiring Words

Z. zwahzh [zwɑʒ]

a. feeLAH [fiʲˈlɑ]

b. WIHlee [ˈwɪ·liː]

c. CHAMblat [tʃæm·blæt]

d. VIHzig [ˈvɪ·zɪg]

e. BRIKtun [ˈbɹɪk·tən]

f. ZApoe [ˈzæ·poʊ]

g. SPIHzee [ˈspɪ·zɪʒ]
Participant Data Sheet

Participant #: 112  Age: 19  Sex: M  Linguistic Background: native speaker: English; beginning learner: French

Question ID  Words Requiring Definitions

A. smitch [smɪtʃ]: a witty person
B. jube [dʒuˈbɛ]: a shade of blue
C. keeve [kʰɛv]: to freak out
D. wam [wɒm]: bored (not interested)
E. easloff [ɪˈzɒf]: tired
F. kedid [kʰɛd]: worried
G. mavar ['meɹˈvaɹ]: tall
H. eyeu ['ɛjʉ]: water
I. narathooze ['næɹəˈθuɹz]: a large, furry, mammal that is dangerous to people
J. phillontave ['fɪləntəv]: famous
K. lulurode ['luɹəˈluɹd]: a small sports car
L. goxiwall ['ɡɔksiwɔl]: dark (evil)
M. cengastumine [sɪnˈɡæstəˈmiɲ]: bizarre
N. poncrilader [ˈpʰɒŋkɹəˈleɾɚ]: high school male clothing line aimed at skaters
O. bowertilldew [ˈbəwəˈtɪld]: frightening
P. chocksaheeble [ˈtʃɒksəhiˈbɛl]: rocks, like boulders, dispersed
Q. whoagsafflerick [ˈwaɹɡˈzæfəˈlɪk]: sadness
R. tobecraydrub [tʰəˈkrɛɪdɹəb]: a mineral ore that is grey or silver

Definitions Requiring Words

S. the wad of hair removed when cleaning a hairbrush: splahrg  [splɑɹɡ]
T. the grease that accumulates on top of a hot pizza: gahk  [ɡɑk]
U. an unexpected cool breeze on a sultry day: skahmp  [skʰɑm]
V. the feeling experienced by a death-row inmate after being pardoned or exonerated: MIHnuhmun  ['mɪnəˈmən]
W. a feeling of extreme disappointment: KAHkoose [ˈkʰəˈkoʊs]
X. the feeling of being woken in the middle of the night by a strange noise: pilnse [pʰɪlns]
Y. the name of the remotest island on earth: ahrKIHduhmin  [ɑɹˈkʰɪdHum]
Participant #: 113  Age: 45  Sex: M  Linguistic Background: native speaker: English; fluent speaker: Spanish; intermediate learner: French, Italian, Portuguese

Question ID

Words Requiring Definitions

A. smitch [smitʃ]: a stain on a garment
B. jube [dʒuˈbɛ]: an inner tube that kids play with
C. keeve [kʰɪv]: to procrastinate so much you are about to miss your deadline
D. wam [wam]: comfortable, soothing
E. easloff [ɪˈzəlf]: a tool used to measure distance
F. kedid [kʰɛˈɾəd]: stacked up, one on another
G. mavar [ˈmeɹ vəɹ]: a kind of plastic material
H. eyeyu [ˈaɹ juɹ]: an exclamation, said in pain or anger
I. narathooze [ˈnæɹəˌtuɹəz]: a tall people group from a cold climate
J. phillontave [ˈfɪlənˌtʰeɹv]: to arrange things in space
K. lulurode [ˈluɻəˌɹoɻəd]: an incredibly amazing party
L. goxiwall [ˈgɑkˌsəˈwɔɻ]: a young, mischievous, irresponsible, problem-solving child
M. cengastumine [sɪnˈgæs təˈmaɻən]: a problem with no resolution
N. poncrilader [ˈpʰɑŋˌkɹəˌleɹɚ]: a machine that matches up music with images
O. bowertilldew [ˌbaˌwɚˈtʰɪldəw]: a small puddle that disappears after the sun rises
P. chocksaheeble [ˈtʃɑkˌsəˈhɪbəɻ]: a small, spiky weed
Q. whoagsafflerick [ˈwɔɹˌgɹəˌfəɻəɹk]: a booby prize
R. tobecraydrub [tʰoɻˌbəˈkɹəˈdɹəb]: a layer of rock that geologists would study

Definitions Requiring Words

S. the wad of hair removed when cleaning a hairbrush: foind [fɔnd]
T. the grease that accumulates on top of a hot pizza: sluk [slʌk]
U. an unexpected cool breeze on a sultry day: skoof [skuɹf]
V. the feeling experienced by a death-row inmate after being pardoned or exonerated: foormf [fəʊmf]
W. a feeling of extreme disappointment: kahnge [kʰɑnʤ]
X. the feeling of being woken in the middle of the night by a strange noise: STIHful [ˈstɪh ʃʊl]
Y. the name of the remotest island on earth: zoomBOHbah [zʊm·ˈbo·ba]

Images Requiring Words

Z. a. SPAHrtuhlik [ˈspɑɹˌɾəɻɪk]
b. WAHNdish [ˈwɑnˈdɪʃ]
c. muhmBRAHloæ [məm·ˈba·loɹ]
d. LENdahlee [ˈlɛn·dəˌliɹ]
e. AHpruhzoe [ˈɑɹ ˈpʰəˌzoɹ]
f. TENloo [ˈtʰɛnˌluɹ]
g. HOOSuhnoovur [ˈhʊɹˌsə·nuɹ·ʊɹ]
Participant #: 114  Age: 19  Sex: M  Linguistic Background: native speaker: English; beginning learner: Spanish

**Question ID**

**Words Requiring Definitions**

A. smitch [smitʃ]: to steal
B. jube [dʒuˈbɛ]: to massage
C. keeve [kʰiˈvɛ]: an intelligent person
D. wam [wəm]: motherly
E. easloff [ˈeɪsləf]: to make something pretty
F. kedid [kʰə-did]: funny
G. mavar [ˈmeɾˈvæɾ]: strong
H. eyeyu [ˈɛiˌju]: to take notes
I. narathooze [ˈnærə-thuˈzuː]: to dream
J. phillontave [ˈφɪləントɛv]: open minded
K. lulurode [ˈluːlə-roːd]: to study
L. goxiwall [ˈɡɔksə-wɔl]: to make fun of
M. cengastumine [sɪnˈtʃɛŋgəstəˈmɪn]: something that’s narrow
N. poncrilader [ˈpɑŋkrɪlədɛr]: a medical device that measures blood pressure
O. bowertilldew [ˈbəʊərˈtɪldɛw]: a young, hard worker
P. chocksheeble [ˈtʃɒksəˈhiːbəl]: something thrown
Q. whoagsafflerick [ˈwɔʊɡˈzæfəlˌrɪk]: a writer of horror novels
R. tobecraydrub [tʰəCRɛˈreɪdɾuːb]: someone who doesn’t take something seriously

**Definitions Requiring Words**

S. the wad of hair removed when cleaning a hairbrush: POAPdahl [ˈpʰoʊpˌdɑːl]
T. the grease that accumulates on top of a hot pizza: eech [ɪtʃ]
U. an unexpected cool breeze on a sultry day: hoεLAHT [hoʊˈlɑlt]
V. the feeling experienced by a death-row inmate after being pardoned or exonerated: toolt [tʰuˈlɛt]
W. a feeling of extreme disappointment: fahrch [fɑrʧ]
X. the feeling of being woken in the middle of the night by a strange noise: peeMINT [pʰiˈmɪnt]
Y. the name of the remotest island on earth: KEεroon [ˈkʰiɹuˈnuːn]

**Images Requiring Words**

1. BRAHbluht [ˈbɹɑbʌl̚t]
2. PAYyahn [ˈpʰæjən]
3. kahrch [kʰaɹʧ]
4. kazMAYshun [kæzˈmeɾʃən]
5. SPRAYlur [ˈspɹeɪlər]
6. MEHzolit [ˈmeɾəzoʊlɪt]
7. SKOWpuh [ˈskoʊwˌpə]
Participant Data Sheet

Participant #: 115  Age: 19  Sex: M  Linguistic Background: native speaker, English; beginning learner: Spanish, Latin

Question ID

Words Requiring Definitions

A. smitch [smitʃ]: a person upset by the comment of another
B. jube [dʒuˈbə]: a role playing video game
C. keeve [kʰɪv]: a description of the sound somebody makes when surprised
D. wam [wɒm]: a cooking appliance
E. easloff [ˈɛəslɒf]: a warm fleece jacket
F. kedid [ˈkɛdɪd]: a process where you check somebody’s body temperature
G. mavar [ˈmeɪrəvə]: a bland food made of eggs, cream and milk
H. eyeyu [ˈaɪju]: a technique used in writing research papers
I. narathoose [ˌnærəˈθuːz]: a legal document detailing real estate law or a housing agreement
J. phillontave [ˈfɪləntəv]: a method personal trainers use to prepare athletes for their sports
K. luluode [ˈlu卢əˌdəd]: a time of day between one and four o’clock
L. goxiwall [ˈɡɒksɪˌwɔːl]: a non-sense statement
M. cengastumine [ˈsɛŋnstəˌmaɪn]: a medical procedure where scans of the internal organs are made
N. poncrilader [ˈpɒŋkɹɪlədər]: a device used by a neurologist to measure the amount of electricity in you
O. bowertilldew [ˈbəʊərˈtɪldəw]: an agreement between two or more people to not be sworn to secrecy
P. chocksahaheele [ˈʧɒksəˌhæhəl]: an emotion of anger or disgust
Q. whoagsafflerick [ˈwɔəŋˌsæfəˈlarɪk]: kind or concerned
R. tobecraydrub [ˈtəʊbəˈkeɪdrəb]: a special room in a house for relaxation

Definitions Requiring Words

S. the wad of hair removed when cleaning a hairbrush:
T. the grease that accumulates on top of a hot pizza:
U. an unexpected cool breeze on a sultry day:
V. the feeling experienced by a death-row inmate after being pardoned or exonerated:
W. a feeling of extreme disappointment:
X. the feeling of being woken in the middle of the night by a strange noise:
Y. the name of the remotest island on earth:

Images Requiring Words

Z.   a.   b.   c.   d.   e.   f.   g.
Participant #: 116  Age: 19  Sex: M  Linguistic Background: native speaker: Russian, English; beginning learner: French, Spanish, Hebrew

Question ID

Words Requiring Definitions

A. smitch [smitʃ]: a painful boil
B. jube [dʒuˈbæː]: a chewy candy like a gummy bear, cone shaped
C. keeve [kʰeɪv]: the start of the descent on a rollercoaster
D. wam [wam]: a dispute
E. easloff [ˈɛəs·lɒf]: a tool, like a shovel and a crowbar
F. kedid [ˈkɛdɪd]: fenced in
G. mavar [ˈmeɪvər]: a dark, melancholy individual
H. eyeyu [ˈaːjju]: a small dolphin
I. narathooze [ˈnarəθuːz]: a knot that can’t be untied
J. phillontave ['fɪləntɔv]: a crazy straw (with lots of loops)
K. lulurode [ˈluːlʊroʊd]: a carnival ride, like a merry-go-round
L. goxiwall [ˈgɑkəwɔl]: an ogre
M. cengastumine [sɪnˈtʃeɪnəmɪn]: the calm after a storm
N. poncrilader [ˈpʌŋkrilədər]: transfers files from a recorder to a television
O. bowertilldew [ˈbəʊətɪldəʊ]: like a touchdown or homerun in some unidentified sport
P. chocksheeble [ˈtʃɒksɨbəl]: a big pile of food
Q. whoagsafflerick [ˈwɔʊɡətsəflɛɹk]: a cry of exasperation or excitement
R. tobecraydrub [təˈbɛkɹærdəb]: a compartment for holding birds

Definitions Requiring Words

S. the wad of hair removed when cleaning a hairbrush: LAMfort [ˈlæmˌfɔɹt]
T. the grease that accumulates on top of a hot pizza: EEyul [ˈiːjʊl]
U. an unexpected cool breeze on a sultry day: SPRINtree [ˈspɹɪntɹiː]
V. the feeling experienced by a death-row inmate after being pardoned or exonerated: BLAYfurmin [ˈbлеɪfɜːrɪm]
W. a feeling of extreme disappointment: growd [ɡɹəʊd]
X. the feeling of being woken in the middle of the night by a strange noise: drale [dɹɛlə]
Y. the name of the remotest island on earth: PIHfruh [ˈpɪfrʊ]

Images Requiring Words

d. CHAHpurs [ˈtʃɑphəːrs]  e. wahmBASStik [wʌmˈbæs·tɪk]  f. buhFAYZD [bʌˈfeɪzd]  g. ROHped [ˈroʊpɛd]
APPENDIX B

COMPLETE QUESTION DATA SHEETS
Question Data Sheet
Words Requiring Definitions

Question ID: A. smitch [smɪtʃ]

#1 a place in a wall
#2 something you can do with your mouth
#3 a stain
#4 a pinch of something you cook with
#5 to scratch
#6 mean (not nice)
#7 an expression of disappointment like "aw shucks!"
#8 to be comfortable with something
#9 the sound of a shoe hitting a nail into a board
#10 something that injures a person
#11 a tunneling animal like a groundhog
#12 to steal a kiss
#13 something spread on bread
#14 to like something
#15 when somebody treats you in a manner that causes you to feel insecure
#16 to smack or smother
#17 a little bit of something
#18 a glove used in sports, like a baseball mitt
#19 a smoothie
#20 a traitor
#21 a quilting term
#22 a short, bulky guy
#23 a liar
#24 a small amount
#25 a small quantity of something
#26 small
#27 small
#28 small
#29 small
#30 a small quantity of something
#31 a small smudge
#32 a muddy substance
#33 to tell on someone
#34 a small portion of something
#35 a person you don’t like very much
#36 a cracker or something crunchy
#37 a tack
#38 a tool for fletching
#39 a kiss
#40 sneaky
#41 a small animal like a mouse
#42 to scribble
#43 a crack, like in a sidewalk
#44 something hidden
#45 to sew rapidly
#46 to fall
#47 a small quantity
#48 poster board
#49 untrustworthy
#50 sly
#51 to stain something
#52 a fleeting feeling
#53 a tool used in a game
#54 a pet toy for a cat
#55 to cloister
#56 a little bit of something
#57 a nerdy person without a lot of friends
#58 a baseball
#59 a small amount of something
#60 a small smudge
#61 to mix something up
#62 a tool like a hammer or a wrench
#63 a speck
#64 black
#65 to flash a smile
#66 a scratch
#67 a thief
#68 clapping
#69 smelly
#70 to go fetch something
#71 to quiet somebody
#72 a small animal, like a squirrel
#73 to be sarcastic
#74 to snatch
#75 a limping way of walking
#76 a bat or racquet
#77 the little ball of lint in the pocket
#78 a car part, like a piston
#79 a briar patch
#80 to gain access to something
#81 snot
#82 a mark, maybe on the wall
#83 something you write with
#84 a short race of people
#85 something subtracted from something else
#86 a studious person
#87 digging holes
#88 the skin of a broken branch
#89 a stain
#90 bitter tasting
#91 a mean person
#92 a smudge
#93 an accomplice
#94 to mark on the wall
#95 to cut off (lose) a toenail while stumping it
#96 somebody who makes art
#97 an interruption
#98 a type of grittiness
#99 to snatch
#100 a hard hit in football, like spearing somebody
#101 a pocket watch
#102 to ogle over something
#103 an amount of food you consume
#104 something small
#105 something gross or smutty
#106 a small spot
#107 a very small adult person, like an Irish
#108 a small game bird, similar to a quail
#109 smug
#110 a tree branch
#111 a short trip
#112 a witty person
#113 a stain on a garment
#114 to steal
#115 a person upset by the comment of another
#116 a painful boil
# Question Data Sheet

**Words Requiring Definitions**

<table>
<thead>
<tr>
<th>Question ID: B. jube [dju*b]</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1 a hard, strawberry candy</td>
</tr>
<tr>
<td>#2 a fat tube</td>
</tr>
<tr>
<td>#3 a bug like a beetle</td>
</tr>
<tr>
<td>#4 an orb-shaped thing</td>
</tr>
<tr>
<td>#5 to con</td>
</tr>
<tr>
<td>#6 funny</td>
</tr>
<tr>
<td>#7 a ball-shaped thing, like a toy</td>
</tr>
<tr>
<td>#8 a bottle of something</td>
</tr>
<tr>
<td>#9 a noise a baby would make</td>
</tr>
<tr>
<td>#10 to drink something sweet</td>
</tr>
<tr>
<td>#11 an ideology, partly religious and partly philosophical</td>
</tr>
<tr>
<td>#12 to talk nonsense</td>
</tr>
<tr>
<td>#13 a Caribbean style of music</td>
</tr>
<tr>
<td>#14 a religion, like Islam</td>
</tr>
<tr>
<td>#15 a very small particle that sparkles</td>
</tr>
<tr>
<td>#16 an exclamation like ‘darn!’</td>
</tr>
<tr>
<td>#17 a sweet, seedless fruit</td>
</tr>
<tr>
<td>#18 a pejorative term for a person, a dork</td>
</tr>
<tr>
<td>#19 something to scuba dive in</td>
</tr>
<tr>
<td>#20 a gentile</td>
</tr>
<tr>
<td>#21 a round fruit like a grape or an avocado</td>
</tr>
<tr>
<td>#22 jambalaya-type food</td>
</tr>
<tr>
<td>#23 a grease monkey</td>
</tr>
<tr>
<td>#24 a color like purple</td>
</tr>
<tr>
<td>#25 a quantity expression for a group of things, like a dozen</td>
</tr>
<tr>
<td>#26 a new type of liquid makeup used to make you look younger</td>
</tr>
<tr>
<td>#27 an instrument like a trumpet</td>
</tr>
<tr>
<td>#28 an oblong, round shape</td>
</tr>
<tr>
<td>#29 a stone</td>
</tr>
<tr>
<td>#30 a stocky, little guy</td>
</tr>
<tr>
<td>#31 to stop</td>
</tr>
<tr>
<td>#32 a jar</td>
</tr>
<tr>
<td>#33 a fast dance step</td>
</tr>
<tr>
<td>#34 a round bouncing object</td>
</tr>
<tr>
<td>#35 a ball you use in a game</td>
</tr>
<tr>
<td>#36 a small shack or rental property</td>
</tr>
<tr>
<td>#37 a fruit spread</td>
</tr>
<tr>
<td>#38 an animal, like a frog</td>
</tr>
<tr>
<td>#39 a duplicate</td>
</tr>
<tr>
<td>#40 greasy</td>
</tr>
<tr>
<td>#41 a round kind of candy, like a jelly bean</td>
</tr>
<tr>
<td>#42 a type of bouncy ball</td>
</tr>
<tr>
<td>#43 a boring person</td>
</tr>
<tr>
<td>#44 a hair color like brownish-red</td>
</tr>
<tr>
<td>#45 a type of candy, shaped like a jelly bean</td>
</tr>
<tr>
<td>#46 to jump</td>
</tr>
<tr>
<td>#47 a wind instrument, like the clarinet</td>
</tr>
<tr>
<td>#48 a cut</td>
</tr>
<tr>
<td>#49 a mechanic’s tool</td>
</tr>
<tr>
<td>#50 to take</td>
</tr>
<tr>
<td>#51 a candy like a jelly bean</td>
</tr>
<tr>
<td>#52 a shade of yellow</td>
</tr>
<tr>
<td>#53 movement to the left</td>
</tr>
<tr>
<td>#54 a hand mixer</td>
</tr>
<tr>
<td>#55 to throw</td>
</tr>
<tr>
<td>#56 a ball</td>
</tr>
<tr>
<td>#57 a fast dance with a lot of weird motions</td>
</tr>
<tr>
<td>#58 happy</td>
</tr>
<tr>
<td>#59 footwear for the rain</td>
</tr>
<tr>
<td>#60 something attention-grabbing</td>
</tr>
<tr>
<td>#61 something lame-o</td>
</tr>
<tr>
<td>#62 a round, fruity candy</td>
</tr>
<tr>
<td>#63 a blob of something</td>
</tr>
<tr>
<td>#64 vanilla coke</td>
</tr>
<tr>
<td>#65 a tube</td>
</tr>
<tr>
<td>#66 a tube in a ‘J’-form</td>
</tr>
<tr>
<td>#67 to run</td>
</tr>
<tr>
<td>#68 a bathtub</td>
</tr>
<tr>
<td>#69 jelly</td>
</tr>
<tr>
<td>#70 a greeting</td>
</tr>
<tr>
<td>#71 a big, round rock</td>
</tr>
<tr>
<td>#72 a gathering place, maybe for worship</td>
</tr>
<tr>
<td>#73 a liquid, like oil</td>
</tr>
<tr>
<td>#74 a glob of something</td>
</tr>
<tr>
<td>#75 a small ball</td>
</tr>
<tr>
<td>#76 a fast dance move that involves shaking the hips</td>
</tr>
<tr>
<td>#77 a shade of purple seen after the sun sets</td>
</tr>
<tr>
<td>#78 a brick or a cinderblock</td>
</tr>
<tr>
<td>#79 a jelly-type substance</td>
</tr>
<tr>
<td>#80 an insult to lower class guys</td>
</tr>
<tr>
<td>#81 glue</td>
</tr>
<tr>
<td>#82 a nickname for a fat friend</td>
</tr>
<tr>
<td>#83 a ball</td>
</tr>
<tr>
<td>#84 a goofy person</td>
</tr>
<tr>
<td>#85 a general spherical object</td>
</tr>
<tr>
<td>#86 a new person on campus</td>
</tr>
<tr>
<td>#87 a shopping cart</td>
</tr>
<tr>
<td>#88 toe jam</td>
</tr>
<tr>
<td>#89 a fruit, like an orange</td>
</tr>
<tr>
<td>#90 a gelatinous substance</td>
</tr>
<tr>
<td>#91 to dodge</td>
</tr>
<tr>
<td>#92 excitement</td>
</tr>
<tr>
<td>#93 a sphere</td>
</tr>
<tr>
<td>#94 a soup bowl</td>
</tr>
<tr>
<td>#95 to fall going up the stairs</td>
</tr>
<tr>
<td>#96 a spherical shape</td>
</tr>
<tr>
<td>#97 a round shape</td>
</tr>
<tr>
<td>#98 a clear fluid</td>
</tr>
<tr>
<td>#99 red</td>
</tr>
<tr>
<td>#100 a type of music, a mix of hard rock and a little rap</td>
</tr>
<tr>
<td>#101 a big, flat screen TV</td>
</tr>
<tr>
<td>#102 a fast dance, like a jig</td>
</tr>
<tr>
<td>#103 a grass that only grows in the winter</td>
</tr>
<tr>
<td>#104 a natural fruit drink</td>
</tr>
<tr>
<td>#105 a chamber pot</td>
</tr>
<tr>
<td>#106 like a light bulb</td>
</tr>
<tr>
<td>#107 a tree with drooping branches</td>
</tr>
<tr>
<td>#108 a ball shaped object</td>
</tr>
<tr>
<td>#109 a round bug with dots</td>
</tr>
<tr>
<td>#110 a brightly colored, plastic toy consisting of folding pipes that can be formed into different shapes</td>
</tr>
<tr>
<td>#111 a color between blue and green</td>
</tr>
<tr>
<td>#112 a shade of blue</td>
</tr>
<tr>
<td>#113 an inner tube that kids play with</td>
</tr>
<tr>
<td>#114 to massage</td>
</tr>
<tr>
<td>#115 a role playing video game</td>
</tr>
<tr>
<td>#116 a chewy candy like a gummy bear, cone shaped</td>
</tr>
</tbody>
</table>
### Words Requiring Definitions

<table>
<thead>
<tr>
<th>Question ID: C. keeve [kʰiv]</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1 a small damp place in a cave</td>
</tr>
<tr>
<td>#2 to encrust something</td>
</tr>
<tr>
<td>#3 a hole</td>
</tr>
<tr>
<td>#4 a trench</td>
</tr>
<tr>
<td>#5 to retain</td>
</tr>
<tr>
<td>#6 stupid</td>
</tr>
<tr>
<td>#7 a tool like a saw</td>
</tr>
<tr>
<td>#8 a state of being perturbed</td>
</tr>
<tr>
<td>#9 the action of a bee striking a car</td>
</tr>
<tr>
<td>#10 a tool to open a can</td>
</tr>
<tr>
<td>#11 a hammer-like tool</td>
</tr>
<tr>
<td>#12 a Russian city</td>
</tr>
<tr>
<td>#13 to push something over</td>
</tr>
<tr>
<td>#14 an exotic, sweet, green fruit</td>
</tr>
<tr>
<td>#15 a tool for weaving</td>
</tr>
<tr>
<td>#16 to direct somebody in a precise direction</td>
</tr>
<tr>
<td>#17 a hole you dig in the ground</td>
</tr>
<tr>
<td>#18 a valuable keepsake</td>
</tr>
<tr>
<td>#19 to give</td>
</tr>
<tr>
<td>#20 a scoundrel</td>
</tr>
<tr>
<td>#21 a Russian dialect</td>
</tr>
<tr>
<td>#22 a bright orange fruit</td>
</tr>
<tr>
<td>#23 a type of bread</td>
</tr>
<tr>
<td>#24 a narrow passageway</td>
</tr>
<tr>
<td>#25 a quantity of fruit</td>
</tr>
<tr>
<td>#26 a type of martini that is a spinoff of the cosmopolitan</td>
</tr>
<tr>
<td>#27 a collision between objects</td>
</tr>
<tr>
<td>#28 to push something out of the way</td>
</tr>
<tr>
<td>#29 to keel over</td>
</tr>
<tr>
<td>#30 to cave in, collapse</td>
</tr>
<tr>
<td>#31 something sharp, pointed</td>
</tr>
<tr>
<td>#32 a small opening</td>
</tr>
<tr>
<td>#33 a spicy chicken dish</td>
</tr>
<tr>
<td>#34 a small crevice in a rock wall</td>
</tr>
<tr>
<td>#35 a type of bread, like a bagel</td>
</tr>
<tr>
<td>#36 to fall or bust</td>
</tr>
<tr>
<td>#37 to fall down</td>
</tr>
<tr>
<td>#38 a small kingdom</td>
</tr>
<tr>
<td>#39 a jacket</td>
</tr>
<tr>
<td>#40 a little bit of something</td>
</tr>
<tr>
<td>#41 a type of difficult, precise dive performed off a diving board</td>
</tr>
<tr>
<td>#42 to cut or open something up</td>
</tr>
<tr>
<td>#43 to jump off of something or to dive</td>
</tr>
<tr>
<td>#44 a bath sponge</td>
</tr>
<tr>
<td>#45 a type of small house plant</td>
</tr>
<tr>
<td>#46 an SUV or a jeep</td>
</tr>
<tr>
<td>#47 a small cabinet</td>
</tr>
<tr>
<td>#48 to overburden yourself</td>
</tr>
<tr>
<td>#49 a peninsula</td>
</tr>
<tr>
<td>#50 to think about</td>
</tr>
<tr>
<td>#51 to break something in half</td>
</tr>
<tr>
<td>#52 a canoe</td>
</tr>
<tr>
<td>#53 to hide away treasure as a kid</td>
</tr>
<tr>
<td>#54 a vase for flowers</td>
</tr>
<tr>
<td>#55 a knife</td>
</tr>
<tr>
<td>#56 a slick surface</td>
</tr>
<tr>
<td>#57 a bland food that poor people would eat</td>
</tr>
<tr>
<td>#58 a robot</td>
</tr>
<tr>
<td>#59 a small branch off a river</td>
</tr>
<tr>
<td>#60 the manner in which two things fit together</td>
</tr>
<tr>
<td>#61 a manner of working with wood</td>
</tr>
<tr>
<td>#62 a baby toy</td>
</tr>
<tr>
<td>#63 a green fruit like a lime (NOT a kiwi)</td>
</tr>
<tr>
<td>#64 to jump</td>
</tr>
<tr>
<td>#65 a weapon, like a dagger</td>
</tr>
<tr>
<td>#66 leaves in the wind</td>
</tr>
<tr>
<td>#67 to dig</td>
</tr>
<tr>
<td>#68 a telephone</td>
</tr>
<tr>
<td>#69 mysterious</td>
</tr>
<tr>
<td>#70 an unpleasant person</td>
</tr>
<tr>
<td>#71 a sudden movement</td>
</tr>
<tr>
<td>#72 a computerized tool for making various types of calculations</td>
</tr>
<tr>
<td>#73 a green vegetable, like a pea</td>
</tr>
<tr>
<td>#74 a swinging motion</td>
</tr>
<tr>
<td>#75 a type of hearty soup</td>
</tr>
<tr>
<td>#76 a glass dish for storing cakes</td>
</tr>
<tr>
<td>#77 the little area where you can slide a pen inside the ring of a spiral notebook</td>
</tr>
<tr>
<td>#78 a soft seat, like an airplane seat</td>
</tr>
<tr>
<td>#79 a cutting motion</td>
</tr>
<tr>
<td>#80 a special kind of knife</td>
</tr>
<tr>
<td>#81 a basket</td>
</tr>
<tr>
<td>#82 a cough or an illness</td>
</tr>
<tr>
<td>#83 a storage place</td>
</tr>
<tr>
<td>#84 a mound</td>
</tr>
<tr>
<td>#85 to change</td>
</tr>
<tr>
<td>#86 the guy who takes out the trash</td>
</tr>
<tr>
<td>#87 to steal</td>
</tr>
<tr>
<td>#88 a pinkish beige color</td>
</tr>
<tr>
<td>#89 a straight line</td>
</tr>
<tr>
<td>#90 a large, jagged, free-standing rock</td>
</tr>
<tr>
<td>#91 to cut</td>
</tr>
<tr>
<td>#92 a necessity</td>
</tr>
<tr>
<td>#93 to sink</td>
</tr>
<tr>
<td>#94 to pry somebody for help they shouldn’t be giving you</td>
</tr>
<tr>
<td>#95 to throw a hacky sack</td>
</tr>
<tr>
<td>#96 to make something out of wood</td>
</tr>
<tr>
<td>#97 a small, primitive dwelling</td>
</tr>
<tr>
<td>#98 a green fruit, shaped like a banana but smaller</td>
</tr>
<tr>
<td>#99 an atoll</td>
</tr>
<tr>
<td>#100 a lie</td>
</tr>
<tr>
<td>#101 a long paddle for a boat</td>
</tr>
<tr>
<td>#102 to steal something</td>
</tr>
<tr>
<td>#103 the speed of sound</td>
</tr>
<tr>
<td>#104 to do something stupid</td>
</tr>
<tr>
<td>#105 something that really annoys somebody</td>
</tr>
<tr>
<td>#106 a chandelier in a breakfast nook</td>
</tr>
<tr>
<td>#107 to antagonize somebody to the point of an altercation</td>
</tr>
<tr>
<td>#108 rowing or steering a ship</td>
</tr>
<tr>
<td>#109 a crevice in the earth</td>
</tr>
<tr>
<td>#110 the bank of a river</td>
</tr>
<tr>
<td>#111 the look you make when you have little hope of success</td>
</tr>
<tr>
<td>#112 to freak out</td>
</tr>
<tr>
<td>#113 to procrastinate so much you are about to miss your deadline</td>
</tr>
<tr>
<td>#114 an intelligent person</td>
</tr>
<tr>
<td>#115 a description of the sound somebody makes when surprised</td>
</tr>
<tr>
<td>#116 the start of the descent on a rollercoaster</td>
</tr>
</tbody>
</table>
Question Data Sheet

Words Requiring Definitions

Question ID: D. wam [warm]

#1 a pen with a dangling object attached  #59 a type of wide-brimmed hat
#2 denotes an impact  #60 to steal
#3 a long, narrow stick  #61 your home
#4 Asian food  #62 spicy chicken
#5 a type of gin  #63 a baseball bat
#6 mother  #64 to throw
#7 a mythical, silly animal  #65 pertaining to a religious ritual
#8 an open place  #66 a splash
#9 the action of a blade spinning  #67 to listen
#10 a sound to describe the impact of crashing onto the floor  #68 to slap
#11 a type of bird, large and pink  #69 a type of fruity gum
#12 a small, brown, arboreal animal  #70 a small animal, like a domesticated dog
#13 the sound a trombone makes  #71 describes a moaning noise
#14 a spacy, Latino food  #72 a wooden sailboat
#15 a furry, long-haired, arboreal animal  #73 something woven, like a basket or quilt
#16 to completely relax on the beach  #74 something that’s wet
#17 a wind instrument in a marching band  #75 a shouting way of speaking
#18 a medium-sized animal with a short tail that lives in the jungle  #76 a word game
#19 swimming  #77 the chair that gum is stuck under
#20 a wig  #78 reminiscent of eggs
#21 Asian food  #79 to wade through water
#22 flying squirrel  #80 a chair that sits very close to the ground
#23 an island  #81 a sack
#24 a big, wide-open space  #82 deserted area
#25 stormy weather  #83 to do something fast
#26 something warm and fuzzy that wraps around you  #84 an awkward looking plant, almost a root, with pink flowers
#27 a metallic pot  #85 to strike
#28 an object you would sit in  #86 to strike
#29 silent  #87 to bounce
#30 something wound up  #88 muddy black ice
#31 a Chinese soup  #89 a wild animal, like a mountain lion
#32 represents an explosion  #90 a type of candy, chewy and sweet
#33 the sound of an impact  #91 a large, black dog
#34 a wind instrument, like a didgeridoo  #92 to wonder or worry
#35 a short, flat house  #93 to hit
#36 to complain  #94 when you hit two pens together really loud
#37 to be at peace  #95 to complain
#38 an animal like a bat  #96 to hit something hard
#39 to watch  #97 a rough, sturdy, synthetic material
#40 a lot of something  #98 something broad and concave, like a crater
#41 a colorful, African shirt  #99 a creek
#42 an echoing sound  #100 a long, low-pitched, slow noise with a sudden high-pitched part
#43 soft or fluffy, like a blanket  #101 a headband
#44 a big drum or other percussion instrument  #102 to be tired
#45 a Chinese noodle  #103 a material that a baseball bat is made from
#46 a fruity candy  #104 something crumpled up, like paper
#47 a thick, reddish-brown sauce  #105 a thin, water-based soup
#48 chopsticks  #106 a rat
#49 exotic cuisine  #107 a bat (animal)
#50 confused  #108 A food like rice and shrimp or other seafood
#51 to cuddle up with a blanket  #109 to be deeply saddened
#52 a skinny person (lady)  #110 a fuzzy blanket
#53 balance  #111 two armloads of something
#54 to throw a punch  #112 bored (not interested)
#55 a type of currency  #113 comfortable, soothing
#56 to make a noise  #114 motherly
#57 an exclamation of astonishment  #115 a cooking appliance
#58 big  #116 a dispute
Question Data Sheet

Words Requiring Definitions

Question ID: E. ieszof\[ˈiːzəf\]

#1 a Jewish name
#2 a Norwegian food
#3 a food with something melted and oozing on top
#4 a Hebrew person
#5 an eastern religion
#6 a type of food, like rice
#7 to shovel something
#8 a surface to paint or draw on
#9 the action of a saw sawing through a metal chain
#10 a tropical island
#11 type of food consisting of meat and sauce
#12 a small donkey
#13 easily achieved
#14 a greeting
#15 a person who likes to choose the easy way out
#16 something difficult to manage
#17 a library, a place of peace
#18 a muscular, tall person
#19 something soft, like a pillow
#20 a pulley
#21 having to do with roads, highways, bridges
#22 an Arab man
#23 a war novel
#24 a feline-type animal
#25 a cart to carry things
#26 a defense attorney who hasn’t done his homework
#27 a mountaneous location
#28 a feeling of happiness
#29 to begin
#30 a big, Scandinavian man
#31 something smooth, relaxed
#32 access to a highway
#33 a country like those in Tolkien’s “Lord of the Rings”
#34 a Germanic language
#35 a religious holiday
#36 an internal organ
#37 a big desk
#38 a sinister person
#39 quickly
#40 a deceptive person
#41 a sly person
#42 a tool for spreading something
#43 a holiday celebrating the harvest
#44 an East Indian food, like curry or rice
#45 a wooden ladder
#46 a rural town
#47 an area like an attic for storing things
#48 an elf
#49 a ladder
#50 a backyard deck
#51 to purposefully not do something
#52 a kite
#53 when a plane pulls back prior to takeoff
#54 a tool for cutting things in two like a saw
#55 a principle or standard
#56 someone foreign who likes to read
#57 a hearty sandwich with a dressing on it
#58 a couch
#59 to cut something short
#60 to remove something
#61 an insult
#62 a type of misbehavior
#63 to ski
#64 high
#65 a plant like oleander
#66 pertaining to ease and flow
#67 to eat
#68 a powder room
#69 an apartment
#70 a giraffe
#71 a plain, wooden chair
#72 a soup with noodles, maybe homemade
#73 walking
#74 something that’s high up, like the top floor
#75 to pray
#76 to flick water off of a surface
#77 a person who runs around the block with no shoes
#78 a spill
#79 pertaining to a castle
#80 a floor tile
#81 running
#82 to stop or relent
#83 a black sports car
#84 to skip fluidly
#85 a charismatic way of acting
#86 a slacker
#87 to rent, maybe a movie
#88 a suicidal person
#89 grotesque
#90 a type of bird with a long tail which is brightly colored
#91 a cathedral-type church
#92 to calm down
#93 a nice person
#94 to cut somebody off when driving by accident
#95 to perish
#96 a ladder
#97 a sleeping arrangement involving two or more palates
#98 a type of noodle, like linguini
#99 a bastion
#100 a valley
#101 a slacker
#102 relaxed
#103 a cushion brought to sporting events to sit on
#104 to spy on somebody
#105 somebody who’s lazy
#106 a giant wall, like on the Parthenon
#107 to be lazy
#108 an expression of jubilation
#109 a winter tree found in Canada that can be tall and is flowering
#110 a fruit-flavored, strong alcoholic drink
#111 a dual concept of both a journey and a destination
#112 tired
#113 a tool used to measure distance
#114 to make something pretty
#115 a warm fleece jacket
#116 a tool, like a shovel and a crowbar
Question Data Sheet

Words Requiring Definitions

Question ID: F. kedid ['kʰɛɾəd]

#1 a way of kicking a ball
#2 beaten into shape
#3 an adjective meaning ‘adjacent to’
#4 to catch things, like fish
#5 a kenning
#6 hurt, injured
#7 a type of sport, like soccer
#8 the feeling experienced upon seeing somebody you haven’t seen in a long time
#9 the action of a small tire rolling over a gravel surface
#10 something to store food inside the refrigerator
#11 a cabinet
#12 a secret
#13 tangled
#14 to dislike or badmouth
#15 short and to the point
#16 something cool or swell
#17 a dog kennel
#18 to dust something
#19 a cowboy hat
#20 cantered
#21 food cooked just right, between raw and burned
#22 describes a drunk person
#23 something stamped
#24 to be in a hurry
#25 to gather things together
#26 an item that has fallen into the possession of a dog and is destroyed
#27 to scurry away
#28 to be shorted on something
#29 close
#30 a completed activity
#31 something sharp, pointed
#32 something soft, like a pillow
#33 a type of lettuce, like kale
#34 to terminate a game early when a probable outcome has been determined
#35 somebody who talks a lot and is loud
#36 to chat
#37 to find something
#38 an introverted person
#39 to cook
#40 to joke around with someone
#41 a bright color like orange or red
#42 a type of dry dog food, like kibble
#43 bent, folded or wrinkled
#44 something that has an uneven surface
#45 to truncate something
#46 to kick
#47 to be brusque
#48 to cut somebody off in a car
#49 a type of wheat
#50 excited
#51 incomprehensible
#52 a shy person
#53 when you’re in the outfield and you try to get the ball but miss it
#54 a type of bed, low to the ground and boxy
#55 close together
#56 skipped
#57 a type of shirt or blouse
#58 to do very well at something
#59 a hard ball between the size of a softball and a basketball
#60 a manner of striking something
#61 a type of bucket or container
#62 to throw something away
#63 skittish
#64 a blanket
#65 twisted together in a pile
#66 to hit something
#67 popcorn
#68 something to cook in, like a pan
#69 a doll
#70 to leave
#71 something that has been shortened
#72 an athletic event similar to hopping and jumping
#73 a sport with balls
#74 something that’s riveted or studded
#75 a how-to book
#76 mixed up words or thoughts
#77 the scent left after burnt popcorn
#78 cold
#79 a fruit gathering action
#80 a door
#81 a spoon
#82 a long, orange fruit or vegetable, like a banana or a cucumber
#83 a spice, like garlic
#84 swimming
#85 taken aback
#86 an aggressive person
#87 to catch
#88 to talk fast
#89 to be able
#90 to become angry with someone
#91 honest
#92 flawed
#93 something that repeats
#94 to be shy around your parents but outgoing around everyone else
#95 to declaw a cat
#96 something noted
#97 a state of moribund flesh
#98 an emotion of feeling mild coercion
#99 a mule
#100 a throw to home plate from the outfield
#101 a big cooking pot, like a cauldron
#102 to put something away for safe keeping or to wrap something up
#103 a leather shoe with a rubber sole and Velcro with some cushioning inside
#104 to obtain
#105 somebody who has a good head on his shoulders
#106 to put the top on a pot
#107 to be reserved
#108 a plant, like a cabbage or a lettuce
#109 cross stitching
#110 chosen, picked out
#111 to bring together
#112 worried
#113 stacked up, one on another
#114 funny
#115 a process where you check somebody’s body temperature
#116 fenced in
#1 a pirate's ship
#2 a description of scenery in a painting
#3 an old wooden boat like those of Columbus' day
#4 a bright, sunny time of year
#5 a vineyard
#6 smart, intelligent
#7 a type of minivan
#8 something handmade
#9 the action of a (brake) pad grinding up against metal
#10 a utensil to prepare food
#11 (turquoise) jewelry
#12 a yellow cake
#13 a family member name, like an aunt
#14 a color close to purple
#15 a mythological or extinct winged creature
#16 a box of candy
#17 a Residential street
#18 a large wooden boat
#19 an insect like a moth
#20 a nave
#21 a color like mauve
#22 a car part
#23 a friend
#24 reminiscent of a Mexican
#25 a group of things
#26 a type of rose that has the fragrance of lavender
#27 a military airplane
#28 a small, southern town
#29 work
#30 an agenda
#31 something comfortable, soft
#32 an exceptional person
#33 a fencing sword
#34 arthritis medication
#35 a journey
#36 a hot color, like orange or yellow
#37 to cut something
#38 an edgy, countercultural person
#39 money (in general)
#40 a styling gel for hair
#41 a war helmet
#42 spreadable food in general, like PB&J or Vegemite
#43 a quantity of water
#44 a king or a ruler
#45 a small, green, ringed planet
#46 to dance
#47 a technical piece of equipment, like with a telescope
#48 a warlock
#49 a brand of makeup
#50 complex
#51 something very far away
#52 a barge
#53 the process of applying a light skin of color to a canvas
#54 a type of cornstarch
#55 an early, metal ship
#56 an accident
#57 a profession available to many which is liberal arts-based
#58 a very bad person

#59 to destroy something
#60 a large structure, maybe for housing
#61 pertaining to fabric
#62 something on a ship, maybe for navigation
#63 to travel
#64 a wire
#65 a big ship
#66 to push something
#67 a ship, like a yacht
#68 grass
#69 escargot
#70 a fruit like an orange
#71 a small, ground-dwelling mammal
#72 sharp medical tools
#73 a food like chocolate
#74 an old boat with sails
#75 a big, automatic gun
#76 a veterinary office or a kennel
#77 a line of hair care products
#78 a wing(s)
#79 social gathering where dancing might occur
#80 a scientific measurement of electricity
#81 a box
#82 a big, vicious, hairy animal
#83 a type of yellow flower
#84 a large, Viking-like sailboat
#85 absent minded
#86 a car salesman
#87 a type of tree, like a walnut
#88 a flavor of ice cream: chocolate, toffee and coffee
#89 stormy weather
#90 a color between light blue and lavender
#91 to think
#92 angry
#93 chaos
#94 a single blade razor
#95 the first voyage on a new aircraft
#96 to joke with your students
#97 a small mammal from Australia
#98 a manufactured milk substance
#99 a coat of arms
#100 curious
#101 a hammer
#102 pretty
#103 a cleaning agent to remove rust
#104 ice cream
#105 a long, epic voyage
#106 a spell making wood come alive
#107 a bullfight
#108 a military job, maybe a cavalrman
#109 a variety of tobacco, not hallucinogenic
#110 a manmade material that comes in sheets
#111 {no response}
#112 tall
#113 a kind of plastic material
#114 strong
#115 a bland food made of eggs, cream and milk
#116 a dark, melancholy individual
#1 a dog-like animal with a bushy tail and a long nose  
#2 a description of a place  
#3 a designation for one's ancestor  
#4 a type of collage  
#5 a Native American tribe  
#6 to care for something  
#7 a slang form of greeting  
#8 a furry, passive animal  
#9 a muffled sneeze  
#10 an expression to call attention to someone  
#11 a Native American tribe  
#12 a type of beetle  
#13 an igloo  
#14 a long, short, white mammal  
#15 a tuberous, bitter food plant  
#16 brightness in the morning  
#17 a small reptile  
#18 a computer program  
#19 Chinese seafood  
#20 an igloo  
#21 a term of kinship  
#22 a cough drop  
#23 a jackal-type animal  
#24 to hit something  
#25 an ordinal number  
#26 a stimulant added to green tea  
#27 a small, furry rodent  
#28 an African animal like a deer, with antlers  
#29 to begin  
#30 an inlet on an island  
#31 a worm  
#32 a mountain pass  
#33 a small boat the Esikinos would use  
#34 a hut like those in Africa  
#35 a big bird, like an ostrich  
#36 a hot color, like orange or yellow  
#37 a computer accessory, like a USB  
#38 to instill fear in somebody  
#39 to influence  
#40 a fluffy, white animal found in cold climates  
#41 a medium-sized, ground-dwelling, brown animal with a short tail  
#42 a small measurement of volume  
#43 a landform, like a delta  
#44 a canoe paddle  
#45 to benefit someone  
#46 a sad feeling  
#47 a specialized piece of sewing equipment  
#48 to take a dump  
#49 a kitchen tool  
#50 a meditation or prayer  
#51 someone very nice  
#52 a child's toy  
#53 underwear for either sex  
#54 a peaceful, fishing Indian tribe  
#55 a grey rabbit-like animal  
#56 a skin irritation  
#57 a tropical, fruity, alcoholic drink  
#58 a trash can  
#59 a small one-person boat  
#60 a type of aquatic animal  
#61 a general place where kids hang out  
#62 a fish or some other aquatic creature  
#63 a greeting  
#64 bright  
#65 a fruit like a papaya  
#66 an iron  
#67 the universe  
#68 a swing  
#69 a board game  
#70 a purse  
#71 a country path  
#72 an animal like a bear that walks on two legs  
#73 an Internet research site, like Wikipedia  
#74 a small bird around parks  
#75 a procedure done at the doctor's office, like blood work and scanning  
#76 a type of building material  
#77 a dirty spot on a blanket  
#78 a pinhole  
#79 the color of ice when it gets dirty  
#80 a friendly greeting  
#81 floating  
#82 a small, saltwater fish  
#83 a highly absorbent material  
#84 a greeting  
#85 a small percussion instrument  
#86 an independent person  
#87 a car part, maybe a hose  
#88 a rotten smell in the fridge  
#89 an ending  
#90 to look at someone puzzled  
#91 a road  
#92 a greeting  
#93 something that's creepy  
#94 a small bird, like a sparrow  
#95 to see an old friend  
#96 glasses  
#97 a bead currency  
#98 a situation where a problem cannot be resolved even though one person has complete power over all others  
#99 natural light  
#100 to be kicked out of somewhere  
#101 a non-specific measurement of time  
#102 a washer  
#103 a game played at the beach involving two Frisbees, an umbrella and a wiffle ball  
#104 to say goodbye  
#105 a pirogue  
#106 reminiscent of a sled dog  
#107 computer security software  
#108 mediocre or so-so  
#109 a power supply from a computer  
#110 a medical device made of metal and plastic for testing, like drawing blood  
#111 a small amount  
#112 water  
#113 an exclamation, said in pain or anger  
#114 to take notes  
#115 a technique used in writing research papers  
#116 a small dolphin
## Question Data Sheet

**Words Requiring Definitions**

<table>
<thead>
<tr>
<th>Question ID</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1</td>
<td>a Greek god of sleep</td>
</tr>
<tr>
<td>#2</td>
<td>nose spray</td>
</tr>
<tr>
<td>#3</td>
<td>a dark (evil) character from Greek or Roman mythology</td>
</tr>
<tr>
<td>#4</td>
<td>a sickness of the nose</td>
</tr>
<tr>
<td>#5</td>
<td>to become excited over</td>
</tr>
<tr>
<td>#6</td>
<td>silly</td>
</tr>
<tr>
<td>#7</td>
<td>a computer program</td>
</tr>
<tr>
<td>#8</td>
<td>something that would make you happy, like a movie</td>
</tr>
<tr>
<td>#9</td>
<td>the action of a marble travelling along a Styrofoam pipe</td>
</tr>
<tr>
<td>#10</td>
<td>an expression used in pleasant conversation</td>
</tr>
<tr>
<td>#11</td>
<td>a fairy tale for children, like a fable</td>
</tr>
<tr>
<td>#12</td>
<td>a Greek philosopher</td>
</tr>
<tr>
<td>#13</td>
<td>an algorithm</td>
</tr>
<tr>
<td>#14</td>
<td>confused</td>
</tr>
<tr>
<td>#15</td>
<td>a geographical term for a densely-vegetated place which is hard to cross</td>
</tr>
<tr>
<td>#16</td>
<td>nonsense</td>
</tr>
<tr>
<td>#17</td>
<td>an upper respiratory or nasal infection</td>
</tr>
<tr>
<td>#18</td>
<td>a cold medicine, nasal spray</td>
</tr>
<tr>
<td>#19</td>
<td>a parade</td>
</tr>
<tr>
<td>#20</td>
<td>happy</td>
</tr>
<tr>
<td>#21</td>
<td>the path and shape of a river</td>
</tr>
<tr>
<td>#22</td>
<td>a medicine for nasal congestion</td>
</tr>
<tr>
<td>#23</td>
<td>a tree like an elm</td>
</tr>
<tr>
<td>#24</td>
<td>a type of cloud composed of distinct ice crystals</td>
</tr>
<tr>
<td>#25</td>
<td>one’s thoughts</td>
</tr>
<tr>
<td>#26</td>
<td>an emollient for the feet</td>
</tr>
<tr>
<td>#27</td>
<td>a disease</td>
</tr>
<tr>
<td>#28</td>
<td>a small passageway</td>
</tr>
<tr>
<td>#29</td>
<td>playful</td>
</tr>
<tr>
<td>#30</td>
<td>to be close in proximity</td>
</tr>
<tr>
<td>#31</td>
<td>something to do with the nose, smell</td>
</tr>
<tr>
<td>#32</td>
<td>the deck of a U-boat</td>
</tr>
<tr>
<td>#33</td>
<td>an old, grey-headed man</td>
</tr>
<tr>
<td>#34</td>
<td>to sneak around and rifle through somebody’s things</td>
</tr>
<tr>
<td>#35</td>
<td>a mental disorder</td>
</tr>
<tr>
<td>#36</td>
<td>the tube used to help a patient breathe</td>
</tr>
<tr>
<td>#37</td>
<td>a story passed down</td>
</tr>
<tr>
<td>#38</td>
<td>a feeling of nervousness</td>
</tr>
<tr>
<td>#39</td>
<td>a nasal strip</td>
</tr>
<tr>
<td>#40</td>
<td>a dark color like blue</td>
</tr>
<tr>
<td>#41</td>
<td>a disease of the immune system that makes you feel drowsy</td>
</tr>
<tr>
<td>#42</td>
<td>an allergy medicine</td>
</tr>
<tr>
<td>#43</td>
<td>an intellectual person</td>
</tr>
<tr>
<td>#44</td>
<td>a pain reliever, like Icy Hot</td>
</tr>
<tr>
<td>#45</td>
<td>a medicine for the brain</td>
</tr>
<tr>
<td>#46</td>
<td>a cold (illness)</td>
</tr>
<tr>
<td>#47</td>
<td>an inlet</td>
</tr>
<tr>
<td>#48</td>
<td>a drug to treat ADD</td>
</tr>
<tr>
<td>#49</td>
<td>a philosopher</td>
</tr>
<tr>
<td>#50</td>
<td>a competition</td>
</tr>
<tr>
<td>#51</td>
<td>to daydream</td>
</tr>
<tr>
<td>#52</td>
<td>a natural passageway</td>
</tr>
<tr>
<td>#53</td>
<td>a trough in the earth</td>
</tr>
<tr>
<td>#54</td>
<td>to take something from</td>
</tr>
<tr>
<td>#55</td>
<td>a sea monster like Loch Ness</td>
</tr>
<tr>
<td>#56</td>
<td>to sneeze</td>
</tr>
<tr>
<td>#57</td>
<td>a medical instrument for internal x-rays</td>
</tr>
<tr>
<td>#58</td>
<td>a type of anesthesia</td>
</tr>
<tr>
<td>#59</td>
<td>to calm somebody down</td>
</tr>
<tr>
<td>#60</td>
<td>relates to the esophagus</td>
</tr>
<tr>
<td>#61</td>
<td>a Neanderthal</td>
</tr>
<tr>
<td>#62</td>
<td>a type of lotion, soap or face wash</td>
</tr>
<tr>
<td>#63</td>
<td>to read</td>
</tr>
<tr>
<td>#64</td>
<td>clothes</td>
</tr>
<tr>
<td>#65</td>
<td>nose medicine</td>
</tr>
<tr>
<td>#66</td>
<td>to influence someone</td>
</tr>
<tr>
<td>#67</td>
<td>the jungle</td>
</tr>
<tr>
<td>#68</td>
<td>a bed</td>
</tr>
<tr>
<td>#69</td>
<td>Native American clothing</td>
</tr>
<tr>
<td>#70</td>
<td>socks</td>
</tr>
<tr>
<td>#71</td>
<td>a decongestant</td>
</tr>
<tr>
<td>#72</td>
<td>a bubbly, alcoholic beverage</td>
</tr>
<tr>
<td>#73</td>
<td>to influence someone</td>
</tr>
<tr>
<td>#74</td>
<td>a category of tall people</td>
</tr>
<tr>
<td>#75</td>
<td>a state of being numb</td>
</tr>
<tr>
<td>#76</td>
<td>a nose medicine</td>
</tr>
<tr>
<td>#77</td>
<td>homemade nasal spray</td>
</tr>
<tr>
<td>#78</td>
<td>therapeutic</td>
</tr>
<tr>
<td>#79</td>
<td>a thick grained wood</td>
</tr>
<tr>
<td>#80</td>
<td>descriptive of freezing cold</td>
</tr>
<tr>
<td>#81</td>
<td>driving</td>
</tr>
<tr>
<td>#82</td>
<td>a race of tall, hairless people</td>
</tr>
<tr>
<td>#83</td>
<td>an eraser</td>
</tr>
<tr>
<td>#84</td>
<td>a prescription sleeping pill</td>
</tr>
<tr>
<td>#85</td>
<td>ignorant</td>
</tr>
<tr>
<td>#86</td>
<td>a person who isn’t very smart</td>
</tr>
<tr>
<td>#87</td>
<td>confusion</td>
</tr>
<tr>
<td>#88</td>
<td>a dangerous switchback on a cliff</td>
</tr>
<tr>
<td>#89</td>
<td>brilliant</td>
</tr>
<tr>
<td>#90</td>
<td>somebody who doubts others</td>
</tr>
<tr>
<td>#91</td>
<td>a good wizard</td>
</tr>
<tr>
<td>#92</td>
<td>to reassure</td>
</tr>
<tr>
<td>#93</td>
<td>a siphon</td>
</tr>
<tr>
<td>#94</td>
<td>a product for the nose or sinuses</td>
</tr>
<tr>
<td>#95</td>
<td>to drive off a cliff</td>
</tr>
<tr>
<td>#96</td>
<td>a type of medicine for arthritis</td>
</tr>
<tr>
<td>#97</td>
<td>the attempt to measure something’s dimensions approximately</td>
</tr>
<tr>
<td>#98</td>
<td>a sinus condition where the nasal passages are constricted</td>
</tr>
<tr>
<td>#99</td>
<td>a canal</td>
</tr>
<tr>
<td>#100</td>
<td>a grade of gasoline</td>
</tr>
<tr>
<td>#101</td>
<td>a piece of tubing, like a funnel</td>
</tr>
<tr>
<td>#102</td>
<td>a medicine for a skin rash</td>
</tr>
<tr>
<td>#103</td>
<td>a drink containing four types of alcohol and fruit juice</td>
</tr>
<tr>
<td>#104</td>
<td>to educate somebody</td>
</tr>
<tr>
<td>#105</td>
<td>pertains to being thorough, a person or a thing</td>
</tr>
<tr>
<td>#106</td>
<td>headhunters to be feared</td>
</tr>
<tr>
<td>#107</td>
<td>medicine that treats breast cancer</td>
</tr>
<tr>
<td>#108</td>
<td>a pass through a canyon</td>
</tr>
<tr>
<td>#109</td>
<td>similar to neurons in the brain, they transmit signals</td>
</tr>
<tr>
<td>#110</td>
<td>soporific</td>
</tr>
<tr>
<td>#111</td>
<td>something unremarkable</td>
</tr>
<tr>
<td>#112</td>
<td>a large, furry, mammal that is dangerous to people</td>
</tr>
<tr>
<td>#113</td>
<td>a tall people group from a cold climate</td>
</tr>
<tr>
<td>#114</td>
<td>to dream</td>
</tr>
<tr>
<td>#115</td>
<td>a legal document detailing real estate law or a housing agreement</td>
</tr>
<tr>
<td>#116</td>
<td>a knot that can’t be untied</td>
</tr>
</tbody>
</table>
# Question Data Sheet

**Words Requiring Definitions**

**Question ID:** J. phillontave [ˈfɪˌlɒnˈtæv]  

1. a very cold, small, distant island  
2. to fill something unequally  
3. a group of random objects that you might place into a backpack  
4. a thief  
5. to study human culture, like anthropology  
6. a tropical island  
7. an unspecified academic discipline  
8. a type of gel used to caulk  
9. the action of a stack of papers being shredded  
10. something that is artificially heated  
11. an ideology  
12. a type of sandwich  
13. to pump gas  
14. a cave  
15. to coerce somebody into doing something  
16. a bragging, obnoxious person  
17. something done in way that is different than is customary  
18. a bone or cartilage in the nose  
19. [no response]  
20. dumb (not intelligent)  
21. a distinguished and retired person  
22. a skinny, short person  
23. a gas station  
24. a salad  
25. a measurement of time  
26. an oriental grass that grows in a marsh  
27. a type of chemical  
28. to exchange something for something else  
29. to dig  
30. a tree like an orange tree  
31. a mechanical tool used for levering  
32. a big spender  
33. a smooth, upholstered fabric  
34. to compose a piece of music  
35. to crave, salivate  
36. to cross-examine somebody  
37. a foyer or a hallway  
38. a member of a royal court  
39. to study  
40. a writing utensil  
41. a packaging material used at the post office  
42. a shovel used in the garden  
43. a writing pen  
44. a large, wooden sailboat  
45. to overthrow a ruler  
46. bad weather with tornadoes  
47. an apology  
48. peculiar  
49. a tribal people  
50. a measuring device, like a beaker  
51. to put something on a shelf  
52. a store that sells staples  
53. a piece of hardware that tightens down a lamp fixture  
54. an earth-tone color, like moss  
55. a leather-working tool  
56. watching something  
57. a post-exercise snack  
58. somebody smart  
59. a tool like a pick used in archaeology  
60. done in a thorough manner  
61. something unnecessary  
62. a shoe, like a loafer  
63. to think  
64. to pull  
65. something sticky and gritty  
66. to film someone  
67. to drop on the ground  
68. duct tape  
69. a biologist  
70. to run  
71. a light fixture like those you see in the movie theater  
72. toothpaste  
73. to find something you lost  
74. a videocassette  
75. reading  
76. a soft, felt-like material  
77. the glue for tape or a post-it  
78. calm, easy, peaceful  
79. a thrusting action in ultimate frisbee or lacrosse  
80. a musical note in terms of pitch  
81. a cloud  
82. a utensil, like a spatula  
83. a mechanical pencil  
84. a close relative, like a brother  
85. abstractly  
86. a fat guy  
87. a type of glue  
88. a decorating style that is economical shabby-chic  
89. a rhyme  
90. to preach at someone  
91. a battle  
92. to take in, assimilate  
93. a traitor  
94. to do something you didn’t mean to do and you realize it later  
95. to put your shoes on without tying them  
96. a machine used to cut  
97. climbing up a rock  
98. a spinning top that will influence people’s decisions, like a dradle  
99. a plateau  
100. mimicking  
101. a pitcher, like for water  
102. a strong glue or cement  
103. a radar detector used by police and baseball scouts  
104. to be confused  
105. denture glue, like Fixodent  
106. sifting flower  
107. a car dent remover  
108. a sport with a ball  
109. a type of caulk  
110. a prepared food that is sweet  
111. a color like purple  
112. famous  
113. to arrange things in space  
114. open minded  
115. a method personal trainers use to prepare athletes for their sports  
116. a crazy straw (with lots of loops)
<table>
<thead>
<tr>
<th>Question ID: K. lulurode ['luː·lə·ʊd]</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1 a small, red, fragrant flower</td>
</tr>
<tr>
<td>#2 an uneven street</td>
</tr>
<tr>
<td>#3 a windy road like in the game Candyland</td>
</tr>
<tr>
<td>#4 bright, colorful flowers</td>
</tr>
<tr>
<td>#5 a game, maybe a video game</td>
</tr>
<tr>
<td>#6 a rock</td>
</tr>
<tr>
<td>#7 a little kid</td>
</tr>
<tr>
<td>#8 a windy, country road</td>
</tr>
<tr>
<td>#9 the action of a flower swaying in the wind</td>
</tr>
<tr>
<td>#10 something used to measure distance</td>
</tr>
<tr>
<td>#11 a children’s game</td>
</tr>
<tr>
<td>#12 a girl punk band</td>
</tr>
<tr>
<td>#13 a small, yellow flower</td>
</tr>
<tr>
<td>#14 a fun, happy, comfortable place</td>
</tr>
<tr>
<td>#15 a toy for children consisting of interlocking hoops</td>
</tr>
<tr>
<td>#16 flowery, embellished</td>
</tr>
<tr>
<td>#17 a toy</td>
</tr>
<tr>
<td>#18 a pipe snake</td>
</tr>
<tr>
<td>#19 a hippopotamus</td>
</tr>
<tr>
<td>#20 exuberant</td>
</tr>
<tr>
<td>#21 a child’s game</td>
</tr>
<tr>
<td>#22 a dance</td>
</tr>
<tr>
<td>#23 a mountain trail</td>
</tr>
<tr>
<td>#24 a chocolate candy bar</td>
</tr>
<tr>
<td>#25 something heavy</td>
</tr>
<tr>
<td>#26 an ingredient in a perfume that Angelina Jolie is working on</td>
</tr>
<tr>
<td>#27 a planet</td>
</tr>
<tr>
<td>#28 a fast-paced dance</td>
</tr>
<tr>
<td>#29 an old, WW2-style airplane</td>
</tr>
<tr>
<td>#30 a (small) rope</td>
</tr>
<tr>
<td>#31 a small, purple flower</td>
</tr>
<tr>
<td>#32 a crazy woman</td>
</tr>
<tr>
<td>#33 a carefree person</td>
</tr>
<tr>
<td>#34 a shortcut on a road trip</td>
</tr>
<tr>
<td>#35 a colorful, South American vest</td>
</tr>
<tr>
<td>#36 a town on the beach</td>
</tr>
<tr>
<td>#37 a writing pen</td>
</tr>
<tr>
<td>#38 a whimsical animal with a long tail, like a lemur</td>
</tr>
<tr>
<td>#39 to play</td>
</tr>
<tr>
<td>#40 whimsical, girlish, childhood play</td>
</tr>
<tr>
<td>#41 a dance, like the aloha dance</td>
</tr>
<tr>
<td>#42 a mountain range</td>
</tr>
<tr>
<td>#43 a cloth napkin</td>
</tr>
<tr>
<td>#44 a horse’s bit</td>
</tr>
<tr>
<td>#45 to bypass something</td>
</tr>
<tr>
<td>#46 a large beach</td>
</tr>
<tr>
<td>#47 a special toy with moving parts</td>
</tr>
<tr>
<td>#48 ambiguous</td>
</tr>
<tr>
<td>#49 a tool for weaving</td>
</tr>
<tr>
<td>#50 oil</td>
</tr>
<tr>
<td>#51 to meander</td>
</tr>
<tr>
<td>#52 a baby blanket</td>
</tr>
<tr>
<td>#53 a bright purple flower</td>
</tr>
<tr>
<td>#54 a vegetable, like a pear, that grows on a vine</td>
</tr>
<tr>
<td>#55 a slingshot</td>
</tr>
<tr>
<td>#56 doing something new</td>
</tr>
<tr>
<td>#57 a game that small children play at recess</td>
</tr>
<tr>
<td>#58 a type of toy</td>
</tr>
<tr>
<td>#59 a tribal dance</td>
</tr>
<tr>
<td>#60 a passageway</td>
</tr>
<tr>
<td>#61 something that goes on and on and on</td>
</tr>
<tr>
<td>#62 a flower bed</td>
</tr>
<tr>
<td>#63 pink candy, like bubble gum</td>
</tr>
<tr>
<td>#64 erratic motion</td>
</tr>
<tr>
<td>#65 fresh irises</td>
</tr>
<tr>
<td>#66 to swerve down the road</td>
</tr>
<tr>
<td>#67 curves, like in a road OR a rose</td>
</tr>
<tr>
<td>#68 cough medicine</td>
</tr>
<tr>
<td>#69 a swing dance</td>
</tr>
<tr>
<td>#70 to hang out</td>
</tr>
<tr>
<td>#71 a field on the plains with tall grass</td>
</tr>
<tr>
<td>#72 a disease of the lymph nodes</td>
</tr>
<tr>
<td>#73 a line of people</td>
</tr>
<tr>
<td>#74 describes a human-powered mode of transportation</td>
</tr>
<tr>
<td>#75 a small, quaint town</td>
</tr>
<tr>
<td>#76 a piece of play equipment</td>
</tr>
<tr>
<td>#77 a codename for when you break a window</td>
</tr>
<tr>
<td>#78 twisty</td>
</tr>
<tr>
<td>#79 a shuffling movement</td>
</tr>
<tr>
<td>#80 a trick involving flips</td>
</tr>
<tr>
<td>#81 a jump rope</td>
</tr>
<tr>
<td>#82 a female article of clothing, like a long dress</td>
</tr>
<tr>
<td>#83 a chair</td>
</tr>
<tr>
<td>#84 a vacation</td>
</tr>
<tr>
<td>#85 laid back</td>
</tr>
<tr>
<td>#86 a speed bump</td>
</tr>
<tr>
<td>#87 to run around</td>
</tr>
<tr>
<td>#88 to go off on a tangent when speaking</td>
</tr>
<tr>
<td>#89 colorful</td>
</tr>
<tr>
<td>#90 to evade a question</td>
</tr>
<tr>
<td>#91 a crazy person, like a schizophrenic</td>
</tr>
<tr>
<td>#92 joyful</td>
</tr>
<tr>
<td>#93 whimsical</td>
</tr>
<tr>
<td>#94 the handle on top of a pan</td>
</tr>
<tr>
<td>#95 when you drop a book</td>
</tr>
<tr>
<td>#96 a game with a ball</td>
</tr>
<tr>
<td>#97 a soft and frilly fabric</td>
</tr>
<tr>
<td>#98 something that is permanently curled</td>
</tr>
<tr>
<td>#99 a forest</td>
</tr>
<tr>
<td>#100 misleading</td>
</tr>
<tr>
<td>#101 something solid</td>
</tr>
<tr>
<td>#102 a purple-pink flower, medium sized</td>
</tr>
<tr>
<td>#103 a vegetarian dish served in the Sears Tower</td>
</tr>
<tr>
<td>#104 to go swimming</td>
</tr>
<tr>
<td>#105 a winding road</td>
</tr>
<tr>
<td>#106 a big roll of paper</td>
</tr>
<tr>
<td>#107 a bicycle tire</td>
</tr>
<tr>
<td>#108 bizarre or confusing</td>
</tr>
<tr>
<td>#109 a small, delicate, purple flower, built around a central axis</td>
</tr>
<tr>
<td>#110 a mammal that hops and jumps</td>
</tr>
<tr>
<td>#111 a positive emotion, like overjoyed</td>
</tr>
<tr>
<td>#112 a small sports car</td>
</tr>
<tr>
<td>#113 an incredibly amazing party</td>
</tr>
<tr>
<td>#114 to study</td>
</tr>
<tr>
<td>#115 a time of day between one and four o’clock</td>
</tr>
<tr>
<td>#116 a carnival ride, like a merry-go-round</td>
</tr>
</tbody>
</table>
#1 a white, vegetarian, ox-like animal
#2 a type of gogles
#3 something without coherence, nonsensical
#4 a mean person
#5 a James Joyce-inspired word
#6 a small, green-yellow, flowering plant
#7 a weird town in a valley
#8 a circus freak, maybe an animal-man
#9 putty used for sealing up cracks
#10 a barrier used to protect the eyes
#11 a wolf-like animal
#12 an old Nordic hero
#13 a mechanical clock
#14 reminiscent of Halloween, scary ghosts
#15 a ferocious animal the size of a raccoon, arboreal, nocturnal, and carnivorous
#16 pushing for a result
#17 a long sword
#18 a type of tropical bird
#19 {no response}
#20 smacked
#21 describes the architecture of a castle
#22 a type of waterfowl
#23 a medium-sized, dog-like animal
#24 a big, tropical bird
#25 a thatched roof
#26 a seasoning salt for cooking shellfish
#27 a parrot
#28 a mistake you would want to cover up
#29 an alien monster
#30 a short walk
#31 someone raspy in voice
#32 an inland sea passageway
#33 Spanish-type architecture
#34 supports a building like a flying buttress
#35 to move laterally across a rock face
#36 a small plant or shrub
#37 a type of knife
#38 a Scottish alcoholic beverage
#39 to search
#40 a disease of the skin, a rash
#41 a surgical procedure
#42 a bird, like a seagull
#43 an extraterrestrial being
#44 floor sealant
#45 to saunter
#46 a movie monster
#47 a fantastical Tolkien character
#48 to screw up majorly
#49 a type of adhesive
#50 a strategic maneuver
#51 to glue something together
#52 a reference book
#53 a last train stop village before reaching the big city
#54 an animal with scales and feet, like an iguana
#55 a computer part, something technical
#56 a type of slime or sludge
#57 a small herbivore animal hunted for its meat
#58 a big, mean monster, like Grendel
#59 a construction tool for measuring

#60 a sturdy rock
#61 a weird (drinking) bar
#62 something old
#63 to look at something
#64 blocked in
#65 large, powerful castles, maybe with gargoyles
#66 to make a weird noise
#67 an old castle
#68 a cotton ball
#69 a ghost
#70 to be lazy
#71 a stained glass window
#72 a tool used around the yard to dig things up or break up soil
#73 to freak out
#74 the action of breaking something
#75 vomiting
#76 something that gets stuck to the bottom of your shoe
#77 the act of restoring the heal of a worn-down sandal
#78 a pinwheel or a windmill
#79 a traditional way in which beer is consumed
#80 an engine part
#81 to stop
#82 a medicine to help the elderly with their hearts
#83 a green spherical vegetable
#84 a short woodland creature, like a koala
#85 insane
#86 to drive a car
#87 a type of caulk
#88 a person who scares a lot
#89 tactile or hands on
#90 to hit somebody with a bat
#91 a bird, like a gull
#92 scared, anxious
#93 thick
#94 pure mayhem
#95 to forget your name
#96 a putty to form molds for repairs
#97 an anatomical part having to do with the circulatory system
#98 a greenish orange color
#99 an axe
#100 an odd, diagonal pattern, like with tiles
#101 a flying animal, not necessarily a bird, dangerous to people
#102 a troll or gooblin
#103 a putty substance used to fix leaks
#104 to throw
#105 a food like sausages and sauerkraut
#106 a dance like a high step but with more formality
#107 caulk for floor tile
#108 an ugly sea creature with tentacles
#109 a spicy chili from Spain
#110 an exotic animal, small and grey, harmless to people, maybe found in Australia
#111 a beast of the forest, like a small cat, not dangerous to people
#112 dark (evil)
#113 a young, mischievous, irresponsible, problem-solving child
#114 to make fun of
#115 a non-sense statement
#116 an ogre
#1 a skin disease of the legs
#2 a gas chamber in the Holocaust
#3 a replication, mimics or parroting
#4 something having to do with warfare and trenches
#5 oil refining
#6 an explosion
#7 a poisonous chemical
#8 something dangerous, a poisonous murder weapon
#9 a chemical compound used for making rubber ducks
#10 a situation where you don’t take somebody’s opinion into consideration
#11 to take a meeting
#12 something poisonous, like asbestos
#13 chemical explosion
#14 a stomach disease
#15 to poison with an inhalant
#16 resolute
#17 a tank or related weapon
#18 to ignore something
#19 a stomach ache
#20 odd
#21 something’s chemical composition
#22 an element from the periodic table
#23 a disease of the stomach
#24 a type of car
#25 a stomach disease
#26 a city in Croatia that one would enjoy visiting
#27 an internal organ
#28 a place you’ve never been before
#29 an illness of the immune system
#30 a stomach problem
#31 a medicine for the sinuses
#32 to break through a surface
#33 a synonym
#34 a proud, over-the-top person
#35 a family gathering
#36 a poisonous by-product from a factory
#37 a chemical element
#38 a filibuster
#39 to do surgery
#40 nausea
#41 an acrobat
#42 a toxic, chemical compound
#43 a blood disease
#44 systematically searching for a treasure
#45 carbonation
#46 a large booming noise
#47 a conundrum or a predicament
#48 to erupt, like a volcano
#49 a volatile chemical
#50 to startle or surprise
#51 to talk nonstop
#52 an Indian spice
#53 a feeling a man gets when he loses his integrity
#54 wise and knowledgeable
#55 an ocean trench
#56 an element
#57 describes something unpleasant in the body, uneasiness
#58 a swordsman
#59 to confuse or stump
#60 a disease where sweating is one of the symptoms
#61 a way of destroying something
#62 two things that are alike
#63 to scratch
#64 clouds
#65 a strong, alcoholic drink
#66 to write something
#67 a human
#68 a water heater
#69 an extinct spider
#70 to think deeply
#71 an 18 wheeler
#72 a medicine that treats abdominal pain
#73 to experiment with chemicals
#74 a cavern
#75 to think
#76 something majestic or royal
#77 the grooves left in hardwood that comes from heavy furniture
#78 something synthetic or false
#79 a type of valve in submarines
#80 a window with one large pane
#81 a shell
#82 a saw that a surgeon would use
#83 an artificial poisonous chemical
#84 a bright orange mineral
#85 euphoric effect
#86 to eat very fast
#87 radioactive chemical
#88 a smooth water rock
#89 an experiment
#90 a parasitic insect that sucks blood
#91 an ore, something that would be mined
#92 an epiphany
#93 potent
#94 when you don’t believe somebody because they are a liar
#95 to receive a donation
#96 a type of chalky rock
#97 a chemical product used as a fire retardant
#98 a manufactured compound in a prescription drug
#99 heraldry
#100 a tragedy, like a natural disaster
#101 a disease of the intestines
#102 to cut somebody’s leg’s out from underneath them (figuratively)
#103 a type of English bifocal
#104 believing
#105 bloated
#106 writing a satire of satires
#107 a liquid explosive
#108 an unpleasant smell
#109 a gasoline additive
#110 a disease of the intestines
#111 a door to door salesman
#112 bizarre
#113 a problem with no resolution
#114 something that’s narrow
#115 a medical procedure where scans of the internal organs are made
#116 the calm after a storm
a machine which helps keep the muscles strong
a toy that changes shape, like a Transformer
a pacemaker for the pancreas
a car part
a medical device
a cooking utensil
something squishy or spongy
a defibrillator
the next ultimate water sports weapon
a tool to measure depth
a pidgin language
a medical device to revive people who have passed out
a fancy stereo
a car part
a person obsessed with punctuation
a car made into an object of art
a small arms weapon
a portable heart monitor
{no response}
a gasket
a mathematical device for making calculations
an air pump
a coffee pot
a tool used in car repair
a meter for determining volume
a flavor of ice cream with cherries and nuts
(like) a lump on a log, something sluggish
an intermediary in an argument
a balloon
the means of achieving an end
a tool like an awl
guy with a tanker truck
a coffee pot
somebody whose mind jumps from one place to another
a part of a car engine
cleaning utensil
a pump for filling up tires
describes a person who tries to be funny but isn’t
exploring new places
a bouncy toy
timekeeper
a paper hole puncher
an electrical appliance, like a blender or toaster
a water purifier
an extension cord
go on a retreat when tired
concrete mixer
a very fancy car
device for measuring pressure or temperature
grate or bulldozer
earthenware
a machine that tests air pressure
a savvy move in poker
a part of an engine, like the fuel injectors
a hat a ruler might wear
a machine that hammers
device to mix drinks
machine that stamps things
time keeper, like a watch
something to punch through concrete
a machine for time travel
a measuring device
type of motorbike, like a dirt bike
to poke
a machine that shoots out balls
a technological device for pushing or opening things
destruction
tongs
a psychotherapist
an intelligent person
a know-it-all
something that makes holes
a chewy candy
a food like popcorn
to push
a pop dance
a large aquatic animal smaller only than the whale
a grinder
a vegetable juicer
tiny bone in the human foot
a thermostat
an instrument for finding heart murmurs
tool, like a hammer
a street sweeper
something to cause absentmindedness
copy machine
an elevator part, maybe a gear
a person who decorates animal cakes
a genre
a new type of fuel pump for a car
a police detective
to hit somebody
attentive
car part, like an oil filter
to think about a test you took earlier
a machine that moves heavy objects
something to punch holes in metal
a large machine that crushes rocks
moak
instrument you could use to talk with an animal
tool to measure distances
a switch board or control station
nightstick carried by the police
a washing machine
a noise-making toy with buttons corresponding to different sounds
a person who calculates scores
torture device, like a dull guillotine
churning butter
an air purifier
a steam powered machine that stamps out widgets
a legendary hero figure
high school male clothing line aimed at skaters
a machine that matches up music with images
a medical device that measures blood pressure
a device used by a neurologist to measure the amount of electricity in you
transfers files from a recorder to a television
Question Data Sheet

Words Requiring Definitions

Question ID: O. bowerilidew [ˈboʊərɪlɪdɔː]

1. a dance frequently performed at weddings involving jiggling the hips
2. an article of clothing
3. a balance (scale)
4. descriptive of English nobility long ago
5. to mold or decay
6. a fluffy object, like snow or cotton
7. a happy type of drink, like lemonade
8. a genre of writing, creative non-fiction that uses embellishments to enrich the story
9. a bathroom mold
10. a tool used for cleaning
11. a formal greeting
12. a fantasy novel, like Lord of the Rings
13. men's casual pants
14. a tool for breaking up dirt
15. a wind instrument of low register
16. a gathering of people to celebrate a ritual
17. an activity that you wish to avoid
18. implying the wish to procrastinate
19. {no response}
20. a garden
21. {no response}
22. a fast dance where you shake your hips
23. a ship's bilge
24. a building game involving connecting pieces
25. to lift something
26. a mountain in Siberia that one would like to climb
27. a drill-like tool used to fashion wood
28. an event to celebrate something
29. an army tank
30. a time late in the day
31. a wooded place
32. a highway through the Amazon
33. an anchor on a boat
34. a tool for setting up a tent
35. a round tower with many windows
36. a dark lager beer
37. a long sword
38. a female ballet dance
39. a large domesticated dog
40. something royal
41. a place with a lake where people vacation
42. describes somebody who works with their hands
43. pants, like jeans
44. vomit
45. to be subservient
46. a plastic mask
47. a lamp that hangs in the garden
48. a small, colorful bird of the rainforest
49. an infection of the bowels
50. a soft part of the human body, like the earlobe
51. to be obsequious
52. a very high mountain
53. a way you negotiate according to our American cultural norms
54. a type of tree that produces only pine cones
55. an ornate robe
56. a castle
57. a light soup
58. something's backside

59. a type of wild plant, like a bush
60. a mythical creature greatly revered in a civilization
61. a piece of farming equipment that plants seeds
62. an electronic gadget for measuring
63. to be mean
64. a toilet
65. a sailboat
66. the capability to act
67. {no response}
68. tomorrow
69. someone in charge
70. to procrastinate
71. a lawn mower
72. a hot desert location
73. a RPG-type video game
74. a boss or leader, like a mayor
75. to be angry
76. an automated vacuum
77. the art of making small wooden animals
78. weird
79. a barbed spear
80. a large, hand-operated digging instrument
81. a car
82. an instrument to clean out the intestines
83. type of helicopter
84. a turtle-like creature, but more agile and aggressive with longer legs
85. a garden tool, like an aerator
86. somebody that lays carpet
87. handicapped rail
88. a backyard party with a maypole
89. to clean
90. a type of fungus
91. a medieval castle
92. surprised
93. decisive
94. to press the snooze button on the alarm
95. to waste time
96. something used to cut grass
97. descriptive of boggy soil, like in Scotland
98. a 16th century men's cloth hat
99. a storm
100. a complete change in direction
101. a term for a hard worker
102. a nagging affliction
103. a writing utensil for electronic smart boards, like a stylus
104. to work out
105. cultivation, planting
106. a support for a tower
107. reminiscent of a jet engine
108. a rigged election
109. an essential piece in a pulley system
110. a strong cheese, like brie
111. an amount of time
112. frightening
113. a small puddle that disappears after the sun rises
114. a young, hard worker
115. an agreement between two or more people to not be sworn to secrecy
116. a touchdown or homerun in some unidentified sport
#1 a purple, unfriendly, reptile-like animal
#2 a hot drink, like tea, taken when ill or in the winter
#3 a large gathering of people
#4 a type of candy
#5 to become angry over something
#6 a type of hard, cinnamon candy
#7 a material like bricks or cement
#8 someone who eats a lot
#9 a device used for chopping round objects
#10 a tool used to make marks on various surfaces
#11 to exercise on a machine
#12 an American Indian tribe
#13 a violent act
#14 somebody who got sick and threw up
#15 a large desert plant with thick branches and spines
#16 something to grill on a campfire
#17 a family game involving dice
#18 a clown’s prop, general term for a whimsical object
#19 {no response}
#20 an Indian tribe
#21 {no response}
#22 a medicine like Pepto Bismol
#23 Chinese food
#24 a mixture of various snack foods, like a chex mix
#25 to draw or sketch
#26 a newly described lung disease found in people who live on a dirt road
#27 name of an ancient tribe of Native Americans
#28 a big mess
#29 a stand of logs
#30 something that hasn’t been done
#31 a mechanical device like a clamp
#32 a temple in Mexico
#33 a pile of various, countable pieces
#34 a rich, foreign (to Americans) candy
#35 a group of loud children
#36 an Indian shelter, like a teepee
#37 a foreign candy
#38 pertaining to Sasquatch
#39 to prepare a food you never prepared before
#40 a pile of meaningless crap
#41 a sweet, thick, European food served in a bowl
#42 a big mess, a cluster
#43 a big concert, like Woodstock
#44 a large, mysterious monster, like Bigfoot
#45 an ox-driven plow
#46 Indian face paint
#47 a part in a furnace
#48 to balance
#49 a tool used by native people for hunting
#50 to be cocky
#51 to run over something in the road
#52 a food made from a mashed up root
#53 the bend in a river where sediment has a collected and it makes the area un-navigable
#54 a game involving coordination and chance, like twister
#55 an old piece of farming equipment, like for tilling
#56 the handle on a drawer
#57 a children’s game
#58 pertaining to a rooster
#59 something that helps find direction, like a map or a compass
#60 a wooden spear
#61 a big furry monster that eats people
#62 reminiscent of bamboo
#63 to chop something
#64 sweet
#65 reminiscent of a rodeo
#66 being able to do something
#67 chewy candy
#68 a horse barn
#69 performing a type of yoga
#70 to be productive
#71 a kitchen table
#72 a portable display used in the stock market which shows the quotes
#73 a type of rock, small and smooth
#74 to cook something in a wok
#75 to be confused
#76 a thick food with big chunks
#77 the skill of leaping on stones that are far away from one another when crossing a creek
#78 light (opposite of darkness)
#79 ground corn
#80 the part of the chair that supports the arm
#81 to burn
#82 a crushed up grain, maybe red in color
#83 a touch screen desktop computer
#84 a story passed down about ancestors
#85 many
#86 a stump grinder
#87 an ingredient in concrete
#88 a relay game you play running from pole to pole
#89 a type of artificial lighting
#90 an animal that lives in a rocky desert
#91 a board game involving chance
#92 to lift up or carry
#93 something funny
#94 nonsense
#95 to make a cake
#96 a fence
#97 a regular polyhedron
#98 somebody opposed to an idea even though they know it is the morally right thing to do
#99 a malevolent spirit
#100 a hammer
#101 a small, furry dinosaur
#102 a vitamin or herb useful for steadying the hands
#103 a parking brake for steep inclines
#104 to eat
#105 multi-faceted
#106 a large, indefinite number
#107 a hatchet
#108 cornmeal-based food
#109 a rock found in Arizona, can be red or orange and prone to breaking apart
#110 a hard task
#111 an animal, like a squirrel but with a spiky tail
#112 rocks, like boulders, dispersed
#113 a small, spiky weed
#114 something thrown
#115 an emotion of anger or disgust
#116 a big pile of food

450
<table>
<thead>
<tr>
<th>Question ID: Q. whoagsafflerick [whoəg'sæfəlɪrk]</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1  a forest where the plants are red</td>
</tr>
<tr>
<td>#2  a type of squirrel</td>
</tr>
<tr>
<td>#3  relating to a pulley mechanism, an archaic</td>
</tr>
<tr>
<td>manson of hoisting</td>
</tr>
<tr>
<td>#4  furry or fuzzy</td>
</tr>
<tr>
<td>#5  log riding</td>
</tr>
<tr>
<td>#6  a short, ugly dwarf</td>
</tr>
<tr>
<td>#7  a complex machine used for moving things</td>
</tr>
<tr>
<td>#8  something amazing</td>
</tr>
<tr>
<td>#9  a ship made of toilet paper</td>
</tr>
<tr>
<td>#10 a barking animal</td>
</tr>
<tr>
<td>#11 a puppet from a kid’s show</td>
</tr>
<tr>
<td>#12 a huge, Viking battleaxe</td>
</tr>
<tr>
<td>#13 a time machine</td>
</tr>
<tr>
<td>#14 something wooly or furry</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>#15 describes a person who has gone through</td>
</tr>
<tr>
<td>an experience that gave them both sadness</td>
</tr>
<tr>
<td>and happiness at the same time</td>
</tr>
<tr>
<td>#16 stupidity, arrogance, obnoxiousness</td>
</tr>
<tr>
<td>#17 a rusted, long sword</td>
</tr>
<tr>
<td>#18 to be astonished</td>
</tr>
<tr>
<td>#19  {no response}</td>
</tr>
<tr>
<td>#20 folly</td>
</tr>
<tr>
<td>#21 a small animal, like a squirrel</td>
</tr>
<tr>
<td>#22 a plant like a fern</td>
</tr>
<tr>
<td>#23 a judge’s robe</td>
</tr>
<tr>
<td>#24 a tropical island</td>
</tr>
<tr>
<td>#25 reminiscent of a wolf</td>
</tr>
<tr>
<td>#26 a Himalayan mountain camp</td>
</tr>
<tr>
<td>#27 an animal in the Zebra family</td>
</tr>
<tr>
<td>#28 to exaggerate about something, to stretch</td>
</tr>
<tr>
<td>the truth</td>
</tr>
<tr>
<td>#29 weeds</td>
</tr>
<tr>
<td>#30 a type of natural material for a garment</td>
</tr>
<tr>
<td>#31 a water dam</td>
</tr>
<tr>
<td>#32 a really mad person</td>
</tr>
<tr>
<td>#33 someone who commits a serious crime</td>
</tr>
<tr>
<td>#34 a xenophobic feeling</td>
</tr>
<tr>
<td>#35 an ill-tempered person</td>
</tr>
<tr>
<td>#36 an instrument that makes a deep sound,</td>
</tr>
<tr>
<td>like a brass instrument</td>
</tr>
<tr>
<td>#37 to hide</td>
</tr>
<tr>
<td>#38 a happy reaction</td>
</tr>
<tr>
<td>#39 to sew clothes</td>
</tr>
<tr>
<td>#40 an organizational tool, like a syllabus</td>
</tr>
<tr>
<td>#41 a book having to with numbers, like an</td>
</tr>
<tr>
<td>accounting book</td>
</tr>
<tr>
<td>#42 motor oil or engine coolant</td>
</tr>
<tr>
<td>#43 a wild canine</td>
</tr>
<tr>
<td>#44 a nomad</td>
</tr>
<tr>
<td>#45 a castle</td>
</tr>
<tr>
<td>#46 some kind of trouble or misfortune</td>
</tr>
<tr>
<td>#47 a barge</td>
</tr>
<tr>
<td>#48 to stop something from happening</td>
</tr>
<tr>
<td>#49 a long sword</td>
</tr>
<tr>
<td>#50 aggressive</td>
</tr>
<tr>
<td>#51 to be lazy on the sofa</td>
</tr>
<tr>
<td>#52 the action of carjacking</td>
</tr>
<tr>
<td>#53 to fertilize using organic material</td>
</tr>
<tr>
<td>#54 a duck habitat</td>
</tr>
<tr>
<td>#55 a small fly</td>
</tr>
<tr>
<td>#56 a system of pulleys</td>
</tr>
<tr>
<td>#57 a profession which requires math and</td>
</tr>
<tr>
<td>science skills</td>
</tr>
<tr>
<td>#58 a torture chamber</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>
an insect
a mushy, bitter, African dish with rice
a device for steering a boat
a leaky sink
spelunking
a food like a pita with a spicy filling
a liquid medicine
a big, heavy piece of furniture, like a dresser
a candy bar with 1000 different flavors
a type of pain medicine
a bathroom towel hanger
a type of spicy food from the Pacific eaten with the fingers
a turtle
a game for several people involving a ball
a type of earthworm that lives in a colony that could cause problems if they are too numerous
a special victory in a sport, like baseball
a pink and purple plant with circular leaves
a tall plant with a purple flower
{no response}
craven
descriptive of classical architecture
a hypochondriac
a stevedore
a snow-covered, cold mountain
something that is falling apart
a type of leafy, oriental vegetable
a type of East Indian food
a mathematical equation
a religious denomination
a garment to protect against rain or snow
a snow sled
drunks at a bar
a slothful creature of the forest
a gigantic, above-ground reservoir
an animal like a wolf
a malignant growth, like on the skin
a disease like cancer
a large piece of construction equipment, like a dump truck
elaborate jewelry
a sitting object, like a vase, used for aesthetic purposes
an appliance for cleaning in the kitchen
an exotic type of tree, thin, short with unique leaves
a classification of paintings
a tool, like a hammer
to release something
an ice cream topping, like syrup
an artifact, like a hammer, from an Indian village
a sedentary person who eats just to eat
a catatonic condition
stylish
to snack
a boxy, older kind of car
a shallow body of water with lots of grass which provides shelter for ducks
a leader in an African country, like a president
a mountainous place, like Nepal
a large, plastic, box-shaped container
a small, wild animal, potentially dangerous, that some find cute
an above-ground cave

something sad or melancholy
a big, multi-purpose tub
a new backpack that floats behind you
a large enclosed object
a big rock, like a boulder
to hit
reminiscent of hobbits because they’re short
reminiscent of a cave
evil
type of cough syrup
type of putty used by a sculptor
something to be feared
a recliner with a footrest
jumping in place
deep in the landscape
the level ice filters reach when they need to be replaced
fat, gigantic
two astral bodies colliding
a suspended flower pot
to sink
a giant mushroom
a box to store something in
to give somebody a kick
a fictitious animal that is large, nocturnal, and winged
a medium sized, seasonal tree
tool for spraying on fiberglass, like on a boat
yellow soap scum
medicine, like antibiotics
type of doily made of leaves and straw
a shape with even sides, not circular
to think
large rocks, like mountains
a feeling of frustration
to break a chair
a strong rope
an arrangement of leaves on a plant
a volcanic formation, different from a crater or a caldera
da temple
a small Tupperware set
a yellow weed flower, like a dandelion
an antique wooden writing desk
a new source of renewable energy from cow methane
to jump
the feeling from looking at a mountain range from the sky
a large, flowering bush
like a backpack or a harness, something to be carried on your person
a positive description
a Caribbean fruit, peach colored, round and the size of a cantaloupe
a negative outcome, trouble
a dull color, like flat grey or beige
a mineral ore that is grey or silver
a layer of rock that geologists would study
someone who doesn’t take something seriously
a special room in a house for relaxation
a compartment for holding bird
S. the wad of hair removed when cleaning a hairbrush
T. the grease that accumulates on top of a hot pizza
Definitions Requiring Words

U. an unexpected cool breeze on a sultry day

V. the feeling experienced by a death-row inmate after being pardoned or exonerated
W. a feeling of extreme disappointment

#26

#1 KAHlow [ˈkʰʌː ˈloʊ]  #39 suhLAYzahn [səˈleɪ ˈzæn]
#2 flooHAyvun [ˈfluː ˈhæɪ ˈvʊŋ]  #40 kuhRANd [ˈkʰʌː ˈrænd]
#3 PASunt [ˈpʰæ ˈsʌnt]  #41 deCAnderd [diˈær ˈdærd]
#4 FULLso [ˈfʊl ˈsoʊ]  #42 fahkuTOOh [fæ ˈkʰə ˈtʰu ə]
#5 roose [ˈruːs]  #43 dahk [dæk]
#6 EGzis [ˈeɡ ˈzaɪs]  #44 DISlow [ˈdɪs ˈloʊ]
#7 TORdur [ˈtʰoʊ ˈdʊər]  #45 FLEEkizm [ˈflɪ ˈkeɪzm]
#8 TIHfinhahutum [ˈtʰɪ ˈfɪn ˈbɑː ˈrʊm]  #46 LOOum [ˈluː ˈmʊ]
#9 flue [flœ]  #47 UNdahld [ˈʌn ˈdɑːld]
#10 nok [nɔk]  #48 peekeeAflin [ˈpʰiː ˈkʰɪl ˈaflin]
#11 ahh [əx]  #49 SPRAsis [ˈspɹə ˈsɪs]
#12 zumf [ˈzəmf]  #50 suhSOWnumhis [səˈsoʊ ˈnə ˈmɪs]
#13 wahz [wəz]  #51 GAthuhkur [ˈɡæ ˈθæ ˈkær]
#14 ayEHsyo [e ˈɛ ˈsəʊ]  #52 bah [bɑh]
#15 DINruf [ˈdɪn ˈraʊf]  #53 WAHMpust [ˈwɑm ˈpʊst]
#16 GRURbeeng [ˈgrɹə ˈbɪŋ]  #54 boirt [bʊərt]
#17 SApulwash [ˈsæ ˈpʰəl ˈwɑʃ]  #55 shim [ʃɪm]
#18 MAHNnuhree [ˈma ˈnɑ ˈri]  #56 MAHRIahr [ˈmaɪ ˈtɑː]
#19 no response  #57 MAHRlee [ˈmər ˈli]
#20 dihrazstuhfrfihKAYshin [diˈzər ˈstəf ˈkʰəl ˈfɪn]  #58 uhbl [əbl]
#21 laht [lɑt]  #59 diSYEGgoc [diˈsə ˈtʰəl ˈgoʊ]
#22 huhMAD [ˈhɑ ˈmæd]  #60 mahoH [ˈmɑ ˈhɑʊ]
#23 BOOGah [ˈbʊ ˈgɑ]  #61 LADETn [ˈlæd ˈtənt]
#24 WOEbanh [ˈwɔ ˈbɑn]  #62 BIDNo [ˈbɪdnə]
#25 no response  #63 SASuhtur [ˈsæ ˈsɑ ˈrʊr]
#26 ahsh [əʃ]  #64 huwROEE [ˈhuː ˈrʊ ˈkʰɹ]
#27 JOOSTihyd [ˈdʒu ˈstəf ˈdɑd]  #65 LADEhn [ˈlæd ˈrʊ]
#28 SHAHniskaymin [ˈʃɑ ˈnɪsk ˈsɛl ˈmɪn]  #66 JOOno [ˈdʒə ˈoʊ ˈnoʊ]
#29 SEEKuhm [ˈsɪl ˈkɜm]  #67 feeN [fɪn]
#30 DRAuhnh [ˈdɹə ˈrʊn]  #68 SIMfahno [ˈsɪm ˈfə ˈnoʊ]
#31 gun [ɡuː]  #69 lad [læd]
#32 ROWCHnis [ˈrəʊtʃnɪs]  #70 JOOMbye [ˈdʒu ˈbɪ ˈbeɪ]
#33 bleuf [bɬɹ]  #71 PURniks [ˈpʰɹ ˈnɪks]
#34 DEHfrist [ˈdɛ ˈfrɪst]  #72 ahBAHstay [əˈbɑ ˈstei]
#35 GRANuhr [ˈɡɹə ˈnər]  #73 BAHRmin [ˈbɜ ˈmɪn]
#36 REEvik [ˈrɪ ˈvɪk]  #74 huraRAW [ˈhɑr ˈrɔː]
#37 TAHMbur [tʰəm ˈbɜr]  #75 FEEGul [ˈfɛ ˈgʊl]
#38 MALufay [ˈmeɪ ˈla ˈfɛɪ]  #76 KROMPlin [ˈkʰɹɒmp ˈlɪn]
#39 suhLAYzahn [səˈleɪ ˈzæn]
#40 kuhRANd [ˈkʰʌː ˈrænd]
#41 deCAnderd [diˈær ˈdærd]
#42 fahkuTOOh [fæ ˈkʰə ˈtʰu ə]
#43 dahk [dæk]
#44 DISlow [ˈdɪs ˈloʊ]
#45 FLEEkizm [ˈflɪ ˈkeɪzm]
#46 LOOum [ˈluː ˈmʊ]
#47 UNdahld [ˈʌn ˈdɑːld]
#48 peekeeAflin [ˈpʰiː ˈkʰɪl ˈaflin]
#49 SPRAsis [ˈspɹə ˈsɪs]
#50 suhSOWnumhis [səˈsoʊ ˈnə ˈmɪs]
#51 GAthuhkur [ˈɡæ ˈθæ ˈkær]
#52 bah [bɑh]
#53 WAHMpust [ˈwɑm ˈpʊst]
#54 boirt [bʊərt]
#55 shim [ʃɪm]
#56 MAHRIahr [ˈmaɪ ˈtɑː]
#57 MAHRlee [ˈmər ˈli]
#58 uhbl [əbl]
#59 diSYEGgoc [diˈsə ˈtʰəl ˈgoʊ]
#60 mahoH [ˈmɑ ˈhɑʊ]
#61 LADETn [ˈlæd ˈtənt]
#62 BIDNo [ˈbɪdnə]
#63 SASuhtur [ˈsæ ˈsɑ ˈrʊr]
#64 huwROEE [ˈhuː ˈrʊ ˈkʰɹ]
#65 LADEhn [ˈlæd ˈrʊ]
#66 JOOno [ˈdʒə ˈoʊ ˈnoʊ]
#67 feeN [fɪn]
#68 SIMfahno [ˈsɪm ˈfə ˈnoʊ]
#69 lad [læd]
#70 JOOMbye [ˈdʒu ˈbɪ ˈbeɪ]
#71 PURniks [ˈpʰɹ ˈnɪks]
#72 ahBAHstay [əˈbɑ ˈstei]
#73 BAHRmin [ˈbɜ ˈmɪn]
#74 huraRAW [ˈhɑr ˈrɔː]
#75 FEEGul [ˈfɛ ˈgʊl]
#76 KROMPlin [ˈkʰɹɒmp ˈlɪn]
#77 SEEgunhahurmin [ˈsɪl ˈɡən ˈθɑ ˈlɑ ˈmɪn]
#78 panWAIR [pʰən ˈweə]
#79 uhRASHuhnso [ˈə ˈræʃ ˈθə ˈnuː]
#80 zahng [zɑŋ]
#81 MANdée [ˈmɑn ˈdiː]
#82 DIShnl [ˈdɪʃ ˈnɑl]
#83 ZAPtolz [ˈzæp ˈtɑlz]
#84 BULLdahl [ˈbʊl ˈdɑl]
#85 SAYgruHs [ˈsɛ ˈɡɹəs]
#86 WOOKuhree [ˈwʊ ˈkɑ ˈjɪl]
#87 kuhKAMnuhruh [kə ˈkʰə ˈnə ˈjɪl]
#88 SAHNduhr [ˈsɑn ˈdɑː]
#89 DRIHbul [ˈdɹɪ bʊl]
#90 DOWgur [ˈdɑ ˈɡɹə]
#91 uhKRMshuh [ə ˈkʰɹ ˈmʃ ˈθə]
#92 sohnh [səm]
#93 ahDALfie [ə ˈdæl ˈfiː]
#94 RAGmuHlaydhu [ˈræg ˈma ˈlɛ ˈrə]
#95 FONGkway ['fɒŋ ˈkwɛɪ]
#96 OOnus ['u ˈməs]
#97 KURgul ['kʰə ˈɡɹl]
#98 broid [bɹəʊd]
#99 boeDOOR ['boʊ ˈdɔː]
#100 mUHSTROE [ˈmɑ ˈstɹəʊn]
#101 krunts [ˈkɹʌnts]
#102 BOOnayde [ˈboʊ ˈneɪd]
#103 OHLOOkuhl [ˈoʊl ˈluː ˈkʰɹə]
#104 DEEHm [ˈdɪ əm]
#105 SHMOOdeu [ˈʃmɹ ˈdəʊ]
#106 DARin [ˈdɑr ˈɪn]
#107 tahrd [ˈtɹәrd]
#108 SUMboe ['sʌm ˈboʊ]
#109 ahmLED [ən ˈtʰəl ˈled]
#110 DOOlah [ˈdu ˈlɑː]
#111 NEHstahn [ˈnɛ ˈstɒn]
#112 KAHkoose [kʰə ˈkʊs]
#113 kahnge [kʰənʃ]
#114 fahri [ˈfɑɹɪ]
#115 no response
#116 growd [ɡɹəʊd]
X. the feeling of being woken in the middle of the night by a strange noise
Y. the name of the remotest island on earth
APPENDIX C

COMPLETE DEFINITION GROUPINGS DATA SHEETS
Definition Groupings Data Sheet
Words Requiring Definitions
Question ID: A. smitch [smitʃ]

a small amount (26): 22.41%
#4 a pinch of something you cook with
#17 a little bit of something
#22 a short, bulky guy
#24 a little bit
#25 a small amount
#28 a small quantity of something
#29 small
#30 a small quantity of something
#31 small
#34 a small portion of something
#41 a small animal like a mouse
#47 a small quantity
#56 a little bit of something
#57 a nerdy person without a lot of friends
#59 a small amount of something
#60 a small smudge
#63 a speck
#72 a small animal, like a squirrel
#77 the little ball of lint in the pocket
#84 a short race of people
#85 something subtracted from something else
#104 something small
#106 a small spot
#107 a very small adult person, like an Irish
#108 a small game bird, similar to a quail
#111 a short trip

an imperfect person or action (24): 20.68%
#6 mean, not nice
#7 an expression of disappointment like "aw shucks"
#10 something that injures a person
#15 when somebody treats you in a manner that causes you to feel insecure
#16 to smack or smother
#20 a traitor
#23 a liar
#33 to tell on someone
#35 a person you don’t like very much
#40 sneaky
#49 untrustworthy
#50 sly
#57 a nerdy person without a lot of friends
#67 a thief
#73 to be sarcastic
#74 to snatch
#91 a mean person
#93 an accomplice
#99 to snatch
#102 to ogle over something
#105 something gross or smutty
#109 smug
#114 to steal
#115 a person upset by the comment of another

a stain or mark (14): 12.06%
#3 a stain
#26 a smear of color on a wall
#32 a muddy substance
#51 to stain something
#60 a small smudge
#63 a speck
#64 black
#81 soot
#82 a mark, maybe on the wall
#89 a stain
#92 a smudge
#94 to mark on the wall
#106 a small spot
#113 a stain on a garment

restricted motion (14): 12.06%
#11 a tunneling animal like a groundhog
#16 to smack or smother
#18 a glove used in sports, like a baseball mitt
#22 a short, bulky guy
#40 sneaky
#41 a small animal like a mouse
#55 to cloister
#75 a limping way of walking
#78 a car part, like a piston
#79 a briar patch
#95 to cut off (lose) a toenail while stumping it
#97 an interruption
#100 a hard hit in football, like spearing somebody
#111 a short trip

a small place (9): 7.75%
#1 a place in a wall
#2 something you can do with your mouth
#11 a tunneling animal like a groundhog
#43 a crack, like in a sidewalk
#55 to cloister
#77 the little ball of lint in the pocket
#78 a car part, like a piston
#87 digging holes
#101 a pocket watch

diminished (8): 6.89%
#15 when somebody treats you in a manner that causes you to feel insecure
#42 to scribble
#44 something hidden
#52 a fleeting feeling
#55 to cloister
#65 to flash a smile
#71 to quiet somebody
#75 a limping way of walking

abrasive or hard (8): 6.89%
#5 to scratch
#9 the sound of a shoe hitting a nail into a board
#36 a cracker or something crunchy
#66 a scratch
#73 to be sarcastic
#90 bitter tasting
#98 a type of grittiness
#116 a painful boil

469
handmade (7): 6.03%
#21 a quilting term
#27 a measurement for a perfect fit
#37 a tack
#38 a tool for fletching
#45 to sew rapidly
#62 a tool like a hammer or a wrench
#96 somebody who makes art

success (4): 3.44%
#8 to be comfortable with something
#14 to like something
#68 clapping
#80 to gain access to something

baseball (3): 2.58%
#53 a tool used in a game
#58 a baseball
#76 a bat or racquet
*pitch

the intellect (3): 2.58%
#61 to mix something up
#86 a studious person
#112 a witty person
*smart

(soft) food (3): 2.58%
#13 something spread on bread
#19 a smoothie
#103 an amount of food you consume

a tree branch (2): 1.72%
#88 the skin of a broken branch
#110 a tree branch

a kiss (2): 1.72%
#12 to steal a kiss
#39 a kiss
*smooch

indecent (2): 1.72%
#102 to ogle over something
#105 something gross or smutty

definitions not conforming to a category (6): 5.17%
#46 to fall
#48 poster board
#54 a pet toy for a cat
#69 smelly
#70 to go fetch something
#83 something you write with
Definition Groupings Data Sheet

Words Requiring Definitions

Question ID: B. jube [dʒu*b]
definitions not conforming to a category (45): 38.79%

#5 to con
#6 funny
#9 a noise a baby would make
#10 to drink something sweet
#12 to talk nonsense
#13 a Caribbean style of music
#15 a very small particle that sparkles
#16 an exclamation like ‘darn!’
#18 a pejorative term for a person, a dork
#19 something to scuba dive in
#22 jambalaya-type food
#23 a grease monkey
#25 a quantity expression for a group of things, like a dozen
#26 a new type of liquid makeup used to make you look younger
#36 a small shack or rental property
#38 an animal, like a frog
#39 a duplicate
#40 greasy
#43 a boring person
#44 a hair color like brownish-red
#49 a mechanic’s tool
#50 to take
#54 a hand mixer
#58 happy
#59 footwear for the rain
#60 something attention-grabbing
#61 something lame-o
#64 vanilla coke
#70 a greeting
#73 a liquid, like oil
#78 a brick or a cinderblock
#80 an insult to lower class guys
#81 glue
#84 a goofy person
#86 a new person on campus
#87 a shopping cart
#88 toe jam
#92 excitement
#98 a clear fluid
#101 a big, flat screen TV
#103 a grass that only grows in the winter
#107 a tree with drooping branches
#114 to massage
#115 a role playing video game
Definition Groupings Data Sheet

Words Requiring Definitions

Question ID: C. keeve [kʰив]

a hole, depression or falling (23): 19.82%

#1 a small damp place in a cave
#3 a hole
#4 a trench
#17 a hole you dig in the ground
#24 a narrow passageway
#29 to keel over
#30 to cave in, collapse
#32 a small opening
#34 a small crevice in a rock wall
#36 to fall or bust
#37 to fall down
#41 a type of difficult, precise dive performed off a diving board
#48 to overburden yourself
#53 to hide away treasure as a kid
#54 a vase for flowers
#67 to dig
#77 the little area where you can slide a pen inside the ring of a spiral notebook
#78 a soft seat, like an airplane seat
#84 a mound
#93 to sink
#99 an atoll
#109 a crevice in the earth
#116 the start of the descent on a rollercoaster

Cutting instruments, sharp, piercing actions (16): 13.79%

#7 a tool like a saw
#10 a tool to open a can
#31 something sharp, pointed
#41 a type of difficult, precise dive performed off a diving board
#42 to cut or open something up
#43 to jump off of something or to dive
#49 a peninsula
#55 a knife
#61 a manner of working with wood
#65 a weapon, like a dagger
#79 a cutting motion
#80 a special kind of knife
#90 a large, jagged, free-standing rock
#91 to cut
#96 to make something out of wood
#103 the speed of sound

Mental irritation or anguish (12): 10.34%

#8 a state of being perturbed
#16 to direct somebody in a precise direction
#20 a scoundrel
#70 an unpleasant person
#94 to pry somebody for help they shouldn’t be giving you
#104 to do something stupid
#105 something that really annoys somebody
#107 to antagonize somebody to the point of altercation
#111 the look you make when you have little hope of success
#112 to procrastinate so much you are about to miss you deadline
#115 a description of the sound somebody makes when surprised

Food and fruit (12): 10.34%

#14 an exotic, sweet, green fruit
#22 a bright orange fruit
#23 a type of bread
#25 a quantity of fruit
#33 a spicy chicken dish
#35 a type of bread, like a bagel
#57 a bland food that poor people would eat
#63 a green fruit like a lime (NOT a kiwi)
#73 a green vegetable, like a pea
#75 a type of hearty soup
#76 a glass dish for storing cakes
#98 a green fruit, shaped like a banana but smaller

A violent action (10): 8.62%

#9 the action of a bee striking a car
#13 to push something over
#27 a collision between objects
#28 to push something out of the way
#36 to fall or bust
#37 to fall down
#51 to break something in half
#71 a sudden movement
#74 a swinging motion
#82 a cough or an illness

Boating (5): 4.31%

#52 a canoe
#59 a small branch off a river
#101 a long paddle for a boat
#108 rowing or steering a ship
#110 the bank of a river

Green fruits/vegetables (4): 3.44%

#14 an exotic, sweet, green fruit
#63 a green fruit like a lime (NOT a kiwi)
#73 a green vegetable, like a pea
#98 a green fruit, shaped like a banana but smaller

*kiwi

Woodworking (3): 2.58%

#60 the manner in which two things fit together
#61 a manner of working with wood
#96 to make something out of wood

*Cleave

Giving and receiving (3): 2.58%

#5 to retain
#18 a valuable keepsake
#19 to give
a simple tool (3): 2.58%
#11 a hammer-like tool
#15 a tool for weaving
#44 a bath sponge
*cleaver

a technological tool or machine (3): 2.58%
#58 a robot
#68 a telephone
#72 a computerized tool for making various types of calculations

Russia (2): 1.72%
#12 a Russian city
#21 a Russian dialect
*Kiev

definitions not conforming to a category (29): 25.00%
#2 to encrust something
#6 stupid
#26 a type of martini that is a spinoff of the cosmopolitan
#38 a small kingdom
#39 a jacket
#40 a little bit of something
#45 a type of small house plant
#46 an SUV or a jeep
#47 a small cabinet
#50 to think about
#56 a slick surface
#62 a baby toy
#64 to jump
#66 leaves in the wind
#69 mysterious
#81 a basket
#83 a storage place
#85 to change
#86 the guy who takes out the trash
#87 to steal
#88 a pinkish beige color
#89 a straight line
#92 a necessity
#95 to throw a hacky sack
#97 a small, primitive dwelling
#100 a lie
#102 to steal something
#106 a chandelier in a breakfast nook
#114 an intelligent person
Definition Groupings Data Sheet

Words Requiring Definitions

Question ID: D. wam [wam]

a noise (17): 14.65%
#10 a sound to describe the impact of crashing onto the floor
#13 the sound a trombone makes
#17 a wind instrument in a marching band
#29 silent
#32 represents an explosion
#33 the sound of an impact
#34 a wind instrument, like a didgeridoo
#42 an echoing sound
#44 a big drum or other percussion instrument
#56 to make a noise
#57 an exclamation of astonishment
#67 to listen
#71 describes a moaning noise
#75 a shouting way of speaking
#94 when you hit two pens together really loud
#100 a long, low-pitched, slow noise with a sudden high-pitched part

an impact (16): 13.79%
#2 denotes an impact
#10 a sound to describe the impact of crashing onto the floor
#32 represents an explosion
#33 the sound of an impact
#44 a big drum or other percussion instrument
#54 to throw a punch
#66 a splash
#68 to slap
#85 to strike
#86 to strike
#87 to bounce
#93 to hit
#94 when you hit two pens together really loud
#96 to hit something hard
#104 something crumpled up, like paper
#116 a dispute

comfortable, motherly, warm (12): 10.34%
#6 mother
#16 to completely relax on the beach
#26 something warm and fuzzy that wraps around you
#28 an object you would sit in
#37 to be at peace
#43 soft or fluffy, like a blanket
#51 to cuddle up with a blanket
#62 spicy chicken
#73 something woven, like a basket or quilt
#110 a fuzzy blanket
#113 comfortable, soothing
#114 motherly

an animal (12): 10.34%
#7 a mythical, silly animal
#11 a type of bird, large and pink
#12 a small, brown, arboreal animal
#15 a furry, long-haired, arboreal animal

Asian food (10): 8.62%
#4 Asian food
#21 Asian food
#31 a Chinese soup
#45 a Chinese noodle
#47 a thick, reddish-brown sauce
#48 chopsticks
#49 exotic cuisine
#62 spicy chicken
#105 a thin, water-based soup
#108 A food like rice and shrimp or other seafood

pertaining to water (8): 6.89%
#19 swimming
#23 an island
#25 stormy weather
#72 a wooden sailboat
#74 something that’s wet
#79 to wade through water
#88 muddy black ice
#99 a creek

a large, wide, open space (7): 6.03%
#8 an open place
#24 a big, wide-open space
#40 a lot of something
#58 big
#59 a type of wide-brimmed hat
#82 deserted area
#98 something broad and concave, like a crater

emotional or mental discontent (7): 6.03%
#36 to complain
#50 confused
#92 to wonder or worry
#95 to complain
#102 to be tired
#109 to be deeply saddened
#112 bored (not interested)

(none-Asian)food (7): 6.03%
#5 a type of gin
#14 a spicy, Latino food
#46 a fruity candy
#69 a type of fruity gum
#78 reminiscent of eggs
#90 a type of candy, chewy and sweet
#115 a cooking appliance
clothing and accessories (4): 3.44%
#20 a wig
#41 a colorful, African shirt
#97 a rough, sturdy, synthetic material
#101 a headband

*wigwam*

something skinny or narrow (3): 2.58%
#1 a pen with a dangling object attached
#3 a long, narrow stick
#52 a skinny person (lady)

baseball (3): 2.58%
#63 a baseball bat
#64 to throw
#103 a material that a baseball bat is made from

rotational movement (2): 1.72%
#9 the action of a blade spinning
#30 something wound up

pink (2): 1.72%
#11 a type of bird, large and pink
#84 an awkward looking plant, almost a root, with pink flowers

low (2): 1.72%
#35 a short, flat house
#80 a chair that sits very close to the ground

definitions not conforming to a category (12): 10.34%
#27 a metallic pot
#39 to watch
#53 balance
#55 a type of currency
#60 to steal
#61 your home
#65 pertaining to a religious ritual
#76 a word game
#77 the chair that gum is stuck under
#81 a sack
#83 to do something fast
#111 two armloads of something
Definition Groupings Data Sheet

Words Requiring Definitions

Question ID: E. easloff [ˈiːsˌlɔf]

elevation or a superior position (21): 18.10%
#3 a food with something melted and oozing on top
#8 a surface to paint or draw on
#27 a mountainous location
#33 a country like those in Tolkien’s “Lord of the Rings”
#45 a wooden ladder
#48 an elf
#49 a ladder
#52 a kite
#53 when a plane pulls back prior to takeoff
#57 a hearty sandwich with a dressing on it
#63 to ski
#64 high
#70 a giraffe
#74 something that’s high up, like the top floor
#76 to flick water off of a surface
#79 pertaining to a castle
#91 a cathedral-type church
#96 a ladder
#99 a bastion
#100 a valley
#106 a giant wall, like on the Parthenon

loafing, relaxation or idleness (20): 17.24%
#10 a tropical island
#13 easily achieved
#15 a person who likes to choose the easy way out
#17 a library, a place of peace
#19 something soft, like a pillow
#26 a defense attorney who hasn’t done his homework
#31 something smooth, relaxed
#35 a religious holiday
#51 to purposefully not do something
#58 a couch
#66 pertaining to ease and flow
#86 a slacker
#92 to calm down
#97 a sleeping arrangement involving two or more palates
#101 a slacker
#102 relaxed
#103 a cushion brought to sporting events to sit on
#105 somebody who’s lazy
#107 to be lazy
#112 tired

food (9): 7.75%
#3 a food with something melted and oozing on top
#6 a type of food, like rice
#11 type of food consisting of meat and sauce
#44 an East Indian food, like curry or rice
#57 a hearty sandwich with a dressing on it
#67 to eat
#72 a soup with noodles, maybe homemade
#98 a type of noodle, like linguini
#110 a fruit-flavored, strong alcoholic drink

load moving or bearing (6): 5.17%
#7 to shovel something
#20 a pulley
#25 a cart to carry things
#42 a tool for spreading something
#60 to remove something
#116 a tool, like a shovel and a crowbar

travel or transportation (6): 5.17%
#21 having to do with roads, highways, bridges
#32 access to a highway
#73 walking
#83 a black sports car
#111 a dual concept of both a journey and a destination
#113 a tool used to measure distance

quick movement (6): 5.17%
#39 quickly
#53 when a plane pulls back prior to takeoff
#77 a person who runs around the block with no shoes
#81 running
#82 to stop or relent
#84 to skip fluidly

cutting or sawing (5): 4.31%
#9 the action of a saw sawing through a metal chain
#54 a tool for cutting things in two like a saw
#59 to cut something short
#60 to remove something
#94 to cut somebody off when driving by accident

an animal (4): 3.44%
#12 a small donkey
#24 a feline-type animal
#70 a giraffe
#90 a type of bird with a long tail which is brightly colored

a ladder (4): 3.44%
#45 a wooden ladder
#47 an area like an attic for storing things
#49 a ladder
#96 a ladder

*loft

religion (often pertaining to Semites) (10): 8.62%
#1 a Jewish name
#4 a Hebrew person
#5 an eastern religion
#22 an Arab man
#34 a Germanic language
#35 a religious holiday
#43 a holiday celebrating the harvest
#75 to pray
#91 a cathedral-type church
#108 an expression of jubilation

Scandinavia (3): 2.58%
#2 a Norwegian food
#18 a muscular, tall person
#30 a big, Scandinavian man
a sneaky person (3): 2.58%
#40 a deceptive person
#41 a sly person
#104 to spy on somebody

an unpleasant person (3): 2.58%
#38 a sinister person
#61 an insult
#62 a type of misbehavior
*jerkoff, jagoff

definitions not conforming to a category (26): 22.41%
#14 a greeting
#16 something difficult to manage
#23 a war novel
#28 a feeling of happiness
#29 to begin
#36 an internal organ
#37 a big desk
#46 a rural town
#50 a backyard deck
#55 a principle or standard
#56 someone foreign who likes to read
#65 a plant like oleander
#68 a powder room
#69 an apartment
#71 a plain, wooden chair
#78 a spill
#80 a floor tile
#85 a charismatic way of acting
#87 to rent, maybe a movie
#88 a suicidal person
#89 grotesque
#93 a nice person
#95 to perish
#109 a winter tree found in Canada that can be tall and is flowering
#114 to make something pretty
#115 a warm fleece jacket

478
relative distance (to be/bring near or drive away) (20): 17.24%
#3  an adjective meaning ‘adjacent to’
#4  to catch things, like fish
#8  the feeling experienced upon seeing somebody you haven’t seen in a long time
#25  to gather things together
#27  to scurry away
#29  close
#37  to find something
#52  a shy person
#55  close together
#63  skittish
#65  twisted together in a pile
#79  a fruit gathering action
#87  to catch
#100  a throw to home plate from the outfield

food (14): 12.06%
#10  something to store food inside the refrigerator
#21  food cooked just right, between raw and burned
#33  a type of lettuce, like kale
#39  to cook
#42  a type of dry dog food, like kibble
#49  a type of wheat
#67  popcorn
#68  something to cook in, like a pan
#77  the scent left after burnt popcorn
#79  a fruit gathering action
#82  a long, orange fruit or vegetable, like a banana or a cucumber
#83  a spice, like garlic
#101  a big cooking pot, like a cauldron
#108  a plant, like a cabbag or a lettuce

truncation, cutting, shortening (12): 10.34%
#15  short and to the point
#28  to be shorted on something
#31  something sharp, pointed
#34  to terminate a game early when a probable outcome has been determined
#45  to truncate something
#47  to be brusque
#48  to cut somebody off in a car
#54  a type of bed, low to the ground and boxy
#56  skipped
#71  something that has been shortened
#95  to declaw a cat
#96  something notched

sports (most all involving balls) (9): 7.75%
#1  a way of kicking a ball
#7  a type of sport, like soccer
#34  to terminate a game early when a probable outcome has been determined
#53  when you’re in the outfield and you try to get the ball but miss it
#59  a hard ball between the size of a softball and a basketball
#73  a sport with balls
#84  swimming
#87  to catch
#100  a throw to home plate from the outfield

enclosed, bounded or delineated (8): 6.89%
#10  something to store food inside the refrigerator
#11  a cabinet
#12  a secret
#17  a dog kennel
#34  to terminate a game early when a probable outcome has been determined
#61  a type of bucket or container
#102  to put something away for safe keeping or to wrap something up
#116  fenced in

shy or reserved (7): 6.03%
#27  to scurry away
#38  an introverted person
#52  a shy person
#63  skittish
#86  an aggressive person
#94  to be shy around your parents but outgoing around everyone else
#107  to be reserved

shaping by force or striking (7): 6.03%
#2  beaten into shape
#23  something stamped
#43  bent, folded or wrinkled
#44  something that has an uneven surface
#60  a manner of striking something
#66  to hit something
#74  something that’s riveted or studded

twisted or tangled (6): 5.17%
#13  tangled
#43  bent, folded or wrinkled
#44  something that has an uneven surface
#65  twisted together in a pile
#76  mixed up words or thoughts
#109  cross stitching

damaged or destroyed (6): 5.17%
#6  hurt, injured
#22  describes a drunk person
#26  an item that has fallen into the possession of a dog and is destroyed
#51  incomprehensible
#92  flawed
#97  a state of moribund flesh
a manner of talking (5): 4.31%
#14 to dislike or badmouth
#35 somebody who talks a lot and is loud
#36 to chat
#40 to joke around with someone
#88 to talk fast

positive personal attributes (5): 4.31%
#58 to do very well at something
#89 to be able
#91 honest
#105 somebody who has a good head on his shoulders
#110 chosen, picked out

unpleasant emotions (4): 3.44%
#85 taken aback
#90 to become angry with someone
#98 an emotion of feeling mild coercion
#112 worried

heat concerns (3): 2.58%
#64 a blanket
#78 cold
#115 a process where you check somebody’s body temperature

definitions not conforming to a category (22): 18.96%
#5 a kenning
#9 the action of a small tire rolling over a gravel surface
#16 something cool or swell
#18 to dust something
#19 a cowboy hat
#20 cantered
#24 to be in a hurry
#30 a completed activity
#32 something soft, like a pillow
#41 a bright color like orange or red
#46 to kick
#50 excited
#57 a type of shirt or blouse
#69 a doll
#70 to leave
#75 a how-to book
#80 a door
#81 a spoon
#93 something that repeats
#99 a mule
#103 a leather shoe with a rubber sole and Velcro with some cushioning inside
#114 funny
Definition Groupings Data Sheet
Words Requiring Definitions

Question ID: G. mavar ['meɪvər]

ships, boats or sailing (14): 12.17%
#1 a pirate’s ship
#3 an old wooden boat like those of Columbus’ day
#18 a large wooden boat
#35 a journey
#43 a quantity of water
#52 a barge
#55 an early, metal ship
#62 something on a ship, maybe for navigation
#63 to travel
#65 a big ship
#67 a ship, like a yacht
#74 an old boat with sails
#84 a large, Viking-like sailboat
#105 a long, epic voyage

flying (7): 6.08%
#15 a mythological or extinct winged creature
#27 a military airplane
#35 a journey
#63 to travel
#78 a wing(s)
#95 the first voyage on a new aircraft
#105 a long, epic voyage

pertaining to the intellect (7): 6.08%
#6 smart, intelligent
#47 a technical piece of equipment, like with a telescope
#50 complex
#80 a scientific measurement of electricity
#85 absent minded
#91 to think
#100 curious

an animal (6): 5.21%
#15 a mythological or extinct winged creature
#19 an insect like a moth
#69 escargot
#71 a small, ground-dwelling mammal
#82 a big, vicious, hairy animal
#97 a small mammal from Australia

picturesque (6): 5.21%
#2 a description of scenery in a painting
#5 a vineyard
#28 a small, southern town
#68 grass
#87 a type of tree, like a walnut
#102 pretty

a car its parts (4): 3.47%
#7 a type of minivan
#9 the action of a (brake) pad grinding up against metal
#22 a car part
#86 a car salesman

fabrication (4): 3.47%
#8 something handmade
#61 pertaining to fabric
#110 a manmade material that comes in sheets
#113 a kind of plastic material
*Kevlar

exceptional people (3): 2.60%
#32 an exceptional person
#38 an edgy, countercultural person
#44 a king or a ruler
#58 a very bad person
*maven

magic (2): 1.73%
#48 a warlock
#106 a spell making wood come alive

481
hair care (2): 1.73%
#40 a styling gel for hair
#77 a line of hair care products

dancing (2): 1.73%
#46 to dance
#79 social gathering where dancing might occur

definitions not conforming to a category (27): 23.47%
#11 (turquoise) jewelry
#13 a family member name, like an aunt
#17 a residential street
#20 a nave
#23 a friend
#24 reminiscent of a Mexican
#25 a group of things
#29 work
#30 an agenda
#31 something comfortable, soft
#34 arthritis medication
#39 money (in general)
#49 a brand of makeup
#51 something very far away
#57 a profession available to many which is liberal arts-based
#60 a large structure, maybe for housing
#64 a wire
#66 to push something
#76 a veterinary office or a kennel
#81 a box
#88 a flavor of ice cream: chocolate, toffee and coffee
#96 to joke with your students
#101 a hammer
#103 a cleaning agent to remove rust
#109 a variety of tobacco, not hallucinogenic
#112 tall
#114 strong
a terrestrial animal (17): 14.65%
#1 a dog-like animal with a bushy tail and a long nose
#8 a furry, passive animal
#12 a type of beetle
#14 a long, short, white mammal
#17 a small reptile
#23 a jackal-type animal
#27 a small, furry rodent
#28 an African animal like a deer, with antlers
#31 a worm
#35 a big bird, like an ostrich
#40 a fluffy, white animal found in cold climates
#41 a medium-sized, ground-dwelling, brown animal with a short tail
#55 a grey rabbit-like animal
#72 an animal like a bear that walks on two legs
#74 a small bird around parks
#94 a small bird, like a sparrow
#106 reminiscent of a sled dog

boats and/or water (13): 11.20%
#30 an inlet on an island
#33 a small boat the Eskimos would use
#43 a landform, like a delta
#44 a canoe paddle
#54 a peaceful, fishing Indian tribe
#59 a small one-person boat
#60 a type of aquatic animal
#62 a fish or some other aquatic creature
#82 a small, saltwater fish
#103 a game played at the beach involving two Frisbees, an umbrella and a wiffle ball
#105 a pirogue
#112 water
#116 a small dolphin

cold or the arctic (7): 6.03%
#13 an igloo
#20 an igloo
#33 a small boat the Eskimos would use
#40 a fluffy, white animal found in cold climates
#79 the color of ice when it gets dirty
#88 a rotten smell in the fridge
#106 reminiscent of a sled dog

a greeting (7): 6.03%
#7 a slang form of greeting
#63 a greeting
#80 a friendly greeting
#84 a greeting
#92 a greeting
#95 to see an old friend
#104 to say goodbye

pertaining to Eskimos and Native Americans (6): 5.17%
#5 a Native American tribe
#11 a Native American tribe
#13 an igloo
#20 an igloo
#33 a small boat the Eskimos would use
#54 a peaceful, fishing Indian tribe

computing (5): 4.31%
#18 a computer program
#37 a computer accessory, like a USB
#73 an internet research site, like Wikipedia
#107 computer security software
#109 a power supply from a computer

bright, brilliant (light) (4): 3.44%
#16 brightness in the morning
#36 a hot color, like orange or yellow
#64 bright
#99 natural light

an aquatic animal (4): 3.44%
#60 a type of aquatic animal
#62 a fish or some other aquatic creature
#82 a small, saltwater fish
#116 a small dolphin

blood work (2): 1.72%
#75 a procedure done at the doctor’s office, like blood work and scanning
#110 a medical device made of metal and plastic for testing, like drawing blood

a small amount (2): 1.72%
#42 a small measurement of volume
#111 a small amount

kinship (2): 1.72%
#3 a designation for one’s ancestor
#21 a term of kinship
definitions not conforming to a category (57): 49.13%
#2 a description of a place
#4 a type of collage
#6 to care for something
#9 a muffled sneeze
#10 an expression to call attention to someone
#15 a tuberous, bitter food plant
#19 Chinese seafood
#22 a cough drop
#24 to hit something
#25 an ordinal number
#26 a stimulant added to green tea
#29 to begin
#32 a mountain pass
#34 a hut like those in Africa
#38 to instill fear in somebody
#39 to influence
#45 to benefit someone
#46 a sad feeling
#47 a specialized piece of sewing equipment
#48 to take a dump
#49 a kitchen tool
#50 a meditation or prayer
#51 someone very nice
#52 a child’s toy
#53 underwear for either sex
#56 a skin irritation
#57 a tropical, fruity, alcoholic drink
#58 a trash can
#61 a general place where kids hang out
#65 a fruit like a papaya
#66 an iron
#67 the universe
#68 a swing
#69 a board game
#70 a purse
#71 a country path
#76 a type of building material
#77 a dirty spot on a blanket
#78 a pinhole
#81 floating
#83 a highly absorbent material
#85 a small percussion instrument
#86 an independent person
#87 a car part, maybe a hose
#89 an ending
#90 to look at someone puzzled
#91 a road
#93 something that’s creepy
#96 glasses
#97 a bead currency
#98 a situation where a problem cannot be resolved even though one person has complete power over all others
#100 to be kicked out of somewhere
#101 a non-specific measurement of time
#102 a washer
#113 an exclamation, said in pain or anger
#114 to take notes
#115 a technique used in writing research papers
Definition Groupings Data Sheet
Words Requiring Definitions

Question ID: I. narathooze [ˈnærəˌθuːz]

a medical procedure, medicine or an illness (36): 31.03%
#2 nose spray
#4 a sickness of the nose
#17 an upper respiratory or nasal infection
#18 a cold medicine, nasal spray
#22 a medicine for nasal congestion
#26 an emollient for the feet
#27 a disease
#28 a small passageway
#31 something to do with the nose, smell
#35 a mental disorder
#36 the tube used to help a patient breathe
#39 a nasal strip
#41 a disease of the immune system that makes you feel drowsy
#42 an allergy medicine
#44 a pain reliever, like Icy Hot
#45 a medicine for the brain
#46 a cold (illness)
#48 a drug to treat ADD
#56 to sneeze
#57 a medical instrument for internal x-rays
#58 a type of anesthesia
#60 relates to the esophagus
#65 nose medicine
#71 a decongestant
#75 a state of being numb
#76 a nose medicine
#78 therapeutic
#84 a prescription sleeping pill
#94 a product for the nose or sinuses
#96 a type of medicine for arthritis
#98 a sinus condition where the nasal passages are constricted
#99 a canal

a confined passageway (18): 15.51%
#9 the action of a marble travelling along a Styrofoam pipe
#21 the path and shape of a river
#28 a small passageway
#30 to be close in proximity
#36 the tube used to help a patient breathe
#47 an inlet
#52 a natural passageway
#53 a trough in the earth
#55 a sea monster like Loch Ness
#60 relates to the esophagus
#70 socks
#88 a dangerous switchback on a cliff
#95 to drive off a cliff
#98 a sinus condition where the nasal passages are constricted
#99 a canal
#101 a piece of tubing, like a funnel
#108 a pass through a canyon
#116 a knot that can’t be untied

mental acuity or confusion and ignorance (15): 12.93%
#14 confused
#16 nonsense
#25 one’s thoughts
#35 a mental disorder
#43 an intellectual person
#45 a medicine for the brain
#48 a drug to treat ADD
#49 a philosopher
#51 to daydream
#85 ignorant
#86 a person who isn’t very smart
#87 confusion
#104 to educate somebody
#109 similar to neurons in the brain, they transmit signals

nose (spray) (20): 17.24%
#2 nose spray
#4 a sickness of the nose
#17 an upper respiratory or nasal infection
#18 a cold medicine, nasal spray
#22 a medicine for nasal congestion
#28 a small passageway
#31 something to do with the nose, smell
#36 the tube used to help a patient breathe
#39 a nasal strip
#42 an allergy medicine
#46 a cold (illness)
#56 to sneeze
#60 relates to the esophagus
#65 nose medicine
#71 a decongestant
#76 a nose medicine
#77 homemade nasal spray
#94 a product for the nose or sinuses

sleep, calm or tranquility (9): 7.75%
#1 a Greek god of sleep
#11 a fairy tale for children, like a fable
#51 to daydream
#58 a type of anesthesia
#59 to calm somebody down
#79 a state of being numb
#84 a prescription sleeping pill
#110 soporific
#114 to dream
festive, excitement, happy (8): 6.89%
#5 to become excited over
#6 silly
#8 something that would make you happy, like a movie
#19 a parade
#20 happy
#50 a competition
#103 a drink containing four types of alcohol and fruit juice

tall people (3): 3.44%
#74 a category of tall people
#82 a race of tall, hairless people
#113 a tall people group from a cold climate

cold (3): 2.58%
#24 a type of cloud composed of distinct ice crystals
#40 a dark color like blue
#80 descriptive of freezing cold

to influence somebody (2): 1.72%
#66 to influence someone
#73 to influence someone

definitions not conforming to a category (20): 17.24%
#10 an expression used in pleasant conversation
#32 the deck of a U-boat
#34 to sneak around and rifle through somebody’s things
#38 a feeling of nervousness
#54 to take something from
#61 a Neanderthal
#62 a type of lotion, soap or face wash
#64 clothes
#68 a bed
#69 Native American clothing
#81 driving
#83 an eraser
#90 somebody who doubts others
#91 a good wizard
#92 to reassure
#93 a siphon
#100 a grade of gasoline
#105 pertains to being thorough, a person or a thing
#111 something unremarkable
#112 a large, furry, mammal that is dangerous to people

storytelling (6): 5.17%
#1 a Greek god of sleep
#3 a dark (evil) character from Greek or Roman mythology
#11 a fairy tale for children, like a fable
#29 playful
#37 a story passed down
#63 to read

Greek (philosophers and mythology) (5): 4.31%
#1 a Greek god of sleep
#3 a dark (evil) character from Greek or Roman mythology
#12 a Greek philosopher
#33 an old, grey-headed man
#49 a philosopher

figures, codes and intellectual items (5): 4.31%
#7 a computer program
#13 an algorithm
#89 brilliant
#97 the attempt to measure something’s dimensions approximately
#115 a legal document detailing real estate law or a housing agreement

woods or the jungle (4): 3.44%
#15 a geographical term for a densely-vegetated place which is hard to cross
#23 a tree like an elm
#67 the jungle
#106 headhunters to be feared
a tool (15): 13.04%
#31 a mechanical tool used for levering
#40 a writing utensil
#42 a shovel used in the garden
#43 a writing pen
#50 a measuring device, like a beaker
#53 a piece of hardware that tightens down a lamp fixture
#55 a leather-working tool
#59 a tool like a pick used in archaeology
#68 duct tape
#82 a utensil, like a spatula
#83 a mechanical pencil
#96 a machine used to cut
toothpaste
#103 a radar detector used by police and baseball scouts
#107 a car dent remover

caulk or glue (11): 9.56%
#8 a type of gel used to caulk
#18 a bone or cartilage in the nose
#41 a packaging material used at the post office
#65 something sticky and gritty
door
#68 duct tape
toothpaste
#72 the glue for tape or a post-it
duct tape
#87 a type of glue
#102 a strong glue or cement
dental glue, like Fixodent
denture glue, like Fixodent
#109 a type of caulk

dental activity (5): 4.34%
#7 an unspecified academic discipline
#11 an ideology
#20 dumb (not intelligent)
to think
#114 open-minded
*philosophy

food (4): 3.47%
#12 a type of sandwich
#24 a salad
#30 a tree like an orange tree
#57 a post-exercise snack

arranging things (3): 2.60%
#2 to fill something unequally
#3 to dig
#113 to arrange things in space
*to fill

music (2): 1.73%
#34 to compose a piece of music
#80 a musical note in terms of pitch

islands (2): 1.73%
#1 a very cold, small, distant island
#6 a tropical island

definitions not conforming to a category (72): 62.60%
#4 a thief
#5 to study human culture, like anthropology
#9 the action of a stack of papers being shredded
#10 something that is artificially heated
#13 to pump gas
to dig
#15 to coerce somebody into doing something
#16 a bragging, obnoxious person
#17 something done in way that is different than is customary
dental glue, like Fixodent
to study
#44 a large, wooden sailboat
to overthrow a ruler
dental glue, like Fixodent
to pull
#66 to film someone
#67 to drop on the ground
to dig
#70 to run
#71 a light fixture like those you see in the movie theater
#73 to find something you lost
#74 a videocassette
#75 reading
#76 a soft, felt-like material
calm, easy, peaceful
dental glue, like Fixodent
to dig
#81 to pull
#84 a close relative, like a brother
#85 abstractly
#86 a fat guy
dental glue, like Fixodent
to dig
#88 a decorating style that is economical shabby-chic
to dig
#89 a rhyme
#90 to preach at someone
a battle
to take in, assimilate
a traitor
do something you didn’t mean to do and you realize it later
to put your shoes on without tying them
climbing up a rock
a spinning top that will influence people’s decisions, like a dradle
a plateau
mimicking
to be confused
sifting flower
a sport with a ball
a prepared food that is sweet
famous
a method personal trainers use to prepare athletes for their sports
crazy straw (with lots of loops)
# Question ID: K. lulurode 

<table>
<thead>
<tr>
<th>Definition Groupings Data Sheet</th>
<th>Words Requiring Definitions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Windy, twisty or curvy (34): 29.31%</td>
<td>#2 an uneven street</td>
</tr>
<tr>
<td></td>
<td>#3 a windy road like in the game Candyland</td>
</tr>
<tr>
<td></td>
<td>#8 a windy, country road</td>
</tr>
<tr>
<td></td>
<td>#15 a toy for children consisting of interlocking hoops</td>
</tr>
<tr>
<td></td>
<td>#18 a pipe snake</td>
</tr>
<tr>
<td></td>
<td>#23 a mountain trail</td>
</tr>
<tr>
<td></td>
<td>#34 a shortcut on a road trip</td>
</tr>
<tr>
<td></td>
<td>#45 to bypass something</td>
</tr>
<tr>
<td></td>
<td>#48 ambiguous</td>
</tr>
<tr>
<td></td>
<td>#49 a tool for weaving</td>
</tr>
<tr>
<td></td>
<td>#51 to meander</td>
</tr>
<tr>
<td></td>
<td>#60 a passageway</td>
</tr>
<tr>
<td></td>
<td>#61 something that goes on and on and on</td>
</tr>
<tr>
<td></td>
<td>#64 erratic motion</td>
</tr>
<tr>
<td></td>
<td>#66 to swerve down the road</td>
</tr>
<tr>
<td></td>
<td>#67 curves, like in a road OR a rose</td>
</tr>
<tr>
<td></td>
<td>#73 a line of people</td>
</tr>
<tr>
<td></td>
<td>#78 twisty</td>
</tr>
<tr>
<td></td>
<td>#80 a trick involving flips</td>
</tr>
<tr>
<td></td>
<td>#81 a jump rope</td>
</tr>
<tr>
<td></td>
<td>#86 a speed bump</td>
</tr>
<tr>
<td></td>
<td>#87 to run around</td>
</tr>
<tr>
<td></td>
<td>#88 to go off on a tangent when speaking</td>
</tr>
<tr>
<td></td>
<td>#90 to evade a question</td>
</tr>
<tr>
<td></td>
<td>#91 a crazy person, like a schizophrenic</td>
</tr>
<tr>
<td></td>
<td>#98 something that is permanently curled</td>
</tr>
<tr>
<td></td>
<td>#100 misleading</td>
</tr>
<tr>
<td></td>
<td>#105 a winding road</td>
</tr>
<tr>
<td></td>
<td>#106 a big roll of paper</td>
</tr>
<tr>
<td></td>
<td>#107 a bicycle tire</td>
</tr>
<tr>
<td></td>
<td>#108 bizarre or confusing</td>
</tr>
<tr>
<td></td>
<td>#109 a small, delicate, purple flower, built around a central axis</td>
</tr>
<tr>
<td></td>
<td>#110 a mammal that hops and jumps</td>
</tr>
<tr>
<td></td>
<td>#116 a carnival ride, like a merry-go-round</td>
</tr>
</tbody>
</table>

Game, play, or whimsy (28): 24.13%  
#3 a windy road like in the game Candyland  
#5 a game, maybe a video game  
#7 a little kid  
#11 a children’s game  
#14 a fun, happy, comfortable place  
#15 a toy for children consisting of interlocking hoops  
#17 a toy  
#20 exuberant  
#21 a child’s game  
#33 a carefree person  
#38 a whimsical animal with a long tail, like a lemur  
#39 to play  
#40 whimsical, girlish, childhood play  
#57 a game that small children play at recess  
#58 a type of toy  
#76 a piece of play equipment  
#80 a trick involving flips  
#81 a jump rope  
#84 a vacation  
#85 laid back  
#87 to run around  
#92 joyful  
#93 whimsical  
#96 a game with a ball  

Flower (purple) (13): 11.20%  
#1 a small, red, fragrant flower  
#4 bright, colorful flowers  
#9 the action of a flower swaying in the wind  
#13 a small, yellow flower  
#16 flowery, embellished  
#31 a small, purple flower  
#53 a bright purple flower  
#62 a flower bed  
#65 fresh irises  
#67 curves, like in a road OR a rose  
#89 colorful  
#102 a purple-pink flower, medium sized  
#109 a small, delicate, purple flower, built around a central axis  

A dance (6): 5.17%  
#22 a dance  
#28 a fast-paced dance  
#41 a dance, like the aloha dance  
#59 a tribal dance  
#69 a swing dance  
#79 a shuffling movement  

Massive or large (6): 5.17%  
#6 a rock  
#19 a hippopotamus  
#25 something heavy  
#27 a planet  
#42 a mountain range  
#101 something solid  

Female (4): 3.44%  
#12 a girl punk band  
#26 an ingredient in a perfume that Angelina Jolie is working on  
#32 a crazy woman  
#82 a female article of clothing, like a long dress  

The beach (3): 2.58%  
#36 a town on the beach  
#46 a large beach  
#104 to go swimming  

Candy(2): 1.72%  
#24 a chocolate candy bar  
#63 pink candy, like bubble gum
definitions not conforming to a category (27): 23.27%

#10 something used to measure distance
#29 an old, WW2-style airplane
#30 a (small) rope
#35 a colorful, South American vest
#37 a writing pen
#43 a cloth napkin
#44 a horse’s bit
#47 a special toy with moving parts
#50 oil
#52 a baby blanket
#55 a slingshot
#56 doing something new
#68 cough medicine
#70 to hang out
#71 a field on the plains with tall grass
#72 a disease of the lymph nodes
#74 describes a human-powered mode of transportation
#75 a small, quaint town
#77 a codename for when you break a window
#83 a chair
#94 the handle on top of a pan
#95 when you drop a book
#99 a forest
#103 a vegetarian dish served in the Sears Tower
#112 a small sports car
#114 to study
#115 a time of day between one and four o’clock
fantastical, non-sensical or different than the norm (25): 21.73%

#3 something without coherence, nonsensical
#7 a weird town in a valley
#8 a circus freak, maybe an animal-man
#14 reminiscent of Halloween, scary ghosts
#15 a ferocious animal the size of a raccoon, arboreal, nocturnal, and carnivorous
#29 an alien monster
#43 an extraterrestrial being
#46 a movie monster
#47 a fantastical Tolkien character
#58 a big, mean monster, like Grendel
#61 a weird (drinking) bar
#65 large, powerful castles, maybe with gargoyles
#66 to make a weird noise
#69 a ghost
#85 insane
#94 pure mayhem
#100 an odd, diagonal pattern, like with tiles
#101 a flying animal, not necessarily a bird, dangerous to people
#102 a troll or goblin
#108 an ugly sea creature with tentacles
#110 an exotic animal, small and grey, harmless to people, maybe found in Australia
#112 dark (evil)
#113 a young, mischievous, irresponsible, problem-solving child
#115 a non-sense statement
#116 an ogre

something to be feared or otherwise negative (25): 21.73%

#11 a wolf-like animal
#14 reminiscent of Halloween, scary ghosts
#15 a ferocious animal the size of a raccoon, arboreal, nocturnal, and carnivorous
#28 a mistake you would want to cover up
#29 an alien monster
#40 a disease of the skin, a rash
#46 a movie monster
#48 to screw up majorly
#58 a big, mean monster, like Grendel
#65 large, powerful castles, maybe with gargoyles
#69 a ghost
#73 to freak out
#74 the action of breaking something
#75 vomiting
#85 insane
#90 to hit somebody with a bat
#92 scared, anxious
#94 pure mayhem
#101 a flying animal, not necessarily a bird, dangerous to people
#102 a troll or goblin
#108 an ugly sea creature with tentacles
#112 dark (evil)
#113 a young, mischievous, irresponsible, problem-solving child
#114 to make fun of
#116 an ogre

an animal (18): 15.65%

#1 a white, vegetarian, ox-like animal
#8 a circus freak, maybe an animal-man
#11 a wolf-like animal
#15 a ferocious animal the size of a raccoon, arboreal, nocturnal, and carnivorous
#18 a type of tropical bird
#22 a type of waterfowl
#23 a medium-sized, dog-like animal
#24 a big, tropical bird
#27 a parrot
#42 a bird, like a seagull
#54 an animal with scales and feet, like an iguana
#57 a small herbivore animal hunted for its meat
#84 a short woodland creature, like a koala
#91 a bird, like a gull
#101 a flying animal, not necessarily a bird, dangerous to people
#108 an ugly sea creature with tentacles
#110 an exotic animal, small and grey, harmless to people, maybe found in Australia
#111 a beast of the forest, like a small cat, not dangerous to people

adhesives (11): 9.56%

#9 putty used for sealing up cracks
#44 floor sealant
#49 a type of adhesive
#51 to glue something together
#56 a type of slime or sludge
#76 something that gets stuck to the bottom of your shoe
#87 a type of caulk
#93 thick
#96 a putty to form molds for repairs
#103 a putty substance used to fix leaks
#107 caulk for floor tile

a castle, architecture, or a structure (8): 6.95%

#21 describes the architecture of a castle
#25 a thatched roof
#33 Spanish-type architecture
#34 supports a building like a flying buttress
#59 a construction tool for measuring
#65 large, powerful castles, maybe with gargoyles
#67 an old castle
#71 a stained glass window

food and drink (6): 5.21%

#26 a seasoning salt for cooking shellfish
#38 a Scottish alcoholic beverage
#79 a traditional way in which beer is consumed
#83 a green spherical vegetable
#105 a food like sausages and sauerkraut
#109 a spicy chili from Spain
a sharp tool (4): 3.47%
#17 a long sword
#37 a type of knife
#72 a tool used around the yard to dig things up or break up soil
#99 an axe

the floor (3): 2.60%
#44 floor sealant
#100 an odd, diagonal pattern, like with tiles
#107 caulk for floor tile

medicine or surgery (3): 2.60%
#41 a surgical procedure
#82 a medicine to help the elderly with their hearts
#97 an anatomical part having to do with the circulatory system

shoes (2): 1.73%
#76 something that gets stuck to the bottom of your shoe
#77 the act of restoring the heal of a worn-down sandal

goggles (2): 1.73%
#2 a type of goggles
#10 a barrier used to protect the eyes
* similar to the first syllable of Question L.

a plant (2): 1.73%
#6 a small, green-yellow, flowering plant
#36 a small plant or shrub

definitions not conforming to a category (32): 27.82%
#4 a mean person
#5 a James Joyce-inspired word
#12 an old Nordic hero
#13 a mechanical clock
#16 pushing for a result
#20 smacked
#30 a short walk
#31 someone raspy in voice
#32 an inland sea passageway
#35 to move laterally across a rock face
#39 to search
#45 to saunter
#50 a strategic maneuver
#52 a reference book
#53 a last train stop village before reaching the big city
#55 a computer part, something technical
#60 a sturdy rock
#62 something old
#63 to look at something
#64 blocked in
#68 a cotton ball
#70 to be lazy
#78 a pinwheel or a windmill
#80 an engine part
#81 to stop
#86 to drive a car
#88 a person who stares a lot
#89 tactile or hands on
#95 to forget your name
#98 a greenish orange color
#104 to throw
#106 a dance like a high step but with more formality
disease, the body or gastro-intestinal issues (21): 18.10%
#1 a skin disease of the legs
#14 a stomach disease
#19 a stomach ache
#23 a disease of the stomach
#25 a stomach disease
#27 an internal organ
#29 an illness of the immune system
#30 a stomach problem
#31 a medicine for the sinuses
#39 to do surgery
#40 nausea
#43 a blood disease
#57 describes something unpleasant in the body, uneasiness
#60 a disease where sweating is one of the symptoms
#82 a saw that a surgeon would use
#90 a parasitic insect that sucks blood
#98 a manufactured compound in a prescription drug
#101 a disease of the intestines
#105 bloated
#110 a disease of the intestines
#115 a medical procedure where scans of the internal organs are made

chemical compounds, elements or minerals (17): 14.65%
#5 oil refining
#9 a chemical compound used for making rubber ducks
#12 something poisonous, like asbestos
#21 something’s chemical composition
#22 an element from the periodic table
#37 a chemical element
#42 a toxic, chemical compound
#56 an element
#73 to experiment with chemicals
#78 something synthetic or false
#84 a bright orange mineral
#87 radioactive chemical
#91 an ore, something that would be mined

chemical compounds, elements or minerals (cont.)
#96 a type of chalky rock
#97 a chemical product used as a fire retardant
#98 a manufactured compound in a prescription drug
#109 a gasoline additive

warfare, chemical weapons, poison or the infliction of harm (16): 13.79%
#2 a gas chamber in the Holocaust
#4 something having to do with warfare and trenches
#6 an explosion
#7 a poisonous chemical
#8 something dangerous, a poisonous murder weapon
#13 chemical explosion
#15 to poison with an inhalant
#17 a tank or related weapon
#36 a poisonous by-product from a factory
#42 a toxic, chemical compound
#46 a large booming noise
#49 a volatile chemical
#61 a way of destroying something
#83 an artificial poisonous chemical
#87 radioactive chemical
#107 a liquid explosive

duplication (9): 7.75%
#3 a replication, mimesis or parroting
#33 a synonym
#44 systematically searching for a treasure
#51 to talk nonstop
#62 two things that are alike
#94 when you don’t believe somebody because they are a liar
#103 a type of English bifocal
#106 writing a satire of satires
#111 a door to door salesman

low places (6): 5.17%
#4 something having to do with warfare and trenches
#32 to break through a surface
#48 to erupt, like a volcano
#55 an ocean trench
#74 a cavern
#77 the grooves left in hardwood that comes from heavy furniture

ignoring or depriving others of their say (5): 4.31%
#10 a situation where you don’t take somebody’s opinion into consideration
#16 resolute
#18 to ignore something
#38 a filibuster
#102 to cut somebody’s leg’s out from underneath them (figuratively)

submerged (3): 2.58%
#79 a type of valve in submarines
#81 a shell
#88 a smooth water rock

family (3): 2.58%
#35 a family gathering
#76 something majestic or royal
#99 heraldry

a problem (3): 2.58%
#47 a conundrum or a predicament
#59 to confuse or stump
#113 a problem with no resolution

thinking (3): 2.58%
#70 to think deeply
#75 to think
#92 an epiphany
definitions not conforming to a category (33): 28.44%

#11 to take a meeting
#20 odd
#24 a type of car
#26 a city in Croatia that one would enjoy visiting
#28 a place you’ve never been before
#34 a proud, over-the-top person
#41 an acrobat
#45 carbonation
#50 to startle or surprise
#52 an Indian spice
#53 a feeling a man gets when he loses his integrity
#54 wise and knowledgeable
#58 a swordsman
#63 to scratch
#64 clouds
#65 a strong, alcoholic drink
#66 to write something
#67 a human
#68 a water heater
#69 an extinct spider
#71 an 18 wheeler
#72 a medicine that treats abdominal pain
#80 a window with one large pane
#85 euphoric effect
#86 to eat very fast
#89 an experiment
#93 potent
#95 to receive a donation
#100 a tragedy, like a natural disaster
#104 believing
#112 bizarre
#114 something that’s narrow
#116 the calm after a storm
Definition Groupings Data Sheet

Words Requiring Definitions

Question ID: N. poncrladə ['pʌnkrɛladə - ɹə]

domestic or office tools (23): 20.00%
#6 a cooking utensil
#13 a fancy stereo
#23 a coffee pot
#33 a coffee pot
#36 a cleaning utensil
#42 a paper hole puncher
#43 an electrical appliance, like a blender or toaster
#44 a water purifier
#45 an extension cord
#51 earthenware
#57 a device to mix drinks
#66 a technological device for pushing or opening things

a measuring device (16): 13.91%
#10 a tool to measure depth
#18 a portable heart monitor
#21 a mathematical device for making calculations
#25 a meter for determining volume
#41 a timekeeper
#49 a device for measuring pressure or temperature
#52 a machine that tests air pressure
#59 a time keeper, like a watch
#62 a measuring device
#81 a thermostat
#82 an instrument for finding heart murmurs
#104 a washing machine
#105 a noise-making toy with buttons corresponding to different sounds
#108 charming butter
#109 an air purifier
#113 a machine that matches up music with images
#116 transfers files from a recorder to a television

a device pertaining to engines or cars (15): 13.04%
#4 a car part
#14 a car part
#16 a car made into an object of art
#21 a mathematical device for making calculations
#24 a tool used in car repair
#32 a guy with a tanker truck
#35 a part of a car engine
#37 a pump for filling up tires
#48 a very fancy car
#50 a grater or bulldozer
#54 a part of an engine, like the fuel injectors
#63 a type of motorbike, like a dirt bike
#84 a street sweeper
#90 a new type of fuel pump for a car
#94 a car part, like an oil filter

an impact-causing device (10): 8.69%
#42 a paper hole puncher
#56 a machine that hammers
#58 a machine that stamps things
#60 something to punch through concrete
#64 to poke
#97 something to punch holes in metal
#98 a large machine that crushes rocks
#103 a nightstick carried by the police
#107 a torture device, like a dull guillotine
#110 a steam powered machine that stamps out widgets

a medical device (10): 8.69%
#1 a machine which helps keep the muscles strong
#3 a pacemaker for the pancreas
#5 a medical device
#8 a defibrillator
#12 a medical device to revive people who have passed out
#18 a portable heart monitor
#69 a psychotherapist
#82 an instrument for finding heart murmurs
#114 a medical device that measures blood pressure
#115 a device used by a neurologist to measure the amount of electricity in you

(pseudo-)intellectualism (7): 6.08%
#15 a person obsessed with punctuation
#30 the means of achieving an end
#34 somebody whose mind jumps from one place to another
#39 exploring new places
#53 a savvy move in poker
#70 an intelligent person
#71 a know-it-all

heavy, load-bearing machines (6): 5.21%
#32 a guy with a tanker truck
#47 a concrete mixer
#50 a grater or bulldozer
#87 an elevator part, maybe a gear
#96 a machine that moves heavy objects
#98 a large machine that crushes rocks

a toy (4): 3.47%
#2 a toy that changes shape, like a Transformer
#9 the next ultimate water sports weapon
#29 a balloon
#40 a bouncy toy

diminished or not up to snuff (4): 3.47%
#11 a pidgin language
#38 describes a person who tries to be funny but isn’t
#46 to go on a retreat when tired
#85 something to cause absentmindedness

a projectile-launching device (3): 2.60%
#9 the next ultimate water sports weapon
#17 a small arms weapon
#65 a machine that shoots out balls
mechanical tools (3): 2.60%
  #22 an air pump
  #31 a tool like an awl
  #83 a tool, like a hammer
  *pump

police (2): 1.73%
  #91 a police detective
  #103 a nightstick carried by the police

science fiction (2): 1.73%
  #61 a machine for time travel
  #100 instrument you could use to talk with an animal

definitions not conforming to a category (22): 19.13%
  #7 something squishy or spongy
  #20 a gasket
  #26 a flavor of ice cream with cherries and nuts
  #27 (like) a lump on a log, something sluggish
  #28 an intermediary in an argument
  #55 a hat a ruler might wear
  #67 destruction
  #72 something that makes holes
  #73 a chewy candy
  #74 a food like popcorn
  #75 to push
  #76 a pop dance
  #77 a large aquatic animal smaller only than the whale
  #80 a tiny bone in the human foot
  #88 a person who decorates animal cakes
  #89 a genre
  #92 to hit somebody
  #93 attentive
  #95 to think about a test you took earlier
  #99 moak [mo*k] (an unidentified word)
  #111 a legendary hero figure
  #112 high school male clothing line aimed at skaters
a tool (16): 14.15%
#3 a balance (scale)  
#10 a tool used for cleaning  
#14 a tool for breaking up dirt  
#27 a drill-like tool used to fashion wood  
#34 a tool for setting up a tent  
#61 a piece of farming equipment that plants seeds  
#62 an electronic gadget for measuring  
#71 a lawn mower  
#76 an automated vacuum  
#79 a barbed spear  
#80 a large, hand-operated digging instrument  
#82 an instrument to clean out the intestines  
#85 a garden tool, like an aerator  
#96 something used to cut grass  
#103 a writing utensil for electronic smart boards, like a stylus  
#109 an essential piece in a pulley system

farming or cultivation (11): 9.73%
#14 a tool for breaking up dirt  
#20 a garden  
#42 describes somebody who works with their hands  
#47 a lamp that hangs in the garden  
#61 a piece of farming equipment that plants seeds  
#80 a large, hand-operated digging instrument  
#85 a garden tool, like an aerator  
#97 descriptive of boggy soil, like in Scotland  
#101 a term for a hard worker  
#105 cultivation, planting  
#114 a young, hard worker

the passage of time or something put off for later (8): 7.07%
#17 an activity that you wish to avoid  
#18 implying the wish to procrastinate  
#30 a time late in the day  
#68 tomorrow  
#70 to procrastinate  
#94 to push the snooze button on the alarm  
#95 to waste time  
#111 an amount of time

a mode of transportation (7): 6.19%
#23 a ship’s bilge  
#29 an army tank  
#33 an anchor on a boat  
#65 a sailboat  
#81 a car  
#83 type of helicopter  
#107 reminiscent of a jet engine

pertaining to nobility (7): 6.19%
#4 descriptive of English nobility long ago  
#35 a round tower with many windows  
#40 something royal  
#56 a castle  
#69 someone in charge  
#74 a boss or leader, like a mayor  
#91 a medieval castle

fantasy worlds (7): 6.19%
#8 a genre of writing, creative non-fiction that uses embellishments to enrich the story  
#12 a fantasy novel, like Lord of the Rings  
#37 a long sword  
#56 a castle  
#60 a mythical creature greatly revered in a civilization  
#73 a RPG-type video game  
#91 a medieval castle

wooded places or forests (6): 5.30%
#31 a wooded place  
#32 a highway through the Amazon  
#41 a place with a lake where people vacation  
#48 a small, colorful bird of the rainforest  
#54 a type of tree that produces only pine cones  
#59 a type of wild plant, like a bush

an article of clothing (6): 5.30%
#2 an article of clothing  
#13 men’s casual pants  
#43 pants, like jeans  
#46 a plastic mask  
#55 an ornate robe  
#98 a 16th Century men’s cloth hat

soft(5): 4.42%
#6 a flabby object, like snow or cotton  
#14 a tool for breaking up dirt  
#50 a soft part of the human body, like the earlobe  
#97 descriptive of boggy soil, like in Scotland  
#110 a strong cheese, like brie

tilling

mold (4): 3.53%
#5 to mold or decay  
#9 a bathroom mold  
#90 a type of fungus  
#97 descriptive of boggy soil, like in Scotland

deference (4): 3.53%
#11 a formal greeting  
#45 to be subservient  
#51 to be obsequious  
#53 a way you negotiate according to our American cultural norms
	*to bow

a gathering of people (4): 3.53%
#16 a gathering of people to celebrate a ritual  
#28 an event to celebrate something  
#41 a place with a lake where people vacation  
#88 a backyard party with a maypole

da dance (3): 2.65%
#1 a dance frequently performed at weddings involving jigging the hips  
#22 a fast dance where you shake your hips  
#38 a female ballet dance
	*to bow

497
sickness (3): 2.65%
#44 vomit
#49 an infection of the bowels
#102 a nagging affliction

an animal (3): 2.65%
#39 a large domesticated dog
#77 the art of making small wooden animals
#84 a turtle-like creature, but more agile and aggressive with longer legs

liquid nourishment (3): 2.65%
#7 a happy type of drink, like lemonade
#36 a dark lager beer
#57 a light soup

a support structure (2): 1.50%
#87 handicapped rail
#106 a support for a tower

grass cutting (2): 1.50%
#71 a lawn mower
#96 something used to cut grass
*tilling

a mountain (2): 1.50%
#26 a mountain in Siberia that one would like to climb
#52 a very high mountain

definitions not conforming to a category (22): 19.46%
#15 a wind instrument of low register
#24 a building game involving connecting pieces
#25 to lift something
#58 something’s backside
#63 to be mean
#64 a toilet
#66 the capability to act
#72 a hot desert location
#75 to be angry
#78 weird
#86 somebody that lays carpet
#89 to clean
#92 surprised
#93 decisive
#99 a storm
#100 a complete change in direction
#104 to work out
#108 a rigged election
#112 frightening
#113 a small puddle that disappears after the sun rises
#115 an agreement between two or more people to not be sworn to secrecy
#116 a touchdown or home run in some unidentified sport
a cluster, pile or group of repeated objects (33): 28.94%
#3 a large gathering of people
#7 a material like bricks or cement
#9 a device used for chopping round objects
#14 somebody who got sick and threw up
#24 a mixture of various snack foods, like a chex mix
#28 a big mess
#29 a stand of logs
#33 a pile of various, countable pieces
#35 a group of loud children
#40 a pile of meaningless crap
#43 a big concert, like Woodstock
#52 a food made from a mashed up root
#53 the bend in a riv er where sediment has a collected and it makes the area un-navigable
#55 an old piece of farming equipment, like for tilling
#62 reminiscent of bamboo
#63 to chop something
#74 to cook something in a wok
#76 a thick food with big chunks
#77 the skill of leaping on stones that are far away from one another when crossing a creek
#79 ground corn
#82 a crushed up grain, maybe red in color
#85 many
#86 a stump grinder
#87 an ingredient in concrete
#88 a relay game you play running from pole to pole
#96 a fence
#97 a regular polyhedron
#105 multi-faceted
#106 a large, indefinite number
#108 cornmeal-based food
#112 rocks, like boulders, dispersed
#116 a big pile of food

food (24): 21.05%
#2 a hot drink, like tea, taken when ill or in the winter
#4 a type of candy
#6 a type of hard, cinnamon candy
#8 someone who eats a lot
#16 something to grill on a campfire
#23 Chinese food
#24 a mixture of various snack foods, like a Chex mix
#34 a rich foreign (to Americans) candy
#37 a foreign candy
#39 to prepare a food you never prepared before
#41 a sweet, thick, European food served in a bowl
#52 a food made from a mashed-up root
#64 sweet
#67 chewy candy
#71 a kitchen table
#74 to cook something in a wok
#76 a thick food with big chunks
#79 ground corn
#82 a crushed up grain, maybe red in color
#95 to make a cake
#102 a vitamin or herb useful for steadying the hand
#104 to eat
#108 cornmeal-based food

tools (13): 11.40%
#9 a device used for chopping round objects
#10 a tool used to make marks on various surfaces
#47 a part in a furnace
#49 a tool used by native people for hunting
#55 an old piece of farming equipment, like for tilling
#56 the handle on a drawer
#59 something that helps find direction, like a map or a compass
#60 a wooden spear
#83 a touch screen desktop computer
#86 a stump grinder
#100 a hammer
#103 a parking brake for steep inclines
#107 a hatchet

Indians (9): 7.89%
#3 a large gathering of people
#12 an American Indian tribe
#20 an Indian tribe
#27 name of an ancient tribe of Native Americans
#32 a temple in Mexico
#36 an Indian shelter, like a teepee
#38 pertaining to Sasquatch
#46 Indian face paint
#84 a story passed down about ancestors

an animal (8): 7.01%
#1 a purple, unfriendly, reptile-like animal
#44 a large, mysterious monster, like Bigfoot
#58 pertaining to a rooster
#61 a big furry monster that eats people
#68 a horse barn
#90 an animal that lives in a rocky desert
#101 a small, furry dinosaur
#111 an animal, like a squirrel but with a spiky tail

emotion (7): 6.14%
#5 to become angry over something
#13 a violent act
#50 to be cocky
#93 something funny
#98 somebody opposed to an idea even though they know it is the morally right thing to do
#99 a malevolent spirit
#115 an emotion of anger or disgust

exercise or physical activity (7): 6.14%
#11 to exercise on a machine
#48 to balance
#66 being able to do something
#69 performing a type of yoga
#70 to be productive
#92 to lift up or carry
#110 a hard task
a game (5): 4.38%
#17 a family game involving dice
#18 a clown’s prop, general term for a whimsical object
#54 a game involving coordination and chance, like twister
#57 a children’s game
#91 a board game involving chance

disease (2): 1.75%
#22 a medicine like Pepto Bismol
#26 a newly described lung disease found in people who live on a dirt road

a rock (2): 1.75%
#73 a type of rock, small and smooth
#109 a rock found in Arizona, can be red or orange and prone to breaking apart

a spiky plant (2): 1.75%
#15 a large desert plant with thick branches and spines
#113 a small, spiky weed

livestock (2): 1.75%
#45 an ox-driven plow
#65 reminiscent of a rodeo

definitions not conforming to a category (11): 9.64%
#25 to draw or sketch
#30 something that hasn’t been done
#31 a mechanical device like a clamp
#51 to run over something in the road
#72 a portable display used in the stock market which shows the quotes
#75 to be confused
#78 light (opposite of darkness)
#80 the part of the chair that supports the arm
#81 to burn
#94 nonsense
#114 something thrown
Definition Groupings Data Sheet
Words Requiring Definitions

Question ID: Q. whoagsafflerick [woh-g·ˈzæ-fər-ɪk]

generally negative (26): 22.60%
#6 a short, ugly dwarf
#16 stupidity, arrogance, obnoxiousness
#20 folly
#28 to exaggerate about something, to stretch the truth
#29 weeds
#32 a really mad person
#33 someone who commits a serious crime
#34 a xenophobic feeling
#35 an ill-tempered person
#46 some kind of trouble or misfortune
#52 the action of carjacking
#58 a torture chamber
#74 a big, furry, wild, dangerous animal
#76 hard, manual labor
#82 a large, evil monster
#87 a side effect from a drug
#88 describing an overdressed man
#91 ridiculous
#93 something that causes pain
#94 something crazy
#97 somebody down on their luck or depressed
#105 scratchy
#106 reminiscent of characters like Don Quixote
#111 a disease affecting the whole body
#112 sadness
#113 a booby prize

emotion (18): 15.65%
#15 describes a person who has gone through an experience that gave them both sadness and happiness at the same time
#16 stupidity, arrogance, obnoxiousness
#18 to be astonished
#20 folly
#28 to exaggerate about something, to stretch the truth
#34 a xenophobic feeling
#35 an ill-tempered person
#38 a happy reaction
#50 aggressive
#51 to be lazy on the sofa
#59 something fantastic or amazing
#60 terrific
#74 a big, furry, wild, dangerous animal
#76 hard, manual labor
#82 a large, evil monster
#87 a side effect from a drug
#88 describing an overdressed man
#91 ridiculous
#93 something that causes pain
#94 something crazy
#97 somebody down on their luck or depressed
#105 scratchy
#106 reminiscent of characters like Don Quixote
#111 a disease affecting the whole body
#112 sadness
#113 a booby prize

pertaining to water (14): 12.17%
#5 log riding
#9 a ship made of toilet paper
#17 a rusted, long sword
#24 a tropical island
#31 a water dam
#47 a barge
#54 a duck habitat
#63 a raft
#69 a color like dark blue
#71 a steamboat
#79 a cleat on a wooden boat
#83 a fishing boat
#96 a type of canoe
#98 a steering implement for a boat or maybe an amphibious vehicle

an animal (12): 10.43%
#2 a type of squirrel
#10 a barking animal
#21 a small animal, like a squirrel
#25 reminiscent of a wolf
#27 an animal in the Zebra family
#43 a wild canine
#54 a duck habitat
#55 a small fly
#62 a small insect
#74 a big, furry, wild, dangerous animal
#103 a prehistoric lobster
#109 a legendary wolf that walks on two legs

furry or fuzzy (10): 8.69%
#2 a type of squirrel
#4 furry or fuzzy
#10 a barking animal
#14 something wooly or furry
#21 a small animal, like a squirrel
#25 reminiscent of a wolf
#43 a wild canine
#73 soft material, like cashmere
#74 a big, furry, wild, dangerous animal
#109 a legendary wolf that walks on two legs

a tool or machine (17): 14.78%
#3 relating to a pulley mechanism, an archaic means of hoisting something
#7 a complex machine used for moving things
#12 a huge, Viking battleaxe
#13 a time machine
#17 a rusted, long sword
#36 an instrument that makes a deep sound, like a brass instrument
#40 an organizational tool, like a syllabus
#42 motor oil or engine coolant
#49 a long sword
#56 a system of pulleys
#61 a machine to help you do your hair
#79 a cleat on a wooden boat
#80 an inky part of the printing press
#84 a ski lift
#98 a steering implement for a boat or maybe an amphibious vehicle
#100 an off-road vehicle like the ones used in African safaris
#104 a computer

a spectacle or entertainment (7): 6.08%
#8 something amazing
#11 a puppet from a kid’s show
#70 something amazing
#77 the art of having crumbs fall from the mouth to the beard forming little artistic symbols
#85 magic
#92 to ponder
#107 an exceptional piano player
a textile or garment (6): 5.21%
#23 a judge’s robe
#30 a type of natural material for a garment
#39 to sew clothes
#65 pertaining to knitting
#66 something woven
#67 a quilt

texture (5): 4.34%
#4 furry or fuzzy
#14 something wooly or furry
#73 soft material, like cashmere
#90 a blanket used by people in cold places
#105 scratchy

crazy (4): 3.47%
#20 folly
#91 ridiculous
#94 something crazy
#106 reminiscent of characters like Don Quixote

a machine for moving things (3): 2.60%
#3 relating to a pulley mechanism, an archaic mans of hoisting something
#7 a complex machine used for moving things
#56 a system of pulleys
*rig

fear (3): 2.60%
#34 a xenophobic feeling
#37 to hide
#114 a writer of horror novels

a wolf (3): 2.60%
#25 reminiscent of a wolf
#43 a wild canine
#109 a legendary wolf that walks on two legs

a squirrel (2): 1.73%
#2 a type of squirrel
#21 a small animal, like a squirrel

numbers or math (2): 1.73%
#41 a book having to with numbers, like an accounting book
#57 a profession which requires math and science skills

definitions not conforming to a category (19): 16.52%
#1 a forest where the plants are red
#22 a plant like a fern
#26 a Himalayan mountain camp
#44 a nomad
#45 a castle
#48 to stop something from happening
#53 to fertilize using organic material
#64 awake
#68 a way of saying “see you later”
#72 a building whose top is pentagonal, the columns are square and the structure is open like the Parthenon
#81 flat
#86 a flight attendant
#89 a snack
#95 to watch a movie
#99 a traveler
#101 a head covering, like a hat or toupee
#102 a support structure inside a building, like a stud
#108 a cleansing
#110 concerning air pressure as it might relate to a scientific experiment
massive, oversized or relatively large (22): 19.13%
#8 a big, heavy piece of furniture, like a dresser
#9 a candy bar with 1000 different flavors
#15 a type of earthworm that lives in a colony that could cause problems if they are too numerous
#24 a snow-covered, cold mountain
#34 a gigantic, above-ground reservoir
#38 a large piece of construction equipment, like a dump truck
#55 a mountainous place, like Nepal
#56 a large, plastic, box-shaped container
#60 a big, multi-purpose tub
#62 a large enclosed object
#63 a big rock, like a boulder
#69 a musical instrument, like the tuba
#78 flat, gigantic
#79 two astral bodies colliding
#82 a giant mushroom
#85 a fictitious animal that is large, nocturnal, and winged
#93 large rocks, like mountains
#95 to break a chair
#98 a volcanic formation, different from a crater or a caldera
#105 the feeling from looking at a mountain range from the sky
#106 a large, flowering bush
#109 a Caribbean fruit, peach colored, round and the size of a cantaloupe

cold, dark or hard (18): 15.65%
#5 spelunking
#24 a snow-covered, cold mountain
#31 a snow sled
#34 a gigantic, above-ground reservoir
#38 a large piece of construction equipment, like a dump truck
#52 a boxy, older kind of car
#55 a mountainous place, like Nepal
#58 an above-ground cave
#60 a big, multi-purpose tub
#63 a big rock, like a boulder
#66 reminiscent of a cave
#79 two astral bodies colliding
#93 large rocks, like mountains
#98 a volcanic formation, different from a crater or a caldera
#99 a temple
#105 the feeling from looking at a mountain range from the sky
#111 a dull color, like a flat grey or silver
#113 a layer of rock that geologists would study

impeded movement, confinement or slow (17): 14.78%
#13 a turtle
#33 a slothful creature of the forest
#38 a large piece of construction equipment, like a dump truck
#40 a sitting object, like a vase, used for aesthetic purposes
#45 to release something
#46 an ice cream topping, like syrup
#48 a sedentary person who eats just to eat
#49 a catatonic condition
#55 a mountainous place, like Nepal
#56 a large, plastic, box-shaped container
#62 a large enclosed object
#75 jumping in place
#77 the level ice filters reach when they need to be replaced
#79 two astral bodies colliding

food (11): 9.56%
#2 a mushy, bitter, African dish with rice
#6 a food like a pita with a spicy filling
#9 a candy bar with 1000 different flavors
#12 a type of spicy food from the Pacific eaten with fingers
#26 a type of leafy, oriental vegetable
#27 a type of East Indian Food
#46 an Ice Cream topping, like syrup
#48 a sedentary person who eats just to eat
#51 to snack
#82 a giant mushroom
#109 a Caribbean fruit, peach colored, round, and the size of a cantaloupe

storage (11): 9.56%
#11 a bathroom towel hanger
#34 a gigantic, above-ground reservoir
#56 a large, plastic, box-shaped container
#60 a big, multi-purpose tub
#61 a new backpack that floats behind you
#62 a large enclosed object
#71 a closet
#83 a box to store something in
#100 a small Tupperware set
#107 like a backpack or a harness, something to be carried on your person
#116 a compartment for holding birds

plants (8): 9.56%
#17 a pink & purple plant with circular leaves
#18 a tall plant with a purple flower
#42 an exotic type of tree, thin, short with unique leaves
#80 a suspended flower pot
#86 a medium sized, seasonal tree
#97 an arrangement of leaves on a plant
#101 a yellow weed flower, like a dandelion
#106 a large, flowering bush

mountains (8): 9.56%
#24 a snow-covered, cold mountain
#55 a mountainous place, like Nepal
#63 a big rock, like a boulder
#76 a dip in the landscape
#93 large rocks, like mountains
#105 the feeling from looking at a mountain range from the sky
#112 a mineral ore that is grey or silver
#113 a layer of rock that geologists would study
an animal (7): 6.08%
#1 an insect
#13 a turtle
#15 a type of earthworm that lives in a colony that could cause problems if they are too numerous
#33 a slothful creature of the forest
#35 an animal like a wolf
#57 a small, wild animal, potentially dangerous, that some find cute
#85 a fictitious animal that is large, nocturnal, and winged

disease or medicine (7): 6.08%
#7 a liquid medicine
#10 a type of pain medicine
#22 a hypochondriac
#36 a malignant growth, like on the skin
#37 a disease like cancer
#68 a type of cough syrup
#89 medicine, like antibiotics

misfortune or evil (6): 5.21%
#20 craven
#25 something that is falling apart
#59 something sad or melancholy
#67 evil
#73 something to be feared
#110 a negative outcome, trouble

a (bar) fight (3): 2.60%
#32 drunks at a bar
#64 to hit
#84 to give somebody a kick

a boat (3): 2.60%
#3 a device for steering a boat
#87 a tool for spraying on fiberglass, like on a boat
#96 a strong rope

a backpack (2): 1.73%
#61 a new backpack that floats behind you
#107 like a backpack or a harness, something to be carried on your person

jumping (2): 1.73%
#75 jumping in place
#104 to jump

ducks (2): 1.73%
#53 a shallow body of water with lots of grass which provides shelter for ducks
#70 to call a duck

cancer (2): 1.73%
#36 a malignant growth, like on the skin
#37 a disease like cancer

sports (2): 1.73%
#14 a game for several people involving a ball
#16 a special victory in a sport, like baseball

a hammer (2): 1.73%
#44 a tool, like a hammer
#47 an artifact, like a hammer, from an Indian village

art (2): 1.73%
#43 a classification of paintings
#72 a type of putty used by a sculptor

definitions not conforming to a category (21): 18.26%
#4 a leaky sink
#21 descriptive of classical architecture
#23 a stevedore
#28 a mathematical equation
#29 a religious denomination
#30 a garment to protect against rain or snow
#39 elaborate jewelry
#41 an appliance for cleaning in the kitchen
#50 stylish
#54 a leader in an African country, like a president
#65 reminiscent of hobbits because they’re short
#74 a recliner with a footrest
#81 to sink
#88 yellow soap scum
#90 a type of doily made of leaves and straw
#91 a shape with even sides, not circular
#92 to think
#102 an antique wooden writing desk
#103 a new source of renewable energy from cow methane
#108 a positive description
#114 someone who doesn’t take something seriously
APPENDIX D

COMPLETE SEGMENTAL AND SUPRA-SEGMENTAL PROFILE DATA SHEETS
Segments

Segment Total for Stressed and Unstressed Syllables and Monosyllables according to Syllable Configuration

Monosyllable Onset: p, #pʰ(2), #b, #m, m, #f(3), #tʰ(2), #n, n, r, Θ, #s(5), #ʃ, #j, s(9), l(4), j, k(2), #kʰ, #g(5)
Monosyllable Nucleus: i(2), u, uʰ(2), e(3), æ(8), ʃ, æ(2), æ(2), æ(2), æ(2), a(5)
Monosyllable Coda: p#(3), b#, b, f#, t#(2), d#(2), tʃ#(2), dʒ#(2), s#, z#(2), f#(2), s#, t, k(3), k, g#

First Syllable Segment Stressed Onset: #p, p, #pʰ(2), #b(3), #b, m, #f(3), #v, #tʰ(2), #d(3), #tf, #dʒ, #n(4), #s(6), #z, #ʃ(3), j(8), #l(4), l(5), #j, k(4), #kʰ(5), #g(11), #w(8), #h
First Syllable Segment Stressed Nucleus: i¹, i(5), #l¹, #u, #uʰ(2), uʰ(3), r(9), #i, u, oʰ(2), æ(2), e(4), æ(6), #l, γ(2), #γ, æ(11), #ae, a¹(2), a(14), #a(2)
First Syllable Segment Stressed Coda: p(2), m(5), v, dʒ, n(3), s(3), j, j(2), t(3), k(9), ɡ, ɡ, ɡ

Second Syllable Segment Stressed Onset: #b, #f, #tʰ, #s(3), #ʃ, j, #l, #j, k, #g, #h
Second Syllable Segment Stressed Nucleus: uʰ(3), #i, æ(6), #e(3), æ(3), æ(3), #a, æ
Second Syllable Segment Stressed Coda: n(2), k(2), ɡ, ɡ

Third Syllable Segment Stressed Onset: b, t, s
Third Syllable Segment Stressed Nucleus: uʰ#, æ
Third Syllable Segment Stressed Coda: ɡ

Fourth Syllable Segment Stressed Onset: p#, m, f#, t#, d#, n#, s#, z#, f(2), j, j(2), l#, k#, g#
Fourth Syllable Segment Stressed Nucleus: i¹, æ, ɡ
Fourth Syllable Segment Stressed Coda: ɡ

Fifth Syllable Segment Stressed Onset: #p, p(2), pʰ, #pʰ(2), #b(3), b(3), #b, m(2), #f(3), #v, #tʰ(2), t(3), #d(3), d, #tf, #dʒ, #n(4), #s(6), s(4), #z, #f(3), l(4), l(6), #j, k(4), #kʰ(5), #g(11), #w(8), w(2), #h
Fifth Syllable Segment Stressed Nucleus: oʰ#
Fifth Syllable Segment Stressed Coda: ɡ

 fifth syllable Segment Unstressed Onset: p(4), #b, b(8), m(4), #f, f(5), v, #tʰ, t(8), d(7), dʒ, n(3), r(2), Θ(3), #s(3), s(15), z(4), #ʃ, j(7), s, ʃ(14), #l, l(14), #j, j(2), kʰ, k(8), #g, g(5), w(4), #h(2)

506
Unstressed Coda: p#, p#, b#, b#(2), m, f#(3), t#, t#(2), d#, tf#, dz#, n#(6), n(4), s#(6), z#(3), f#(2), j#(2), j, t#, k(2), k#(2), g, g#, ą, ą#

Segment Total for Onsets and Codas

Onset: #p, p(7), p#, #p#(4), #b(5), b(11), #b, #m, m(7), #f(7), #v, v, #tv(4), t(11), #d(6), d(8), #tf, #dz, #n(5), n(4), r, r(2), Θ(5), #s(14), s(19), #z, z(5), #f(5), j(7), s, l#, j#(3), l#(24), j#(2), j(3), k(14), #k#(6), k#, #g(17), g(5), #w(8), w(6), #h(2), h(2)

Coda: p(2), p#(4), p#, b, b#, b#(3), m(6), f#(4), v, t#, t#(4), d#(3), ts#(2), tf#(5), dz#, d(9), dz#, n#(7), n(7), s(3), s#(7), z#(5), f, j#(4), j#(4), j(5), l(4), t#, k(12), k(6), g, g(2), g#(2), η(4), η#

Segment Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllable Segment: p#(3), p, #p(3), #b, b, m, #m, m, #f(3), #v, v, #tv(2), #d(3), #tf, #dz, #n(4), n(3), #s(6), s(3), #z, #j(3), j, j(10), #l(4), l(5), l#, j#(3), #k#(5), #g(11), g, g, η(2), #w(8), #h

i(2), u, u*(2), ε(3), λ(8), γ, æ(2), æ(2), a(5)

First Syllable Segment Stressed: #p, p(3), #p#(4), #b(3), #b, m(6), #f(3), #v, v, #tv(2), #d(3), #tf, #dz, #n(4), n(3), #s(6), s(3), #z, #j(3), j, j(10), #l(4), l(5), l#, j#(3), #k#(5), #g(11), g, g, η(2), #w(8), #h

i#, i*(5), i, u, u*(2), u*(3), τ(9), #i, u, o*(2), æ(2), ε(4), λ(6), λ, γ, æ(2), æ, æ#(11), #æ, a#(2), a(14), #a(2)

First Syllable Segment Unstressed: #b, #f, #t#, n(2), #s(3), #j, j, #l, k(3), #g, g, η, #h

u*(3), #1, æ(6), æ(3), æ, #a, a

Second Syllable Segment Stressed: p#, p, b(2), m, t(2), d, n#, Θ, s(3) z, l#, j(2), j#, l, k#, η, w(2)

u#, æ, ε, λ(2), æ(3), æ#, a#(3), a(3)

Second Syllable Segment Unstressed: p(3), b(7), b#, b#(2), m(3), f(4), f#(2), t(6), t#, t, d#, dz, dz#, n(3), n#(4), #η, #η#(2), r(2), Θ(3), s(11), s#(2), z(3), z#, j(3), f#, s, j#, j#, l(5), l#, #l(10), #l(3), j, k#, k#, g#, g#, w(4), #h

i#, i*(6), u*, #(9), e, æ, o*#(2), a(16), æ(2), æ#(4), æ, æ#, æ#(10), #a(10), #a#

Third Syllable Segment Stressed: b, t, s

u*, æ

Third Syllable Segment Unstressed: p#, p#, b, m(2), f, f#, v, t(2), t#, d, d#, dz, dz#, n(2), n#(2), #η, #η#(4), s#(4), s#(3), z, z#(2), j(3), f#, s, l(8), #l(2), j, k(3), k#, #h, h

i#(2), u*(2), u*(2), τ(3), o#, æ, æ#(4), æ#(4), æ, æ#, æ#(11), #æ, a#(2), a(14), #a#

Fourth Syllable Segment Stressed:

Fourth Syllable Segment Unstressed: p# s#, j, j, l

i#, æ, o*

Fifth Syllable Segment Stressed:

Fifth Syllable Segment Stressed: o*#

Segment Total by Syllable

First Syllable Segment: #p, p(3), #p#(4), #b, m(6), #f, v, v, #t#(3), #d(3), #tf, #dz, #n(5), n(4), r(2), Θ(5), s(14), s(19), #z, z(5), #f(5), j(7), z, l#, j#(3), l#(24), j#(2), j(3), k(14), #k#(6), k#, #g(17), g(5), #w(8), w(6), #h(2), h(2)

i#, i*(5), i#, u, u*(2), u*(3), τ(9), #i, u, o*(2), æ(2), ε(4), λ(6), λ, γ(2), #o, æ(11), #æ, a#(2), a(14), #a(2)
Second Syllable Consonant Cluster Unstressed Coda:

First Syllable Consonant Cluster Unstressed Coda:

First Syllable Consonant Cluster Unstressed Onset (all entries are word initial):

Monosyllable Consonant Cluster Coda (all entries are word final):

Unstressed Segment:

Stressed Segment:

Fifth Syllable Segment: o°

Segment Stressed and Unstressed Total

Unstressed Segment:

Stressed Segment:

Narrow: #p, p#(4), pʰ(#)(2), pʰ(#), p(#), #b(5), b(12), bʰ(#), b(#)(4), m(13), #m, f(5), #f(7), #f(4), #v, v(2), #tʰ(4), t(11), tʰ(#), #t(4), tʰ(#), #d(6), d(#)(3), d(8), ts(#)(2), #tf, #tf(#)(5), #d, #dg, #dg(#)(2), #n(6), n(#)(6), n(#)(11), #n(2), #n(#)(3), r, r(#)(2), #r, r(#)(3), r, r(#)(1), #r(5), #s(#)(14), s(22), s(#)(7), #z, z(5), z(#)(5), #f(5), #f(8), #f(4), #s, #s(#)(8), s(#)(12), s(#)(1), s(#)(3), s(#)(2), s(#)(6), z(4), z(#)(3), f(7), #f, #f(#)(2), t(3), #t(4), t(3), #t, #t(3), k(8), k(#)(10), k(#)(2), g(6), #g, #g(#), #g(#), #w(8), w(2), #h

Broad: p(20), b(22), m(#)(4), f(16), v(3), t(20), d(#)(17), ts(2), #f, #d, #d(#)(4), n(28), r, r(#)(2), #r, r(#)(5), s(43), z(11), f(17), #f, #f(#)(3), j(#)(9), l(25), h(20), j(5), k(#)(39), g(27), #g, #g(#), #h(2), h(4)

i(19), u, u(#)(18), u(#)(23), u, e, o(#)(8), a(30), #a(10), #a(11), #a(17), c(5), a(#)(24), a(7), a(#)(41)

Supra-Segments: Consonant Clusters

Consonant Cluster Total for Stressed and Unstressed Syllables and Monosyllables according to Syllable Configuration

Monosyllable Consonant Cluster Onset (all entries are word initial): p#, p, b, b#, b(#), m, f, f#, b, b#(2), m(4), f(4), f#(2), t, t#, t#(7), t#(2), d, d#, d#(4), n(3), n#(5), #n, #n(#)(2), r, #r(2), #r(4), s(14), s(#)(2), z(4), z#(3), f, f#, f#(7), f#(2), j, k, k(#)(2), g, g#, #g, h,

Monosyllable Consonant Cluster Coda (all entries are word final): b#(2), n, n#, d, d#, s, s#, z, z#, f, f#, f#(4), t, t#, t#(3), d, d#, d#(2), n(2), #n, #n(#)(2), r, r(#)(1), #r, r(#)(2), #r(5), #s, #s(#)(14), s(22), s(#)(7), #z, z(5), z(#)(5), #f, #f(#)(3), j, k, k(#)(10), k(#)(2), g, g#, #g, h,

Stressed Syllable Consonant Cluster Stressed Onset (all entries are word initial): b, b#, b#(1), b#(2), m, f, f#, b, b#(4), m(13), #m, f(5), #f(7), #f(4), #v, v(2), #t(4), t(11), t#, t#(4), t, t#(3), k, k(#)(2), g, g#, h, h#, j, j#, k, k#(2), g, g#, h,

First Syllable Consonant Cluster Stressed Onset (all entries are word initial): b, b#, b#(1), b#(2), m, m#, m#(4), f, f#, b, b#(4), m(13), #m, f(5), #f(7), #f(4), #v, v(2), #t(4), t(11), t#, t#(4), t, t#(3), k, k(#)(2), g, g#, h, h#, j, j#, k, k#(2), g, g#, h,
Third Syllable Consonant Cluster Stressed Onset: st, sk
Third Syllable Consonant Cluster Stressed Coda:

Third Syllable Consonant Cluster Unstressed Onset: sp, st, #fm, kʰj
Third Syllable Consonant Cluster Unstressed Coda: mp#, ns#, nz#

Fourth Syllable Consonant Cluster Stressed Onset:
Fourth Syllable Consonant Cluster Stressed Coda:

Fourth Syllable Consonant Cluster Unstressed Onset:
Fourth Syllable Consonant Cluster Unstressed Coda:

Fifth Syllable Consonant Cluster Stressed Onset:
Fifth Syllable Consonant Cluster Stressed Coda:

Fifth Syllable Consonant Cluster Unstressed Onset:
Fifth Syllable Consonant Cluster Unstressed Coda:

Consonant Cluster Total for Stressed and Unstressed Onsets and Codas

Stressed Onset: #bl, #fz, #tʰj, tľs, #sk(4), sk, st(2), sw, sp, #spj, #fm, #kʰl, #kʰj(2), #gμ(3), #gl(3)

Stressed Coda: ks, ŋk, ŋk#

Unstressed Onset: pʒ, bʒ, Θj, st(3), sp, #skj, #fm, kʰj, gμ

Unstressed Coda: mp#, ns#, nz#, st#, tz#

Consonant Cluster Total for Onsets and Codas

Onset: pʒ,#pʰj, bʒ, #br, #bl, #fz(2), #f#, #tʰj(2), tľs, #dș(2), #nj, #Θj, #snj, #snm, #sk(6), sk, st(5), sw, sp(2), #spj, #spl, #skj, #fm, #fm, #kʰl, #kʰj(3), kʰj, #g(6), #gμ(4), gμ

Coda: bʒ#, mp#, ns#, nz#, ntʃ#, #nd#, #g#, #tʃ#, #tʃ#, #k#, #s, ŋk, ŋk#

Consonant Cluster Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllable Consonant Cluster: #pʰj, #br, bʒ#, #fz, #f#, #tʰj, #dș(2), #nj, ntʃ#, #nd#, #snj, #snm, #sk(2), #spl, #Θj, #tʃ#, #g#, #kʰj, k#, #gμ(3), #gμ

First Syllable Consonant Cluster Stressed: #bl, #fz, #tʰj, #sk(4), #spj, #fm, #kʰl, #kʰj(2), ks, #gl(3), #gμ(3), ŋk

First Syllable Consonant Cluster Unstressed: #skj

Second Syllable Consonant Cluster Stressed: st, sw, sp, tľs, ŋk#

Second Syllable Consonant Cluster Unstressed: pʒ, bʒ, Θj, st(2), st#, tz#, gμ

Third Syllable Consonant Cluster Stressed: st, sk

Third Syllable Consonant Cluster Unstressed: mp#, ns#, nz#, sp, st, #fm, kʰj

Fourth Syllable Consonant Cluster Stressed:
Fourth Syllable Consonant Cluster Unstressed:

Fifth Syllable Consonant Cluster Stressed:
Fifth Syllable Consonant Cluster Unstressed:

Consonant Cluster Total per Syllable

First Syllable Consonant Cluster: #bl, #fz, #tʰj, #sk(4), #spj, #skj, #fm, #kʰl, #kʰj(2), ks, #gl(3), #gμ(3), ŋk

Second Syllable Consonant Cluster: pʒ, bʒ, Θj, st(3), sw, sp, tľs, st#, tz#, gμ, ŋk#

Third Syllable Consonant Cluster: mp#, ns#, nz#, sp, st(2), sk, #fm, kʰj

Fourth Syllable Consonant Cluster:

Fifth Syllable Consonant Cluster:
Consonant Cluster Stressed: #bl, #fl, #tʰj, #sk(4), #spj, st(2), sw, sk, sp, #fм, тл, #kʰl, #kʰj(2), ks, #gl(3), #gμ(3), ɲk, ɲk#

Consonant Cluster Unstressed: pj, bj, mp#, ɲs#, nź#, sp, st(3), #skj, Θj, fm, ʃt#, ʃz#, kʰ, gj

Consonant Cluster Total (absolute)

Narrow: pj, #pʰj, #bl, bj, #br, bz#, mp#, #fš(2), #fлив, #dʒ(2), #nj, #fн, #fнj, #fнf, #fнϕ, #fнm, #fнkl, #fнsw, #fнsk, #fнsp, st(5), sw, sk, #sk(6), #skj, #fм, #fмj, #fмt, #fмz, #kʰj, #kʰj(2), kʰ, ks, kt#, #gl(6), #gμ(4), gj, ɲk, ɲk#

Broad: pj(2), bl, bj, br, bz, mp, fj(2), fl, tʃ(2), dʒ(2), #nj, #fн, ns, nz, nd, Θj, Θj, sm, sn, sp(2), #spj, #spl, st(5), sw, sk(7), skj, fm(2), тл, ʃt, ʃg, ʃz, kl, ku(4), ks, kt, gl(6), gj(5), ɲk(2)

**Supra-Segments: Whole Syllables**

Whole Syllable Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllable Whole Syllable:
#pʰj/ʃs#, #tʰj/ʃts#, #брup#, #sku/tʃf#, #fу/ʃp#, #flekt#, #djeʃ#, #djeb#, #fяс#, #fясf#, #sмf#, #фмд#, #фмf#, #kʰjʃf#, #gмнтʃf#, #gltʃf#, #fвnd#, #мæj#, #njæk#, #skæz#, #sнæbz#, #pʰad#, #сплæл#, #глæт#, #gæk#, #глæп#

First Syllable Whole Syllable Stressed (all entries are word initial):
#iːl, #dliː, #fjliː, #nliː, #kʰliː, #wliː,
#u, #u"v, #u"n, #sku"m, #lu"n, #gu"m,
#iɡ, #bitk, #tʰi, #tʰj, #dɡt, #spmη, #fj, #gмк, #wк, #w, #wu,
#pʰo"p, #fо"g, #na, #га, #нес, #фмк, #ле, #гме,
#ан, #фмн, #ска, #жк, #глɛк, #гла, #глɛм, #ɛt, #ɛf, #wо,
#æ, #бæк, #дæк, #нæ, #скæп, #лæм, #лæс, #kʰjæk, #kʰjæ, #gæɛ, #гæɛн, #hæк, #pa, #za,
#aː, #ag, #pʰa, #bak, #ван, #да, #skæm, #sa, #fэ, #kʰa, #kʰа, #га, #глæм, #wэ, #wa, #wэks

First Syllable Whole Syllable Unstressed (all entries are word initial):
#bʲi, #lu"n, #ju"n, #gu"n, #и, #ба, #фа, #сæн, #скæ, #сæ, #фэ, #э, #ег, #ek, #тæн, #ак, #ha

Second Syllable Whole Syllable Stressed:
swu", #pʰɛ, #зэ, #м, #дæп#, #бæ(2), #θæ, #лæj#, tʃæn#, wa"#, #a, #spa, #sta

Second Syllable Whole Syllable Unstressed:
Third Syllable Whole Syllable Stressed:
bu"#,
stæ

Third Syllable Whole Syllable Unstressed:
vi"#, zi"#,
skju"#, fmu"z#, ū"#, lu"d#, fsi#, lts#, lịn#, lo"#,
ta#, d'i#, st'ins#, sa, j'ọ#, la(#2), lọs#, k'i#, k'ämp#, spa−,
læk#,
dọsun#,
biabo#, nat#, jœn#, janz#, haf#

Fourth Syllable Whole Syllable Stressed:
Jọi,
Jọs#,
lo"p#

Fifth Syllable Whole Syllable Stressed:
Fifth Syllable Whole Syllable Unstressed:
o"#

Whole Syllable Total per Syllable

First Syllable Whole Syllable (all entries are word initial):
#i, #bi, #di, #tji, #ni, #k'li, #wifj, #u,
#u", #u"v, #u", #sku", #lu"(2), #ju", #gu"(2),
#iŋ, #iŋg, #blak, #t'aj, #dsg, #sprịn, #fj, #gmi, #w1k, #w1,
#wọ, #p'ọ'p, #fjọ"m,
#ba, #fa,
#t'ọn,
#san, #skọ, #sa, #fa,
#na, #ga,
#e, #eg, #ek, #nes, #fme, #le, #gịe,
#an, #fam, #skọ, #jak, #ọŋk, #gọa, #glam,
#ọ, #fọ, #wọ,
#ae, #bae, #dak, #nae, #skæp, #læm, #læs, #k'lae, #k'uæ, #gœ, #gæn, #hæk,
#ak, #pa', #za',
#au, #aŋ, #p'a, #bak, #van, #da, #skam, #sa, #faj, #k'ła, #k'lo, #ga, #glam, #wa, #wa, #waks, #ha

Second Syllable Whole Syllable:
pj"#, fi"#, di"#, si"#, li"#, k'li, gi#,
swu", ū",
bl, blm#, mf#, nis#, sk#, sb#, ss#, fn#, gwn#,
ne#,
jo", ko"#(2),
p,i#, pa, b,i#(3), b,t, m,n, ma, f,t#, da, ra, Ṟab`, Ṟi#, s,i#(2), sa, sta#, stn#, z,t, z,i#(2), ū#(2), ūu#, sa, ja, ja#, la, k'n#, kat`, g(3), wa, p,a, fa#, t,a#d#, da, ra#, sta#, wa#,
z, m, d,nk#, fs,t#,
ba#(2), Ṣæ, Ṣæ, la,#, læn,
t³an#, ja#, wa"#,
a, ba#, ta, tof#, dag#, da#, da#l#, san#, spa, sta, la#, wab#, wa#f#, ha#

Third Syllable Whole Syllable:
vi#,
bu"#, skju"#, ūmu"z#, ūw", lu"d#,
fsf#, lls#, l̩n#,
lo"#,
ta#, d,t#, stn#, sa, jn#, ja#, la#(2), las#, k,t#, k¹amp#,
spa,
stæ, lak#,
da'n#,
bt#, nat#, jan#, janz#, hai#

Fourth Syllable Whole Syllable:
fi,
jas#,
lo"p"#

Fifth Syllable Whole Syllable:
o"#

Whole Syllable Stressed and Unstressed Total

Whole Syllable Stressed:
#i!, #dl!, #fj!#, #ni!, #k²l!, #wi#, #u,
#u,v, u", bu"#, bu"#, ūsku", swu", ūlu", ūgu",
#i#, #blik, #t, #t²j#, #dgt, #s pn#, #f, #g 1, #w1k, #w1,
#wu,
#p°o#p, #fsy,
#p,a, #na, #ga,
#mes, ze, #fme, #le, #gu,
#m, ma, #fm, dŋk#, #skl, #jlk, #gəŋk, #glə, #glm,
#d#, #fš, #v#, #æ, ba#(2), #bæl, #dæk, #næ, Ṣæ, #skæp, stæ, #læm, #läs, la,#, #k¹læk, #k¹jæ, #gəu, #gən, #hæk,
#pa#, t³an#, #za#, wa#",
#a, a, #ag, #p°a, #bak, #van, #da, #skam, spa, #sa, sta, #saj, #k¹lo, #k¹o, #gə, #glm, #wa, #wa, #waks

Whole Syllable Unstressed:
pj#", #bi, fl#, #vi#, #dl#, #sî#, #zi#, jil#, #k²l#, gi#,
skju"#, ūmu"#(2), ūmu"z#, #lu", lu"d#, #ju", #gu",
#1n, b1, blm#, mf#, fsf#, nis#, sk#, sb#, ss#, fn#, lls#, l̩n#, gwn#,
ne#,
o"#, jo", lo"p", ko"#(2),
p,i#, pa, b,i#(3), b,t, m,n, ma, #fa, f,t#, ta#, d,t#, da, ra, Ṟab`, Ṟi#, s,i#(2), #skj, #sa, sa#(2), #san, sta#, stn#, stn#, z,t, z,i#(2),
#fa, jn#, j²z#, sa, ja, ja#, jas#, jas#, la, la#(2), las#, k'n#, kat`, k¹#, k¹amp#, g(3), wa, fa#, t,a#d#, da, ra#, spa#, sta#, wa#,
#e, #eg, #ek,
Segmental and Supra-Segmental Profile Data Sheet

Question ID: T. the grease that accumulates on top of a hot pizza

**Segments**

Segment Total for Stressed and Unstressed Syllables and Monosyllables according to Syllabic Configuration

Monosyllable Stressed Onset: \#pʰ(2), \#p, p(2), #b(2), m(2), #m, #n, #s(14), #z, j, ñ(2), #ñ, l(14), #l(3), #ñ, #kʰ, k, kʰ, #g(2), w
Monosyllable Nucleus: i(3), #l, u³(6), e(3), o³, ã, ñ#(2), ñ(2), æ(4), æ(1), a, a³, a(2)
Monosyllable Coda: m, p#(2), m(2), f#(2), t#(3), tf#, n, s(2), s#(2), z#(3), f#(4), j#, j(2), k#(7), kʰ#, g#(2), η

**First Syllable Segment**

Stressed Onset: #pʰ(5), p(2), #b(3), m, #m, #f(2), t, #tʰ, #d(3), #tf, #n(4), n, #s(17), #s:, j(8), #j(2), l(7), #l(2), j(2), k(3), #kʰ(6), #g(8), w(3), #w(2), #h(3)

Stressed Nucleus: i(4), #l, u³, #u³, #u³, #u³, ó(11), i#(2), ó(3), e, o³, o³, t³, æ(8), #ae, a, a³(3), a(8), #a

Stressed Coda: m(3), t, n(3), s(2), z, j(2), l(6), k(3)

**Second Syllable Segment**

Unstressed Onset: b, #m, m, #f, #tf, #d(2), #s(3), ñ(2), #l, #kʰ, #g

Unstressed Nucleus: i³, #u³, ó(6), ë, æ(2), a(2)

Unstressed Coda: m, s, j(2)

**Third Syllable Segment**

Stressed Onset: n, ñ(2), kʰ

Stressed Nucleus: u³, a³(3)

Stressed Coda: ñ#, k

**Fourth Syllable Segment**

Unstressed Onset: b, f(4), t(3), n, s(2), j(2), l(3), j(2), k(2), g(3), w

Unstressed Nucleus: i³#, i³(4), u³, #u³, ñ(4), e³, o³#, o³(2), ñ(2), a(10), #ã, #ã(3), #ã, ñ#, #ñ(11), ñ, ñ#, #à, #à(2), #à, #à, ñ, ñ, a, a³, a

Unstressed Coda: ñ, d#, ñ#, s, s#(4), j#, #k, k, k(2)

**Fifth Syllable Segment**

Stressed Onset: #pʰ(5), p(2), #b(3), b, m(2), #m, #f(2), t, #tʰ, #d(3), d(2), #tf, #n(4), n(4), #s(17), #s:, j(10), #j(2), l(11), #l(2), j(2), k(3), #kʰ(6), kʰ(2), #g(8), w(3), #w(2), #h(3)

Stressed Coda: m(3), t(2), tf#, n(3), s(3), z, j(2), l(6), #k, k(4), η

Unstressed Onset: p³, p(2), b(4), #m, m(4), #f, f(12), v, t(9), d(3), #tf, #d(2), #g(5), n(5), r(4), #ñ(2), #s(3), s(8), z, j, j(11), ñl, l(11), j(5), #kʰ, k(7), #g, g(9), w(5), h

Segment Total for Stressed and Unstressed Onsets and Codas
Unstressed Coda: m, f#(2), t#, t`#, d#(4), n#(3), s(2), s#(5), z#, j(2), j#, t#(3), k, k#(4), x#

Segment Total for Onsets and Codas

Onset: #p^3(7), #p, p^6, p(6), #b(5), b(5), m(8), #m(3), #f(3), f(12), v, t, t#, t(9), #d(3), d(5), #tf(2), #dg(2), dg(5), #n(5), n(9), r(4), Θ(2), #s(34), #s:, s(9), #z, j(2), j(23), #s(3), #l, l(36), #l(5), #j, j(7), k(11), #k^7(8), k^7(2), k^5, #g(11), g(9), w(9), #w(2), #h(3), h

Coda: p, p^6, b#, m#(2), m(6), f#(4), t(2), t#(4), t`#, d#(4), tf#(2), n(4), n#(3), s(7), s#(7), z, z#(4), f#(4), j#(2), j(6), h(6), t#(4), k(5), k#(11), k`#, g#(2), η(2), x#

Segment Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllable Segment: #p^3(2), #p, p^6, #b(2), b#, m(4), #m, m#(2), f#(2), t#(3), tf#(4), #n, n, #s(14), s(2), s#(2), #z, z#(3), f, f#(4), j(4), #j, #l(14), #l(3), #j, #k^5, k, k^5, k`, #g(2), g#(2), η, w

\[ i^3(3), i^1, u^6(3), e^l(3), o^a, a^#, ε(2), e^l, j#, λ(2), æ(4), æ^l, a, a^2, a(2) \]

First Syllable Segment Stressed: #p^3(5), p(2), #b(3), m(4), #m, #f#(2), t(2), #t^5, #d(3), #tf(4), n(4), n#(4), s(17), #s:, s(2), z, j(10), #j(2), l(7), #l(2), tl(6), j(2), k(6), #k^5(6), g(8), w(3), #w(2), #h(3)

\[ i^5(4), #i, #u, u^6(8), #u, u^6(2), z(11), #l, u, e^l(3), #o^a, o^a, ε(3), λ(5), j, λ(3), a^l, æ(8), #æ, a, a^l(3), a(8), η \]

First Syllable Segment Unstressed: b, #m, m(2), #f#, #tf#, #dg(2), #s(3), s, j(4), #l, #k^5, #g

\[ i^1, #u^a(6), e, æ(2), a(2) \]

Second Syllable Segment Stressed: b, m, t, d(2), tf#, n(2), s(2), l(4), k^#\n
\[ i^5, u^6#, u^6, e^l(2), o^a, æ, ε, a^l, a, a \]

Second Syllable Segment Unstressed: p^6, p(2), b(2), *m#, m(3), f(7), f#(2), v, t(6), t`#, d(2), d#(3), n(4), n#(2), *n#(2), dg(5), r(3), Θ(2), s(6), s#(5), z, z#, j(6), l(7), #l#(11), #j, t#(2), j#(3), k(5), k#(2), g(6), x#, w(4), h

\[ i^5(2), i^7, u^6(4), u^6(5), t(4), e^l(2), o^a(2), o^a(2), a(10), ã(3), æ#, æ#(3), æ, ε, a^#, a^l, a(8) \]

Third Syllable Segment Stressed: n, j(2), t#, k, k^#

\[ u^6, æ(3) \]

Third Syllable Segment Unstressed: b, f(4), t(3), t#, d#, n, n#, s(3), s#(4), j(2), j#, l(3), *f#, *l#, g(3), k(3), k#(2), w

\[ i^5, i^2(2), u^6, u^6#, t(4), e^l, o^a#, a(4), æ, a^l, a^l#, a, a# \]

Fourth Syllable Segment Stressed:

Fourth Syllable Segment Unstressed: *m#f, d, r, j, l, l

\[ i^5, e^l#, o^a(#)(2), æ# \]

Fifth Syllable Segment Stressed:

Fifth Syllable Segment Unstressed:

Segment Total by Syllable

First Syllable Segment: #p^3(5), p(2), #b(3), b, m(6), #m(2), #f(3), t(2), #t^5, #d(3), #tf(2), #dg(2), #n(4), n#(4), s(20), #s:, s(3), z, j(14), #j(2), l(7), #l(3), tl(6), j(2), k(6), #k^5(7), g(9), w(3), #w(2), #h(3)

\[ i^5(5), #i^1, u^6(8), #u, u^6(2), u^6(2), t(11), #t, u, e^l(3), #o^a, o^a, æ(6), æ^l, ε(4), λ(5), æ(10), #æ, a, a^l(3), a(10), #a \]

Second Syllable Segment: p^6, p(2), b(3), m(4), *m#, f(7), f#(2), v, t(6), t`#, t, d(4), d#(3), tf#, #dg(5), n(6), n#(2), *n#(2), r(3), Θ(2), s(8), s#(5), z, z#, j(6), l(7), *f#(11), *l#, #l#, j(3), k(5), k#(2), k^#, g(6), η, x#, w(4), h

\[ i^5(3), i^7, u^6(5), u^6(6), t(4), e^l(4), o^a(2), o^a(3), a(10), ã(2), æ#, æ(2), ε(2), æ, æ, æ#, a^l(2), a(9) \]
Third Syllable: b, f(4), t(3), t#, d#, n(2), n#, s(3), s#(4), s(4), #l(3), t#, l#(2), j(2), g(3), k(4), kʰ, k#(2), w

Fourth Syllable: ʰ, ɬ(2), uʷ(2), uʷ#, t(4), e¹, oʷ#, a(4), æ, æ¹, a¹#, a(4), a#

Fourth Syllable: ʰ, e¹#, oʷ(2)#, â#,

Fifth Syllable: Segment Stressed and Unstressed Total:

Stressed Segment: #pʰ(5), p(2), #b(3), b, m(5), #m, #f(2), t(3), #tʰ, d(3), d#, #tf(2), #n(4), n(7), #s(17), #s; s(4), z, z(12), #l(2), #l(2), t(6), t#, j(2), k(7), #kʰ(6), kʰ(2), #g(8), nj, w(3), #w(2), #h(3)

Unstressed Segment: pʰ, p(2), b(4), m(5), #m, #m#(2), f(12), #f, #f(2), v, t(w), tʰ, t#, d(3), d#, #tf, #g(2), d(5), n(5), #n(3), #r(4), #l(6), s(10), s(9), #s(3), z, z#, j, j(13), j#, l(11), #l, #l(12), #l, #l(3), j(2), k(8), k#(4), #kʰ, #g(9), #g x#, w(5), h

Broad: p(17), b(11), m(21), f(19), v, t(18), d(12), tf(4), d(7), n(23), r(4), #l(2), s(62), z(7), j(6), s(34), l(42), k(23), j(5), k(39), g(22), #l(2), x, w(11), h(4)

Supra-Segments: Consonant Clusters

Consonant Cluster Total for Stressed and Unstressed Syllables and Monosyllables according to Syllable Configuration

Monosyllable Consonant Cluster Onset (all entries are word initial): #pʰ, j, #bl(2), #sl(8), #sp(2), #sml, #skj, #sk, #sm, #sn, #kʰw
Monosyllable Consonant Cluster Coda (all entries are word final): mps#, mp#, ns#, st(2)#, tj#, tf#, nj#

First Syllable Consonant Cluster Stressed Onset (all entries are word initial): #pʰ#(2), #pʰ, #b, #bl, #sl, #sp(2), #st, #sl, #sk, #sw, #skw, #skj, #sm, #d(2), #kʰ#(2), #g(2), #gw, #gl

First Syllable Consonant Cluster Stressed Coda: #j

First Syllable Consonant Cluster Unstressed Onset (all entries are word initial): #sm, #kʰ#; j

First Syllable Consonant Cluster Unstressed Coda: #kʰ; j

Second Syllable Consonant Cluster Stressed Onset: #m
Second Syllable Consonant Cluster Stressed Coda: #m

Second Syllable Consonant Cluster Unstressed Onset: f, st(2), sk, kʰ, k, g, gl
Second Syllable Consonant Cluster Unstressed Coda: #kʰ; j

Third Syllable Consonant Cluster Stressed Onset: Third Syllable Consonant Cluster Stressed Coda: #j

Third Syllable Consonant Cluster Unstressed Onset: #t(2), kl, gl, g
Third Syllable Consonant Cluster Unstressed Coda: #kʰ; j

Fourth Syllable Consonant Cluster Stressed Onset: Fourth Syllable Consonant Cluster Stressed Coda: #
Fourth Syllable Consonant Cluster Unstressed Onset: fl
Fourth Syllable Consonant Cluster Unstressed Coda:

Fifth Syllable Consonant Cluster Stressed Onset:
Fifth Syllable Consonant Cluster Coda:

Fifth Syllable Consonant Cluster Unstressed Onset:
Fifth Syllable Consonant Cluster Unstressed Coda:

Consonant Cluster Total for Stressed and Unstressed Onsets and Codas

Stressed Onset: #pʰl(2), #pʰj, #bl, #mj, #fl(2), #sp(2), #st, #sl, #sk, #sw, #skw, #skj, #sm, #sm, #dj(2), #kʰj(2), #gj(2), #gw, #gl

Stressed Coda: ks

Unstressed Onset: fj, st(4), sk, #sm, fl, #kʰj, kʰl, kj, kl, #gj, gj(2), gl(2)

Unstressed Coda: st#, ks#

Consonant Cluster Total for Onsets and Codas

Onset: #pʰl(2), #pʰj, #pʰj, #bl(3), #mj, #fl(2), fj, #dj(2), #sp(2), #st, st(4), #sl(9), #sk(2), sk, #sw, #skw, #skj, #sm(3), sm, #sn, #sp(2), #sm(3), #gl(2), #kʰw, kʰl, kj, kl, #gj(3), gj(2), #gw, #gl(2)

Coda: mps#, mp#, ns#, st#,jf#, ks, ks#, gj, njk#

Consonant Cluster Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllable Consonant Cluster: #pʰj, #bl(2), mps#, mp#, ns#, #sl(8), #sp(2), #sm(3), #skj, #sk, #sm, #sn, st#, st#, #kʰw, njk#

First Syllable Consonant Cluster Stressed: #pʰl(2), #pʰj, #bl, #mj, #fl(2), #dj(2), #sp(2), #st, #sl, #sk, #sw, #skw, #skj, #sm(2), #kʰj(3), ks, #gj(2), #gw, #gl

First Syllable Consonant Cluster Unstressed: #sm, #kʰj, #gj

Second Syllable Consonant Cluster Stressed: sm

Second Syllable Consonant Cluster Unstressed: fj, st(2), sk, kʰl, kj, gj, gl

Third Syllable Consonant Cluster Stressed:
Third Syllable Consonant Cluster Unstressed: st(2), st#, kl, ks#, gl, gj

Fourth Syllable Consonant Cluster Stressed:
Fourth Syllable Consonant Cluster Unstressed: fl

Fifth Syllable Consonant Cluster Stressed:
Fifth Syllable Consonant Cluster Unstressed:

Consonant Cluster Total per Syllable

First Syllable Consonant Cluster: #pʰl(2), #pʰj, #bl, #mj, #fl(2), #dj(2), #sp(2), #st, #sl, #sk, #sw, #skw, #skj, #sm(2), #kʰj(3), ks, #gj(3), #gw, #gl

Second Syllable Consonant Cluster: fj, st(2), sk, sm, kʰl, kj, gj, gl

Third Syllable Consonant Cluster: st(2), st#, kl, ks#, gl, gj

Fourth Syllable Consonant Cluster: fl

Fifth Syllable Consonant Cluster:

Consonant Cluster Stressed and Unstressed Total

Consonant Cluster Stressed: #pʰl(2), #pʰj, #bl, #mj, #fl(2), #dj(2), #sp(2), #st, #sl, #sk, #sw, #skw, #skj, #sm, sm, #kʰj(2), ks, #gj(2), #gw, #gl

518
Consonant Cluster Unstressed: fj, st(4), st#, #sm, sk, jl, kʰl, k₁l, kl, #kʰj, ks#, gu(2), #g₁, gl(2)

Consonant Cluster Total (absolute)
Narrow: #pʰ(2), #p³, #p⁵, #b⁴, #b⁵, #m(3), #m₃#, #m⁵, #f(2), fj, #dj(2), #n², #p², #st, st#, #t(3), #s(9), #sp², #sk(2), sk, #sw, #skw, #sku(2), #sm(3), sm, #sml, #sn, jl, #t#, sf#, #kʰ(3), kʰl, kl, #kʰw, ks, #ks, #g(3), gu(2), #gw, #gl, gl(2), #ŋk#

Broad: pl(2), pj, pu, bj, bl(3), mj, mps, mp, fl(2), fj, #dj(2), #n², #p², #st, #t(8), #s(9), #sp², sk(2), sk, sw, #skw, #sku(2), #sm(3), sm, #sml, sn, jl, #t, #f, k₁(3), kl(2), kw, ks(2), #g(5), gw, gl(3), #ŋk

Supra-Segments: Whole Syllables

Whole Syllable Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllable Whole Syllable:
#i'tʃ#, #pʰ'tz#, #bli'k#, #n³'z#, #gu'ʃ#, #sliz#, #slmps#, #z₁k#, #fjmp#, #lns#, #jʃf#, #p³'ʃe'st#, #blek#, #spleŋk#, #mo'k#, #sla-m#, #sk'la-#, #slek#, #slʃf#, #smel'st#, #jʃ#, #skəm#, #slk#, #slmæl'ʃ#, #slæʃf#, #splæg'#, #læk#, #kʰwæg#, #la'st#, #paf#, #slæʃf#, #gok#

First Syllable Whole Syllable Stressed (all entries are word initial):
#i, #j#l, #s³l, #snì, #kʰj, #g¹l, #h¹l,
#u", #u, #u", #p³'u", #p³'jʊ", #blu", #mju", #du"l, #slu", #sp³'u"k, #su", #gu", #gu"m,
#iz, #fi, #dʒi, #dʒt, #skwi#, #sλl, #śt, #swt, #ji, #kʰj5, #g1,
#wuł, #p³'lël, #bje, #he¹l,
#o", #jo", #p³'k, #nɛ, #gxe,
#bæm, #sło, #skn, #skəm, #kʰj₃,
#n³l, #æk#, #p³'læ, #fiæ, #næn, #sæ(2), #sæn, #spæ,
#la¹l, #k¹a, #ha¹l,
#na, #sta, #sma, #la, #kʰa, #kʰaj, #gja, #ga, #gwał, #wan

First Syllable Whole Syllable Unstressed (all entries are word initial):
#g¹l¹, #u", #bæ, #dʒa, #sæ(2), #sma, #kʰj₃,
#fes, #tʃæ, #læm,
#t³a¹l,
#a, #maj, #dʒa

Second Syllable Whole Syllable Stressed: kʰj#,
du", nu"#, #bɛl, le¹l,
lo", #smətʃ,
#les,
#næŋ,
#nawt"#,
Second Syllable Whole Syllable Unstressed:
tl#, dl#, nl#, dtl#, sl#, lt#, klt#, wli,
mul#, fumu#, tu#, dzu#, θu#, ju#, lu#,
pid#, ft#, nif#, glin#,
te#, ste,
vo#, doo#, s0o#, pooo#, ba#, m#o#, fa, dgas#, dνη#, nak#, ra, r (#(2), sta, z (#, θ (#, jak#, la(#, j (#(2), jt#, k-η#, k-t#, ga, g-#, gu-#, g-##, was#, #ba#, ma#, fa(#(2), wa#,
nes#, klae,
pat#,
fa#, tad#, ska#, san#, ax#, la#, jaz#, gas#, wad#

Third Syllable Whole Syllable Stressed:
k#u#k,
a, jat#, ja

Third Syllable Whole Syllable Unstressed:
fl#, nl#, gu#,
gu"k#, glu"#,
ft#, stt#, jis#, wks#,
je,#
sto"#, a#, ta, jas#, k-#,#
klæst#,
fa#d#, la#,#
ba#, fa#

Fourth Syllable Whole Syllable Stressed:
Fourth Syllable Whole Syllable Unstressed:
fi#,
de,#
flo"#, jo"#,
#m#,
ra#

Fifth Syllable Whole Syllable Stressed:
Fifth Syllable Whole Syllable Unstressed:

First Syllable Whole Syllable (all entries are word initial):
#i#, # ti#, # sti#, # sni#, # k#u#, # gui#, # hi#,
#u",
#u, #u"(2), #pu", #pju", #blu", #mju", #du"t, #slu", #sp"u"k, #s"u", # gu", # gu#m,
#iz, #flt, # dst, # jstt, # skwšt, # sl#, # swt, # ji, # k#is, # g1,
# wu#, # p#le#, # bue#, # he#,
#o", # o",
# ba, # dga, # sa(#(2), # sma, # k#ja,
# p#e#, # fes, # n#, # gue,
# btm, # sl#, # skl, # sκlm, # k#la,
# n#, # eks, # p#lae, # flae, # tfæ, # næn, # sa(#(2), # saen, # spæ, # laem,
# t#a#, # la#, # k#a, # ha#,
# a, # ma#, # dga#, # na, # s#a, # sma, # la, # k#a, # k#a#, # ga, # ga, # gwai, # wan

Whole Syllable Total per Syllable

520
Segmental and Supra-Segmental Profile Data Sheet

Question ID: U. an unexpected cool breeze on a sultry day

**Segments**

Segment Total for Stressed and Unstressed Syllables and Monosyllables according to Syllable Configuration

Monosyllable Onset: p, #p(2), #m(3), #f(4), #t, #tʰ, #s(6), z(2), j(3), #j(8), k(2), w(5), #w(2), #wʰ

Monosyllable Nucleus: uʰ(6), uʰ(2), u, iʰ(3), t(6), u, oʰ(2), oʰ#, ε, aʰ(2), a(2)

Monosyllabic Coda: p(2), m#(3), m(2), f#(2), v#(4), d#, s#(4), f#(8), t, t#(3), k

**First Syllable Segment Stressed Onset:** #pʰ(2), p, #m(3), #f(4), #t, #tʰ, #s(6), z(2), j(3), #j(8), k(2), #w(2), #wʰ

**First Syllable Segment Stressed Nucleus:** iʰ(8), i, uʰ(11), τ(9), #t, #tʰ(3), #tf, #dʒ, n, #r, #s(10), j(5), #j(15), l(4), j, #kʰ(6), #g(3), w, #w(12), #h

**First Syllable Segment Stressed Coda:** p(2), m(2), f(2), n(3), s(3), z, j(2), k(2)

First Syllable Segment Unstressed Onset: #p, #m(2), #f(4), #t, #tʰ, j, #j(2), l(2), #l, #k, #kʰ(2), #k(3), #w, w, #h(3)

First Syllable Segment Unstressed Nucleus: i, uʰ(2), τ(2), eʰ, oʰ, ε(2), a(3), æ(9), aʰ(2), #a¹, a, a(5), #a

First Syllable Segment Unstressed Coda: m, n, j

Second Syllable Segment Stressed Onset: m, f(2), v, tʰ(3), d(2), n(2), z, j(2), l(4), g, w

Second Syllable Segment Stressed Nucleus: iʰ(4), uʰ(2), τ(2), eʰ, oʰ, ε(2), a(3), æ(3), a¹, a(4)

Second Syllable Segment Stressed Coda: #t, n#(3), s#, j, t, k

Second Syllable Segment Unstressed Onset: p(3), b(2), m(3), f(3), v(5), tʰ, t(9), d, tf(2), n(3), r(4), Θ, s(3), z(5), ʒ(2), j, l(6), j, k(3), g(2), w(2), h

Second Syllable Segment Unstressed Nucleus: iʰ(8), iʰ(5), uʰ(2), τ(2), o, oʰ, oʰ#, a(4), a(4), æ(3), æ#(2), æ#(4), a(4), æ(3), æ#(2), æ#(3), a¹, a¹, a¹, a#(2)

Second Syllable Segment Unstressed Coda: p#, n#(5), s, z#, j#(3), j#(2), t#, k#(2), η#

Third Syllable Segment Stressed Onset: d, l

Third Syllable Segment Stressed Nucleus: iʰ#, uʰ#, i, ε

Third Syllable Segment Stressed Coda: s#, s

Third Syllable Segment Unstressed Onset: pʰ(3), m, f(3), v, t, n, r, Θ, s(3), j, l(3), j, w(2), h

Third Syllable Segment Unstressed Nucleus: iʰ(4), iʰ#, a(3), a¹

Third Syllable Segment Unstressed Coda: tʰ#, t#, n#, s#, z#, j#(2), j, l#(2), k#, η#

Fourth Syllable Segment Stressed Onset:

Fourth Syllable Segment Stressed Nucleus:

Fourth Syllable Segment Stressed Coda:

Fourth Syllable Segment Unstressed Onset: m, tʰ, r, j, k

Fourth Syllable Segment Unstressed Nucleus: uʰ*, i, a(3), a¹

Fourth Syllable Segment Unstressed Coda: d#, s#(2), η#

Fifth Syllable Segment Stressed Onset:

Fifth Syllable Segment Stressed Nucleus:

Fifth Syllable Segment Stressed Coda:

Fifth Syllable Segment Unstressed Onset: n, z

Fifth Syllable Segment Unstressed Nucleus: iʰ#, i

Fifth Syllable Segment Unstressed Coda: η#

**Segment Total for Stressed and Unstressed Onsets and Codas**

**Stressed Onset:** #pʰ(2), p, #m, m, #f(4), f(2), #v(3), v, t, #t, #tʰ(3), tʰ(3), d(3), #tf, #dʒ, n(3), #r, #s(10), z, j(2), j(5), #j(15), l(9), j, #kʰ(6), #g(3), g, w(2), #w(12), #h

**Stressed Coda:** p(2), m(2), f(2), t#, n(3), n#(3), s(4), s#(2), z, j(3), l(3), k

**Unstressed Onset:** #p, p(3), pʰ(3), #b(2), b(2), #m(2), m(5), #f(2), f(6), v(6), #tʰ, tʰ(2), t(10), d, tf(2), n(5), r(6), Θ(2), s(6), z(6), ʒ(2), j(2), #j, #j(15), #l, l(11), #j, j(3), #kʰ(2), #k(3), k(5), g(2), #w, w(5), #h(3), h(2)

524
Unstressed Coda: p#, m, tʰ#, d#, n, n#(6), s, s#(3), z#(2), f#(5), j(2), j#(4), t#, k#(3), η#(4)

Segment Total for Onsets and Codas

Onset: #p, #pʰ(3), p(5), pʰ(3), #b(6), b(2), #m(4), m(6), #f(10), #fʰ, f(8), #v(3), v(7), #t(2), #tʰ(5), t(11), d(4), #tʃ, tf(2), #dʒ, n(8), #r, r(6), Θ(2), #s(16), s(6), #z(2), z(7), ʃ(2), f(4), #j(3), j(23), l(8), l(26), #j, j(4), #kʰ(8), #k(3), k(7), #g(3), g(3), #w(15), #wʰ, w(12), #h(4), h(2)
Coda: p(2), p#(3), m(5), m#(3), f(2), f#(2), v#(2), tʰ#, t#(2), d#(2), n(4), n#(9), s(5), s#(9), z, z#(2), f#(13), j(5), j#(4), ℓ(4), ℓ#(4), k(2), k#(3), η#(4)

Segment Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllable Segment: p, p#(2), #pʰ, #b(4), m#(3), #m, m(2), #f(4), f(2), #v(3), t, #t, #tʰ(3), #tʃ, #dʒ, n(4), #r, #s(10), s(3), z, j(7), #j, #l(7), l(4), l(2), j, #kʰ(6), #g(3), w, #w(12), #h

u"(6), #u"(2), u, i(3), t(6), u, o"(2), o"#, ε, a(2)

First Syllable Segment Stressed: #pʰ(2), p(3), #m, m(2), #f(4), f(2), #v(3), t, #t, #tʰ(3), #tʃ, #dʒ, n(4), #r, #s(10), s(3), z, j(7), #j, #l(7), l(4), l(2), j, #kʰ(6), #g(3), w, #w, #h(3)

i, u", #o, o"(2), a(7), #a, æ(2), ε, a, a₁, #a, a(4)

Second Syllable Segment Stressed: m, f(2), v, tʰ(3), t#, d(2), n(2), n#(3), s#, z, j(2), j, l(4), t, k, g, w

i(2), u"(2), t, e¹, o"#, ε(2), æ(3), a₁, a(4)

Second Syllable Segment Unstressed: p(3), p#, b(2), m(3), #m, f(3), v(5), tʰ, t(9), d, tf(2), n(3), n#(5), #η#(5), #η(3), r(4), Θ, s(4), z(5), z#, #ʃ(2), f, #ʃ(3), j(6), #j(2), l(6), #l(4), #j#, j(3), k#(2), g(2), #η, w(2), h

i=#(8), i=#(5), u"=#(2), i(#8), o, o#, o"#, #a(4), a(4), æ(3), æ(2), æ(2), a#, a¹(#2), a"#, a(7), a(2)

Third Syllable Segment Stressed: d, s#, s, l

i¹, u"#, 1, ε

Third Syllable Segment Unstressed: pʰ(3), m, f(3), v, t, tʰ#, t#, n, n#, r, Θ, s(3), s#, z#, j, f#(2), j(9), j#(2), l(3), j, k#, η#, w(2), h

i(#4), i=#(4), u", i(4), e¹, a(2), #a(3), æ(2), æ(3), a¹, a¹(#2), a"#, a(7), a(2)

Fourth Syllable Segment Stressed:

Fourth Syllable Segment Unstressed: m, tʰ, d#, r, s#(2), j, k, η#

u"; 1, æ(3), a¹

Fifth Syllable Segment Stressed:

Fifth Syllable Segment Unstressed: n, z, η#

i¹, 1

Segment Total by Syllable

First Syllable Segment: #pʰ(2), #p, p(3), #b(2), #m(3), m(3), #f(6), f(2), #v(3), t, #t, #tʰ(4), #tʃ, #dʒ, n(5), #r, #s(10), s(3), z, j(9), #j(2), #l(8), l(6), #l(2), j, #j, #kʰ(8), k, #k(3), #g(3), w(2), #w(13), #h(4)

i(#9), i, u"(#12), i(#9), #t(2), u(2), e¹(4), #o"#, #o, o"(2), #e, #(2), æ(7), #a, æ, æ(2), æ(3), æ(2)æ(9), a¹(2), #a¹, a¹, a, æ(9), #a(2)

525
Second Syllable Consonant Cluster Unstressed Coda:
[36x58]Second Syllable Consonant Cluster Unstressed Onset:
[36x132]First Syllable Consonant Cluster Unstressed Onset (all entries are word initial):
[36x317]ʌ (21), u, u ⷳ (2), u ⷥ (5), t
[36x422]ɑ (2), u
[36x434]#(13), i
[36x473]ə
Unstressed Segment:
[36x508]ʲ (10), i
[36x508]#,
[36x520]ɹ
Stressed Fourth Syllable Segment:
, u ⷩ (5), e (2), ε (2), ə (5), æ (14), a, a#, a ⷩ (3), a ⷥ (2), ε (3), a # (2)

Fourth Syllable Segment: m, tʰ, d #, r, s # (2), j, k η#

u*; t, ə (3), a!

Fifth Syllable Segment: n, z, η#

Segment Stressed and Unstressed Total

Stressed Segment: #p³(2), p(3), #m, m (3), #f(4), f (4), #v (3), v, t, #t, #tʰ(3), t³ (3), t#, d (3), #tʃ, #dʒ, n (6), n # (3), #r, #s (10), s # (2), s (4), z (2), j (2), θ (8), η# (17), l (9), l (3), j, #k³ (6), k, #g (3), g, w (2), #w (12), #h

Unstressed Segment: p (3), p #, #p (2), p³ (3), b (2), #b (2), #m (2), m (6), *m, f (6), #f (2), v (6), tʰ (2), t #, t (10), d, d #, tʃ (2), n (6), n # (6), *n # (5), #n (3), n (6), Θ (2), s # (3), z # (2), z # (2), j # (5), j (17), #j (4), #j, #l (11), *l, *l # (4), l #, j (3), #j, k (5), #k # (3), #k # (2), g (2), η # (4), #w, w (5), h (2), h (3)

Supra-Segments: Consonant Clusters

Consonant Cluster Total for Stressed and Unstressed Syllables and Monosyllables according to Syllable Configuration

Mono syllable Consonant Cluster Onset (all entries are word initial): #bl, #b₁, m₁, #f₁, #fl(3), #tʰw, #tʰj, #sw (3), #spl, #sk (2), #zw

First Syllable Consonant Cluster Stressed Onset (all entries are word initial): #p³, #f₁, #fl, #st₁, #spj, #sl, sn, #sw, #k³, #k₁, #g₁

First Syllable Consonant Cluster Coda: #n#, #t#

Second Syllable Consonant Cluster Coda: #jn#, #l# Second Syllable Consonant Cluster Coda: #nz#, #sp#
Third Syllable Consonant Cluster Stressed Onset:
Third Syllable Consonant Cluster Stressed Coda:

Third Syllable Consonant Cluster Unstressed Onset: pʰj(2), st
Third Syllable Consonant Cluster Unstressed Coda: jt#

Fourth Syllable Consonant Cluster Stressed Onset:
Fourth Syllable Consonant Cluster Stressed Coda:

Fourth Syllable Consonant Cluster Unstressed Onset: tʰj
Fourth Syllable Consonant Cluster Unstressed Coda:

Fifth Syllable Consonant Cluster Stressed Onset:
Fifth Syllable Consonant Cluster Stressed Coda:

Fifth Syllable Consonant Cluster Unstressed Onset:
Fifth Syllable Consonant Cluster Unstressed Coda:

Consonant Cluster Total for Stressed and Unstressed Onsets and Codas

Stressed Onset: #pʰj, #fj, #fl, #stj, #spj, #sl, #sn, #sw, #kʰl, #kl, #gj

Stressed Coda: jt#, lt#

Unstressed Onset: #pʰj, pʰj(2), #bl(2), vi, tu(2), tʰj, st, kl, #kw

Unstressed Coda: ηz#, sp#, jt#

Consonant Cluster Total for Onsets and Codas

Onset: #pʰj, #pʰj, pʰj(2), #bl(3), #bj, mj, #fj(2), #fl(4), vi, #tʰw, #tʰj, tu(2), tʰj, st, #sw(4), #spl, #stj, #spj, #sl, #sn, #sk(2), #zw, #kʰl, #kl, #kw, #gj

Coda: mf#, mp#, ηz#, sp#, jt#, ηn#, lt#, ḷd#, ks#

Consonant Cluster Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllable Consonant Cluster: #bl, #bj, mj, mf#, mp#, #fj, #fl(3), #tʰw, #tʰj, #sw(3), #spl, #sk(2), #zw, ḷd#, ks#

First Syllable Consonant Cluster Stressed: #pʰj, #fj, #fl, #stj, #spj, #sl, #sn, #sw, #kʰl, #kl, #gj
First Syllable Consonant Cluster Unstressed: #pʰj, #bl(2), #kw

Second Syllable Consonant Cluster Stressed: #n#, lt#
Second Syllable Consonant Cluster Unstressed: vi, tu(2), ηz#, sp#, kl

Third Syllable Consonant Cluster Stressed:
Third Syllable Consonant Cluster Unstressed: pʰj(2), st, jt#

Fourth Syllable Consonant Cluster Stressed:
Fourth Syllable Consonant Cluster Unstressed: tʰj

Fifth Syllable Consonant Cluster Stressed:
Fifth Syllable Consonant Cluster Unstressed:

Consonant Cluster Total per Syllable

First Syllable Consonant Cluster: #pʰj, #pʰj, #bl(2), #fj, #fl, #stj, #spj, #sl, #sn, #sw, #kʰl, #kl, #kw, #gj

Second Syllable Consonant Cluster: vi, tu(2), ηz#, sp#, ηn#, lt#, kl

Third Syllable Consonant Cluster: pʰj(2), ηz#, sp#, ηn#, lt#, kl

Fourth Syllable Consonant Cluster: tʰj

Fifth Syllable Consonant Cluster: tʰj

Consonant Cluster Stressed and Unstressed Total

527
Consonant Cluster Stressed: #p^j, #fu, #fl, #stʃ, #spʃ, #sl, #sn, #sw, #n#, #kʰl, #kl, #gʃ

Consonant Cluster Unstressed: #p^j, p^j(2), #bl(2), vi, tj(2), t^j, ɲz#, sp#, st, jt#, #kw, kl

Consonant Cluster Total (absolute)
Narrow: #p^j, #p^j, p^j(2), #bl(3), #bʃ, #mʃ, mp#, #fʃ(2), #fl(4), vi, #tʰw, #tʰj, tj(2), t^j, ɲz#, #sw(4), #sp#, #sl, #sn, #spl, st, sp#, #sk(2), #stʃ, #zw, #tʃ, #n#, #t#, #d#, #s#, #kʰl, kl, #kw, #kl, #gʃ

Broad: pj, pu(3), bl(3), bj, mj, mf, mp, fs(2), fl(4), vi, tw, t(3), tj, nz, sw(4), sp#, sl, sn, spl, st, sp, sk(2), st#, zw, jt, jm, lt, ld, ks, kl(3), kw, gʃ

**Supra-Segments: Whole Syllables**

Whole Syllable Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllable Whole Syllable:
#biʃ#, #spliʃ#, #ʃiʃ#
#u"m#, #buʋ#, #fu"f#, #ʃu"ʃ#, #flu"f#, #sku"f#, #lu"m#, #w"u"m#, #pʰtʃ#, #ʃltʃ#, #tʰim#, #swiʃ#, #zwʃʃ#, #fluʃ#, #muo"#, #swo"v#, #wo"ld#, #blʃ#, #bja"s#, #tʰwa"s#, #swaʃ#, #skamp#

First Syllable Whole Syllable Stressed (all entries are word initial):
#vi, #tʰʃi#, #tʃi#, #ri, #stʃl, #sl(2), #i, #kʰi#, #pʰu", #flu", #vu", #su", #lu", #gu"p, #wu"(4),
#s, #tʰtp, #swf, #spim, #klm, #kʰl, #w(T), #wis,
#pʰjui, #hu,
#fe", #dɡe", #le", #kʰle",
#o",
#ɛ, #fe, #weʃ,
#fliʃ, #liʃ, #giʃ,
#tʰŋ,
#mæ, #sæ, #sæs, #slæ, #læn, #læ, #kʰæ, #ɡæ,
#a", #ta, #sæl, #wai, #az, #vai, #liaf, #за, #kʰə, #wa(2)

First Syllable Whole Syllable Unstressed (all entries are word initial):
#tʰli, #blu"n, #m, #o, #pʰo", #ho",
#ə, #bla, #la, #ka(4), #kʰj, #ha,
#mə, #fe, #he, #fʃi, #ma, #a, #ja, #jan, #kwa, #wa

Second Syllable Whole Syllable Stressed:
di", #ni", #u"n#, #lu", #fr, #dr, #le", #ʃ",
#tʰt, #n, #və, #ɡʰm#, #ba, #mæ, #fæ, #zæn#

528
First Syllable Whole Syllable (all entries are word initial):

<table>
<thead>
<tr>
<th>Entry</th>
<th>Whole Syllable</th>
<th>Stressed</th>
<th>Unstressed</th>
</tr>
</thead>
<tbody>
<tr>
<td>#vi</td>
<td>#tjv#, #tvl#,</td>
<td>#tjv1#,</td>
<td>#tjv1l#,</td>
</tr>
<tr>
<td>#r1</td>
<td>#stril#, #s1v1#(2), #s1r, #k1v1#</td>
<td></td>
<td></td>
</tr>
<tr>
<td>#p1u</td>
<td>#blu#, #flu#,  #vul#, #vsu#, #lu#, #gu#p, #wu#(4)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>#1s</td>
<td>#t1s#, #sw1f#,  #sp1rin#, #k1ln#, #k1t1#, #w1s#, #p1j1u#, #hu, #f1e1#, #dg1e1#, #le1#, #k1le1#</td>
<td></td>
<td></td>
</tr>
<tr>
<td>#o          #o#o, #p1jo#o, #ho#o, #a, #bla, #la, #ka#(4), #k1h1, #ha, #ma,</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>#e          #le#, #fe#(2), #wle#, #he, #f1am, #lam, #g1u, #f1s, #t1n</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>#mæ, #sæ, #sæs, #sæl, #læn, #læ, #k1æ, #gæ</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
#a', #m'a, #ta, #s'a, #wa',
#a, #az, #va', #za, #laf, #la, #jan, #kwa, #k'o, #w(a(3)

Second Syllable Whole Syllable:
pi', vi', vi'#, tik', ti'#, hi', di', tji', ni'#, ri', Θi'#, zi'#(2), ji', li'#, wi'#,
tu'#, ju"n#, lu"#, lu",
1n#, mi'#, fi, di, ni'#, rik#, zi, jif#, lisp#, glf#, 
le',
to"#, tfjo#, fo", 30,
p'(#(2), ba#, ma#, fi#, v'ηz#, v'η, t"η#, t'η#(2), ta#, na, r'#, r'η, sa, s'#, z'η, za, la, k'#, ga,#
va, ta#, sa, ja#, wa,
t'#, ne,
v, g3'ηn#, 
bâ, mæ, fæ, tæn#, zæn#, 
a"#, ra#, la#, la, ka#, 
ma#, fan#, fa#, t'o, t'ak, daj#, nan#, zan#, ja#, laot#, kla, wa, ha#

Third Syllable Whole Syllable:
p"ju"#, stk#, jfs#, jin#, 
le',
na#, ra, Θa, ja#, wa,#
sa#, ja#, 
es#, 
l#(2), b#(2), ka, 
ma'

Fourth Syllable Whole Syllable:
t'ju":d#,
\[\eta_{3}\]
\[\eta_{3}(2), k\]a, 
ma'

Fifth Syllable Whole Syllable: ni'#, zη#

Whole Syllable Stressed and Unstressed Total

Whole Syllable Stressed:
#vi, #t'ui#, di#, #tfj#, ni's#, #ri, #stu#, #si'(#2), #ji, li#, #k'li#, 
u"#, #p'u"#, #flu", #vu", #su", #ju"n#, #lu", #gu"p, #wu"(4),
#is, fi, #t'sp, di, dis, #swrf, #spjm, #klin, #k'ti, #wi(3), #wis, 
#p'jau, #hu, 
#fe', #dge', #le', le', #k'tle', 
#o", #jo", 
#e, #s#, #fe, t'e, ne, #wet, 
#fimn, #lam, #gla, 
v, #t'c, g3'ηn#, 
bâ, mæ, #mae, fæ, #snæ, #sæs, #slæ, zæn#, #læn, #læ, #k'æ, #gæ, 
#s', #ta, #s'a, la', #wa', 
#oz, #va, t'o, t'ak, #laf, #ia, laot#, #k'α, #wa(#2), wa

Whole Syllable Unstressed:
pi'#, p"ju"(#2), fil#, vi(#2), vi'#, tik#, #t'hi#, ti'#, tji#, ni'#, ri', Θi'#, si'#, zii'#(#2), ji'#(#2), ji'z#, ji'#, li'#, wi'#,
#blu", #mu"f#, tu"#, t'ju":d#, lu"#, 
1n#, #im, mi'#, fjs#, v'η#, ri#, jir#, sttk#, zi, zη#, jfs#, jif#, jin#, lisp#, glf#, 
le', 
#o, #p'jo", to"#, tfjo#, #30, #ho", 

530
Segmental and Supra-Segmental Profile Data Sheet

Segment Total for Stressed and Unstressed Syllables and Monosyllables according to Syllable Configuration

Monosyllabic Onset: b, f(2), #t̩, #d̩, z, f, j(2), #j, #g(2), #w(5), h
Monosyllabic Nucleus: i̩(3), u, u’(6), ɹ(3), o, e, & (3), a, a:
Monosyllabic Coda: p, b, m#(3), m, f, f(2), t̩#, s#(2), z#, j#, t, l#(2), k, h#(2)

First Syllable Segment Stressed Onset: #p(3), p(3), #b(3), #m(3), m, #f(3), #v(2), #t̩(3), #d(2), #n(2), #θ, #s(3), #z(2), #j(7), #j(2), l(6), #l(2), #j(3), #k(3), #g(6), #w(4), w, #h(2)
First Syllable Segment Stressed Nucleus: #l(6), u”, u(14), ɹ(3), #g(6), g(2), #w(4), #h(3), #s(3), s(6), z(2), j(2), l(4), j(2), k#(2), g(2), h
First Syllable Segment Stressed Coda: m(2), f, d”, n(8), s(2), j, l(2), t(4), k(4)
First Syllable Segment Unstressed Onset: #p(2), #p, #m, #f(3), #v, #t, #d(2), #d(2), #s, #z, #j(2), l(2), #k#, #k(3), #w
First Syllable Segment Unstressed Nucleus: i(2), i, u”, u”, i(3), #i, e, #a(2), a(6), #a, e, #e(3), k, #a(2), #a, a(10), #a(7)
First Syllable Segment Unstressed Coda: m(2), n, s(2), j, t(4), k(4), g

Second Syllable Segment Stressed Onset: p, p(2), b(3), f, v, t(4), t̩, d, n(3), s(6), z(2), j(2), l(4), j(2), k#(2), g(2), h
Second Syllable Segment Stressed Nucleus: #l(2), u”, u#, i(3), u, o#, (5), k, #a(8), #a:
Second Syllable Segment Stressed Coda: m, t#, t#, #n(2), n(2), s#, j(2), l(2), t(4), k#, k, η
Second Syllable Segment Unstressed Onset: p(2), b(6), m(3), f(7), t(7), d(3), d#, n(5), r(2), θ, δ, s(13), z(2), j, l(5), l(7), j, k(3), g(3), w(4)
Second Syllable Segment Unstressed Nucleus: i(7), #i, #l(2), u”, o(9), #o#, #o, #o, #o, #o, #a(13), #a(7), #a#, o(3), a#, a#, a(5), a(2)
Second Syllable Segment Unstressed Coda: p, f#, t#(2), d#(5), n#, n(3), n(2), s#, j(2), j#, #k(2), k, k#

Third Syllable Segment Stressed Onset: f(2), n, j, l, k#, w
Third Syllable Segment Stressed Nucleus: i(2), u”, u, e, a
Third Syllable Segment Stressed Coda: f, t#
Third Syllable Segment Unstressed Onset: p, b(2), m(4), f, t(8), d, j#, d#, n(3), θ, s(4), j(2), l(6), l, j, g(3), w
Third Syllable Segment Unstressed Nucleus: i#, i(2), u”, u#, #i(2), o#, #i#, #k#, #a#, a(5), #a, #a, #a, o(3), a#, a#, o(2), a#
Third Syllable Segment Unstressed Coda: t#, d#, d#, #n, n, s(4), z#, f, t#, #k(2), k, k#

Fourth Syllable Segment Stressed Onset: n, l
Fourth Syllable Segment Stressed Nucleus: e(2)
Fourth Syllable Segment Stressed Coda:
Fourth Syllable Segment Unstressed Onset: m(2), t, j(2), j(2), l, g
Fourth Syllable Segment Unstressed Nucleus: i#, i, a(3), a#, #η, a(2), a#
Fourth Syllable Segment Unstressed Coda: #t(2), n#, n, s(3)

Fifth Syllable Segment Stressed Onset: 
Fifth Syllable Segment Stressed Nucleus: 
Fifth Syllable Segment Stressed Coda:
Fifth Syllable Segment Unstressed Onset: j(2)
Fifth Syllable Segment Unstressed Nucleus: #η(2)
Fifth Syllable Segment Unstressed Coda:

Segment Total for Stressed and Unstressed Onsets and Codas

Stressed Onset: #p(3), p(4), p(2), b(3), #b(3), #m(3), m, #f(3), f(3), #v(2), v, #t̩(3), t(4), #d(2), d, #n(2), n(5), #θ, #s(3), s(6), #z(2), z(2), #f, j(10), #j(2), l(12), #j(2), #j(3), j(2), #k(3), k(3), #g(6), g(2), #w(4), w(2), #h(2), h
Stressed Coda: m(3), f, t#, t#, d”, n#(2), n(10), s(2), s#, z, j(4), j(2), l(6), t#(3), k#, k(5), η

Unstressed Onset: #p(2), #p, p(3), b(8), #m, m(9), #f(3), f(3), #v(2), #v, #t, #t(16), #d(2), d(4), t#, #d(2), d(2), n(8), #r, r(2), θ(2), δ, #s, s(17), #z, z(2), l(7), #j(2), l(11), j(2), #k#, #k(3), k(3), g(7), #w, w(5)
Unstressed Coda: p, m(2), f#, t#(7), d#(6), d#, n(3), #n(5), n(2), s(2), s#(11), z#, j, f#, j(2), j(2), l, t#, k#, k(2), k(5), k#, g, g#
Second Syllable Segment: p(4), pʰ(2), b(9), m(4), *η#, f(8), f#, v, t(11), tʰ, t#(3), tʰ#, d(4), d#(5), dz, n(12), n#(5), *η#(5), *η(4), r(2), θ, ð, s(19), s#(5), z(5), j#(2), θ(8), l(11), h(2), t#(2), j#(3), i#, k#, kʰ(4), kʰ(2), g(5), g#, η, w(4), h

Third syllable Segment: p, b(2), m(4), f(3), t(8), t#(3), d#, d’#, d, tf, dz, n(5), n#, *η#(4), *η, θ, s(4), s#(4), z#, j#(4), l(2), t#, t#’, j#(2), j, k#(2), k, k’, kʰ, g(3), w(2)

Fourth Syllable Segment: m(2), t, t#(2), n#, *η#, s#(3), j(2), l(2), g

Fifth Syllable Segment: *η#, f(2)

Segment Stressed and Unstressed Total

Stressed Segment: #pʰ(3), pʰ(2), p(4), b(3), #b(3), #m(3), m(4), f(4), #f(3), #v(2), v, #tʰ(3), t(4), tʰ, t#, t#’, d, #d(2), d’, #n(2), n(15), n#(2), #θ, #s(3), s#, s(8), #z(2), z(3), #f, #f(4), j(12), #u(2), l(12), #l(2), h(6), h#, #j(3), j(2), k#, #kʰ(3), kʰ(3), k(5), #g(6), g(2), η, #w(4), w(2), h, #h(2)

Unstressed Segment: #pʰ(2), #p, p(4), b(8), #m, m(11), *η#, f(8), f#, #f(3), #v, #t, t#(7), t(16), d(4), d#(6), d’, #d(2), tf, #d(2), dz(2), n#(5), n(13), *η#(12), *η(5), r, r(2), (2), (2), s(19), s#(11), #s, z, z#, j#, j(8), j#(2), j(16), #μ(2), l(11), *τ(3), #τ#, #j(3), j, j(2), k#, kʰ(3), kʰ(2), k(8), k’, k#, g(8), g#, #w w(5)

Segment Total (absolute)

Narrow: #pʰ(5), pʰ(2), #p, p(9), b(12), #b(4), #m(4), m(3), m(16), *η#, f(13), f#, #f(8), #v(3), v, #t, t#(11), t#’, t(20), tʰ, d(5), d#(6), d’, d’, #d(4), tf(2), #d(3), dz(2), #n(2), n#(7), n(28), *η#(12), *η(5), r, r(2), θ(2), #θ, #s, s(27), s#(14), #s(4), z(5), #z(4), z#(2), j#(2), j#(3), j(31), #u(4), #l(2), l(23), *τ(3), #τ(4), #j(3), j(9), #j(4), #kʰ(4), kʰ(3), k(3), k(14), k’, #g(8), g(10), g#, η, #w w(10) w(7), h, #h(3), h#(2)

Broad: p(17), b(16), m(24), f(24), v(4), t(38), d(17), t#(2), d#(5), n(54), r, r(2), θ(3), ð, s(45), z(11), j(17), j(35), l(25), t(19), j(8), k(28), g(19), η, w(17), h(6)

Broad: p(17), b(16), m(24), f(24), v(4), t(38), d(17), t#(2), d#(5), n(54), r, r(2), θ(3), ð, s(45), z(11), j(17), j(35), l(25), t(19), j(8), k(28), g(19), η, w(17), h(6)

Supra-Segments: Consonant Clusters

Consonant Cluster Total for Stressed and Unstressed Syllables and Monosyllables according to Syllable Configuration

Monosyllable Consonant Cluster Onset (all entries are word initial): #qa(3)

Monosyllable Consonant Cluster Coda (all entries are word final): pt#, bz#, mf#, fs#, tf#, sf#, f#, lm#, ks#

First Syllable Consonant Cluster Onset (all entries are word initial): #bw, #bl, #ml, #f#, #fl, #tʰs, #s, #sp, #f, #m, #kʰ, #g#j(2)

First Syllable Consonant Cluster Coda (all entries are word initial): #p#, #f#, #fl, #vl

First Syllable Consonant Cluster Unstressed Onset: k#

Second Syllable Consonant Cluster Onset Stressed: pʰl, fl, st(2), sn, sp, stu, g#j, kʰ

Second Syllable Consonant Cluster Stressed Coda: f#
Second Syllable Consonant Cluster Unstressed Coda: nt#, nd#, łd#

Third Syllable Consonant Cluster Stressed Onset: fl, k³j
Third Syllable Consonant Cluster Stressed Coda:
Third Syllable Consonant Cluster Unstressed Onset: st(3), gw
Third Syllable Consonant Cluster Unstressed Coda: ntt#, ft#, ks#

Fourth Syllable Consonant Cluster Stressed Onset:
Fourth Syllable Consonant Cluster Stressed Coda:
Fourth Syllable Consonant Cluster Unstressed Onset:
Fourth Syllable Consonant Cluster Unstressed Coda: ntt#

Fifth Syllable Consonant Cluster Stressed Onset:
Fifth Syllable Consonant Cluster Stressed Coda:
Fifth Syllable Consonant Cluster Unstressed Onset:
Fifth Syllable Consonant Cluster Unstressed Coda:

Consonant Cluster Total for Stressed and Unstressed Onsets and Codas

Stressed Onset: p³l, #bw, #bl, #ml, #fj, #fl, fl(2), #vl, #t³j, #spl, stj, #sp, sp, st(2), sn, #fjm, #k³u, k³j, k³j, #gj(2), gj

Stressed Coda: ft#

Unstressed Onset: #p, b, #f, fl, fl, #vl, tj, sn, st(5), kj, gw

Unstressed Coda: ntt(3), nd#, ft#, łd#, ks, ks#

Consonant Cluster Total for Onsets and Codas

Onset: p³l, #p, b, #bw, #bl, #ml, #fj, #fl, #fj, #fl(2), #fj(2), #vl(2), #t³j, tj, #spl, stj, #sp, sp, st(7), sn(2), #fjm, #k³u, k³j, kj, k³j, #gj(5), gj, gw

Coda: pt#, bz#, mf#, ft#, ntt(3), nd#, ft(2), sf#, ft#, #l#, #d#, ks, ks#(2)

Consonant Cluster Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllable Consonant Cluster: pt#, bz#, mf#, ft#, sf#, ft#, #l#, #d#, ks, #gj(3)

First Syllable Consonant Cluster Stressed: #bw, #bl, #ml, #fj, #fl, #t³j, #spl, #sp, #fjm, #k³u, #gj(2)
First Syllable Consonant Cluster Unstressed: #p, #fj, #fl, #vl, ks

Second Syllable Consonant Cluster Stressed: p³l, fl, st(2), sn, sp, stj, ft#, gj, k³j
Second Syllable Consonant Cluster Unstressed: b, fl, ntt#, nd#, tj, sn, st(2), #d#, kj

Third Syllable Consonant Cluster Stressed: fl, k³j
Third Syllable Consonant Cluster Unstressed: ntt#, st(3), ft#, ks#, gw

Fourth Syllable Consonant Cluster Stressed:
Fourth Syllable Consonant Cluster Unstressed: ntt#

Fifth Syllable Consonant Cluster Stressed:
Fifth Syllable Consonant Cluster Unstressed:

Consonant Cluster Total per Syllable

First Syllable Consonant Cluster: #p, #bw, #bl, #ml, #fj, #fl(2), #fj(2), #t³j, #spl, #sp, #fjm, #k³u, ks, #gj(2)

Second Syllable Consonant Cluster: p³l, b, fl(2), ntt#, nd#, tj, st(2), sn(2), sp, st(2), stj, ft#, #d#, kj, k³j, gj

Third Syllable Consonant Cluster: fl, ntt#, st(3), ft#, ks#, kj, gw

Fourth Syllable Consonant Cluster: ntt#

Fifth Syllable Consonant Cluster:
Consonant Cluster Stressed and Unstressed Total

Consonant Cluster Stressed: pʰl, #bw, #bl, #ml, #fj, #fl, fl(2), #vl, #tʰj, #spl, #sp, st(2), sn, sp, st, f#, #fm, #kʰj, kʰj, gɨ(2), gj

Consonant Cluster Unstressed: #pʃ, bj, #fj, #fl, #v, nt#, nt#(2), nd#, θ, sn, st(5), f#, f#d#, ks, ks#, kj, gw

Consonant Cluster Total (absolute)

Narrow: pʰl, #pʃ, pt#, #bw, #bl, bj, bz#, mf#, #ml, #fj(2), fs#, #fl(2), fl(3), #v(2), #tʰj, #d#t#, nt#, nt#(2), nd#, θ, #sp, #sp, st(7), sn(2), sp, st, f#, f#, f#, lm#, #d#, #kʰj, kʰj, ks, ks#(2), kj, gw, gɨ(5), gj

Broad: pl, pʃ, pt, bw, bl, bu, bz, mf, ml, fj(2), fs, fl(5), vl(2), t, tt, nt(3), nd, θ, sp, sp(2), st(7), sn(2), st, f#, f#, f#, lm, kj(3), kj, ks(3), gw, gɨ(6)

Supra-Segments: Whole Syllables

Whole Syllable Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllabic Whole Syllable:
#jɪ'fs#, #wɪ'm#,#wɪ'l#, #tʰu't#, #hum#, #fɪlm#, #dɡt'bzs#, #ɡɪʃ#, #wuʃ#, #fomf#, #ɡiθ#, #bksc#, #fspt#, #wxh#, #za*t'ʃ#, #wa:ht#, #haʃ#

First Syllable Whole Syllable Stressed (all entries are word initial):
#pʰl'd', #mɪl', #tʰl', #jɪl', #kʰl', #wu'#,
#bwɪn, #mɪ, #fɪlm, #dɪn(2), #splɪn, #jɪl, #lɪm, #jɪl, #kʰlɪs, #ɡɪk, #ɡɪ,
#ble', #no', #ə', #k, #ve, #ɡɪk,
#fɪl', #æ(2), #fɪl', #vlæ, #tʰæn, #tʰæ, #θæŋ, #spæn, #sæ, #zæ, #fmaek, #kʰæ, #ɡæ, #ɑ', #ml', #za', #ja', #wa',
#a(3), #af, #al(2), #pʰa', #pʰa, #bɑl, #nɑ, #ɡa, #ɡa, #waf, #wan, #hɑ', #hɑ

First Syllable Whole Syllable Unstressed (all entries are word initial):
#i', #ji(2),
#u'm', #tu',
#t, #pɪ, #fɪ, #dɪs, #wɪ,
#re,
#ɑ, #pa, #fja, #dɡa, #za, #kʰa, #kɑ,
#pʰa', #ɔa',
#ek(2), #eks, #dek,
#kɑ,
#æ, #pʰæn, #mæ, #fɪl', #dɡæm, #kæ,
#a',
#a', #a, #a, #vl'
First Syllable Whole Syllable (all entries are word initial):
ble, ne#, jet`#, gu#, ze#
ha,
sto, go,
p`laz, bae, t`æm, dae, næf#, snæ, læ,
bak, k`ɑ:"

Second Syllable Whole Syllable Unstressed:
bil#, mi`, fl`, fi`#, ni`, sti`#, li`#(2), li`, kij`#
wu"f#,
bif#, bi, mnts#, fns#, sn#, stng#, lns#, kis#, wind#,
Øo`#., go"#.,
pa, p`n, b+, ma#, f-n#, t##, dn##, dja, na(2), b-nd#, s-η#(2), s-δd#, s=μ#, s=ɬ, sa, sta, z-η#, za, fas#, jα#, lα, k-η, g-η, ba#, fa(2), ta, ra, rαd#, sa, wa#,
bjet#, nes#, sned`#,
tα#,
fa, tam#, sa, jap, laf#, ja#, ga#

Third Syllable Whole Syllable Stressed:
fi`#, k`i`i`,
flu",
wuf#,
e`,
no

Third Syllable Whole Syllable Unstressed:
mi`, jii`#, ji`z#,
tfu", gu"#,
mnts#, ti, nk#, stid#, fis#, jik#, lit#, gwif#,
e`#, je`#,
do"#,
as#, pa, b+#, m=η#, t-vη#, t-η#, dz-η#, na#, Øa, stak`#, f-η#, ja, t#,
ma, fa-#, jeks#, b`s#, tα,
jae#,
sta'n#, sa#, ga"#,
to#, nad`#

Fourth Syllable Whole Syllable Stressed:
ne`, le`

Fourth Syllable Whole Syllable Unstressed:
ji`#,
mnts#,
æ#, fas#, f-η#, jαs#, gas#,
ma'n#, la't#,
to#

Fifth Syllable Whole Syllable Stressed:

Fifth Syllable Whole Syllable Unstressed:
f-η#(2)

Whole Syllable Total per Syllable
Fourth Syllable Whole Syllable:

Fifth Syllable Whole Syllable: $j_\eta$(2)

Whole Syllable Stressed and Unstressed Total
Segmental and Supra-Segmental Profile Data Sheet

Question ID: W. a feeling of extreme disappointment

Segments

Segment Total for Stressed and Unstressed Syllables and Monosyllables according to Syllable Configuration

Monosyllable Onset: #b(4), #f(3), #tʰ, #d, #n, #z(2), #j, #u(4), l(3), #l(2), #kʰ(2), #g(2), #w
Monosyllable Nucleus: i, u, ɪ, œ, oⁿ(3), œ#, ɑ(3), #l, ɔ, #m, #f, #t
Monosyllable Coda: b, m, m#(2), #f(2), t#(2), d#(4), ɪ, ŋ, n#(2), s#, z, #f(2), ʃ, ɪ(3), ɪ#, kʰ(2), ɪ#, x#, h#(2)

First Syllable Segment Stressed Onset: #pʰ(2), p, #b(5), #m(5), m, #f(4), #tʰ(3), #d(10), d#, d#(2), #n, r, #s(9), #z, #f(2), ʃ(5), #j(3), l, #l(3), #kʰ(4), #g(3), #w(3)

First Syllable Segment Stressed Nucleus: i(6), y, uⁿ(7), t(7), u(2), e, oⁿ(3), ɔ(3), e(4), #l, ɔ(2), #z(2), æ(13), æ#, æ(10)

First Syllable Segment Stressed Coda: p(2), m(6), f, d, d’, tʃ, n(4), s, j(4), l(2), g(2), ɪ

First Syllable Segment Unstressed Onset: #pʰ(2), #b, #m(2), #f(2), #d(3), #s(2), l, #kʰ, #k, #h(2)

First Syllable Segment Unstressed Nucleus: i(2), u, #uⁿ(2), t(2), #e, oⁿ(2), æ(2), æ#, æ(2), #a(2), a, #a(3)

First Syllable Segment Unstressed Coda: n(2), s

Second Syllable Segment Stressed Onset: b, m, tʰ(2), t, d(2), s(2), j(5), l(3), kʰ(2), x, w, h

Second Syllable Segment Stressed Nucleus: uⁿ, ɪ, e(2), oⁿ(2), æ(2), e, ɔ, ɪ(5), a#, aⁿ#, a(2)

Second Syllable Segment Stressed Coda: m, d#(3), n(2), n#, r#, s, j#, t, x#

Second Syllable Segment Unstressed Onset: p(2), b(6), m(3), f(3), v, t(7), d(5), n(9), r(3), Θ, s(6), z(2), ʃ(5), l(5), k(7), ɡ(6), w

Second Syllable Segment Unstressed Nucleus: i¹, i¹, l#(2), uⁿ, ɪ(13), u, e#, e, ɪ#, ɔ#, oⁿ(#6), oⁿ, ɪ#, æ(3), æ#, æ(2), æ#, æ, æ#, æ, a#, a(7), a#

Second Syllable Segment Unstressed Coda: m#, #f, tʃ(4), d#(2), n, n#(5), s#(7), s(2), z, z#, j#, l(2), t#(2), k(2), k#, ɪ#

Third Syllable Segment Stressed Onset: tʰ, t, s, kʰ

Third Syllable Segment Stressed Nucleus: i¹#, uⁿ, a¹

Third Syllable Segment Stressed Coda:

Third Syllable Segment Unstressed Onset: b, f(3), v, t, d, n(3), r, Θ(2), s(3), z, j, æ(4), l, j, k(2), ɡ, w

Third Syllable Segment Unstressed Nucleus: i¹#, e(2), e(#2), oⁿ(#3), ɪ#, æ#, æ#, æ#, æ#, æ#, æ#, æ#, æ#, æ#, æ#, æ#, æ#, æ#, æ#, æ#, æ, a#, a#, a, æ, æ, æ, æ, æ, æ, æ, æ, æ, æ, æ, æ, æ, æ, æ, æ, æ, æ, æ

Fourth Syllable Segment Stressed Onset:

Fourth Syllable Segment Stressed Nucleus:

Fourth Syllable Segment Stressed Coda:

Fourth Syllable Segment Unstressed Onset: n(2), f(2), n, r(2), j, l

Fourth Syllable Segment Unstressed Nucleus: uⁿ#, ɪ(3), ɪ#, æ, æ#, æ, æ

Fourth Syllable Segment Unstressed Coda: n#(2), s#

Fifth Syllable Segment Stressed Onset: kʰ

Fifth Syllable Segment Stressed Nucleus: e¹

Fifth Syllable Segment Stressed Coda:

Fifth Syllable Segment Unstressed Onset: m

Fifth Syllable Segment Unstressed Nucleus: ɪ

Fifth Syllable Segment Unstressed Coda: n#

Sixth Syllable Segment Stressed Onset: j

Sixth Syllable Segment Stressed Nucleus: ɪ

Sixth Syllable Segment Stressed Coda:

Sixth Syllable Segment Unstressed Onset: j

Sixth Syllable Segment Unstressed Nucleus: ɪ

Sixth Syllable Segment Unstressed Coda: n#

Segment Total for Stressed and Unstressed Onsets and Codas

Stressed Onset: #pʰ(2), p, #b(5), b, #m(5), m(2), #f(4), #tʰ(3), tʰ(3), t(2), #d(10), d(2), d#, d#(2), #n, r, #s(9), s(3), #z, #f(2), ʃ(10), #j(3), l(4), #l(3), #kʰ(4), kʰ(4), #g(3), x, #w(3), w, h

Stressed Coda: p(2), m(7), f, d, d’, d#(3), tʃ, n(6), n#, r#, s(2), ʃ(4), ʃ#, ɪ(3), g(2), ɪ#
Sixth Syllable Segment Unstressed: ɪ
Fifth Syllable Segment Unstressed: ḗ
c, u
Fourth Syllable Segment Stressed: #(3), ḗ, #(2), ḗ, #(2), e
Third Syllable Segment Unstressed: i, ḗ, , u, ḗ, i, z(3), z,
Second Syllable Segment Stressed: #l(2), lŋ	ʰ
First Syllable Segment Stressed: #(2), ɬ
Monosyllable Segment Stressed: #pʰ(4), #b(10), #b(9), g(7), w(2), #h(2)
Unstressed Onset: #k, k(9), g(7), w(2), #h(2)

Unstressed Coda: m#, f#, t#(4), d#(3), d'#, n(3), n#(10), s#(8), s(3), z, z#, j#, k(2), l#(2), k(2), k#, η#

Segment Total for Onsets and Codas
Onset: #pʰ(4), p(3), #b(10), b(8), #m(7), m(8), #f(9), f(8), v(2), #tʰ(4), tʰ(3), t(10), #d(14), d(8), ds, #dg, #dy, #n(2), n(13), r; r(6), Θ(3), #s(12), s(12), #z(3), z(3), #j(2), j(24), #u(4), l(15), #l(5), j, #kʰ(7), #k, k(9), kʰ(4), #g(5), g(7), x, #w(4), w(3), #h(2)
Coda: p(2), b, m(8), m#(3), f, f#(3), t#(6), d, d’, d#(10), d’#, ts#, tʃ, tʃ#, dx#, n(11), n#(12), r#, s#(9), s(5), z, z#(2), j#(2), j(7), j#(2), l#, l(5), ##(2), k(2), k#(3), g(2), η, η#(2), x#(2), h#(2)

Segment Total for Stressed and Unstressed Syllables and Monosyllables
Monosyllable Segment: #b(4), b, m, m#(2), f#, #f(3), #tʰ, t#(2), d#, d#(4), #d, ts#, tʃ#, dx#, n#, n(2), #n, #s, s#, z#, #z(2), #ʃ, #ʃ, #j(7), l(3), #l(2), l#, k#(2), kʰ(2), g(2), η, x#, #w, h#(2)

First Syllable Segment Stressed: #pʰ(2), p(3), #b(5), #m(5), m(7), #f(4), f, #tʰ(3), #d(10), d, d’, tʃ, dx, #dg, #dy, #n, n(4), r; #s(9), s, #z, #ʃ(2), j#(9), #j(3), l, #l(2), #k#, #kʰ(2), #g(3), g(2), η, #w(3)

First Syllable Segment Unstressed: #pʰ(2), #b, #m(2), #f(2), #d(3), n(2), s, #s(2), l, #kʰ, #k, #h(2)

Second Syllable Segment Stressed: b, m(2), tʰ(2), t, d(2), d#(3), n(2), n#, #ʃ(3), s(3), #ʃ, l(3), l, kʰ(2), x, x#, w, h

Second Syllable Segment Unstressed: p(2), b(6), #ʃ(3), m(3), m#, #f, #f(3), v, t(7), t#(4), d#(2), d(5), n(10), n#(5), #ʃ(3), #ʃ(2), r(3), Θ, s#(7), s(8), z(3), z#, #ʃ, l(5), l#, #ʃ(3), l#(2), k#, k#, g(6), η#, w

Third Syllable Segment Stressed: tʰ, t, s, kʰ

Third Syllable Segment Unstressed: b, f(3), v, t, d, d#, d’#, n(3), #ʃ, n#, r, Θ(2), s(3), z, #ʃ, #ʃ(4), l, #ʃ#, j(2), g, w

Fourth Syllable Segment Stressed: Fourth Syllable Segment Unstressed: m(2), #ʃ, #ʃ(2), n, n#(2), r(2), s#, j, l

Fourth Syllable Segment Unstressed: m(2), #ʃ, #ʃ(2), n, n#(2), r(2), s#, j, l

Fifth Syllable Segment Stressed: kʰ

e

Fifth Syllable Segment Unstressed: m, n#

Sixth Syllable Segment Unstressed: n#, #
Monosyllable Consonant Cluster Coda

Stressed 

Segment Total by Syllable

First Syllable Segment: \(p^h(4), p(3), \#b(6), \#m(7), m(7), \#f(6), f, \#t^h(3), \#d(13), d, d^\#, t^f, d_g, \#d_g, n(6), n, r, r^h, s(11), s(2), \#z, \#f(2), \#i(9), \#i(3), l(2), \#l(2), \#k^h(5), \#k, \#g(3), g(2), n, \#w(3), \#h(2)

\(i^l(8), y, u^m(8), \#u^m, t(9), u(2), e, e^l, o^m(4), o^w, a(6), \#a(2), \#a^l, \#e(4), e(4), \#n, l(2), \gamma(2), \#e(15), a, a^w, a(10), \#a(3)

Second Syllable Segment: \(p(2), b(7), \#n^\#(3), m(5), m^#, f^\#, f(3), v, t^h(2), t(8), t^h(4), d^h(5), d(7), \#n(3), \#n(2), n(12), n^h(6), r^h, r(3), \Theta, s^h(7), s(11), z(3), z^\#, j(10), j^h(2), l(8), \#j^h(3), h(3), t^h(2), k(9), k^h(2), k^#, g(6), \#n, x, x^h, w(2), h

\(i^l, i^l, i^l^#(2), u^m(2), t(14), u, e, e^l, h(3), \#o^m(6), o^m(3), o(10), a^#(5), a^l, \varepsilon(2), e^l, o, j(2), l(6), a^l^#, a^l, a^w^#, a(9), a^#

Third syllable Segment: \(b, f(3), v, t(2), t^h, d, d^\#, d^\#^\#(4, 2), \#n^\#(3), n^\#, r, \Theta(2), s(4), z, f, \#j^h(4), l, \#j^h, j, k(2), k^h, g, w

\(i^l(4), u^m, e^l(2), e^l^#(2), o^m(3), a^l, a^#(2), a(3), a^#, \varepsilon, a^l(2), a(4)

Fourth Syllable Segment: \(m(2), \#n^\#, f(2), n, n^#(2), r(2), s^#, j, l

\(u^m^#, t(3), a, a^#(3), \varepsilon

Fifth Syllable Segment: \(m, n^#, k^h

1, e^l

Sixth Syllable Segment: n#, j

Segment Stressed and Unstressed Total

Stressed Segment: \(p^h(4), p(3), b, \#b(5), \#m(5), m(9), \#f(4), f, t(2), t^h(3), t^h(3), \#d(10), d^h(3), d(3), d^\#, t^f, d_g, \#d_g, \#d_g^l, n(6), n, r, r^h, s(9), s(5), \#z, \#j^h(2), j^h(14), j^h(3), j^h, l(4), \#l(3), l(3), \#k^h(4), k^h(4), \#g(3), g(2), n, x, x^#^h(3), \#w(3), w, h

\(i^l(6), i^l^#, y, u^m(9), t(8), u(2), e^l(4), o^m(5), \#e(3), e(6), e^l, o, \#e, l(2), \gamma(3), \#e(18), a^2, a^#^#, a^w, a(12)

Unstressed Segment: \(p(2), \#p^h(2), b(7), b, \#b, \#m(6), m^#, \#m^#, \#n^\#(4), f^\#, \#f(2), f(8), v(2), t(8), t^h(4), \#d(3), d^h(3), d^\#^#, d(6), \#n(3), \#n^\#, n(16), n^#(10), r(6), \#r(3), s^#(8), \#s(2), s(12), z(4), z^\#, z^h(2), z^h(3), j^h(2), j^h, l(6), \#j^h(4), \#l(8), \#l^h(4), \#l^h(2), j^h(2), j, k(11), \#k^#, \#k^h, g(7), \#n, w(2), \#h(2)

\(i^l, i^l^#, i^l^#(5), u^m(2), u^m^#, \#u^m, t(20), u, e, \#e^l(3), e^l(3), \#e, o^m^#(9), \#o^m^#, o^m(2), o^m(20), \#a(2), \#a^#^#, \#a^l, a(4), \#n^\#, \#n^\#, \#e, \varepsilon, e^l, o, \#e, a^#(7), o, \#e, \varepsilon(3), a, a^l^#, a^l, a(11), a^#, a(3)

Segment Total (absolute)

Narrow: \(p^h(4), p(5), \#b(10), b(16), \#m(7), m(16), m^#, \#n^\#(3), \#m^#(4), f(9), f^h(3), \#f(9), v(2), \#t^h(4), t^h(3), t^h(3), t(10), d(9), d^\#, \#d, \#d^h(10), \#d^h(14), \#s^h(3), \#s^h(3), t^f, \#f, t^f, d^\#, d^h, \#d^h, n^h(12), n(24), \#n(2), \#n^\#, \#n^\#, \#r^h(3), r, r^h, r(6), \Theta(3), \#s(12), s(9), s(17), z(4), z^h(2), \#z(3), \#f^h(2), \#f^h(3), f^h(2), \#f^h(3), \#f^h(2), j^h(2), j^h(2), j, k(11), k^h, k^h(3), k^h(4), k^#, k^h(7), \#g^h(3), g(9), \#g^h(2), \#n, x, x^#^h(3), \#w(4), w(3), \#h(2), \#h(2), h

\(i^l, i^l^#, i^l^#(6), y, u^m(12), u^m^#, \#u^m, t(29), u(3), \#e, e^l#(3), e^l(3), \#e, o^m^#(9), \#o^m^#, o^m(10), a(20), \#a(2), a^#^#, a^l^#, a(7), \#a^l, a(7), e(7), e^l, \#e, o, \#e, l(5), \#e(6), \#e(22), a^#^#, a^l, a, a^l^#, a^l(3), a(26), a^#^#, a(5)

Broad: \(p(9), b(26), m(30), f(21), v(2), t(23), d(35), t^f, d^h, d^h(4), r(44, 2), r(6), \Theta(3), s(38), z(9), f^h(7), j^h(37), l(21), l(12), j, k(26), g(14), \#n(3), x(3), w(7), h(5) i(17), y, u(14), t(29), o(3), e(11), \#e(2), o(20), a(26), \#a^l(15), g(8), \#e, \#e, \varepsilon, a, \#e, \varepsilon(6), \#e(22), a(7), a(32)

Supra-Segments: Consonant Clusters

Consonant Cluster Total for Stressed and Unstressed Syllables and Monosyllables according to Syllable Configuration

Monosyllable Consonant Cluster Onset (all entries are word initial): \#b(2), \#b^l(3), \#b^l, \#f^l, \#d_u, \#k^h(3), \#g(2)

Monosyllable Consonant Cluster Coda (all entries are word final): b_l#, m#^#, n#^l, n_d^l#, j#^l, j#^l^f#}
First Syllable Consonant Cluster Stressed Onset (all entries are word initial): #fl, #d₁, #sp₁, #fm, #kₜ₁, #g₁
First Syllable Consonant Cluster Stressed Coda: mp

First Syllable Consonant Cluster Unstressed Onset (all entries are word initial): #fl₁, #g₁
First Syllable Consonant Cluster Unstressed Coda:

Second Syllable Consonant Cluster Stressed Onset: tₘ₁, st, st₁, kₜ₁
Second Syllable Consonant Cluster Stressed Coda: nd₁

Second Syllable Consonant Cluster Unstressed Onset: f₁, t₁, st₁, kw₁, g₁
Second Syllable Consonant Cluster Unstressed Coda: ηt(#2), st(#2), zm#, ld#, lz#, ks#

Third Syllable Consonant Cluster Stressed Onset:
Third Syllable Consonant Cluster Stressed Coda:

Third Syllable Consonant Cluster Unstressed Onset: d₁, st(2), k₁
Third Syllable Consonant Cluster Unstressed Coda:

Fourth Syllable Consonant Cluster Stressed Onset:
Fourth Syllable Consonant Cluster Stressed Coda:
Fourth Syllable Consonant Cluster Unstressed Onset:
Fourth Syllable Consonant Cluster Unstressed Coda:

Fifth Syllable Consonant Cluster Stressed Onset:
Fifth Syllable Consonant Cluster Stressed Coda:
Fifth Syllable Consonant Cluster Unstressed Onset:
Fifth Syllable Consonant Cluster Unstressed Coda:

Consonant Cluster Total for Stressed and Unstressed Onsets and Codas

Stressed Onset: #fl, tₘ₁, #d₁, st, st₁, #sp₁, #fm, #kₜ₁, kₜ₁, #g₁

Stressed Coda: mp, nd₁

Unstressed Onset: f₁, #fl₁, t₁, d₁, st(3), kw₁, k₁, #g₁, g₁

Unstressed Coda: ηt(#2), st(#2), zm#, ld#, lz#, ks#

Consonant Cluster Total for Onsets and Codas

Onset: #b₁(2), #b₂, #fl₁, #fl₂(3), f₁, tₘ₁, t₁, d₁, #d₂(2), st(4), st₁, #sp₂, #fm, #kₜ₁(2), kₜ₁, k₁, kw₁, #g₂(4), g₁

Coda: b₁#, mf#, mp, nts#, nd₁#, ηt(#2), nd₁, st(#2), zm#, jt#, jd#, jtf#, ld#, lz#, ks#

Consonant Cluster Total or Stressed and Unstressed Syllables and Monosyllables

Monosyllable Consonant Cluster: #b₁(2), b₁#, #b₂, mf#, #fl₁, #d₁, nts#, nd₁#, jt#, jd#, jtf#, #kₜ₁, #g₂(2)

First Syllable Consonant Cluster Stressed: mp, #fl₁, #d₁, #sp₁, #fm, #kₜ₁, #g₁
First Syllable Consonant Cluster Unstressed: #fl₁, #g₁

Second Syllable Consonant Cluster Stressed: tₘ₁, nd₁#, st, st₁, kₜ₁
Second Syllable Consonant Cluster Unstressed: f₁, t₁, ηt(#2), st(#2), st₁, zm#, ld#, lz#, ks#, kw₁, g₁

Third Syllable Consonant Cluster Stressed:
Third Syllable Consonant Cluster Unstressed: d₁, st(2), k₁

Fourth Syllable Consonant Cluster Stressed:
Fourth Syllable Consonant Cluster Unstressed:

Fifth Syllable Consonant Cluster Stressed:
Fifth Syllable Consonant Cluster Unstressed:

Consonant Cluster Total per Syllable

First Syllable Consonant Cluster: mp, #fl₁(2), #d₁, #sp₁, #fm, #kₜ₁, #g₁(2)
Second Syllable Consonant Cluster: f, t, tʰ, ɾt#(2), nd#, st#(2), st, zm#, ɬd#, ɬz#, ɬs#, kw, kʰ, ɣu

Third Syllable Consonant Cluster: d, st(2), kʃ

Fourth Syllable Consonant Cluster:

Fifth Syllable Consonant Cluster:

Consonant Cluster Stressed and Unstressed Total

Consonant Cluster Stressed: mp, #fl, tʰl, #dʃ, nd#, #spʃ, st, stʃ, #ʃm, kʰʃ, kʰ, ɣu

Consonant Cluster Unstressed: f, #fl, t, tʃ, d, ɾt#(2), st#(2), st, zm#, ɬd#, ɬz#, ɬs#, kʃ, kw, ɣu, #gʊ

Consonant Cluster Total (absolute)

Narrow: #bl(2), bl#, #bʒ, mf#, mp, f, #fl(3), tʰl, t, d, ɾdʃ(2), nts#, nd#, ɾt#(2), #spʃ, st(4), st, zm#, #ʃm, ɾt#, ɾd#, ɾʃ#, ɬd#, ɬz#, kʰ(2), kʰʃ, ks#, kʃ, kw, ɣu, #gʊ(4)

Broad: bl(2), bl#, bʒ, mf, mp, f, #fl(3), ti, t, ɾdʃ(3), nts, ndʃ, nd, ɾnt(2), spʃ, st(6), st, zm, ʃm, ɾt, ɾd, ɾʃ, ɬd, ɬz, kʃ(4), ks, kw, ɣu(5)

Supra-Segments: Whole Syllables

Whole Syllable Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllable Whole Syllable:
#fln#, #jʊs#, #ʃm#, #bæʃ#, #bʊo#d#, #sɔɔ#m#, #gʃo#d#, #fæ#, #bl#, #zæmʃ#, #kʃlnts#, #gʌl#, #blʃ#, #nɔk#, #læd#, #a#, #af#, #bæh#, #faʃʃ#, #tʰaud#, #dak#, #zæn#, #læt#, #kʰand#, #waz#

First Syllable Whole Syllable Stressed (all entries are word initial):
#flɪ, #fli, #dɪl(2), #si(2), #ji, #ʃm,#
#u", #bu"(2), #du", #dʒu", #dʒu"m, #lu", #wu", #bɪd", #tʰl, #dɪs, #dɪʃ, #dʒɪ, #dʒɪn, #sɪm
#bʊl, #fʊl,
#sæ",
#dʒ²o", #jo"tʃ, #wɔ","
#pʰæ, #kʰæ, #græ,
#eɡ, #de(2), #nɛ,
#sæm, #kʰʌm,
#ʃʊŋ, #tʰʃɪ,
#pʰæ, #mæ, #mæn, #dʒæ, #sæ(2), #spʃæ, #zæp, #jæg, #læd, #læ, #gʃæ, #ɡæ,
#da",
#bʊj, #maʃ(2), #ma, #tʰam, #sæn, #ʃa, #kʰa(2), #wam

First Syllable Whole Syllable Unstressed (all entries are word initial):
#pʰi,
#fliu",
#dʒ,
#dʒ,
#e,
#o", #bo",
#a(2), #ma, #sæ(2), #kɑ, #kʰə, #hə,
#a, #hə,
Second Syllable Whole Syllable Stressed:
lu⁺,
kʰɪm,
le⁺, he⁺,
sɔ⁺, stʃʊⁿ#, 
ɛ, tʰɛd#, ʃɛr#, 
ʃɔx#, 
dʒ²,
æn, maéd#, əɛl, əɛnd#, əɛ,
tʰa₁, ʃa"#,
bə, kʰa

Second Syllable Whole Syllable Unstressed:
bìːŋ#, di¹#, li¹#, ki¹,
ku²s#, 
min#, ʃin, ʃɪst#, ʃɪk#, nɪk#, nɪks#, stɪ, sɪs#, zɪs#, ʃɪn#, ʃn#, kɪzm#, 
pust#, 
ne'd#, kwe¹,
de²,
bo"#, no"#(2), so"#, ʃo"#, ʃo"#(2), 
pʰ, bʰ#, ʃm²#(2), ma, mas#, fa, tʃaf#, tʃət#, na, r=η#(2), ɔa, s=ŋt#, sa, la, k=ŋ#, ka, ɡ=ʃ#(2), ɡ=ŋ, ɡjas#, 
ba#=, da#=, na#=, ra#=, kə, ga=,
tʃʃz#, 
zæ,
ba²#, 
bən#, təj#, ta#, daʃ#, daʃ#, naʃ#, stan#, ga#

Third Syllable Whole Syllable Stressed:
kʰi¹#,
tʰu⁺,
a¹

Third Syllable Whole Syllable Unstressed:
fi¹#, ʃi¹#(2), 
fe¹#, se¹, ste¹#, le¹,
sɔ²#, sʃʊ²#, ʃo²#, 
v=ŋ#, na(2), ɔa, jə#, ku²#, 
ra#=, stə, kə#=, 
dʒɛd²#, 
ʃəd#, 
bə, ɔa, zən#, waf#

Fourth Syllable Whole Syllable Stressed:
Fourth Syllable Whole Syllable Unstressed:
nu"#,
min#, mɪs#, ʃɪn#, 
ə#=, fa, r=ŋ#, ra#=, rə#, ʃa#=, 
la#

Fifth Syllable Whole Syllable Stressed:
kʰe¹

Fifth Syllable Whole Syllable Unstressed:
min#

Sixth Syllable Whole syllable Unstressed:
First Syllable Whole Syllable (all entries are word initial):
#pʰl, #fll, #fll, #dǐl(2), #sǐl(2), #il,
#fmy,
#u", #bu"(2), #flu", #du", #dʒu"m, #lu", #wu",
#brid", #tʰl, #dis(2), #dl, #dθl, #dθm, #sim,
#bol, #fol,
#e, #se'1,
#o", #bo", #dʒ'om", #jo"tf, #wo",
#a(2), #ma, #sa(2), #ka, #kʰa, #ha,
#a, #pʰa", #kʰa", #gr'a", #ha",
#eg, #de, #dθ, #ne,
#an, #sam, #kʰəmp,
#fŋ#, #tʰj,
#pʰë', #pʰæ', #mæ', #mæ', #fæ', #dʒæ', #sæ(2), #spjæ', #zæp, #jæp, #læ, #gæ', #gæ,
#a(2), #an, #bai, #ma(2), #maθ(2), #tʰəm,
#da",
#san, #fa, #kʰa(2), #wam

Second Syllable Whole Syllable:
bi:ŋ#, di#:l, il#, kʰl,
ku"s#, lu",
mn#, fn#, firs#, vik#, Nik#, Nis#, Niks#, stu, sis#, zis#, jin#, In#, kʰjim, kizm#,
pust#,
ne'd#, le', kwe'#, he',
de#,
bo"#, no"(2), so"#, so", stuo"n#, jø", lo"(2),
p#, b#', m(#(2), ma, mas#, fa, taf#, tʰŋ#', na, r'ŋ#(2), Θa, s'ŋt#, sa, la, k'ŋ#, ka, g'ŋ#(2), g'ŋ, gjas#,
ba#, d#, na#, ra#, ka#, g#,
ɛ, tʰl'ed#, wcr#,
xaix#,
tɔt#, dɔ#,
æn, mæd#, dl, zæ, jæn#, jæs,
ba#, tʰa', ɬa'#,
ba, ban#, taj#, ta#, dɔ#, dɔl#, nɑ#, stan#, kʰa, g#

Third Syllable Whole Syllable:
fl#, ul#(2), kʰv#,
tʰu",
fe'#, se', ste'#, le',
no"#, s'ø"#, go"#,
v'ŋ#, na(2), Θa, f#', k'ŋ#',
r'ŋ#, sta,kʰa#,
dɔrd#,
ɒ, fa'd#,
ba, Θa, zan#, waf#

Fourth Syllable Whole Syllable:
nu"#

Fifth Syllable Whole Syllable:
mn#,
kʰe
Supra-Segments: Whole Word Length

Whole Word Total per Word Length

Whole Monosyllables:

roose [u*əs], fleu [fleə], nok [nɔk], ahh [ax], zumf [zəmfi], wahz [waz], laht [lat], ahs [ajf], gruh [gəh],
bleuf [blov], dahk [dak], bah [ba], blort [blɔt], shim [ʃim], uhbl [abl], feen [ʃen], lad [læd], zahng [zon], sohm [so*m], browd
[buo*d], knunts [kʰʌnts], tahrd [tʰu:d], kahnge [kʰʌnɡ], fahreh [fætʃ], growd [gɹəd]

Whole Bisyllables:

KAHlow [kʰə·lo*], PAsumnt [pʰə·sənt], FULLso [fuː·səʊ], EGISiz [eɡ·ziːs], TORdur [tʰɔ·dər], DINruf [dɪn·traf], GRURbeceng
[ɡɹə·bɛɾ], BOOGah [bʊ·gə], WOEBahn [wə·bən], SEEkuhnt [ʃi·kʰənt], DRAduhn [dɾa·dən], ROWCHnis [rəʊ·ʃnɪs], DEHfrist
[dɛ·fiːst], GRAnuhl [ɡəʊ·nəl], REEVik [riː·vɪk], TAHMbur [tʰəm·bər], DISlow [dɪ·ləʊ], FLEEkizm [fli·kɪzm], LOOum [lu*·əm],
UNDahld [ʌn·dəld], SPRAsis [spra·sis], WAHMpust [wəm·pʌst], MAHtuhr [maɪ·tə], MAHRLee [maɪ·liː], LADnunt [læd·nənt], BIDno
[bid·nəʊ], LADnuhn [læd·nəʊ], JONO [dʒoʊ·nəʊ], JOOMbye [dʒu·mə·baɪ], PURNIks [pʰə·nɪks], BAHrmin [bær·mɪn], FEEGul [fɛə·ɡəl],
KRUPMIn [kʰə·mpɪn], MAANde [mæn·dɪ], DIIFnuhl [dɪ·fʊl], ZAPtolz [zæp·tɔl], BULLdahl [bʊl·dəl], SAYgruhs [ʃei·ɡəʊs],
SAHNdur [sæn·dər], DRHbulf [drɪ·bʊlf], DOGWur [də·ɡʊr], FONGkway [fɒŋ·kweɪ], OOMuus [u·məs], KURLo [kʰə·ɡəl], BOOanade
[bu*·nəd], DEEMu [di·mə], SHMOOdEu [ʃmi·də], DARtuh [dərət], SUMboe [ʃæm·bəʊ], DOOtuh [dəʊtə], NEHstahn
[ne·stən], KAHkoose [kʰə·ku*ʃ],

huhMAD [ho·mæd], huhRAND [kʰə·raNd], maHOH [ma·xo], hurRAW [hə·ra*], panWAIR [pʰən·wɛə], ahnLED [ən·tʰeɪd],
muhSTROKE [ma·strəʊ*], boeoDOOR [boʊə·dər]

Whole Trisyllables:

SAPulwhahs [ˈsæp·wɪt], MAHNIHuree [ˈma·ni·ə], JOOSTihyd [ˈdʒu*·sti·fa·də], MALuhfay [ˈma·lu·fe], GATHhkur [ˈɡæ·θə·kə],
SAAShur [ˈsæ·ə], SIMfuhno [ˈsim·fa·nəʊ], WOOkuree [ˈwu*·kə·jɪ],

fleehAYvun [flu*·heɪ·vən], anHysy [ə·e·əˈsəʊ], suhLYahzn [saˌe·leɪˌzaʊn], deCANdred [diˌdəˌkændred], disTYEgoe [dɪˌtʰeɪ·dəˌgoʊ],
ahBAHstah [ə·ˈba·ste], uhKRIIMshuh [ə·kʰəˈrim·ʃə], ahDALfe [ə·dælˈfi], ohLORknuh [oʊˌlu*ˌkɹə],

uhrowKEE [əˌjoʊˌkɹə]
Whole Tetrasyllables:

TIHfinbatum  [tʰɪ·fɪn·ba·rɪ·m], SHAHniksaymin  ['ʃæ·nik·seɪ·mɪn], RAGmuhlayduh  ['ræg·mʌ·leɪ·dʌ],

suhSOWnuhmis  [sə·'su·nə·mɪs], uhRAStuhnoo  ['ə·'ræs·θə·nuʊ], kuhKAHnuhrav  ['kə·'kʰə·nə·ə],

fakuhTOUuh  [fæ·'kə·tʰu·ə], preekaAIfin  [pʰi·'kə·'fɪn]

Whole Pentasyllables:

SEEgunthahlurmin  ['si·'gʊn·θə·lə·mɪn]

Whole Hexasyllables:

dihzastuhrafiKAYshin  [dɪ·'zæ·stə·fa·'kʰeɪ·ʃɪn]
Unstress (4), #g, g(2), #w(4), #h(3)

Stressed Onset:
Fifth Syllable Segment Unstressed Coda:
Fifth Syllable Segment Unstressed Onset:

Fourth Syllable Segment Unstressed Coda:
Fourth Syllable Segment Unstressed Nucleus:
Fourth Syllable Segment Unstressed Onset:

Third Syllable Segment Unstressed Coda:
Third Syllable Segment Stressed Nucleus:
Third Syllable Segment Stressed Onset:

Second Syllable Segment Unstressed Coda:
Second Syllable Segment Unstressed Nucleus:
Second Syllable Segment Unstressed Onset:

First Syllable Segment Stressed Coda:
First Syllable Segment Stressed Nucleus:
First Syllable Segment Stressed Onset:

Monosyllable Coda:
Monosyllable Nucleus:
Monosyllable Onset:

Segment Total for Stressed and Unstressed Syllables and Monosyllables according to Syllable Configuration

Segmental and Supra-Segmental Profile Data Sheet

Question ID: X. the feeling of being woken in the middle of the night by a strange noise

Segments

Segment Total for Stressed and Unstressed Onsets and Codas

Stressed Onset: #pʰ(3), #p(4), #b(5), b, #m, m, #f(4), f, #v(2), t(6), #tʰ(3), d, #d⁵, #n, #s(8), s(6), #z, #f, j(18), #j(2), l(7), #l(2), #j, k(6), kʰ(2), kʰ(4), #g, g(2), #w(4), #h(3)

Stressed Coda: m(3), m#, f:#, t, t#(2), d#(5), n(10), Θ, s(3), z, j(11), l(2), k(8), η(3)

Unstressed Onset: #pʰ, p(5), pʰ, b(6), m(2), m, #f(2), f(4), #v, v, t(11), tʰ, #d(2), d(6), dz, tʃ, #d⁵, d️, #n, n(9), r(5), Θ, #s(3), s(5), #z, z(2), #ʃ, j(6), #ʃ, j(12), j, j(7), j(4), #k(2), k(3), #g, g(7), #h, h(2)

Unstressed Coda: p#, m#, f#(3), v#, t#(3), d#(8), d′#, tʃ#, n, n#(8), s(3), s#(2), s:#, z, j#(3), j(2), j#(3), h(2), k(4), kʷ, k#(5), η#
Third Syllable Consonant Cluster

Third Syllable Consonant Cluster Unstressed Onset:

Third Syllable Consonant Cluster Stressed Onset:

Second Syllable Consonant Cluster Unstressed Coda:

Second Syllable Consonant Cluster Stressed Coda:

First Syllable Consonant Cluster Unstressed Onset (all entries are word initial):

First Syllable Consonant Cluster Stressed Onset (all entries are word initial):

Unstressed Segment:

Stressed Segment:

Segment Stressed and Unstressed Total

Narrow:

Broad:

Supra-Segments: Consonant Clusters

Consonant Cluster Total for Stressed and Unstressed Syllables and Monosyllables according to Syllable Configuration

Monosyllabic Consonant Cluster Onset (all entries are word initial): #p̩l, #f₁, #d₁, #st₁, #s₁, #k₁l, #g₁, #gl

Monosyllabic Consonant Cluster Coda (all entries are word final): mt#, ft#, ftₙ#, kt#(3), ks#

First Syllable Consonant Cluster Stressed Onset (all entries are word initial): #p̩l₁, #bl, #b₁, #fl₁, #sk₂, #sk₁, #st₁, #st, #k₁̩(3), #g₁

First Syllable Consonant Cluster Stressed Coda: t₁, ks

Second Syllable Consonant Cluster Stressed Onset: t₁̩, sp, st₁, sk, k₁̩

Second Syllable Consonant Cluster Stressed Coda: nd#(2), nt#, st₁, #k

Second Syllable Consonant Cluster Unstressed Onset: st₁

Second Syllable Consonant Cluster Unstressed Coda: ηs#, tfd#, tfd#
Fourth Syllable Consonant Cluster Stressed Onset:
Fourth Syllable Consonant Cluster Stressed Coda:
Fourth Syllable Consonant Cluster Unstressed Onset:
Fourth Syllable Consonant Cluster Unstressed Coda: łd#

Fifth Syllable Consonant Cluster Stressed Onset:
Fifth Syllable Consonant Cluster Stressed Coda:
Fifth Syllable Consonant Cluster Unstressed Onset:
Fifth Syllable Consonant Cluster Unstressed Coda: łd#

Consonant Cluster Total for Stressed and Unstressed Onsets and Codas

Stressed Onset: #pʰl, #bl, #bł, #fj, tʰj, #sk(2), sk, #skj, #stj, st, sp, st(2), #st, #kʰj(3), kʰj, #gj
Stressed Coda: nd#, nt#, st#, jt, ks, ŋk

Unstressed Onset: #fl, #fj, t, st, stj, #kl, #gl
Unstressed Coda: ņs#, ńk, łd#(3)

Consonant Cluster Total for Onsets and Codas

Onset: #pʰl(2), #bl, #bł, #fj(3), #fl, tʰj, t, #dž, #sk(2), sk, #skj, #stj(2), st(2), sp, st(2), #st, st, #s1, #kʰj(3), kʰj, #kł, #kłl, #gj(2), #gl(2)
Coda: mt#, ft#, nd#(2), nt#, ņs#, st#, jt, ńk, ņns#, łd#(3), kt#(3), ks, ks#, ŋk

Consonant Cluster Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllable Consonant Cluster: #pʰl, mt#, #fj, ft#, #dž, #stj, #s1, ņns#, #kł, #kłl, kt#(3), ks#, #gj, #gl

First Syllable Consonant Cluster Stressed: #pʰl, #bl, #bł, #fj, #sk(2), sk, #skj, #stj(2), st, #st, st, #kʰj(3), ks, #gj
First Syllable Consonant Cluster Unstressed: #fl, #fj, ńk, #kl, #gl

Second Syllable Consonant Cluster Stressed: tʰj, nd#(2), nt#, sp, st(2), stj, sk, st#, kʰj, ŋk
Second Syllable Consonant Cluster Unstressed: ņs#, stj, łd#, łd#

Third Syllable Consonant Cluster Stressed:
Third Syllable Consonant Cluster Unstressed: tł, st

Fourth Syllable Consonant Cluster Stressed:
Fourth Syllable Consonant Cluster Unstressed: łd#

Fifth Syllable Consonant Cluster Stressed:
Fifth Syllable Consonant Cluster Unstressed:

Consonant Cluster Total per Syllable

First Syllable Consonant Cluster: #pʰl, #bl, #bł, #fj(2), #fl, #sk(2), #skj, #stj, st, ńk, #kʰj(3), ks, #kl, #gl, #gj
Second Syllable Consonant Cluster: tʰj, nd#(2), nt#, ņs#, sp, st(2), stj(2), sk, st#, łd#, łd#, kʰj, ŋk
Third Syllable Consonant Cluster: tł, st
Fourth Syllable Consonant Cluster: łd#
Fifth Syllable Consonant Cluster: łd#

Consonant Cluster Stressed and Unstressed Total

Consonant Cluster Stressed: #pʰl, #bl, #bł, #fj, tʰj, nd#(2), nt#, #sk(2), #skj, sk, #stj, stj, #st, st(2), st#, sp, st, #kʰj(3), kʰj, ks, #gj, ŋk
Consonant Cluster Unstressed: #fl, #fj, tł, ņs#, stj, st, ńk, łd#(2), łd#, #kl, #gl

Consonant Cluster Total (absolute)
Narrow: #pⁿ(2), #bl, #b1, mt#, #f₁(3), ft#, #fl, tʃ, t, #d₁, nd(2), nt#, ŋs#, #sk(2), sk, #sk₁, #st₁(2), st₁(2), #st, st(3), st#, sp, #sl, j, k, ʰŋs#, ʰd(2), ʰf#, #kl, #kʰ(3), #kʰ, kʰ, ks, #k₁, kt₁(3), ks#, #g₁(2), #gl(2), nk

Broad (when different from above): pl(2), bl, b₁, mt, f₁(3), ft, fl, tʃ(2), d₁, nd(2), nt, ns, sk(3), sk₁, sp, st(5), st₁(4), sl, j, k, ŋs, ʰd(3), kl(2), k₁(5), ks(2), kt(3), gl₁(2), gl₁(2), nk

Supra-Segments: Whole Syllables

Whole Syllable Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllable Whole Syllable:
#i#t#, #pʰ/#k#, #f₁/#g#, #j₁u#, #kʰu/#k#, #g₁u/#d#, #pʰ/#l#, #sl₁/#t#, #w₁/#t#, #d₁/#f#, #j₁x#, #æk#, #pʰ/#l#, #kʰræk#, #hæd#, #j₁a/#d#, #j₁a/#k#, #g₁/#a/#s#, #w₁/#f#, #a/#l#, #a/#k#, #fa#, #st₁amt#

First Syllable Whole Syllable Stressed (all entries are word initial):
#i#, #j₁h#, #su, #hu#, #i₁n, #f₁m, #f₁j, #v₁t, #d₁t, #s₁t, #b₁e, #b₁e, #w₁/#n(2), #a/#(2), #n₁, #e/k#, #pʰ/#l#, #mЄ, #tʰ/#t(2), #f₁#, #kʰ/, #k#, #f₁, #æ/k(2), #æz, #væt, #tʰ/#æ, #s/#kʰ/#æ, #zæ, #æk, #læm, #kʰ/#æ, #g/#æs, #a/#, #a/#k, #ja/#, #a, #a/#j, #u/#t, #b/#n, #ba/#, #b/#, #sk/#, #sa/#, #s/#t, #l₁a, #k/#a, #k/#a, #h/#k, #h/#

First Syllable Whole Syllable Unstressed (all entries are word initial):
#i#, #pʰ/i#, #j₁/i#, #v₁, #d₁/i(2), #n₁, #s/#t(2), #g/#l#, #a/(3), #f#/a, #s/#a, #z/#a, #f/#a, #k/#n, #h/#a, #e/k/#(2), #s/#t, #d/#t, #f/#l, #m/#æ#, #a, #a/#k, #m/#a, #k/#l, A

Second Syllable Whole Syllable Stressed:
tʃ/i/d#, #i/#f#, #l/#d#, #i/#h#, #u#, tʃ/u#, #g/w#, #mнт#, #t, #t/#n(2), #s/#t, #n/#t, #f/#l, #s/#t, #d/#u, #k/#, #d/#n, #p/#æn, #s/#æn, #æn#, #l/#ænt#, #k/#æm#, #g/#æ, #s/t/#d#, #b, #s/#k, #l, #k/#a#

Second Syllable Whole Syllable Unstressed:
pl#/f#, #z/#i, #j/#, #f/#i
Third Syllable Whole Syllable Stressed:

\[ p^\text{ae} \]

Third Syllable Whole Syllable Unstressed:

\[ ni^#, \ jli^#, \ gj^l, \ nu^m, \ ti^m, \ nk^#, \ jn^#. \]

Fourth Syllable Whole Syllable Stressed:

\[ tv^#, \ me^k#, \ a^#(2), \ na^#, \ r^d^# , \ ja^#, \ n^es#, \ dadd# \]

Fifth Syllable Whole Syllable Stressed:

\[ \text{Fifth Syllable Whole Syllable Unstressed:} \]

\[ \text{Whole Syllable Total per Syllable} \]

First Syllable Whole Syllable (all entries are word initial):

\[ ai^l(2), \ ap^l^l, \ #ji^l, \ #ji^l^n, \ #su, \ #hu^u, \ #1n, \ #im, \ #ji, \ #vr, \ #dis(2), \ #dt^l, \ #nl^l, \ #st, \ #stl, \ #stl^l(2), \ #gl^k, \ #ble^l, \ #ble^l, \ #wo^m(2), \ #a^l(3), \ #fa, \ #sa, \ #za, \ #fa, \ #kan, \ #ha, \ #ae^l(2), \ #na, \ #ek^l, \ #ek^l, \ #p^l^l^l, \ #me^l^l, \ #t^l^l^e^l, \ #d^l^l, \ #fe^e, \ #k^l^l^e, \ #flo^e, \ #an, \ #fl^l, \ #sk^l^l, \ #k^l^am, \ #wa, \ #wan, \ #fo^l, \ #ae, \ #ae^l^k(2), \ #ae^l^l, \ #mae^l, \ #val^l, \ #lt^l^l^l, \ #sk^l^l^l, \ #zae^, \ #jae^k, \ #l^l^m^l, \ #k^l^m^l^l, \ #gl^l^m^l, \ #a, \ #a^l, \ #ak^l, \ #ja^l, \ #a, \ #a^l, \ #au, \ #au^l, \ #ba, \ #ban^l, \ #bat^l, \ #mou^l, \ #sk^l^l, \ #sa, \ #stl^l, \ #l^l^a, \ #k^l^a, \ #k^l^a^l, \ #ka^l, \ #hak, \ #ha \]

Second Syllable Whole Syllable:

\[ p^l^l^l^l^k^# , \ t^l^l^l^l^d^# , \ zi^l^# , \ ji^l^# , \ j^l^# , \ li^l^d^# , \ ji^l^# , \ hi^l^# , \ ji^l^# , \ p^l^u^k^# , \ t^l^u^u^m , \ du^l^m^n^# , \ t^l^u^f^# , \ ju^l^f^# , \ ju^l^k^# , \ gu^l^# \]

\[ btip^l^# , \ mrl^l^# , \ tml^l^# , \ vtfr^l^# , \ t, \ tml^l^#(2), \ dgip^l^# , \ sik^l^# , \ str^l^l^l^l^k^l^# , \ jln^l^# , \ ltl^l^# , \ glf^l^# , \]

557
Segmental and Supra-Segmental Profile Data Sheet

Question ID: Y. the name of the remotest island on earth

Segments

Segment Total for Stressed and Unstressed Syllables and Monosyllables according to Syllable Configuration

Monosyllable Onset: p, #pʰ, #b(2), #f, #s(2), #s₁, #f₁, #l(2), #kʰ(2), #w(2)
Monosyllable Nucleus: i̯, i(2), o, o*#(2), ɔ, æ(2), a(3)
Monosyllable Coda: b#, t, #t*, d#, n(2), #s, z, #f, #s, k#, #k(2), η, η#

First Syllable Segment Stressed Onset: #pʰ(5), #m(3), #f(3), #tʰ(2), #d(3), n, #n, θ, #s(7), #z, #l(7), l(3), #j, #kʰ(4), #k, #g(2), #w(3), #h
First Syllable Segment Stressed Nucleus: #i̯(4), #i(8), u*#(4), #u*, ɪ(8), e', o(2), o*#(2), e(4), ɔ, #h, a, a(5), a(1), #a(3), #ε, e(2), #ε, ɔ, #a, #a*, #a*, a(4), #a(4)
First Syllable Segment Stressed Coda: p, b, d, n(10), s(2), z, #, l(4), l(3), k

Second Syllable Segment Unstressed Onset: #b(6), #m(2), #f, #tʰ, #d(3), #δ, #s(4), #z(2), #f, #l(3), j, #l, #kʰ(4), #k(3), #g, w, #h
Second Syllable Segment Stressed Nucleus: i̯(6), u*#(4), ɪ(4), e#, e'(2), o*, o*#(2), o*#(4), #η(4), #ε, #l(6), j(2), #l(6), k(5), kʰ, g(2), w(4), h
Second Syllable Segment Stressed Coda: t#, t'#, n(2), #s, z, j, l#, l(2), t, k#(2)

Third Syllable Segment Unstressed Onset: d, n, s, z, j, l, k, h
Third Syllable Segment Stressed Nucleus: u*, e'(2), o, #a, #s, ɔ, a'
Third Syllable Segment Stressed Coda:

Third Syllable Segment Unstressed Onset: b(2), m, f(2), tʰ, t(4), d, n(4), r(2), #θ, s(3), z, l(2), j(5), l(6), j(2), k(2), g, w(4)
Third Syllable Segment Stressed Nucleus: i̯(3), i#(4), i(2), u, e#(2), o*#(6), a(5), #a(4), #l, #l(2), #l(4), #l(2), #l(2), #l(2), a(4)
Third Syllable Segment Stressed Coda: t, d#, n(2), z#, t, t#, k#

Fourth Syllable Segment Unstressed Onset: tʰ
Fourth Syllable Segment Stressed Nucleus: a
Fourth Syllable Segment Stressed Coda:

Fourth Syllable Segment Unstressed Onset: m(2), #θ, s, j(2), l(3), l', h
Fourth Syllable Segment Stressed Nucleus: i#(4), i(2), e#, o*#(2), #a(2), a(2), a(2)
Fourth Syllable Segment Unstressed Coda: n#, s#, #a, η#

Fifth Syllable Segment Onset:
Fifth Syllable Segment Stressed Nucleus: a
Fifth Syllable Segment Stressed Coda:

Fifth Syllable Segment Unstressed Onset: j
Fifth Syllable Segment Stressed Nucleus: e#(2), a#
Fifth Syllable Segment Unstressed Coda:

Segment Total for Stressed and Unstressed Onsets and Codas

Stressed Onset: #pʰ(5), p, #pʰ(2), b(2), #m(3), m, #f(3), v, #tʰ(2), tʰ(4), #d(3), d(3), n(5), #n, #θ, #s(7), s(4), #z, z(4), #j(2), l(7), l(11), #j, #kʰ(4), #k, k(2), kʰ, #g(2), g, #w(3), w(2), h, h
Stressed Coda: p, b, t, #t*, t', d, n(12), n#, s(3), s#, z(2), j, #, l(5), #j(2), l(3), #l(2), #l(2), k(2), η

Unstressed Onset: pʰ(3), p, #b(6), b(7), #m(2), m(6), #f, f(2), w(2), #tʰ, t(9), tʰ(2), #d(3), d(7), d(#3), n(6), r, r(3), θ(2), #d, #s(4), s(11), #z(2), z(3), #f, j(4), z, #j(3), j(12), #j, l(15), l', j(4), #kʰ(4), #k(3), k(7), kʰ, #g, g(3), w(9), h, h(2)
Second Syllable Consonant Cluster Unstressed Onset:

First Syllable Consonant Cluster Unstressed Onset (all entries are word initial):

Monosyllable Consonant Cluster Coda

Broad:

Narrow:

Stressed Segment:

Monosyllable Consonant Cluster Coda

Broad:

Stressed Segment:

Unstressed Segment:

Segment Total (absolute):

Narrow:

Broad:

Second Syllable Segment:

Second Syllable Segment:

Second Syllable Cluster Stressed Onset (all entries are word initial): #d#, #ks'

Second Syllable Cluster Unstressed Onset: spl, kl

Second Syllable Cluster Coda: ks'

Second Syllable Cluster Unstressed Coda: fl, fj, sw, jt, kw

Supra-Segments: Consonant Clusters

Consonant Cluster Total for Stressed and Unstressed Syllables and Monosyllables according to Syllable Configuration
Second Syllable Consonant Cluster Unstressed Coda: \( \eta s\#, \eta s\#, \eta s\#, \eta d\# \)

Third Syllable Consonant Cluster Stressed Onset:
Third Syllable Consonant Cluster Stressed Coda:

Third Syllable Consonant Cluster Unstressed Onset: b\( \eta \), st(2), gw
Third Syllable Consonant Cluster Unstressed Coda: \( tz\#, ld\# \)

Fourth Syllable Consonant Cluster Stressed Onset:
Fourth Syllable Consonant Cluster Stressed Coda:

Fourth Syllable Consonant Cluster Unstressed Onset: b\( \eta \), st(2), gw
Fourth Syllable Consonant Cluster Unstressed Coda:

Fifth Syllable Consonant Cluster Stressed Onset:
Fifth Syllable Consonant Cluster Stressed Coda:

Fifth Syllable Consonant Cluster Unstressed Onset: b\( \eta \), st(2), gw
Fifth Syllable Consonant Cluster Unstressed Coda: \( fj, t\)d\#, kw

Consonant Cluster Total for Stressed and Unstressed Onsets and Codas

**Stressed Onset:** #p\( ^\#l \), #fl, #sn, spl, kl, #k\( ^\#l \)

**Stressed Coda:** ks#

Unstressed Onset: b\( \eta \), fl, fj, #d\( \eta \), st(2), sw, ft, kw, #k\( ^\#l \), gw
Unstressed Coda: \( \eta d\#, \eta s\#, \eta d\#, tz\#, ld\#, ld\# \)

Consonant Cluster Total for Onsets and Codas

Onset: #p\( ^\#l \), b\( \eta \), fl, fj, #f\( \#l \), fj, #d\( \eta \), #sn, st(2), sw, #spl, spl, ft, kw, kl, #k\( ^\#l \), #k\( ^\#l \), gw
Coda: \( \eta d\#, \eta s\#, \eta s\#, \eta d\#, nt\#, ztk#, js#, tz\#, ld\#, ld\#, ks\#, \eta k\# \)

Consonant Cluster Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllable Consonant Cluster: #f\( \#l \), #f\( \#l \), #f\( \#l \), #f\( \#l \), #k\( ^\#l \), \eta k\#

**First Syllable Consonant Cluster Stressed:** #p\( ^\#l \), #fl, #sn, #k\( ^\#l \)
**First Syllable Consonant Cluster Unstressed:** #d\( \eta \), #k\( ^\#l \)

**Second Syllable Consonant Cluster Stressed:** spl, kl, ks#
**Second Syllable Consonant Cluster Unstressed:** \( \eta d\#, fj, \eta s\#, \eta s\#, \eta d\#, tz\#, ld\#, ld\#, kw \)

**Third Syllable Consonant Cluster Stressed:**
Third Syllable Consonant Cluster Unstressed: b\( \eta \), st(2), tz\#, ld, gw

**Fourth Syllable Consonant Cluster Stressed:**
Fourth Syllable Consonant Cluster Unstressed:

**Fifth Syllable Consonant Cluster Stressed:**
Fifth Syllable Consonant Cluster Unstressed:

Consonant Cluster Total per Syllable

First Syllable Consonant Cluster: #p\( ^\#l \), #fl, #d\( \eta \), #sn, #k\( ^\#l \), #k\( ^\#l \)
Second Syllable Consonant Cluster: \( \eta d\#, fj, \eta s\#, \eta s\#, \eta d\#, sw, spl, ft, tz\#, ld\#, kw, kl, ks\# \)
Third Syllable Consonant Cluster: b\( \eta \), st(2), tz\#, ld, gw
Fourth Syllable Consonant Cluster:
Fifth Syllable Consonant Cluster:

Consonant Cluster Total Stressed and Unstressed Total

**Consonant Cluster Stressed:** #p\( ^\#l \), #fl, #sn, spl, #k\( ^\#l \), kl, ks#
Consonant Cluster Unstressed: bʃ, mʌ#, fl, fɬ, #dɬ, ŋs#, nz#, sw, st(2), ʃt, ɬd#, ɬz#, ɬd, kw, #kʰw, gw

Consonant Cluster Total (absolute)

Narrow: #pʰl, bʃ, mʌ#, fl, #fl, fɬ, #dɬ, ŋs#, nz#, nd#, nt#, sw, st(2), #sn, spl, #spl, ztk#, ʃt, ɬs#, ɬd#, ɬz#, ɬd, kw, #kʰw, #kʰl(2), kl, ks#, gw, ŋk#

Broad: pl, bʃ, md, fl(2), fɬ(2), dɬ, ns, nz, nd, nt, sw, st(2), sn, spl(2) ztk, ʃt, ɬs, ɬd(2), ɬz, kw(2), kl(3), ks, gw, ŋk

**Supra-Segments: Whole Syllables**

Whole Syllable Total for Stressed and Unstressed Syllables and Monosyllables

<table>
<thead>
<tr>
<th>Monosyllable Whole Syllable:</th>
<th>#fʌlʃ#</th>
<th>#splaŋk#, #s:ɪztk#, #soʷ#, #kʰoʷ#, #wɔː#, #wɔŋ#, #fæŋd#, #kʰlænt#, #pʰau#, #bais#, #babo#</th>
</tr>
</thead>
</table>

First Syllable Whole Syllable Stressed (all entries are word initial):

#i, #i(2), #pʰl, #tʰl, #dɬl, #sɬl, #sɪn, #zɬl, #kʰl, #wɪl, #u", #bʊ", #lʊ", #lʊn, #kʰu", #wu", #pʰl(2), #fln, #θn, #jɪs, #lɪn, #kʰl, #hɪn, #wɛl, #mʊ", #lo, #lʊ", #ko, #pʰl, #de, #sɛ, #sɛp, #ɒ, #ɔ, #pʰʒ, #næ, #snaɛ, #sæn, #kʰlæk, #gæs, #aˈz, #tʰal, #jał, #a, #ab, #aɬ, #mad, #man, #faɬ, #fa, #dɑ, #lɑʒ, #lɑŋ, #jaŋ, #gan |

First Syllable Whole Syllable Unstressed (all entries are word initial):

#i(2), #kʰl, #u"(2), #bʊ", #zum, #ɪt, #bɪ, #sɪn, #kʰwɪn, #hɪ, #fu, #be, #bʊ", #tʰo", #a(3), #bɑ, #ma, #fɑ, #dʒa, #dɑ(2), #dɑ, #sɑ, #jɑ, #kɑ, #gɑ, #sɑ, #ɛk, #me, #kɛn, #lɔ, #kʰæn, #a"", #za"", #a(2), #an, #aɬ, #bɑi, #sɑ, #kʰæn, #ka |

Second Syllable Whole Syllable Stressed:

pʰl, mɪʃ, tʰl, ʃɬl, splśl#, liɬl, tʰu", ju", lu", ʃɬl, sɬ, ʃt, kʰl, ʃɛl, weɬ#, weɬ, bo, so"n#, deks#, nez, zɛt#, ʃæ, ʃɛn, kɫɛʃ#, ɡæn, tʰɔ, la"
p^a, va#, da, za, ʃa#, ʃa#, las, la#

Second Syllable Whole Syllable Unstressed:
d^i, d^i#, r^i, li#, kw^i#,
nu"#, ju"n#, kju",
ttk#, zn, ʃzn#, ltt#, ln#, wiθ#,
do"#, so"#, ko#, go"#, ho#,
p^a(2), pa, ba, b^#, man, ma, f^a#, v^n#, v^i#, da(2), na, *n#, ra, s*n#(2), sa(2), s*n#, z*md#, ʃt*n#, ʃa#, la#, ja, k^#, ga,
f#, da,
b#, med#, t^ek#, ten,
la#, fa, dæ, k^#en,
ba*, ta^#, ta#,
p^a#, bald#, fa#, fat^#, swaf#, lan#, wan#

Third Syllable Whole Syllable Stressed:
nu",
de^l, he^l,
so,
la^t#,
la#,
zɔ,
ʃa^i

Third Syllable Whole Syllable Unstressed:
ni^#, ri^l, ʃi^n#, ʃi^l,
ju"m#, ju"#,
sttk#,
ʃu#,
me^#, ke^#, gwe#,
o"#, to"#, zo"#, go"#, lo"#(2),
*ʃ#, na, ra, sta#, st#, ʃʃ#, ʃa#, la#, la, l*ʃ#, ʃt#z#, ʃa#, k^#, w^#,
f#, da#, k^#, w#,
b#ed#,
nae,
ba#,
b#ld#, t^a#, nan#, fa#, ʃad#, wa

Fourth Syllable Whole Syllable Stressed:
t^a

Fourth Syllable Whole Syllable Unstressed:
ʃi^#, li^l,
ʃs#, ʃm#,
j#e^#,
o"#, lo"#,
#ð, #ma#, #l#,
ʃa#,
ʃan#, lan#, ha#

Fifth Syllable Whole Syllable Stressed:

Fifth Syllable Whole Syllable Unstressed:
ʃe^#,
#ð

Whole Syllable Total per Syllable

First Syllable Whole Syllable (all entries are word initial):
#i, #i^l(2), #p^i, #t^i#, #d^i, #s^i, #sin, #zd^i, #ʃi^l(2), #k^h^l(2), #w^i,
#u^m(3), #bu^m(2), #zum, #lu^m, #lu^n, #k^u^m, #wu^m,
Supra-Segments: Whole Words

Whole Monosyllables:

bambah [baˈbɑ], koh [kʰoː], shand [ʃænd], so [soʊ], fresh [fuʃ], pahre [pʰəɹ], won [wɔn], spihak [spɪrɪk], klant [kʰlænt], wong [wɔŋ], sitzk [ˈsɪtsk], barshe [baɪs]

Whole Bisyllables:
PouRsun [ˈpʰuːɹ-səŋ], Eeeleen [ˈɪ.liːn], Seenah [ˈsɛn·ə], LAHNGun [ˈlən·əŋ], LOWhoe [ˈloʊhə], WEEbulp [ˈwiːbəlp], Koko [ˈkoʊkoʊ], WAYfla [ˈweɪflə], DEEteh [ˈdiːtəɛk], AHBshun [ˈəb·ʃən], YAIwahl [ˈjæ·wən], ALlmed [ˈɔɭ·med], EEjee [ˈɪɭ·dʒiː], SNARvunce [ˈsnər·vʌns], SANKFahr [ˈsæŋ·faɭ], LOOOpah [ˈluːpə], LINlit [ˈlɪn·lit], FAHLSum [ˈfaɭ·səm], OOSo [ˈuʊ·soʊ], KLAKtik [ˈklæk·tɪk], MAHDSun [ˈmæd·səŋ], FAHRinz [ˈfəɹ·ɪŋz], DEHZumhd [ˈdə·zəməd], WOOdow [ˈwuʊ·dəʊ], KOOwith [ˈkʊɹ·wɪθ], GASlahn [ˈɡæs·læn], SEHkühl [ˈʃɛ·kʰʊɭ], TEEGo [ˈtɛɭ·ɡoʊ], THINluh [ˈθɪn·ɭu], MAHNtie [ˈmæn·tə], NAVuh [ˈnəvə], LARZIHbahl [ˈlɑɹz·ɪɭbəɭ], EEKwee [ˈɪɭ·kwɪ], PEESwahf [ˈpʰiɭ·swɑf], MOFahht [ˈmoʊ·fæt], SEPShus [ˈsep·ʃəs], SEEhnoo [ˈʃɪ·nuː], RISlin [ˈrɪs·lɪn], KEEroon [ˈkʰiɭ·ju·nə], PIFHfruh [ˈpʰɪ·fɾʊ]

sinKLAR [ˈsɪn·klaɪə], recDEKS [ˈjɪɭ·dɛks], booWAY [ˈbuː·weɪ], mubSOWN [ˈməʊ·soʊn], guhRAHT [ɡə·ɹæt], cksPLEEET [ɛk·ˈspɪliət], theLAHL [ˈdəɭ·ləɭ], suhRAH [ˈfju·ɹə], zouVAR [ˈzaʊ·ˈvæɹ], uhZAIL [ˈaɪ·ˈzæɪ]
<table>
<thead>
<tr>
<th>Segment</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monosyllable Onset</td>
<td>#p(2), p, #b(4), #m, #f(2), t(2), #d, #d5, r, #s(4), #z, #f(3), l(4), #l, #kʰ, #g, w(2), #h</td>
</tr>
<tr>
<td>Monosyllable Nucleus</td>
<td>i(3), i, #t, t(3), e, e#(2), o&quot;(2), o&quot;#, e(3), #k(2), #æ(3), o(7)</td>
</tr>
<tr>
<td>Monosyllable Coda</td>
<td>b, m#(2), f#(2), f, t#(2), t#, d#(5), ts#, n(2), s, s#, z#(4), f#: f#(3), z#, j, #t, #l(3), k#, #η, h#</td>
</tr>
<tr>
<td>First Syllable Segment Stressed Onset</td>
<td>p, #b(4), #m(6), #f(2), #v(2), #tʰ, t, #d(2), n(2), #s(11), #z, #f(3), #j(11), #l(5), l(2), j, #kʰ(2), #w(3), w(4), #h</td>
</tr>
<tr>
<td>First Syllable Segment Stressed Nucleus</td>
<td>i(7), #l, u&quot;(4), t(8), e(4), o&quot;(3), e(6), #λ, #c, #æ(7), #l(2), #w(11), a&quot;(11), a, #α</td>
</tr>
<tr>
<td>First Syllable Segment Stressed Coda</td>
<td>p, b, d, n(7), s, z(2), j, l(2), k(2), g(2)</td>
</tr>
<tr>
<td>First Syllable Segment Unstressed Onset</td>
<td>#p, #m, #f(4), #v, #d(3), #d5, #s(4), #z, #j(4), l(3), k, #kʰ, w</td>
</tr>
<tr>
<td>First Syllable Segment Unstressed Nucleus</td>
<td>#i, i(2), u&quot;(2), #l, o&quot;#, a(12), #α(3), #λ, #æ(2), #æ, #α, #α</td>
</tr>
<tr>
<td>First Syllable Segment Unstressed Coda</td>
<td>n(3), s</td>
</tr>
<tr>
<td>Second Syllable Segment Stressed Onset</td>
<td>b, m(2), f(3), v, t, #t(2), d, n(2), s(2), l(5), j(3), kʰ, g, w(2)</td>
</tr>
<tr>
<td>Second Syllable Segment Stressed Nucleus</td>
<td>i, i(2), u&quot;(2), t(3), u, e(4), o&quot;(4), e(2), #c, #æ(4), a&quot;#, â</td>
</tr>
<tr>
<td>Second Syllable Segment Stressed Coda</td>
<td>t#, d#, d#, t#, i#, n(4), p#, s#, f#, t#, k, k#</td>
</tr>
<tr>
<td>Second Syllable Segment Unstressed Onset</td>
<td>b(2), m, f(4), v, t(4), d(5), n(6), r(2), θ, s(5), z(8), f, j(4), l(7), j, k(3), kʰ(2), g, w</td>
</tr>
<tr>
<td>Second Syllable Segment Unstressed Nucleus</td>
<td>i(#3), i, u&quot;(#2), t(8), e#, o#, #o&quot;#, o&quot;(2), a(8), *m#(2), *η(#5), *η(3), #j(3), #j, #æ(2), #æ(#3), #z, #z, #l(2)</td>
</tr>
<tr>
<td>Second Syllable Segment Unstressed Coda</td>
<td>t#, i#, d#, d#, n(#7), s, s#, l#, f#, j#, k#, g#</td>
</tr>
<tr>
<td>Third Syllable Segment Stressed Onset</td>
<td>Third Syllable Segment Stressed Nucleus:</td>
</tr>
<tr>
<td>Third Syllable Segment Stressed Coda</td>
<td>Third Syllable Segment Unstressed Onset: m, t, d(2), n(5), θ, s(3), j(4), z(3), j(5)</td>
</tr>
<tr>
<td>Third Syllable Segment Unstressed Nucleus</td>
<td>i(#2), i(#2), t(2), e#, o#, #m#(3), o(6), #c(#3), #z, #z, #l(2)</td>
</tr>
<tr>
<td>Third Syllable Segment Unstressed Coda</td>
<td>t#(2), t#, n#, s#, t#, s, l#</td>
</tr>
<tr>
<td>Fourth Syllable Segment Stressed Onset</td>
<td></td>
</tr>
<tr>
<td>Fourth Syllable Segment Stressed Nucleus</td>
<td>ε</td>
</tr>
<tr>
<td>Fourth Syllable Segment Stressed Coda:</td>
<td></td>
</tr>
<tr>
<td>Fourth Syllable Segment Unstressed Onset</td>
<td>f, n, r, j</td>
</tr>
<tr>
<td>Fourth Syllable Segment Unstressed Nucleus</td>
<td>a(2), *η#, *m#, #l, a</td>
</tr>
<tr>
<td>Fourth Syllable Segment Unstressed Coda</td>
<td>d#(2), d#, s#</td>
</tr>
<tr>
<td>Fifth Syllable Segment Stressed Onset</td>
<td>Fifth Syllable Segment Stressed Nucleus:</td>
</tr>
<tr>
<td>Fifth Syllable Segment Stressed Coda:</td>
<td></td>
</tr>
<tr>
<td>Fifth Syllable Segment Unstressed Onset</td>
<td>t</td>
</tr>
<tr>
<td>Fifth Syllable Segment Unstressed Nucleus</td>
<td>e#</td>
</tr>
<tr>
<td>Fifth Syllable Segment Unstressed Coda:</td>
<td>Segment Total for Stressed and Unstressed Onsets and Codas</td>
</tr>
<tr>
<td>Stressed Onset:</td>
<td>p, #b(4), b, #m(6), m(2), #f(2), f(3), #v(2), v, #tʰ, t(2), #d(2), d, n(4), #s(11), s(2), #z, #f(3), #j(11), l(10), #l(5), l(8), j(4), #kʰ(2), kʰ, g, #w(3), w(6), #h</td>
</tr>
</tbody>
</table>
Second Syllable Consonant Cluster Unstressed Onset: bl(2), fl
Second Syllable Consonant Cluster Unstressed Coda: ňs#, ňz#, st#, ŏd#

Third Syllable Consonant Cluster Stressed Onset:
Third Syllable Consonant Cluster Stressed Coda:

Third Syllable Consonant Cluster Unstressed Onset: st, dj
Third Syllable Consonant Cluster Unstressed Coda: st#

Fourth Syllable Consonant Cluster Stressed Onset:
Fourth Syllable Consonant Cluster Stressed Coda:
Fourth Syllable Consonant Cluster Unstressed Onset:
Fourth Syllable Consonant Cluster Unstressed Coda:

Fifth Syllable Consonant Cluster Stressed Onset:
Fifth Syllable Consonant Cluster Stressed Coda:
Fifth Syllable Consonant Cluster Unstressed Onset:
Fifth Syllable Consonant Cluster Unstressed Coda:

Consonant Cluster Total for Stressed and Unstressed Onsets and Codas

Stressed Onset: #b(2), bl, #mj, mj, #fl, fj, f2, #d(j), #s, #sl, #sn, #sw(3), #sp, #stu, #fjw, #k\^l, g\^j

Stressed Coda: ns, nt\^f#, jd, jg

Unstressed Onset: bl(2), fl, #fl, dj, #sk, #sw, st, #k\^l

Unstressed Coda: ňs#, ňz#, st#(2), ŏd#

Consonant Cluster Total for Onsets and Codas

Onset: #p\^j, #b(3), #bl, bl(3), #mj, mj, #fl(3), fl, fj, f2, f\^j, f\^d, dj, #s, #sl, #sn(2), #sp(2), #st, st, #stu(2), #sk, #zw, #fjw(2), #k\^l(3), g\^j, #gl, gl

Coda: bz#, ft#, nd#, ňs#, ns, #nz#(2), nt\^f#, st#(3), jf#, jd, jg, #m#, #tw#, #d#, #k\^l, #gl, Ŋk#

Consonant Cluster Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllable Consonant Cluster: #p\^j, #bl(2), bz#, #bl, #fl, ft#, #f\^j, nd#, ňs#, #st, st#, #sp, #stu, #zw, #fjw, #m#, #tw#, #d#, #k\^l, #gl, #k\^j, Ŋk#

First Syllable Consonant Cluster Stressed: #b(2), #mj, #fl, #d(j), ns, #sn(2), #sl, #sw(3), #sp, #stu, #fjw, jd, jg, #k\^l
First Syllable Consonant Cluster Unstressed: #fl, #sk, #sw, #k\^l

Second Syllable Consonant Cluster Stressed: bl, mj, fj, f2, nt\^f#, g\^j
Second Syllable Consonant Cluster Unstressed: bl(3), mj, fj, f2, fl, nt\^f#, ňs#, ňz#, st#, ŏd#

Third Syllable Consonant Cluster Stressed:
Third Syllable Consonant Cluster Unstressed: st, st#, dj

Fourth Syllable Consonant Cluster Stressed:
Fourth Syllable Consonant Cluster Unstressed:

Fifth Syllable Consonant Cluster Stressed:
Fifth Syllable Consonant Cluster Unstressed:

Consonant Cluster Total per Syllable

First Syllable Consonant Cluster: #b(2), #mj, #fl(2), #dj, ns, #sl, #sn(2), #sk, #sw(4), #sp, #stu, #fjw, jd, jg, #k\^j, #k\^l

Second Syllable Consonant Cluster: bl(3), mj, fj, f2, fl, nt\^f#, ňs#, ňz#, st#, ŏd#, g\^j

Third Syllable Consonant Cluster: st, st#, dj

Fourth Syllable Consonant Cluster:

Fifth Syllable Consonant Cluster:

Consonant Cluster Stressed and Unstressed Total
Consonant Cluster Stressed: #b(2), bl, #mj, mj, #fl, fj, #d, ns, ntf#, #sn, #sl, #sn, #sw(3), #sp, #st, #fw, jd, jg, #k#, gj

Consonant Cluster Unstressed: bl(2), fl, #fl, dj, ns#, ns#, #sk, #sw, st(#2), st, jd#, #k"l

Consonant Cluster Total (absolute)
Narrow: #p', #b(2), bl(3), #b(2), #b(2), #b(2), bjz#, #mj, mj, #fl(3), fl, ft#, #f, fj, fj, #d, dj, dj, ns, ns#, nd#, ns#, ns#, ntf#, #sn(2), #sl, #sw(4), #sk, st(#3), st, #st, #sp(2), #st(#2), #zw, #fw(2), jd, jg, jf#, lm#, tz#, ld#, td#, #k(2), #k"l, gj, #gl, nk

Broad: pj, bl(5), bjz, mj(2), fl(4), ft, fj(2), fj, #j(2), ns(2), nd, nz(2), ntf, sn(2), sl, sw(4), sk, st(#5), sp(2), st(#2), zw, #fw(2), jd, jg, jf, lm, tz, ld(2), k(2), kl, gj, gl, nk

Supra-Segments: Whole Syllables

Whole Syllable Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllable Whole Syllable:
#bl#f#, #bri#r#, #sji'd#, #sji'j#, #j#, #bzn#, #flm#, #spnjk#, #dge#, #ste's#, #mo'r#, #jo'f#, #joo"#, #petz#, #fjwed#, #k'jef#, #p'nsjt#, #blhx#, #faend#, #iæt#, #iæt#, #t'aj', #daaj#, #stjad#, #zwa3#, #jap#, #glabz#, #halm#

First Syllable Whole Syllable Stressed (all entries are word initial):
#l, #mi'n, #vi'l, #si'l, #si'l, #z'l, #fi'l, #li'l,
#mju'nz, #swu", #ju"b, #vin, #swin, #jiz, #jik, #k'lt, #k'li, #win#, #wi,
#me'l, #fle'l, #wei'l, #je'l,
#bo'o", #jo"n, #jo"n,
#sne, #fwe, #tek, #ke, #le, #le,
#j, #sno,j,
#mau, #t'ae, #da:l, #sæ, #staæ, #jæ, #læ,
#ba", #da'l, #sla", #ha,
#ar:z, #bou, #baid, #mau, #man, #fan, #snau, #fa, #ja, #jag, #wa

First Syllable Whole Syllable Unstressed (all entries are word initial):
#l, #di'l, #zi'l,
#flu", #ju"n,
#in,
#jo"o",
#a(3) #pa, #ma, #fa, #va, #da(2), #sa(2), #sk, #ja(2), #k"la,
#dgo, #æ, #fæn, #fæs,
#a, #swan

Second Syllable Whole Syllable Stressed:
#j's#, #mju"#, #fj",
#j, ti, #tnft#,
#uld#, #fj#l, #ne'l, #t'e(2),
#mo's#, #so'n#, #lo's#, #gjo"n,
#vet#, #wed"#, #njs,
daen#, sae, jaen, laek,
ja^k#
blaf#, ja, lan, k^an

Second Syllable Whole Syllable Unstressed:
mi^n#, fi#, zi^#, li^#,
du*a#, su*a#,
flin#, ftt#, tk#, tg#, sn#, ltn#, k^1tn#, kik#,
ble#
le^j#,
no^*, jo^n#(2), k^0o^*,
blat^#, fa, v^#n#, da, d^#n#, d^#d#, nak#, ^#n^z#, r^#j#, rad#, l^#j#, sa(2), s^#n#, z^#n#, z^#m^#(2), za,k^#n(2), g^#n#, w^#n#,
t^#a, n^#a, za^#, fa^#, ja^#,
d^#a,
ta^#*, za^t^#,
nat^#, na^#*, nat^#, zan^#, rad^#(2), ja^#

Third Syllable Whole Syllable Unstressed:

Third Syllable Whole Syllable Stressed:
ni^l, l^#j(2),
nnt^#, flin^#, fis^#,
net^#, se^1,
so^#^*, jo^#^*,
ma, da, du^#a, na^#, n^#n, sta, fas^#, f^#n^#, sa^#, sa^#, s^#n^#,
jest^#

Fourth Syllable Whole Syllable Stressed:
l^e

Fourth Syllable Whole Syllable Unstressed:
^r^#^*, n^#^*, nas^#, rad^#^*,
f^#d^#^*,
rad^#

Fifth Syllable Whole Syllable Stressed:

t^#e

First Syllable Whole Syllable (all entries are word initial):
^i^l(2), #mi^n#, vi^l#, ^di^l#, ^#si^l#, ^#sli^l#, ^#zi^l(2), ^#j^l#, ^#l^l#, ^#mju^#z, ^#flu^#, ^#swu^#, ^#ju^#s, ^#ju^#, ^#lu^#b,
^#i^l, ^#v^#n^#, ^#sw^#n, ^#j^#z, ^#j^#k, ^#k^#l, ^#k^#j, ^#w^#n, ^#w^#l,
^#m^#e^1, ^#f^#l^1, ^#s^#w^#l, ^#j^#e^1,
^#b^#o^#^*, ^#j^#o^#^*(2), ^#j^#o^n,
^a^#^*(3) #pa, #ma, #fa, ^#v^#a, ^#da^#(2), ^#sa^#(2), ^#sk^#a, ^#j^#a^#(2), ^#k^#l^#a,
^#d^#a^#^*,
^#s^#n^#e, ^#f^#w^#e, ^#j^#e^#k, ^#j^#e, ^#l^#e, ^#l^#e^#p,
^#a^#,
^#sp^#d^#g,
^#a^#, ^#m^#a^#, ^#f^#a^#, ^#f^#a^#s, ^#t^#a^#j, ^#d^#a^#e, ^#s^#a^#, ^#s^#t^#i^#a^#, ^#j^#a^#, ^#l^#a^#,
^#b^#a^#^*, ^#d^#a^#, ^#s^#l^#a^#, ^#h^#a,
^#a^#, ^#a^#^#*(1)^* #ba^#, ^#b^#a^#, ^#b^#a^#, ^#m^#a^#, ^#m^#a, ^#f^#a^#, ^#s^#n^#a^#, ^#s^#w^#a^#, ^#f^#a, ^#j^#a, ^#j^#a^#, ^#a^#^#wa

Second Syllable Whole Syllable:
i^f^#, mi^n#, fl^#, zi^#, li^#,
#mju^#^*, f^#j^#, du^#^*, su^#^*,
fl, flin^#, f^#t^#, tk^#, tg^#, tt, sn^#, ltn^#, l#nt^#, k^#tn^#, kik^#,

Whole Syllable Total per Syllable

575
Whole Syllable Stressed and Unstressed Total
Whole Pentasyllables: [ˈmɪn·tə], REHplete [ˈæ·zəl], SPONGahtsh [ˈspɔʊŋ·næt], FLAYur [ˈfli·ə], TALKun [tʰæ·kə], MAHNIgh [ˈmæn·tʃ], VEEaht [ˈvi·ət], SWINdoo [ˈswɪn·du], SWOOlor [ˈswu̯·lə], MAYrah [ˈmeɪ·rə], WINDuD [ˈwi·nə·də], RAYzec [ˈræj·zək], SHEEEblay [ˈʃi·ə·blə], MARuhnz [ˈmæ·rən], ROHNdunfilms [ˈʃtæ·zəf], RAHzuhm [ˈzæ·zəm], LEPloe [ˈtɛp·lo], BRAHbluh [ˈbɹə·blə],

kluhVET [kʰlə·ˈvət], suhLOWST [sə·ˈloʊst], rahWOOD [rə·ˈwud], uhMYOUS [ə·ˈmjuəs], rooDAN [ˈru·ˈdæn], suhWED [sə·ˈwɛd], duhMOWSE [də·ˈmoʊsəs], flooEESH [ˈflu·ə], fahLINCH [fə·ˈlɪntʃ], decROUK [di·əˈkʊk], swahnSOHN [ˌswɒn·ˈsoʊn], rowBLAHNSH [ˌroʊ·ˈblæʃ]

Whole Trisyllables:
WIHzuhyee [wɪ·zə·jɪə], DRAuhnrhyate [ˈdɪə·sə·nɛl], UHNurest [ə·ˈnə·ˈjest], LEHsunsole [ˈlɛ·sə·nəm], KRIHnhit [ˈkɹɪ·sə·nɪt], ROWfuhree [ˈroʊ·fə·ˈzɪə], FAHNdruhroe [ˈfæn·dəˈzoʊ],

skuhNAYshus [skə·ˈnɛl·əs], fanTAYshin [fæn·ˈtɛl·ʃɪn], ZeeNYAHnun [zɪ·ˈnə·nən], ruhFYOUzhaun [ə·ˈfjuə·nən], fasTISHis [fæs·ˈtɪs], vuhRAHnun [və·ˈa·nə], muhKAHNduh [mə·ˈkʰən·də], aGROWzhuh [ə·ˈɡɹə·zə], inTAYshun [ɪn·ˈtɛl·ʃən]

Whole Tetrasyllables:
eCLAKsayud [ɪˈlæk·səl·rəd], uhLAHNduhrad [ə·ˈlæn·də·rəd], duhFIHneeum [də·ˈfi·nɪ·əm], uhFRAYzuhfoyd [ə·ˈfɪə·zə·fəˈd], jurRANhewum [dʒə·ˈræn·θɪ·ən], puhSAhnhus [pə·ˈsæ·mə·nəs]

Whole Pentasyllables:
ahnostuhLEHay [ə·nəʊ·ˈstə·ˈlɛ·te]
Segmental and Supra-Segmental Profile Data Sheet

Segment Total for Stressed and Unstressed Syllables and Monosyllables according to Syllable Configuration

<table>
<thead>
<tr>
<th>Monosyllable Onset:</th>
<th>Monosyllable Nucleus:</th>
<th>Monosyllable Coda:</th>
</tr>
</thead>
<tbody>
<tr>
<td>#p, #pʰ, #b(2), #f, #v, #tʰ(2), #d(2), r, #s(4), #f, #l(4), #l(2), #j(3), #kʰ(2), #g, #w, w(2), #h</td>
<td>i, i’, i’h, i, e, a, #a, a¹, a², aʰ, aʷ, a(4)</td>
<td>#p, b#, m#, f#, tʰ(6), ts#, tʃ#, n(#5), s, z#, #ʃ3(3), ʃ, tʃ(2), h#</td>
</tr>
</tbody>
</table>

First Syllable Segment Stressed Onset: #b(2), #m(2), #f(3), #t(2), #d(2), #s(4), #l(4), #j(2), #k(3), #g(2), #w(2), #h
First Syllable Segment Stressed Nucleus: i(3), u”(3), o”, ε(6), e, æ(8), a(6), a(10)
First Syllable Segment Stressed Coda: m, f, n(8), s(4), t, l(2), k(3), g

Second Syllable Segment Stressed Onset: b(2), t, d(3), n(2), s(2), z, j(2), i(6), l(7), j, w
Second Syllable Segment Stressed Nucleus: i’, i’h, u”(4), o”, ε(2), e, æ(2), æ, a(3), a(10)
Second Syllable Segment Stressed Coda: v#, t, tʰ(2), d’h, n, #n(3), #s, l#

Third Syllable Segment Stressed Onset: l
Third Syllable Segment Stressed Nucleus: e³
Third Syllable Segment Stressed Coda: #p, m(2), f(3), n(4), r(4), s(6), z, j(5), l(5), j, k, g(2), w, #?

Fourth Syllable Segment Stressed Onset: n
Fourth Syllable Segment Stressed Nucleus: a
Fourth Syllable Segment Stressed Coda: #p, m, f(2), v(2), t(3), n(5), θ, s(2), z(2), i(3), l, j(2), k(2), g(2)

Fifth Syllable Segment Stressed Onset: t
Fifth Syllable Segment Stressed Nucleus: e³#
Fifth Syllable Segment Stressed Coda: #p, t, n, s(#2), j(2), tʰ(2), k(#2), #p

Segment Total for Stressed and Unstressed Onsets and Codas

579
Stressed Syllable Stressed:

Stressed Onset: #pʰ(3), #p, #b(6), b(2), #m, #f(7), #v, #tʰ, #t, t, #d(2), d(3), #dʒ, n(3), #s(11), s(2), #z, #f(2), f(2), j(2), θ(16), #j(4), l(15), #l(5), #j(4), j, #kʰ(2), #g, w(4), #w

Stressed Coda: m, f, v, t', tʰ(2), d'#, n(9), n#(3), s(4), j(3), j#, l, l#, k(2), g

Unstressed Onset: p(5), #b(2), b(7), #m(2), m(6), #f(3), f(6), v(3), #t(2), t(13), #d(2), d(2), tf, n(9), r(4), Θ(2), #s(4), s(8), z(3), j, j(8), l(10), #j(2), j(3), #k(3), #g(2), g(4), #w(2), w, ʔ, #h

Unstressed Coda: p#, m#, v(2), t, t#, t'#, d#, n(2), n#(7), s(6), j(2), j#, l(4), l#(2), k#, n, η, η#

Segment Total for Onsets and Codas

Onset: #pʰ(4), #p(2), p(6), #b(10), b(9), #m(3), m(6), #f(11), f(6), #v(2), v(3), #tʰ(3), #t(3), t(14), #d(6), d(5), tf, #dʒ, n(12), r, r(4), Θ(2), #s(19), s(10), #z, z(4), #j(3), j(28), #j#(4), l(28), #l(7), #l#(9), j(4), #kʰ(4), #k(3), #g(4), g(4), #w(3), w(7), #w, ʔ, #h(2)

Coda: p, p#, b#, m, m#, f, f#, v#, t, t#, t'#, d#, d', tʃ#, tf#, n(11), n#(15), s(5), s#(6), z#, j#(3), j(6), j#(2), l, l#(2), l(7), tʃ#(4), k(3), k#, η, η, h#

Segment Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllabic Segment: #p, p(2), #pʰ, #b(2), b, m, #f, m#, #f, #v, #tʰ, t#(2), t#, #d(2), d#, s(11), s(4), #z, #f(2), j(13), #j(4), l(8), #l(5), #l#, #l#(2), #l#(2), #l#(3), #kʰ(2), k#, g, #g, w(3), #w

First Syllable Segment Stressed: #pʰ(3), #p, #b(6), #m, m, #f(7), f, #v, #tʰ, #t, #d(2), #dʒ, n(8), #s(11), s(4), #z, #f(2), j(13), #j(4), l(8), #l(5), #l#, #l#(2), #l#(3), #kʰ(2), k#, g, #g, w(3), #w

First Syllable Segment Unstressed: #b(2), #m(2), #f(3), #t(2), t, #d(2), n, #s(4), l(4), #l(3), #j(2), #k#, #g(2), #w(2), #h

Second Syllable Segment Stressed: b(2), v#, t', t#(2), t, d(3), d'#, n#(3), n(3), s(2), z, j(2), j(6), j#, l#, l(7), j, w

Second Syllable Segment Unstressed: p(4), p#, b(5), m#, m(5), #m#, #f, f(4), v, v#, t(9), t#, t', d#, #dʒ, n(4), #s(4), #z, #j(2), j(6), j#, l#, l(7), j, w

Third Syllable Segment Stressed: l

Third Syllable Segment Unstressed: p, b(2), m, m#, f(2), v(2), t(3), t#, n(6), n#(2), #s, s(2), z(2), j(5), l, l#, l(5), l, #l#, #l#(2), j(2), k(2), #k#, g(2), #g

Fourth Syllable Segment Stressed: η

Fourth Syllable Segment Unstressed: n#, #η, r, Θ, s#, #j, j, #η#(4), #η, r(3), s(6), #s(2), z, j(5), j#, l#, l(5), l, #l#, #l#(5), j, k, k#, g(2), g, #g

Fifth Syllable Segment Stressed:

∅
Fifth Syllable Segment Unstressed: t

e¹#

Segment Total by Syllable

First Syllable Segment: #pʰ(3), #p, #b(8), #m(3), m, #f(10), f, #v, #tʰ, #t(3), t, #d(4), #d₃, n(9), #s(15), s(4), #z, #ʃ(2), j(13), #ʃ(4), l(12), #l(5), l₃(5), #l(6), #k(3), k(3), g #g(3), w(3), #w(3), h

Second Syllable Segment: p(4), p#, b(7), m#, m(5), #ŋ#, f(4), v, v#(3), t(10), t’, #t₃(3), t”#, d₃#, n(7), #n(7), #ŋ(4), #ŋ, r(3), s(8), s#(2), z(2), j(2), j(11), #j(2), l(12), #l, t, ʃ, #ʃ(6), j(2), k, k#(2), g(2), w(2), ʃ

Third Syllable Segment: p, b(2), m, m#, f(2), v(2), t(3), t#, n(6), n#(2), #ŋ, #ŋ(2), Θ, s(2), s#(2), z(2), j(5), l(2), #l(2), #l(2), #ʃ(2), j(2), k(2), k#(2), g(2), ʃ, #ŋ

Fourth Syllable Segment: n#, n, #ŋ#, r, Θ, s#(2), ʃ, #ŋ

Fifth Syllable Segment: t

e¹#

Segment Stressed and Unstressed Total

Stressed Segment: #pʰ(3), #p, #b(6), b(2), #m, m, #f(7), f, #v, v#, #tʰ, #t, t’, #t₃(2), t, d(3), d₃#, #d(2), #d₃, n(12), n#(3), #s(11), s(6), #z, z, #ʃ(2), j(2), j(19), #j(4), #l#, #l(16), #l(5), k(2), #j(4), j, #kʰ(2), k(3), g #g, w(4), #w

Unstressed Segment: p(5), p#, b(7), #b(2), #m(2), m(6), #ŋ#, f(6), #f(3), v(3), v#(2), t(14), #t₃(2), t#, t”#, d₃#, d#(2), #d(2), d₃#, n(11), n#(7), #ŋ(7), #ŋ(2), r(4), Θ(2), s(8), #s(4), s#(6), z(3), j, j(10), #j(10), l(14), #l(2), d, #d(2), j(8), j(3), #j(2), #k(3), k(3), k#(4), #g(2), #g(4), ʃ, #ŋ#, #w(2), w, ʃ, h

Supra-Segments: Consonant Clusters

Consonant Cluster Total for Stressed and Unstressed Syllables and Monosyllables according to Syllable Configuration

581
Monosyllable Consonant Cluster Onset (all entries are word initial): #pr, #pʰj, #b₁, #bl, #fl, #v₁, #spl, #sl, #sw, #kʰw, #g₁

Monosyllable Consonant Cluster Coda (all entries are word final): pf#, st#, f#, t#

First Syllable Consonant Cluster Stressed Onset (all entries are word initial): #pʰj, #b₁(2), #b₂j(3), #f₁j(3), #fl(2), #tw, #sw(2), #sp, #kʰj

First Syllable Consonant Cluster Stressed Coda:

First Syllable Consonant Cluster Unstressed Onset (all entries are word initial): #fl, #kl, #gl

First Syllable Consonant Cluster Unstressed Coda:

Second Syllable Consonant Cluster Stressed Onset: b₁, d₁, st

Second Syllable Consonant Cluster Stressed Coda: nt#

Second Syllable Consonant Cluster Unstressed Onset: pl, t₁, st, st₁

Second Syllable Consonant Cluster Unstressed Coda:

Third Syllable Consonant Cluster Stressed Onset:

Third Syllable Consonant Cluster Stressed Coda:

Third Syllable Consonant Cluster Unstressed Onset: b₁, st₁

Third Syllable Consonant Cluster Unstressed Coda: nt#, #ns#, nk#

Fourth Syllable Consonant Cluster Stressed Onset:

Fourth Syllable Consonant Cluster Stressed Coda:

Fourth Syllable Consonant Cluster Unstressed Onset:

Fourth Syllable Consonant Cluster Unstressed Coda:

Fifth Syllable Consonant Cluster Stressed Onset:

Fifth Syllable Consonant Cluster Stressed Coda:

Fifth Syllable Consonant Cluster Unstressed Onset:

Fifth Syllable Consonant Cluster Unstressed Coda:

Consonant Cluster Total for Stressed and Unstressed Onsets and Codas

Stressed Onset: #pʰj, #b₁(2), #b₂j(3), b₁, #f₁j(3), #fl(2), #tw, d₁, #sw(2), #sp, st, #kʰj

Stressed Coda: nt#

Unstressed Onset: pl, b₂, #fl, t₁, st, st₁(2), #kl, #gl

Unstressed Coda: nt#, #ns#, nk#

Consonant Cluster Total for Onsets and Codas

Onset: #p, #pʰj(2), pl, #b₁(4), #b₂j(3), b₁j(2), #f₁j(3), #fl(4), #w₁, #tw, t₁, d₁, #sp, #spl, #sl, #sw(3), st(2), st₁(2), #kʰw, #kʰj, #kl, #gl, #g₁

Coda: pf#, #nt(2), st#, f#, #ns#, t#, nk#

Consonant Cluster Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllable Consonant Cluster: #p, #pʰj, pf#, #b₁, #b₂j, #fl, #w₁, #spl, #sl, #sw, st#, f#, t#, #kʰw, #g₁

First Syllable Consonant Cluster Stressed: #pʰj, #b₁(2), #b₂j(3), #f₁j(3), #fl(2), #tw, #sw(2), #sp, #kʰj

First Syllable Consonant Cluster Unstressed: #fl, #kl, #gl

Second Syllable Consonant Cluster Stressed: b₁, d₁, nt#, st

Second Syllable Consonant Cluster Unstressed: pl, t₁, st, st₁

Third Syllable Consonant Cluster Stressed:

Third Syllable Consonant Cluster Unstressed: b₁, nt#, st₁, #ns#, nk#

Fourth Syllable Consonant Cluster Stressed:

Fourth Syllable Consonant Cluster Unstressed:

Fifth Syllable Consonant Cluster Stressed:

Fifth Syllable Consonant Cluster Unstressed:

Consonant Cluster Total per Syllable
First Syllable Consonant Cluster: \#p\textsuperscript{3}j, \#bl(2), \#bj(3), \#fu(3), \#fl(2), \#fl, \#tw, \#sw(2), \#sp, \#k\textsuperscript{3}j, \#kl, \#gl

Second Syllable Consonant Cluster: pl, bj, tj, dz, nt#, st(2), st

Third Syllable Consonant Cluster: bj, nt#, st, jns#, \#\k

Fourth Syllable Consonant Cluster:

Fifth Syllable Consonant Cluster:

Consonant Cluster Stressed and Unstressed Total

Consonant Cluster Stressed: \#p\textsuperscript{3}j, \#bl(2), \#bj(3), \#fu(3), \#fl(2), \#tw, dz, nt#, \#sw(2), \#sp, st, \#k\textsuperscript{3}j

Consonant Cluster Unstressed: pl, bj, \#fl, tj, nt#, st, st(2), jns#, \#kl, \#gl, \#\k

Consonant Cluster Total (absolute)

Narrow: pl, \#p\textsuperscript{3}j(2), \#pr, \#pf#, \#bj(4), bj(2), \#bl(3), \#fl(4), \#fj(3), \#vu, \#tw, tj, dz, nt#, \#nt#, \#spl, \#sp, \#sl, \#sw(3), st#, st(2), st(2), \#f#, \#j#, \#jns#, \#t#, \#k\textsuperscript{3}w, \#kl, \#k\textsuperscript{3}j, \#gj, \#gl, \#\k

Broad: pl, pu(3), pf, bx(6), bl(3), fl(4), fj(3), \#v, \#tw, tj, dz, nt(2), spl, sp, sl, sw(3), st(3), st(2), \#j, \#jns, \#lt, \#kw, \#kl, \#gj, \#gl, \#\k

Supra-Segments: Whole Syllables

Whole Syllable Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllable Whole Syllable:

#prin#, \#li'm#, \#\j

#flt#, \#t'rz#, \#t'jf#, \#swp#. \#fj1#

\#k\textsuperscript{3}e'b#

\#helt#

\#p\textsuperscript{3}jast#, \#lal#

\#j3jf#

\#daen#

\#a'te#, \#bla'tf#, \#da'tf#, \#sal#, \#ga't#,

\#bral#, \#va't#, \#slat#, \#splat#, \#ja"#, \#k"wan#, \#wan#

First Syllable Whole Syllable Stressed (all entries are word initial):

\#p\textsuperscript{3}j, \#bj(2), \#flu, \#fj1k, \#il, \#k\textsuperscript{3}ju,

\#su"(2), \#fu,

\#bt, \#bu, \#bn, \#fj1, \#vt, \#dv1, \#s1, \#sin, \#fj1, \#j1m, \#lt, \#ji, \#win,

\#p\textsuperscript{3}el, \#je1,

\#lo",

\#p\textsuperscript{3}jek, \#me, \#djes, \#dje#, \#jes, \#jel,

\#fl,

\#blæs, \#flæn, \#fæg, \#dæn, \#sæn, \#zæs, \#læ, \#jæk,

\#fle1, \#t\textsuperscript{3}e1, \#t\textsuperscript{3}a#1, \#twæ1, \#sa(2), \#ja1,

\#swæj, \#swaf, \#spa1, \#sa, \#ja, \#la(2), \#ja, \#k\textsuperscript{3}a#, \#gæj

First Syllable Whole Syllable Unstressed (all entries are word initial):

\#fl, \#di1, \#sl1,

\#mu", \#tu", \#ju",

\#be1,

\#son, \#ho",

\#a(2), \#ba, \#ma, \#tæ, \#da, \#sa, \#gæ,

\#fle-

\#kle, \#gle,

\#fl,

\#at,

\#a(2), \#sat, \#jat, \#ka, \#kat, \#wa(2)

583
Second Syllable Whole Syllable Stressed: niʃv#, Ju"i#, Ju"n#, Ju"#, lu#(2),
mI, sI, sI#, lI,
te#, zeI, je'd`#, jeI, le(I)(2),
dIο,
de, se,
æ, de'j#,
baI, ba't`, wa't#,
ra#, lan, la#, jan#

Second Syllable Whole Syllable Unstressed:
piI#, biI#, miI#, ti'I#, ti'k#, siI#, jiI,
pI"v#, bI"m#,
msI#, nIp#, zI#,
o"#, tIa"#, lI"#,
a(2) pla, bI-, bIa#, mI#(2), fI#(2), fI#(2), v#n, tas#, ta, da, d#(2), na, na#, nI#(2), ra(2), rI#(2), stI#n#, s#n#, st#n#, ja, ga, gI#(2), ʔ#n#, 
pIa#, ba#, fa(2), ta#d#,
es#,
maI, naI, la't`, wa#,
aI#, taI#, sta#, san#, lav#, la, jan#, kan#

Third Syllable Whole Syllable Stressed:
leI

Third Syllable Whole Syllable Unstressed: niI, ΘI#,
vI#,
lIk#, jIn#, 
meI, zeI#,
æ, pI#n#, bIa#, fI#(2), tI#n#, na#(2), s#n#t#, z#I#(2), ja#, ka#,
æ#, fa-, va#,
nes#,
gI#n#,
æI#, bai, taI#, stI#, ja#, kam#, gænk#

Fourth Syllable Whole Syllable Stressed:
na

Fourth Syllable Whole Syllable Unstressed:
Θ/n#,
ri#n#,
æs#, *n#, jas#

Fifth Syllable Whole Syllable Stressed:

Fifth Syllable Whole Syllable Unstressed:
teI#

Whole Syllable Total per Syllable

First Syllable Whole Syllable (all entries are word initial):
pI#I, #bIi/(2), #fIi, #fIi/k, #fIi, #dIi, #sIi, #liI, #kI"IiI,
#muI", #tuI", #suI"(2), #jIu,
#bI1, #bI1, #bI1n, #fI1, #vI, #dI, #sI1, #sI1n, #fI1n, #I1, #jI, #wI1n,
#pIeI, #beI, #IeI, 
#son, #loI", #hoI",
#a(2), #ba, #ma, #ta, #da, #sa, #ga, 
#fIa,
#pIjek, #me, #dIes, #dIe", #Ies, #jeI, #kIe, #gIe,
#fIa(2),
Whole Syllable Stressed and Unstressed Total

#blæs, #flæn, #fæg, #dæn, #sæn, #zaes, #læ, #jæk,
#at, #flæl, #t'æl, #twæt, #sa(2), #jæl,
#a(2), #sdæ, #swæj, #swaf, #spæj, #sa, #ja, #la(2), #ja, #jat, #ka, #kal, #k'æn, #gæj, #wa(2)

Second Syllable Whole Syllable:
pi#, bi#, mi#, ti#', ti'#, ni'#, si'#, j1',
pu'v#, bnu'm#, fu'n#, ju'n#, lu'n(2),
mi#, m#l, n#p, s#, snt#, ztt#, l1,
t#, ze#, ve'd#, le'#, o'#, du'o', tf'o'#, lo'o#,
a(2) pla, b'm, bma, m'v#, f'M#, frm#, v'n, tas#, ta, da, d'v#, na, n##, ra(2), r#', st'n#, s'nt#, st't#, ja, ga, g'v#, ṭ'#,
p##, b#a, fa(2), t#d#,
e's#, de, je,
æ, dæ'l#,
ba#, ba't#, ma#, la't#, wa#, wat#,
a#, tak#, sta#, san#, ja#, lan, la#, lav#, la, jan(2)#, kan#

Third Syllable Whole Syllable:
i#, ð'i#,
v'#,
l1k#, j1n#,
me#, ze'#, le'#, a, p#', b#a#, f'#, t'#, n#(2), s'nt#, z'#, j#, k#,
a#, fa, v#a#,
#es#,
gæ'i#,
a#h#, ba, t(ans#), st(an#), ja#, kam#, gan'k#

Fourth Syllable Whole Syllable:
ð'i#,
ri#'#, as#, #η#, jas#,
na

Fifth Syllable Whole Syllable:
te'#

Whole Syllable Stressed:
#p'#, #bi(2)#, #fi#, #fui'k, ni'v#, #l#'l, #k'j'i',
#su(2)#, #fu, Ju'n#, fu'n#, ju'n#, lu'n(2),
#blt, #bi', #bin, m#, #t, t'v, #d, #s, #s#, snt#, s'n#, m#1, l1, l, #j1, #w1, #p'e', te#, ze#, #je#, je', je'd', le'(#(2), le',
#d1o#, #lo'o#,
#p'jek, #me, de, #d'es, #d'et, je, #jes, #je't,
#fla',
æ, #blæs, #flæn, #fæg, #dæn, dæ'l#, #sæn, #zaes, #læ, #jæk,
ba', ba't', #flæl, #t'a', #twæt, #sa(2), #jæl, wa#,
na, #swæj, #swaf, #spæj, #sa, #ja, ja#, lan, la#, la(2), #ja, jan#/#k'æn, #gæj

Whole Syllable Unstressed:
pi#, bi#, mi#, fi#, ti#', ti'#, ni'#, si'#, ð'i#, ð'i'n#, j1',
pu'v#, bnu'm#, #mu'#, vu'u#, #tu', #ju'*,
mi#, n#p, ri#'#, ztt#, l1k#, j1n#,
#be', me#, te#, ze'#, o'#, tf'o'#, #son, lo'#, #ho'x,
a(3), #a(2), as#, pla, p#n#, b#, bma(2), #ba, m#', #ma, f'(#(2), t#v#, v'n, tas#, ta, #ta, t'##, #da, da, d'v#, na, n#(3), n##, #nt#, ra(2), r#',
#sa, st'n#, s'nt#, st't#, s'n#, z'#, jas#, ja, jæ#, kæ#, ga, #ga, g'v#, ṭ'#,
Supra-Segments: Whole Words

Whole Word Total per Word Length

Whole Monosyllables:

tihs [tʰɪʃ], shin [ʃɪn], yah [jə], preen [prɪn], splaht [splaht], yorsh [ʃɔʃ], pruhlst [pʰʌlst], helt [hɛlt], ites [aɪts], brah [brah], swipf [swipf], leem [liːm], grite [ɡaɪt], slahl [sloʊf], fit [flɪt], dan [dæn], lull [lʊl], wahn [wʌn], bloosh[blɔst], jee [ʃiː], kwahn [kʰwʌn], sahl [sɔl], tihz [tʰɪtʃ], vraht [ˈvʊət], dowch, [dətʃ], kabe [kʰəb]

Whole Bisyllables:

JELbroon [dˌɛl-ˌbʌm], WINstrum [wɪn-ˈstrʌm], LOWsun [ˈloʊ-ˈsʌn], BLASurd [ˈbлас-ˌtæd], FRIHul [ˈfri-ˌrʌl], SHOOawah [ˈʃu-ˌwa], FLYtus [ˈfli-ˌtʌs], LAHpee [ˈlæ-ˌpi], YAHstah [ˈja-ˌstə], BUNDahl [ˈbʌnd-ˌdʌl], SHIHnahl [ˈʃɪn-ˌtɑk], YAKmeec [ˈjæk-ˌmiːk], SINtree [ˈsɪn-ˌtɪr], YELbee [ˈjɛl-ˌbɪ], LEETuhl [ˈli-ˌtʊl], SOOess [ˈsu-ˌes], BREEo [ˈbri-ˌoʊ], PREKahn [ˈpʌrək-ˌson], FLANteek [ˈflæn-ˌtɛk], SOOom [ˈsu-ˌom], GAHRmin [ˈɡaɪ-ˌmɪn], TYPoov [ˈtʰæ-ˌpuv], RAYahr [ˈreɪ-ˌaʊ], SAHmul [ˈsa-ˌmʌl], LAZit [ˈlæ-ˌzɪt], RIMfum [ˈrɪm-ˌfʌm], BREElit [ˈbriː-ˌlɪt], JESSlahv [ˈdʒɛs-ˌlæv], DIHul [ˈdɪ-ˌfʌl], SHANsec [ˈʃæn-ˌsɛk], RAHlow [ˈræ-ˌləʊ], RYBur [ˈrʌ-ˌbɜːr]
## Segments

### Segment Total for Stressed and Unstressed Syllables and Monosyllables according to Syllable Configuration

<table>
<thead>
<tr>
<th>Segment Configuration</th>
<th>Syllable Segments</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Syllable Segment Stressed Onset:</td>
<td>p, #pʰ(4), #b(8), #m, #f, f(3), v, tʰ, n, s, j(2), j(3), h(2), k</td>
</tr>
<tr>
<td>First Syllable Segment Stressed Nucleus:</td>
<td>i(3), u&quot;(4), u&quot;#, #t(3), #d(3), #z, #j(9), #l(11), #f(9), #kʰ(11), k, #w(10), w(3), #h(2)</td>
</tr>
<tr>
<td>First Syllable Segment Stressed Coda:</td>
<td>p, m(3), v, n(8), s, j(2), j(3), h(2), k</td>
</tr>
<tr>
<td>Second Syllable Segment Stressed Onset:</td>
<td>pʰ(4), b(2), f(3), v, tʰ, n, s, j(3), l, j, kʰ, w(2)</td>
</tr>
<tr>
<td>Second Syllable Segment Stressed Nucleus:</td>
<td>i(2), u&quot;(6), u&quot;#, #t(9), e(3), o, o&quot;(2), æ, e(9), #n, æ, æ(10), a&quot;, #a(3), a(10)</td>
</tr>
<tr>
<td>Second Syllable Segment Stressed Coda:</td>
<td>m#, d#, d̂#, n(2), z#, #j(2), i(2)</td>
</tr>
<tr>
<td>Third Syllable Segment Stressed Onset:</td>
<td>m, n</td>
</tr>
<tr>
<td>Third Syllable Segment Stressed Nucleus:</td>
<td>i(2)</td>
</tr>
<tr>
<td>Third Syllable Segment Stressed Coda:</td>
<td>m#, n(3), t, r, s, z, j(4), l(3), j(2), k, g, w</td>
</tr>
<tr>
<td>Fourth Syllable Segment Stressed Onset:</td>
<td>n</td>
</tr>
<tr>
<td>Fourth Syllable Segment Stressed Nucleus:</td>
<td>e</td>
</tr>
<tr>
<td>Fourth Syllable Segment Stressed Coda:</td>
<td>n(3), t, r, z, j(2)</td>
</tr>
<tr>
<td>Fifth Syllable Segment Stressed Onset:</td>
<td>s(2), k#</td>
</tr>
<tr>
<td>Fifth Syllable Segment Stressed Nucleus:</td>
<td>e#</td>
</tr>
<tr>
<td>Fifth Syllable Segment Stressed Coda:</td>
<td>s(2), k#</td>
</tr>
</tbody>
</table>

### Question ID: b.

Segment Total for Stressed and Unstressed Onsets and Codas

| Stressed Onset: | p, #pʰ(4), pʰ(2), #b(8), b(2), #m, m, #f, f(3), v, tʰ, d̂#, n(3), #s(8), s, #z, #j(9), l(10), j, #kʰ(11), kʰ, k, #w(10), w(5), #h(2) |

| Stressed Coda: | p, m(3), m#, v, d̂#, d̂, n(10), s, z#, j(5), t#, k(2), k |
Unstressed Onset: #p, p, #b(3), b(9), m(4), f(5), #v, v(3), t(6), tʰ, #d(2), d(4), n(6), r, r(5), ő, #s(3), s(4), z(2), j(4), ʃ(16), l(16), ʃ(6), j(3), k(4), #g, g(2), w(2), #h(4)

Unstressed Coda: p#, f#, v#, d’#(2), n(2), n#(4), s#(7), z#, j#(2), i, j#(3), t#(2), k#(4), η#

Segment Total for Onsets and Codas
Onset: #p(2), #pʰ(5), pʰ(2), p(2), #b(15), b(11), #m(3), m(7), #f(2), f(8), #v(3), v(4), #tʰ(3), t(6), tʰ(2), #d(6), d(4), #n, n(9), r, r(5), ő, #s(16), s(5), #z, z(2), j#(4), j(26), #l, l(29), #j, j(4), #kʰ(14), kʰ, k(5), #g, g(2), #x, #w(13), w(9), #h(6)
Coda: p, p#(2), b#(2), m(3), m#, f#(2), v, v#, t#(5), d#, d’#(3), j#(2), n(12), n#(8), Ș#, s(2), s#(8), z#(4), j(2), j#(5), j(8), i#(6), ʃ(4), t#(2), k, k#(4), g#, η#

Segment Total for Stressed and Unstressed Syllables and Monosyllables
Monosyllabic Segment: #p, #pʰ, p#, b#(2), #b(4), #m(2), m(2), f#, #f, #v(2), t#(5), d#, j#(4), n#, n(8), #s(8), s, s#(5), z#(2), j#(3), j(3), i#(1), l(3), t(2), #j, #kʰ(3), g#, #x, #w(3), w(2)

Segment Total by Syllable
First Syllable Segment Stressed: p(2), #pʰ(4), #b(8), #m, m(3), #f, v, #tʰ(3), #d(3), #n, n(8), #s(8), s, #z, #ʃ, j(2), j(9), l(9), h(2), #kʰ(11), k(2), #w(10), w(3), #h(2)

First Syllable Segment Unstressed: #p, #b(2), #v, #d(2), n(2), #s(3), j(2), l(2), #g, w, #h(4)

Second Syllable Segment Stressed: pʰ(2), b(2), m#, f(3), v, tʰ, d#, d’#, n(3), s, z#, j(5), i#(2), l, j, kʰ, w(2)

Second Syllable Segment Unstressed: p, b(8), m(4), #ș#(3), f(5), f#, #v#, v(2), d(3), d’#(2), n#(2), n(3), #ș#(2), #ș, r, ő, s(3), s#(2), z#, z, j(3), j#(2), j(9), ʃ(11), l(6), #ʃ, #ʃ(7), j, j(3), k(3), k#(2), g

Third Syllable Segment Stressed: m, n

Third Syllable Segment Unstressed: p#, b, #ș#(3), f, tʰ, d, n(3), n#(2), #ș#(3), r, r(3), s, s#(3), z, j, j#(4), i#(2), l(3), #ʃ, #ʃ(2), j(2), k, k#, g, #ș#, w

Fourth Syllable Segment Stressed: n

Fourth Syllable Segment Unstressed: #ș#(2), t, r, s#(2), z, j(2), k#

Fifth Syllable Segment Stressed:

Fifth Syllable Segment Unstressed: t

ε

Segment Total by Syllable

589
First Syllable Segment: p(2), #pʰ(4), #p, #b(11), #m, m(3), #f, #v, #tʰ(3), #d(5), #n, n(10), #s(11), s, #z, #ʃ, j(2), ʃ(11), l(2), #kʰ(11), k(2), #g, #w(10), w(4), #h(6)

Second Syllable Segment: p, pʰ(2), b(10), m(4), m#, ṭ#(3), f(8), f#, v#, v(3), tʰ, d#, d(3), tʰ#(3), n(#)(), n(6), n#(2), r, ɹ(4), s#(2), z#(2), z, j(3), f#(2), ʃ(14), l(#3), l(12), h(6), #, ʃ(7), ʃ, j(2), k(3), k#(2), k#, g, w(2)

Third syllable Segment: p, b, m, n, r, s#(2), z, j(2), k#

Fourth Syllable Segment: *n#, t, n, r, s#(2), z, j(2), k#

Fifth Syllable Segment: t

Segment Stressed and Unstressed Total

Stressed Segment: p(2), #pʰ(4), pʰ(2), #b(8), b(2), m#, #m, m(4), #f, f(3), v(2), #tʰ(3), tʰ, #d(3), d#, d#(2), #n, n(13), #s(8), s(2), #z, #ʃ, j(2), ʃ(14), l(2), h(2), j, #kʰ(11), kʰ, k(2), #w(10), w(5), #h(2)

Unstressed Segment: p, #p, p#, #b(3), b(9), m(4), *m#(6), f(5), f#, #v, v#, v(3), t(6), tʰ, d#(2), d(4), d#(2), n#(4), n(8), *n#(5), *n, r, r(5), ɹ, s(4), s#(3), s#(7), z#, z(3), f(4), j(2), j(17), j, (#3), l(16), h(6), #j#(9), #j#(3), k#(4), g(2), #g, #n, w(2), #h(4)

Segment Total (absolute)

Narrow: p(3), #p(2), #pʰ(2), #pʰ(5), pʰ(2), #b(15), b(11), #b(2), #m(3), m(10), m#, *m#(6), #f(2), f(8), f#(2), #v(2), v#, v(5), t(6), #tʰ(3), tʰ(2), t#(5), d(4), d#, d#(3), #f(8), n(21), *n#(5), *n, r, r(5), #$, ɹ, s(16), s#(8), #z, z#(4), z(3), #ʃ(3), f(6), #ʃ(5), #ʃ(34), l(#6), l(29), l(10), h#(2), #ʃ(9), #ʃ, j(4), #kʰ(14), kʰ, k(6), k#(4), g(2), #g, g#, #n, #x, #w(13), w(9), #h(6)

Broad: p(14), b(28), m(20), f(12), v(8), t(16), d(14), tʃ, n(36), r, r(5), ɹ, s(31), z(8), #ʃ(14), j(40), l(30), h(22), j(5), k(25), g(4), #n, x, w(22), h(6)

First Syllable Cluster Unstressed Coda: t(20), t(23), el(10), o, o(12), a(28), a(13), el(19), l(2), x(3), #e(13), a(11), a(34)

Supra-Segments: Consonant Clusters

Consonant Cluster Total for Stressed and Unstressed Syllables and Monosyllables according to Syllable Configuration

Monosyllable Consonant Cluster Onset (all entries are word initial): #pʰ, #b, #b₁, #sm(2), #sl, #ʃw, #kʰw
Monosyllable Consonant Cluster Coda (all entries are word final): nt#(2), st#, #ʃj#(2), #hw#

First Syllable Cluster Stressed Onset (all entries are word initial): #pʰ, #b₁(5), #fl, #tʰ(2), #d, #s₁, #sk, #spl, #sw(2), #kʰw
First Syllable Cluster Stressed Coda: #pʰ, #bl₁, #gw
Second Syllable Consonant Cluster Stressed Onset: pʰl
Second Syllable Consonant Cluster Stressed Coda:

Second Syllable Consonant Cluster Unstressed Onset: vɬ, st(2)
Second Syllable Consonant Cluster Unstressed Coda: ηs#

Third Syllable Consonant Cluster Stressed Onset:
Third Syllable Consonant Cluster Stressed Coda:

Third Syllable Consonant Cluster Unstressed Onset: dɬ, kw
Third Syllable Consonant Cluster Unstressed Coda:

Fourth Syllable Consonant Cluster Stressed Onset:
Fourth Syllable Consonant Cluster Stressed Coda:
Fourth Syllable Consonant Cluster Unstressed Onset:
Fourth Syllable Consonant Cluster Unstressed Coda:

Fifth Syllable Consonant Cluster Stressed Onset:
Fifth Syllable Consonant Cluster Stressed Coda:
Fifth Syllable Consonant Cluster Unstressed Onset:
Fifth Syllable Consonant Cluster Unstressed Coda:

Consonant Cluster Total for Stressed and Unstressed Onsets and Codas

Stressed Onset: #pʰl, #b(5), #fl, #tʰɬ(2), #dɬ, #sɬ, #sk, #spl, #sw(2), #kʰʃ(2), #kʰw

Stressed Coda:

Unstressed Onset: #pl, #bl, #bɬ, vɬ, dɬ, st(2), kw, #gw

Unstressed Coda: ηs#

Consonant Cluster Total for Onsets and Codas

Onset: #pʰl(2), #pl, #bɬ(7), #bɬ(2), #fl, vɬ, #tʰɬ(2), #dɬ, dɬ, #sm(2), st(2), #sɬ, #sk, #spl, #sw(2), #sl, #fw, kw, #kʰʃ(2), #kʰw(2), #gw

Coda: nɬ#(2), ns#, st#, ʃtʃ#, ʃb#

Consonant Cluster Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllable Consonant Cluster: #pʰl, #bl, #bɬ, nɬ#(2), #sm(2), #sl, st#, #fw, ʃtʃ#, ʃb#, #kʰw

First Syllable Consonant Cluster Stressed: #pʰl, #b(5), #fl, #tʰɬ(2), #dɬ, dɬ, #sɬ, #sk, #spl, #sw(2), #kʰʃ(2), #kʰw
First Syllable Consonant Cluster Unstressed: #pl, #bl, #bɬ, #gw

Second Syllable Consonant Cluster Stressed: pʰl
Second Syllable Consonant Cluster Unstressed: vɬ, ηs#, st(2)

Third Syllable Consonant Cluster Stressed:
Third Syllable Consonant Cluster Unstressed: dɬ, kw

Fourth Syllable Consonant Cluster Stressed:
Fourth Syllable Consonant Cluster Unstressed:

Fifth Syllable Consonant Cluster Stressed:
Fifth Syllable Consonant Cluster Unstressed:

Consonant Cluster Total per Syllable

First Syllable Consonant Cluster: #pʰl, #pl, #bɬ(6), #bɬ, #fl, #tʰɬ(2), #dɬ, #sɬ, #sk, #spl, #sw(2), #kʰʃ(2), #kʰw, #gw

Second Syllable Consonant Cluster: pʰl, vɬ, ηs#, st(2)

Third Syllable Consonant Cluster: dɬ, kw

Fourth Syllable Consonant Cluster:
**Fifth Syllable Consonant Cluster:**

<table>
<thead>
<tr>
<th>Consonant Cluster Stressed and Unstressed Total</th>
</tr>
</thead>
</table>

**Consonant Cluster Stressed:** #pʰ, pʰl, #bl(5), #fl, tʰʃ(2), #dʒ, #sk, #spl, #sw(2), #kʰʃ(2), #kʰw

**Consonant Cluster Unstressed:** #pl, #bl, #bj, vɨ, dj, ɲs#, st(2), #gw, kw

**Consonant Cluster Total (absolute)**

Narrow: #pʰl(2), #pl, pʰl, #bl(7), #bɹ(2), #dʒ, dj, nt#(2), ɲs#, #sm(2), #sl, st#, st(2), #sʃ, #sk, #spl, #sw(2), #fʃ, ɬʃ, ɬv#, ɬb#, kw, #kʰw(2), #kʰʃ(2), #gw

Broad: pl(4), bl(7), b(2), fl, vɨ, t(2), dʒ(2), nt(2), ɲs, sm(2), sl, st(3), ʃ, sk, spl, sw(2), fʃ, ɬʃ, ɬv, ɬb, ka(2), kw(3), gw

---

### Supra-Segments: Whole Syllables

**Whole Syllable Total for Stressed and Unstressed Syllables and Monosyllables**

**Monosyllable Whole Syllable:**

#bɹi#, #mi#⁻, #smi#⁻ł#, #ʃwi#⁻st#,

#uːʷz#, #fuʷʃ#, #vuʷł#, #duʷf#, #smuʷł#, #xu#, #wu#⁷,

#kʰwe#, #oʰt#, #soʰnt#,

#jɚb#, #wɚʃ#, #vɛʲɹ#, #bɛł#, #bleʃ#, #pan#, #məp#, #slaⁿt#, #faⁿ#, #laʃ#, #uəθ#, #pʰlət#, #bəz#, #sən#, #kʰɔʃ#

**First Syllable Whole Syllable Stressed (all entries are word initial):**

#l#, #pʰl#, #ml#, #u“, #tʰu“, #su“l, #zu“, #kʰu“(2), #bln, #fltm, #spl#, #swn, #sw(2), #wɪn, #hɪm, #ble¹(2),

#pʰl#, #blo“, #kʰo“,

#swɑ, #pʰɛ, #blk, #dɛ(2), #nɛ, #kʰɛ, #wɛl,

#x, #bɬ, #kʰɬ,

#pʰlɛn, #bæ, #dʒæ, #skæ, #sæ, #kʰwæ, #kʰɛs, #kʰæs, #kʰæ, #wæv,

#tʰaⁿ, #a(2), #aʃ, #bɑ, #tʰəm, #sɑ, #sʃan, #kʰa, #wa, #waf, #wan, #haʃ

**First Syllable Whole Syllable Unstressed (all entries are word initial):**

#l#, #hu“, #sn, #sɬ, #wɬ,

#kʰɛn, #ho“, #a(2), #pla, #bjə, #bə, #və, #da, #sə,

#sə, #ɛ, #dəl, #həl,

#a(2), #an, #bla, #gwɑʃ, #hɑ

**Second Syllable Whole Syllable Stressed:**

#fɬ, nɬ#, #wɬ, #fu“, #pʰl, tʰn,
fe', se'd#', je', we'd#, 
ap, 
be'; ve'l#, jez#, 
kʰ, 
fa'l, 
pʰl, 
ban, t'ɑ, jam#, ja

Second Syllable Whole Syllable Unstressed: 
bi¹#, mi¹#, vi¹#, ti¹#, di¹#, zi¹#, j'i¹#(2), li¹#, 
f'i¹#, 
bu"f¹#, ju"f¹#, ju", 
di¹#, fî¹#, ði¹#, ɪk¹#, l₁d¹#, 
je¹#, 
bu"o¹#, to"o¹#, lo"o¹(2), lo", 
pʰ#n¹#, bʰ#, ðî¹(2), ma, f¹#n¹#, t-n¹#, da, ra, s-n¹#, sta, j-n¹#, ja, j-ns¹#, j-n¹#, la, laf¹#, k-ʃ¹, ka, g-ʃ¹, 
b-ʃ¹(2), fa¹#, v-ɑ#, n-ɑ¹#, l-ɑ¹#, k-ɑ¹, 
ne₁#, le₁#, 
ba¹#, 
da¹#, na, sta¹, fan#

Third Syllable Whole Syllable Stressed: 
m-ɑ¹, ni¹, 
bae

Third Syllable Whole Syllable Unstressed: 
ni³#n¹#, ni¹#, ji¹, 
v-ɑ¹#, f₁s¹#, li, kw₁, 
t-ʃ¹#, 
t-n¹#, ta, ra, r-ʃ¹#, r-ɑ¹#, r-ak¹#, s-n¹#, za, j-ʃ¹#, las¹#, l-ja¹#, j-n¹#, g-n¹#, 
il¹#, 
as¹#, na'ʃ¹#, 
la¹#, jan¹, wa³#

Fourth Syllable Whole Syllable Stressed: ne

Fourth Syllable Whole Syllable Unstressed: 
t-ʃ¹#, ri²#, ji²#, 
ɪk²#, 
ə#, ɑs²#, ɑs²#, s-ʃ¹#, z-ʃ¹#

Fifth Syllable Whole Syllable Stressed: 

e³

Fifth Syllable Whole Syllable Unstressed: 

e⁵

Whole Syllable Total per Syllable

First Syllable Whole Syllable (all entries are word initial): 
#i¹(2), #pʰi¹, #mi¹, 
#u", #t"u"", #su"t", #zu"", #fu"", #kʰu"(2), #hu"", 
#in, #bîn, #flîn, #sî, #splî, #swîn, #wî(3), #wîn, #hîm, 
#ble'i(2), #kʰe'n, 
#pʰl, 
#blo", #kʰo", #ho", 
#a²(2), #pla, #bjə, #ba, #va, #da, #sa, 
#sə, #swə, 
#e, #pʰe, #blek, #dɛ(2), #ne, #kʰe, #wel, 
#ap, #ba,
Whole Syllable Unstressed:

#kʰʌ,
#pʰlaɛn, #bæ, #dæ, #skæ, #sæ, #kʰwæ, #kʰæs, #kʰje, #kʰæ, #wæv,
#tʰa^n, #daɻ, #haɻ,
#ə(4), #aɹ, #aɻ, #ba, #bla, #tʰjami, #sa, #sjan, #kʰa, #gwaj, #waɻ, #waʃ, #wan, #haɻ, #haɻ

Second Syllable Whole Syllable:

biʃ, miʃ, fiɻ, viʃ, tiɻ, diɻ, niɻ, əliʃ, liɻ, li, wiɻ,
\_ʃiɻ,
bu"ʃʃ, fu"#, ju"#, ju",
pʰʃ, dʃʃ, fʃʃ, tʰʃn, ðʃʃ, jʃk, lʃd, \_ʃeɻ,
feɻ, seɻd, #jeɻ, #jeɻ, weɻd,#
boʃ, toș, loʃ(2), lo"",
pʰʃ, bʰʃ, mʰʃ(2), ma, fʃɻ, tʰʃ, da, ra, sʰʃ, sta, jʃŋ, ja, jʃŋ, jʃŋ, la, laʃ, kʃl, ka, gʃl,
ə, baʃ(2), faʃ, vaʃ, naʃ, laʃ, ka,
bɛ:, veʃl, nɛʃ, jɛʃ, ldʃ, \_ʃoʃ,
\_k c, 
faʃ, 
pʰlaʃ, baʃ,#
bən, tʰa, daʃ, na, staʃ, jənʃ, jəmʃ, ja

Third Syllable Whole Syllable:

miɻ, niɻ, nɻ(2), jiɻ, 
\_vŋ#, \_ʃis#, ʃt, kwɻ,
tʰoʃ,
tʰŋ#, ta, ra, rʰ#, ras#, rak#, sʰŋ#, za, jʰ#, ləʃ#, lja#, jɾŋ#, gɾŋ#, 
dəʃ,
\_taʃ,
\_bə, 
\_nənʃ, 
\_təʃ, \_ʃanʃ, wapʃ

Fourth Syllable Whole Syllable:

tiʃ, riʃ, jiʃ, 
\_ʃtʃ,
\_əʃ, \_aʃ, \_ŋʃ#, \_zʃŋ#,
\_nɛ

Fifth Syllable Whole Syllable:

\_teʃ

Whole Syllable Stressed and Unstressed Total

Whole Syllable Stressed:

#iɻ, #pʰiɻ, #miɻ, miɻ, fiɻ, niɻ, niɻ, wiɻ,
#u", fu", #tʰju", #su"t, #zu", #fu", #kʰu"(2),
pʰʃ, \_bliʃ, #fliʃ, tʰʃn, #splʃ, #swiʃ, #wɨ(2), #wɨn, #hɪm,
#bəlɛ(2), \_feɻ, seɻd, #jeɻ, weɻd,#
\_pʰlaʃ, 
\_bloʃ, #kʰoʃ,
\_a, \_swaɻ, 
\_pʰe, bɛ:, \_blek, \_veʃl, #de(2), \_nɛ, \_neʃ, \_ʃeʃ, #kʰe, \_wɛɻ, 
\_əp, \_blɻ, 
\_kʰaŋ, kʰo, 
\_pʰlaɛn, \_bæ, \_bæl, \_fæɻ, \_dæɻ, \_skæ, \_sæɻ, \_kʰwæ, \_kʰæs, \_kʰje, \_kʰæ, \_wæv,
pʰlaʃ, \_tʰa^n, 
\_a(2), \_aɻ, \_ba, \_ban, tʰa, \_tʰjami, \_sa, \_sjan, jəmʃ, \_kʰa, ja, \_waɻ, \_waʃ, \_wan, \_haɻ

Whole Syllable Unstressed:

#iɻ, biʃ, miʃ, viʃ, tiʃ, diʃ, niɻ, niɻ, riʃ, ziʃ, jɻ, jiɻ, jɻ, liɻ, liʃ(2), li,
Segmental and Supra-Segmental Profile Data Sheet

**Segments**

Segment Total for Stressed and Unstressed Syllables and Monosyllables according to Syllable Configuration

Monosyllable Onset: #pʰ(2), #b(4), #m, #f(2), #d, #s, #ʃ, #ʒ, #j, #ʃ(2), #w, #w
Monosyllable Nucleus: i(2), r(2), #oⁿ, oⁿ#, e, æ(2), a, #a(2), #a
Monosyllable Coda: p, m, t#(2), #d, #g#, n#, s#, j, #ʃ(5), j, k#, g#

First Syllable Segment Stressed Onset: p, #pʰ(4), #b(4), #m(6), #f(4), f, #v, #tʰ(2), #d(3), #tʃ, #dʒ(3), #s(7), #ʃ(2), #j(2), #j(2), #ʃ(2), #ʃ(3), #d#, #t#, #k#, #k(6), #k(2), k#, #g(4), #w(2), w
First Syllable Segment Stressed Nucleus: i(6), uⁿ(3), r(9), eⁿ(3), oⁿ, æ(2), #æ, #e, æ(6), #æ, #æ(2), #æ(2), #a(3), a(11)
First Syllable Segment Stressed Coda: p, b, m(3), f, t, d(2), n(6), s, j, #j(6), l, k(3), #g, #ŋ

First Syllable Segment Unstressed Onset: #p, #b(5), #m(5), #f, #v, #dʒ, #n(2), j, #j(5), j, #k, #k(6), #g(3)
First Syllable Segment Unstressed Nucleus: i¹, u(2), uⁿ(2), #k(2), i, eⁿ(2), oⁿ, æ(2), #æ(2), #æ(2), #æ(2), #æ(2), #æ(2), a(3), a(4)
First Syllable Segment Unstressed Coda: m(2), d, n, s, j, #j(4), l, #n

Second Syllable Segment Stressed Onset: p, b(4), m(2), f(2), t(2), d⁵(6), d, dʒ, n, z(2), #j(6), l(2), j, kʰ, g
Second Syllable Segment Stressed Nucleus: i, i(3), uⁿ(2), #k(2), i, eⁿ(2), oⁿ, æ(2), æ(5), æ(4), a¹, a(3)
Second Syllable Segment Stressed Coda: b, m, d, #d, n#, #n(2), n, s#, j, #k(2)
Second Syllable Segment Unstressed Onset: p(5), b(3), m(4), f(6), r(9), t¹(2), d⁴, tʃ, dʒ(2), n(4), r(5), θ(2), s(6), z(3), j(2), #j(8), l(9), j(2), k, g(3), h
Second Syllable Segment Unstressed Nucleus: i¹, i(4), uⁿ, uⁿ(2), #k, j(9), eⁿ(2), oⁿ(2), æ(15), æ(4), #æ(2), #æ(2), #æ(2), #æ(2), #æ(2), #æ(2), a(4), #a(2), a¹, a(3), a#h
Second Syllable Segment Unstressed Coda: v#, t#(2), t¹#, d#, tʃ#, n#, n(6), n(2), s#, z#, j#, f#, j(3), #j(3), #k(2), x#

Third Syllable Segment Stressed Onset: f, tʰ, n, j, kʰ
Third Syllable Segment Stressed Nucleus: e, e¹, æ#, a, o(2)
Third Syllable Segment Stressed Coda: n, #n
Third Syllable Segment Unstressed Onset: p, b, m(3), v, t(4), tʰ, d⁴, dʒ, n(3), r, θ, s, z(2), j(3), #j, t#, l(5), j, k, g
Third Syllable Segment Unstressed Nucleus: i¹(2), i(4), vⁿ(3), oⁿ(3), a¹, #a(4), #a(3), #æ(2), #æ(2), #æ(2), #æ(2), #æ(2), #æ(2), a(6)
Third Syllable Segment Unstressed Coda: tʰ#, t#, d#, #d(3), n, #n(4), s#, z#, j#, #j(2), k#, #k(3), #k, #ŋ

Fourth Syllable Segment Stressed Onset: Fourth Syllable Segment Stressed Nucleus: Fourth Syllable Segment Stressed Coda:
Fourth Syllable Segment Unstressed Onset: t(4), d, n, r, j, l, k, g
Fourth Syllable Segment Unstressed Nucleus: i¹#, t#, oⁿ(3), a#, #a(3), #æ(3), #æ(3), #æ(3), a(6)
Fourth Syllable Segment Unstressed Coda: d#, k#

Fifth Syllable Segment Stressed Onset: Fifth Syllable Segment Stressed Nucleus: Fifth Syllable Segment Stressed Coda:
Fifth Syllable Segment Unstressed Onset: s
Fifth Syllable Segment Unstressed Nucleus: 1
Fifth Syllable Segment Unstressed Coda: s#
Segment Total by Syllable

First Syllable Segment: p(2), #p, #pʰ(4), #b(9), b, #m(11), m(5), #f(5), #f(2), #v(2), #tʰ(2), t, #d(3), d(3), #tʃ, #dʒ(4), #n(2), n(7), #ŋ(2), #s(7), s(2), z, #z(3), #ʃ, #x(3), #j(23), #l(7), t, #j, #kʰ(7), #k(8), #k(5), #g(7), g, ɡ, ɲ, #w(2), w

Second Syllable Segment: p(6), b(8), m(7), #ŋ(2), f(8), v#, t(9), tʰ(8), tʃ(2), #d(5), d#(2), ts#, tʃ, #dʒ(3), n#(8), n(8), #ŋ(2), r(5), θ(2), s(6), s#(3), z(5), z#, t(15), tʃ(3), l(11), #t, #tʃ(2), #t, (3), k³, k#(4), g(4), x#, h

Third Syllable Segment: p, b, m(3), f, v, t(4), tʰ(2), t#, d#(3), d(4), dʒ(5), n(6), n#(4), #ŋ(2), r, θ, s, s#(3), z#, t(2), j(3), #j, l(5), #t, #tʃ(3), j(2), k, k#(3), k³, k, g, ɲ

Fourth Syllable Segment: t(4), d, d#, n, #ŋ, #r, l, k, k#, g

Fifth Syllable Segment: s, s#

Segment Stressed and Unstressed Total

Stressed Segment: p(3), #pʰ(4), #b(4), b(6), #m(6), m(6), #f(4), f(5), #v, #tʰ(2), t(7), t, #d(3), d(3), d#, #tʃ, #dʒ(3), dʒ(5), n(10), n#(2), #s(7), s, #z(3), z(2), #ʃ, #x(2), j(22), #l(8), h(2), #ʃ, #kʰ(6), k²(2), #k(2), k(5), k#(2), #g(4), g, ɡ, ɲ, #w(2), w

Unstressed Segment: #p, p(6), #b(5), b(4), #m(5), m(9), #ŋ(2), #f, f(6), #v, v, v#, t(17), tʰ(3), tʃ(3), t#(2), d(10), d#, d#(4), ts#, tʃ, #dʒ(3), #n(2), n(10), n(12), #ŋ(4), #ŋ(3), r(7), θ(3), s(9), s#(6), z(6), z#(2), j(2), #ʃ(3), ʒ, #ʃ, s(26), #ʃ(4), l(16), #ʃ, #ʃ(5), #ʃ, #ʃ, j(3), #k³, #k(6), k(3), k#(6), k#, #g(3), g(6), ɲ#, x#, h

Supra-Segments: Consonant Clusters

Consonant Cluster Total for Stressed and Unstressed Syllables and Monosyllables according to Syllable Configuration

Monosyllable Consonant Cluster Onset (all entries are word initial): #b(2)
Monosyllable Consonant Cluster Coda (all entries are word final): mst#, ndʒ#

First Syllable Consonant Cluster Stressed Onset (all entries are word initial): #pʰl(2), #bl, #fj(3), #sk, #sp, #skl, #zl, #kl, #kʰw, #kʰj, #gj(3), #gl

First Syllable Consonant Cluster Stressed Coda:

First Syllable Consonant Cluster Unstressed Onset (all entries are word initial): #bj(3), #kj, #kʰj

First Syllable Consonant Cluster Unstressed Coda:

Second Syllable Consonant Cluster Stressed Onset: bj(2), tʰl(2), tj, gj

Second Syllable Consonant Cluster Stressed Coda: jk#

Second Syllable Consonant Cluster Unstressed Onset: pʃ, bj, bl, fj, st

Second Syllable Consonant Cluster Unstressed Coda: nt'#

Third Syllable Consonant Cluster Stressed Onset:

Third Syllable Consonant Cluster Stressed Coda:

Third Syllable Consonant Cluster Unstressed Onset: tj, st

Third Syllable Consonant Cluster Unstressed Coda: nd#, jd'#, jt#

Fourth Syllable Consonant Cluster Stressed Onset:

Fourth Syllable Consonant Cluster Stressed Coda:

Fourth Syllable Consonant Cluster Unstressed Onset:

Fourth Syllable Consonant Cluster Unstressed Coda:

Fifth Syllable Consonant Cluster Stressed Onset:

Fifth Syllable Consonant Cluster Stressed Coda:

Fifth Syllable Consonant Cluster Unstressed Onset:

Fifth Syllable Consonant Cluster Unstressed Coda:

Consistent with the Stressed and Unstressed Syllables and Monosyllables

First Syllable Consonant Cluster: #bj(3), #kʃ, #kʰʃ

Second Syllable Consonant Cluster Stressed: bj(2), tʰl(2), tj, jk#, gj

Second Syllable Consonant Cluster Unstressed: pʃ, bj, bl, fj, nt'#, st

Third Syllable Consonant Cluster Stressed:

Third Syllable Consonant Cluster Unstressed: tj, nd#, st, jd'#, jt#

Fourth Syllable Consonant Cluster Stressed:

Fourth Syllable Consonant Cluster Unstressed:

Fifth Syllable Consonant Cluster Stressed:

Fifth Syllable Consonant Cluster Unstressed:

Consistent with the Stressed and Unstressed Syllables and Monosyllables

Monosyllable Consonant Cluster: #bj(2), mst#, ndʒ#
First Syllable Consonant Cluster: #pʰ(2), #bl, #bj(3), #fu(3), #sk, #sp, #skj, #zl, #kl, #kʰw, #kʰj(2), #ku, #gu(3), #gl

Second Syllable Consonant Cluster: pj, bj(3), bl, fi, tʰj(2), ti, ntʰ#, st, jk#, gµ

Third Syllable Consonant Cluster: ti, nd#, st, jdʰ#, jt#

Fourth Syllable Consonant Cluster:

Fifth Syllable Consonant Cluster:

Consonant Cluster Stressed and Unstressed Total

Consonant Cluster Stressed: #pʰ(2), #bl, bj(2), #fi(3), #tʰj(2), tj, #sk, #sp, #skj, #zl, #kl, #kʰw, #kʰj, #gu(3), gµ, #gl

Consonant Cluster Unstressed: pj, bj, bl, #bj(3), fi, ti, ntʰ#, nd#, st(2), jdʰ#, jt#, #kj, #kʰj

Consonant Cluster Total (absolute)

Narrow: #pʰ(2), pj, #bl, bj, #bj(5), bj(3), mst#, #fi(3), fi, tʰj(2), tj(2), ntʰ#, nd#, ndg#, #sk, #sp, #skj, st(2), #zl, #jk#, jdʰ#, jt#, #kl, #kʰw, #kj, #kʰj(2), #gu(3), gµ, #gl

Broad: pl(2), pj, bl(2), bj(8), mst, fi(4), ti(4), nt, nd, ndg, sk, sp, skj, st(2), zl, jk, jd, jt, kl, kw, kµ(3), gu(4), gl

Supra-Segments: Whole Syllables

Whole Syllable Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllable Whole Syllable:
#fɪi̯, #tʰi̯n̥, #tʰi̯l, #dɪ̯l, #spɪ̯l, #gli̯n̥,
#mu̯n̥, #dʒu̯n̥, #skju̯n̥p̥,
#bn̥, #mt̥, #mɪʃ̥, #dn̥, #dʒi̯, #sɪm̥, #zɪ, #kʰi̯l,
#pʰl̥e, #be̯l, #kʰe̯l,
#ɡu̯o,
#bə̯, #sə̯,
#ɛk, #bile, #bɛj, #mɛ(2), #lɛ, #ɡɛʃ, #ɡɛ,
#v̥n̥, #sən̥, #zək,
#kʰɛ̯,
#æ, #pʰæ, #pʰlæ, #mæd̥, #tʃæm̥, #sæ, #skæn̥, #zlæk, #kʰæ, #ɡæn,
#fə̯l, #kʰəl, #wə̯l,
#ʌl, #əb, #pʰəl, #fəl, #flæt, #ʃə̯l, #dʒə̯l, #ʃə̯l, #ʃə̯d, #ʃə̯s, #kʰwən̥, #klə̯, #wam

First Syllable Whole Syllable Stressed (all entries are word initial):
#fɪi̯l, #tʰi̯n̥l, #tʰi̯l, #dɪ̯l, #spɪ̯l, #gli̯l̥n̥,
#mu̯n̥l, #dʒu̯n̥l, #skju̯n̥p̥l,
#bn̥l, #mt̥l, #mɪʃ̥l, #dn̥l, #dʒi̯l, #sɪm̥l, #zɪl, #kʰi̯l̥l,
#pʰl̥el, #be̯l, #kʰe̯l,
#ɡu̯ol,
#bə̯l, #sə̯l,
#ɛkl, #bilel, #bɛj, #mɛ(2)l, #lɛl, #ɡɛʃ, #ɡɛl,
#v̥nl, #sənl, #zəkl,
#kʰɛ̯l,
#æl, #pʰæl, #pʰlæl, #mædl, #tʃæml, #sæl, #skænl, #zlækl, #kʰæl, #ɡænl,
#fə̯ll, #kʰəll, #wə̯ll,
#ʌll, #əbl, #pʰəll, #fəll, #flætl, #ʃə̯ll, #dʒə̯ll, #ʃə̯ll, #ʃə̯dl, #ʃə̯sl, #kʰwənl, #klə̯l, #waml

First Syllable Whole Syllable Unstressed (all entries are word initial):
#bl̥l, #kl, #kul, #gu̯ll,
#1g, #k1l,
#bjel,
#mo̯ll,
#a(2), #pə̯l, #ma(2)l, #maml, #fə̯ll, #dʒə̯l, #ʃə̯l, #kə̯l, #kʰn(2)l,
#æl, #bə̯l,
#bjel, #ve̯l, #nə̯l,
#ɔl,
#æl, #æsl, #kʰlæd, #kæzl,
#əl, #aw(2)l, #maul, #nal, #gam, #ja

601
Second Syllable Whole Syllable Stressed:
bi`, mi`f#, ni`k#, zi`,
t`u`s#, t`u`

Second Syllable Whole Syllable Unstressed:
p`u#, mi`#(2), ni`#,

t`u`

Third Syllable Whole Syllable Stressed:
t`e`, ki`#,

Third Syllable Whole Syllable Unstressed:
mi`d`#, di`#, di`n#, ni`, Òli`, li`#,

Fourth Syllable Whole Syllable Stressed:

Fourth Syllable Whole Syllable Unstressed:

Fifth Syllable Whole Syllable Stressed:

Fifth Syllable Whole Syllable Unstressed:

First Syllable Whole Syllable (all entries are word initial):
\#b\i`, \#f\i`, \#t\i`n, \#t\i`, \#d\i`, \#s\i`, \#g\i`n,
Segment Total for Stressed and Unstressed Syllables and Monosyllables according to Syllable Configuration

Monosyllable Onset: p(2), m, #f, #t, #tʰ, #n, #s(6), #ʃ(2), #j, l(2), k(2), #g, #w(3)
Monosyllable Nucleus: i, i(2), uⁿ, e⁻¹, æ(3), æ^¹, a, a¹, a(2), a#
Monosyllable Coda: p#, m#, t#(4), n, n#(2), f#(3), j#(2), l#, i#, k

First Syllable Segment Stressed Onset: #p, p(2), #b(4), #m(3), m(2), #f, #v, v, #tʰ, t(2), #tf, #r(2), #s(27), #z, #ʃ(2), #j(3), j(6), #l(6), l(3), #j, #kʰ(12), k(2), #g(3), #w(3), w(9), #h
First Syllable Segment Stressed Nucleus: iʰ(4), uⁿ, uⁿ(4), #u, u, i(15), u, e, e⁽6⁾, o⁽³⁾(5), #ə(2), œ(6), #œ, œ(3), œ, œ, æ(6), æ^¹, æ^¹(4), a, a(14)
First Syllable Segment Stressed Coda: p(2), m(3), v, n(9), s(2), j(3), l(4), k, n(4)

First Syllable Segment Unstressed Onset: p, #p, #m, #d, #dg, #s(5), #j, #l, #k(2), k, #g, #w, w, #h
First Syllable Segment Unstressed Nucleus: i¹, i(5), u, #ə, a(4), #œ, œ(2), œ, œ, œ, œ(2), a
First Syllable Segment Unstressed Coda: d, n, s, j

Second Syllable Segment Stressed Onset: pʰ, b, m, v, tʰ(2), s(2), f, ʒ, j(4), l(2), k, kʰ, w(2)
Second Syllable Segment Stressed Nucleus: i¹, i(3), e¹, æ(2), œ, œ, œ^¹, æ(5)
Second Syllable Segment Stressed Coda: f, dɡ, n(2), f#, j#(2), t#, k#

Second Syllable Segment Unstressed Onset: p(5), b(3), m(3), f, v(5), t(6), d(3), dɡ, n(4), τ(3), ð, ð(2), s(2), z(7), j, j(12), j(2), j(2), k(3), g(7), w(5)
Second Syllable Segment Unstressed Nucleus: i¹#(14), i(8), e, o^², o^²(2), a(15), æ, æ(10), ÷#(10), ÷#(2), ÷#(4), a(3), æ-#(2), æ(4), æ, æ, æ^¹, æ^¹(2), a(3), æ^¹, a(6)
Second Syllable Segment Unstressed Coda: p(2), t#, j#(2), d#(5), d’#(2), n, n#(6), s#(2), z#, f#, j#, t#(2), k#(2), g#

Third Syllable Segment Stressed Onset: m, tʰ, n, l
Third Syllable Segment Stressed Nucleus: uⁿ, e, a³, a
Third Syllable Segment Stressed Coda:

Third Syllable Segment Unstressed Onset: b, v, n(5), s(3), z, j, j(4), l(5), t, j, k(2)
Third Syllable Segment Unstressed Nucleus: i(2), i#, uⁿ, t(5), e¹, e¹#, a, a#(4), ÷#(2), ÷(4), æ, æ, æ^¹, æ^¹(2), æ^¹(6), æ^¹(14)
Third Syllable Segment Unstressed Coda: t#, d#, n#, s, s#(4), f#, j#, ÷#(2)

Fourth Syllable Segment Stressed Onset:
Fourth Syllable Segment Stressed Nucleus:
Fourth Syllable Segment Stressed Coda:

Fourth Syllable Segment Unstressed Onset: m, s, z, j, l
Fourth Syllable Segment Unstressed Nucleus: 1, e¹, a, a#(4), ÷#(2)
Fourth Syllable Segment Unstressed Coda: s#(2), k#

Fifth Syllable Segment Stressed Onset:
Fifth Syllable Segment Stressed Nucleus:
Fifth Syllable Segment Stressed Coda:

Fifth Syllable Segment Unstressed Onset:
Fifth Syllable Segment Unstressed Nucleus:
Fifth Syllable Segment Unstressed Coda:

Segment Total for Stressed and Unstressed Onsets and Codas

Stressed Onset: #p, p(2), pʰ, #b(4), b, #m(3), m(4), #f, #v, v(2), #tʰ, t(2), #tf, n, #r(2), #s(27), s(2), #z, #ʃ(2), j, ʒ, #j(3), j(10), #l(6), l(6), #j, #kʰ(12), k(3), kʰ, #g(3), #w(3), w(11), #h
Segment Total by Syllable

First Syllable Segment Stressed:  #p, #p#, p(5), #b(4), #m(4), f, v(6), t(6), #d, d(3), #dɡ, ɡ(9), n(9), r(3), θ, ɪ(2), j(3), #l(2), k(6), #ɡ, g(7), #w, w(6), #h

Unstressed Onset:  #p#, p(6), b(4), #m, m(4), f, v(6), t(6), #d, d(3), #dɡ, ɡ(9), n(9), r(3), θ, ɪ(2), j(3), #l(2), k(6), #ɡ, g(7), #w, w(6), #h

Unstressed Coda:  #p#, p(2), #p#, p(3), m(4), m#, f, v, t(#6), d (#6), d#(2), ɡ(9), n(14), n#(9), s(4), s#(8), z#, f(#6), j(4), j#(6), t(6), #t(4), k(2), k#(4), g#, ɡ#, #n(7), η#(2)

Segment Total for Onsets and Codas

Onset:  #p, #p#, p(10), p#, #b(4), b(5), #m(4), m(9), #f(2), f, #v, #v(#8), #t, #t(#2), t(#3), t(#8), #d, d(3), #tʃ, #dɡ, ɡ, n(10), #r(2), r(3), θ, ɪ(2), s(38), s(#8), #z, z(9), #ʃ(#4), f(#4), z, #j(#5), j(27), #l(7), l(26), t, #j, j#, #k(#12), #k(2), k(11), #k(#4), #g(#5), g(#7), #w(#5), w(#20), #h(#2)

Coda:  p(2), p#(3), m(4), m#, f, v, t(#6), t#(#2), d, d#(6), d#(#2), ɡ(9), n(14), n#(9), s(4), s#(8), z#, f(#6), j(4), j#(6), t(6), #t(4), k(2), k#(4), g#, ɡ#, η(4), η#(2)

Segment Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllable Segment:  p(2), p#, m(2), m#, #f, #t, #t(#4), #n, n, n#(2), #s(6), s(#2), j(#3), j(3), j#(2), l(#2), l(#2), #t, k(3), #g, #w, w(3)

i, i(#2), u", a, æ(3), æ(#7), a, a(#4), a(#2), #a

First Syllable Segment Stressed:  #p, p(4), #b(4), #m(3), m(5), #f, #v, v(2), #t(#4), t(#8), #tf, n(9), #r(2), #s(27), s(#2), #z, j(#3), j(9), #l(#6), l(#3), #4, #4, #k(#12), k(3), #g(#3), η(#4), #w(#3), w(#9), #h

i(#4), u", u"(#4), #u, u, #1(#5), v, e, e(#6), o(#5), #æ(2), æ(#6), #e, æ(#3), æ, #æ(3), æ, #æ(#3), æ(#3), æ(#2), æ(#1), æ(#4), #a, a(#14)

First Syllable Segment Stressed Unstressed:  p, #p#, p#, m, d, #dɡ, n, *η, #s(#5), s, #η, j(#2), j#, k(#2), k, #g, #w, w, #h

i, i(#5), u, #a, a(#4), æ(#2), æ, #æ, #æ(#4), æ(#4), #æ(#2), æ(#1), æ(#3), æ(#2), æ(#1), æ(#6)

Second Syllable Segment Stressed:  p#, p, b, m, v, t(#2), d(#3), n(#2), s(2), j, j#, j(4), j#(2), l(#2), t#, k#, k, k#(2), w(#2)

i, i(#3), e, æ(#2), æ, æ(#2), æ, æ(#3), æ, æ(#4), æ, æ(#5), æ(3)

Second Syllable Segment Unstressed:  ɡ, *η(4), ɡ, n(10), #m(4), m(9), #f(2), t(6), t#, t#(#2), d#(#5), d#(#2), d(#3), dɡ, n(5), n#(#6), *η, *η(#4), r(#3), θ, ɪ(#2), s(#2), s#(#2), z#, z(#7), j, j#, j(4), s#, I(#12), l(#2), #t(#2), #l(#2), #l(#12), #l(#2), j(#2), k(3), k#(#2), g#, g(#7), g(#5), g(#7), w(#5)

i(#14), t(#8), e, e(#8), o(#8), o(#8), æ(#2), æ(#15), æ#, æ(#3), æ(#2), æ(#4), æ(#4), æ#, æ(#3), æ(#4), e(#4)

Third Syllable Segment Stressed:  m, t(#3), n, l

u", #e, æ(#1), æ

Third Syllable Segment Unstressed:  b, *η#, v, t#, d#, n(#5), n#, s(#4), s#(#4), z, j, j#, j(4), j#, l(#5), t, #j, j, k(#2), η(#2)

i(#2), i#, u", #t(#5), e(#1), #a, æ(#4), e, #a(#2)

Fourth Syllable Segment Stressed:  m, t(#3), n, l, k#

Fourth Syllable Segment Unstressed:  b, *η#, s, s(#2), z, j, j, l, k#

Fourth Syllable Segment Unstressed:  m, *η#, s, s(#2), z, j, j, l, k#

First Syllable Segment:  #p, #p#, p(5), #b(4), #m(4), m(5), #f, #v, v(2), #t(#5), t(#2), #d, d, #tʃ, #dɡ, n(#10), *η, #r(2), #s(#32), s(#3), #z, #ʃ(#4), j(#4), #l(#11), l(#7), l(#3), l(#4), #j, j, #k(#12), #k(2), k(#4), #g(#4), #w(#4), w(#10), #h(#7)

Fifth Syllable Segment Stressed:  m, t(#3), n, l

Fifth Syllable Segment Unstressed:

Segment Total by Syllable

First Syllable Segment:  #p, #p#, p(5), #b(4), #m(4), m(5), #f, #v, v(2), #t(#5), t(#2), #d, d, #tʃ, #dɡ, n(#10), #η, #r(2), #s(#32), s(#3), #z, #ʃ(#4), j(#4), #l(#11), #l(#7), l(#3), l(#4), #j, j, #k(#12), #k(2), k(#4), #g(#4), #w(#4), w(#10), #h(#7)

607
First Syllable Consonant Cluster Stressed Onset (all entries are word initial):

Second Syllable Consonant Cluster 

Monosyllable Consonant Cluster Coda (all entries are word final):

Monosyllable Consonant Cluster Onset (all entries are word initial):

Stressed Segment: #p, p(4), pʰ, #b, b(4), m(4), #m(3), f, v(3), tʰ(3), t(2), #f, d(12), n(12), #n(7), s(4), s(4), z, s, f, j, a(4), s(7), t(11), #t, j(2), k(2), η(2)

Unstressed Segment: p(6), pʰ(2), b(4), m, #m(4), #f(4), v(6), t(6), tʰ(2), t(2), d(6), dʰ(2), d(4), #d, #d, n(11), n(7), η(2), η(4), #r(3), Θ, d(2), #s(8), s(8), z(#, z(9), f(3), fʰ(2), s(12), #n(8), #z, #z(9), f(3), fʰ(2), s, f(1), l(18), t, l(2), #l(3), #l(10), j(3), #k(2), k(6), k(3), k(2), k(3), g(7), η(2), w(6), #h

Broad: p(8), b(9), m(22), f(4), v(10), t(22), d(13), j(3, f, d(3), n(40), r(2), Θ, d(2), s(58), z(11), j(14), s, j(42), l(33), l(24), j(5), k(32), g(13), η(6), w(25), h(2)

Supra-Segments: Consonant Clusters

Consonant Cluster Total for Stressed and Unstressed Syllables and Monosyllables according to Syllable Configuration

Monosyllable Consonant Cluster Onset (all entries are word initial): #f, #t, #skw, #spl, #sp, #sw(2), #f, #gl

Monosyllable Consonant Cluster Coda (all entries are word final): mt#, nt#, tf#, lp#, kt#
Second Syllable Consonant Cluster Stressed Coda: ndʒ#

Second Syllable Consonant Cluster Unstressed Onset: t(2), kw, gj
Second Syllable Consonant Cluster Unstressed Coda: nd#, ld#

Third Syllable Consonant Cluster Stressed Onset:
Third Syllable Consonant Cluster Stressed Coda:
Third Syllable Consonant Cluster Unstressed Onset:
Third Syllable Consonant Cluster Unstressed Coda:

Fourth Syllable Consonant Cluster Stressed Onset:
Fourth Syllable Consonant Cluster Stressed Coda:
Fourth Syllable Consonant Cluster Unstressed Onset:
Fourth Syllable Consonant Cluster Unstressed Coda:

Fifth Syllable Consonant Cluster Stressed Onset:
Fifth Syllable Consonant Cluster Stressed Coda:
Fifth Syllable Consonant Cluster Unstressed Onset:
Fifth Syllable Consonant Cluster Unstressed Coda:

Consonant Cluster Total for Stressed and Unstressed Onsets and Codas

Stressed Onset: #pr, #tʰw, t³j, #st(2), #sm(2), #skw, skw(2), #skl, #sl(2), #sw(5), #sv, #sp, #spj, #fw, #kʰj, #kʰj(2), #kʰl, kʰl, #gj(2)

Stressed Coda: ndʒ#, njk

Unstressed Onset: t(2), #sp, #skw, kw, gj, #gj

Unstressed Coda: nd#, ld#

Consonant Cluster Total for Onsets and Codas

Onset: #pr, #f, #tʰw, #t, t³j, #st(2), #sm(2), #skw(3), skw(2), #skl, #sl(2), #sw(7), #sv, #sp(3), #spj(2), #fw, #fm, #kʰj, #kʰj(2), #kʰl, kʰl, kw, #gl, gj, #gj(3)

Coda: mt#, nt#, nd#, ndʒ#, tf#, lp#, ld#, kt#, njk

Consonant Cluster Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllable Consonant Cluster: mt#, #f#, #t, nt#, #skw, #skl, #spj, #sp, #sw(2), #fm, tf#, lp#, kt#, #gl

First Syllable Consonant Cluster Stressed: #pr, #tʰw, #st(2), #sm(2), #skw, #skl, #sl(2), #sw(5), #sv, #sp, #spj, #fw, #kʰj, #kʰj(2), #kʰl, #gj(2), njk
First Syllable Consonant Cluster Unstressed: #sp, #skw, gj

Second Syllable Consonant Cluster Stressed: t³j, ndʒ#, skw(2), kʰl
Second Syllable Consonant Cluster Unstressed: t(2), nd#, ld#, kw, gj

Third Syllable Consonant Cluster Stressed:
Third Syllable Consonant Cluster Unstressed:

Fourth Syllable Consonant Cluster Stressed:
Fourth Syllable Consonant Cluster Unstressed:

Fifth Syllable Consonant Cluster Stressed:
Fifth Syllable Consonant Cluster Unstressed:

Consonant Cluster Total per Syllable

First Syllable Consonant Cluster: #pr, #tʰw, #st(2), #sm(2), #skw(2), #skl, #sl(2), #sw(5), #sv, #sp, #spj, #fw, #kʰj, #kʰj(2), #kʰl, gj(3), njk
Second Syllable Consonant Cluster: t³j, t(2), ndʒ#, nd#, skw(2), ld#, kʰl, kw, gj
Third Syllable Consonant Cluster:
Fourth Syllable Consonant Cluster:
Fifth Syllable Consonant Cluster:  

Consonant Cluster Stressed and Unstressed Total

Consonant Cluster Stressed: #pr, #tʰw, tʰj, ndʒ#, #st(2), #sm(2), #skw, skw(2), #skj, #sl(2), #sw(5), #sv, #sp, #spu, #ʃw, #kʰj(2), #kʰl, kʰl, #gj(2), ηŋ

Consonant Cluster Unstressed: tj(2), nd#, #sp, #skw, ɫd#, kw, #gj, gj

Consonant Cluster Total (absolute)

Narrow: #pr, mt#, #fz, #tʰw, #tj, tj(2), tʰj, ndʒ#, nt#, nd#, #st(2), #sm(2), #skw(2), skw(3), #skj, #skl, #sl(2), #sw(7), #sv, #sp(3), #spu(2), #ʃw, #ʃm, #f#, #tp#, #ɫd#, #kʰj], #kʰj(2), #kʰl, kʰl, kt#, kw, #gl, #gj(3), gj, ηŋ

Broad: pr, mt, fz, tw, tj(4), ndʒ, nt, nd, st(2), sm(2), skw(5), skj, skl, sl(2), sw(7), sv, sp(3), spu(2), ʃw, ʃm, lj, ɫd, kj, kj(2), kl(2), kt, kw, gl, gj(4), ηŋ

Supra-Segments: Whole Syllables

Whole Syllable Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllable Whole Syllable:

#trin#, #fmi4#, #glij#, #sklu"kt#, #neʃ#, #spæm#, #fust#, #swelp#, #ʃej#, #wæmt#, #tʰa'm#, #ʃan#, #skwalf#, #spwa#, #swana#,

First Syllable Whole Syllable Stressed (all entries are word initial):

-fi, #zi, #kʰl, #gji, #su", #u, #bu", #ru, #stu", #ju", #kʰju", #bt(2), #v1, #sp1, #sw1, #sien, #sv1, #st1h, #skj1m, #s1n, #skw1, #j1, #kʰj1, #kʰl1, #kʰ1

#ju, #pre, #mel, #se1, #seŋk, #spie1, #swe1, #kʰe1n, #so(2), #jo", #lo"(2), #a, #a=, #sma, #sa, #ʃa", #læ, #wæ, #wæ, #es, #tʰwem, #swel, #len, #smə, #æ, #slæ, #swæ"n, #ʃwæ, #læ, #gæs, #gæŋ, #gæ, #slal, #sa1(2), #həl, #aŋ, #ba, #ma, #ʃfap, #swam, #wap, #læ, #kʰam, #kʰləf, #kʰæn(3), #kʰa, #wa

First Syllable Whole Syllable Unstressed (all entries are word initial):

#j1, #m1, #d1s, #skwd, #l1, #g1, #dzu, #a, #sa(3), #kʰŋ, #wa, #spa, #hə, #pʰj1, #æ, #a, #an, #ma, #ka

Second Syllable Whole Syllable Stressed:

-kʰi, tʰj1n, j1, j1f, ve1
Second Syllable Whole Syllable Unstressed:

<table>
<thead>
<tr>
<th>Syllable</th>
<th>Stressed</th>
<th>Unstressed</th>
</tr>
</thead>
<tbody>
<tr>
<td>i²#</td>
<td>pʲu²#</td>
<td>jæ</td>
</tr>
<tr>
<td>bi²#</td>
<td>vl¹#</td>
<td>ʃɛł¹#</td>
</tr>
<tr>
<td>di²#</td>
<td>zi¹#</td>
<td>pʰɔɹ¹#</td>
</tr>
<tr>
<td>žɔʲ</td>
<td>ræ</td>
<td>bɑʃ#, mɑ, tʰɑ, sɑɹ¹#</td>
</tr>
<tr>
<td>lɑnn#</td>
<td>skw, wɚ</td>
<td>k#</td>
</tr>
</tbody>
</table>

Second Syllable Whole Syllable Stressed:

<table>
<thead>
<tr>
<th>Syllable</th>
<th>Stressed</th>
<th>Unstressed</th>
</tr>
</thead>
<tbody>
<tr>
<td>i²#</td>
<td>pʲu²#</td>
<td>jæ</td>
</tr>
<tr>
<td>bi²#</td>
<td>vl¹#</td>
<td>ʃɛł¹#</td>
</tr>
<tr>
<td>di²#</td>
<td>zi¹#</td>
<td>pʰɔɹ¹#</td>
</tr>
<tr>
<td>žɔʲ</td>
<td>ræ</td>
<td>bɑʃ#, mɑ, tʰɑ, sɑɹ¹#</td>
</tr>
<tr>
<td>lɑnn#</td>
<td>skw, wɚ</td>
<td>k#</td>
</tr>
</tbody>
</table>

Third Syllable Whole Syllable Unstressed:

<table>
<thead>
<tr>
<th>Syllable</th>
<th>Stressed</th>
<th>Unstressed</th>
</tr>
</thead>
<tbody>
<tr>
<td>i²#</td>
<td>pʲu²#</td>
<td>jæ</td>
</tr>
<tr>
<td>bi²#</td>
<td>vl¹#</td>
<td>ʃɛł¹#</td>
</tr>
<tr>
<td>di²#</td>
<td>zi¹#</td>
<td>pʰɔɹ¹#</td>
</tr>
<tr>
<td>žɔʲ</td>
<td>ræ</td>
<td>bɑʃ#, mɑ, tʰɑ, sɑɹ¹#</td>
</tr>
<tr>
<td>lɑnn#</td>
<td>skw, wɚ</td>
<td>k#</td>
</tr>
</tbody>
</table>

Third Syllable Whole Syllable Stressed:

<table>
<thead>
<tr>
<th>Syllable</th>
<th>Stressed</th>
<th>Unstressed</th>
</tr>
</thead>
<tbody>
<tr>
<td>i²#</td>
<td>pʲu²#</td>
<td>jæ</td>
</tr>
<tr>
<td>bi²#</td>
<td>vl¹#</td>
<td>ʃɛł¹#</td>
</tr>
<tr>
<td>di²#</td>
<td>zi¹#</td>
<td>pʰɔɹ¹#</td>
</tr>
<tr>
<td>žɔʲ</td>
<td>ræ</td>
<td>bɑʃ#, mɑ, tʰɑ, sɑɹ¹#</td>
</tr>
<tr>
<td>lɑnn#</td>
<td>skw, wɚ</td>
<td>k#</td>
</tr>
</tbody>
</table>

Fourth Syllable Whole Syllable Stressed:

<table>
<thead>
<tr>
<th>Syllable</th>
<th>Stressed</th>
<th>Unstressed</th>
</tr>
</thead>
<tbody>
<tr>
<td>i²#</td>
<td>pʲu²#</td>
<td>jæ</td>
</tr>
<tr>
<td>bi²#</td>
<td>vl¹#</td>
<td>ʃɛł¹#</td>
</tr>
<tr>
<td>di²#</td>
<td>zi¹#</td>
<td>pʰɔɹ¹#</td>
</tr>
<tr>
<td>žɔʲ</td>
<td>ræ</td>
<td>bɑʃ#, mɑ, tʰɑ, sɑɹ¹#</td>
</tr>
<tr>
<td>lɑnn#</td>
<td>skw, wɚ</td>
<td>k#</td>
</tr>
</tbody>
</table>

Fourth Syllable Whole Syllable Unstressed:

<table>
<thead>
<tr>
<th>Syllable</th>
<th>Stressed</th>
<th>Unstressed</th>
</tr>
</thead>
<tbody>
<tr>
<td>i²#</td>
<td>pʲu²#</td>
<td>jæ</td>
</tr>
<tr>
<td>bi²#</td>
<td>vl¹#</td>
<td>ʃɛł¹#</td>
</tr>
<tr>
<td>di²#</td>
<td>zi¹#</td>
<td>pʰɔɹ¹#</td>
</tr>
<tr>
<td>žɔʲ</td>
<td>ræ</td>
<td>bɑʃ#, mɑ, tʰɑ, sɑɹ¹#</td>
</tr>
<tr>
<td>lɑnn#</td>
<td>skw, wɚ</td>
<td>k#</td>
</tr>
</tbody>
</table>

Fifth Syllable Whole Syllable Stressed:

<table>
<thead>
<tr>
<th>Syllable</th>
<th>Stressed</th>
<th>Unstressed</th>
</tr>
</thead>
<tbody>
<tr>
<td>i²#</td>
<td>pʲu²#</td>
<td>jæ</td>
</tr>
<tr>
<td>bi²#</td>
<td>vl¹#</td>
<td>ʃɛł¹#</td>
</tr>
<tr>
<td>di²#</td>
<td>zi¹#</td>
<td>pʰɔɹ¹#</td>
</tr>
<tr>
<td>žɔʲ</td>
<td>ræ</td>
<td>bɑʃ#, mɑ, tʰɑ, sɑɹ¹#</td>
</tr>
<tr>
<td>lɑnn#</td>
<td>skw, wɚ</td>
<td>k#</td>
</tr>
</tbody>
</table>

Fifth Syllable Whole Syllable Unstressed:

<table>
<thead>
<tr>
<th>Syllable</th>
<th>Stressed</th>
<th>Unstressed</th>
</tr>
</thead>
<tbody>
<tr>
<td>i²#</td>
<td>pʲu²#</td>
<td>jæ</td>
</tr>
<tr>
<td>bi²#</td>
<td>vl¹#</td>
<td>ʃɛł¹#</td>
</tr>
<tr>
<td>di²#</td>
<td>zi¹#</td>
<td>pʰɔɹ¹#</td>
</tr>
<tr>
<td>žɔʲ</td>
<td>ræ</td>
<td>bɑʃ#, mɑ, tʰɑ, sɑɹ¹#</td>
</tr>
<tr>
<td>lɑnn#</td>
<td>skw, wɚ</td>
<td>k#</td>
</tr>
</tbody>
</table>

Whole Syllable Total per Syllable

<table>
<thead>
<tr>
<th>Syllable</th>
<th>Stressed</th>
<th>Unstressed</th>
</tr>
</thead>
<tbody>
<tr>
<td>i²#</td>
<td>pʲu²#</td>
<td>jæ</td>
</tr>
<tr>
<td>bi²#</td>
<td>vl¹#</td>
<td>ʃɛł¹#</td>
</tr>
<tr>
<td>di²#</td>
<td>zi¹#</td>
<td>pʰɔɹ¹#</td>
</tr>
<tr>
<td>žɔʲ</td>
<td>ræ</td>
<td>bɑʃ#, mɑ, tʰɑ, sɑɹ¹#</td>
</tr>
<tr>
<td>lɑnn#</td>
<td>skw, wɚ</td>
<td>k#</td>
</tr>
</tbody>
</table>

611
Whole Pentasyllables:

[kʼuʷ·zi], LOWgrain ['loʊ·griːn], SURcee ['sɑː-ɪ], SHWAZul ['ʃwæ·zʊ], LARuhd ['lɑː·ʃæd], GRASSuhd ['ɡræ·sæd'], SYlahn ['sɑː·lɑn], SMORGuhn ['sɔrmɔ·gən], SWAYez ['ˈsweɪ·ɛz], SINGkee ['sɪŋ·kɪ], AHNGyet ['æŋ·jɛt], ROWvuhm ['roʊ·vʌm], SWELkuhm ['swɛl·kʰm], BIGHzo ['bɪ·zʊ], SVIHzul ['svɪ·zʊ], SWAHMbeec ['swɔrm·bi], SWANuhd ['swæn·tæd'], PRAYnah ['prɛ·næ], KAHNled ['kʰæn·læd], KAHNruhp ['kʰæn·ruːp], LAHRegow ['læ·goʊ], STILLdin ['stɪl·dɪn], SAIyahk ['sɑː·ɪk], SMURthur ['sɔrmɔ·θɜːr], KRIHpee ['kɹɪ·piː], SHURwell ['ʃə·wel], MAHRul ['mɑː·rʊl], FEEmahl ['fiɛməl], ESSwall ['ɛs·wɔl], SOWee ['soʊ·wɛ], ZEEvée ['zɛɪ·vɛ], KIHpee ['kʰɪ·piː], LURlee ['lʊ·li], ROObul ['ruː·bʊl], GASnuh ['ɡæs·nə], KEERow ['kʰɪ·rəʊ], GREEnah ['ɡriːnə], URVIn ['ɔr·vɪn], SIHTnum ['sɪnt·nʌm], KANEpee ['kʰæn·piː], SANKtun ['sæŋktən], URGUl ['ʒə·gʊl], SWAHPShm ['swɒp·ʃʊm], SOOgahsh ['sʊ·ɡæʃ], VIHZig ['vi·zɪg], BIHLuft ['bɪ·lʌft], SPRAYlur ['spreɪ·lɜː], CHAHIPRUS ['tʃɑp·ɹəs]

grihSAHR ['ɡər·ˈsɑː], suhWURK ['sɑː·ˈwɜːk], porPOR ['pʰɔɹ·ˈpʰɔɹ], wuhSHELL ['wɔ·ˈʃɛl], mihLAHNGE ['mi·ˈlænd], ahBAHSH ['ɑ·ˈbæʃ]

Whole Trisyllables:

LOWthursuhm ['loʊ·θɜːr·sʌm], Anurest ['ænə·ɹɛst], GANgurleeng ['ɡæŋ·ɡʊlˈliŋ], MAYvuhlahr ['meɪ·vəˈlaːr], KAHMBulnahsh ['kʰæm·boʊ·nɑʃ], SKRIMyuhhus ['skrɪm·juː·huːs], HYponis ['haɪ·poʊ·nɪs], KLAHLMuhlin ['kʰlɑld·məˈlɪn], BAHLLukay ['baː·lɑː·kɛj], OOVuhnhu ['uʊ·və·nə], SPIHIhkuhs ['spɪˈhiːkəs], LENDahlee ['lɛndəˈliː]

tuhnSKWURuld ['kʰən·skwə·ˈɹəʊld], uhVAYbeeng ['əʊ·ˈveɪ·bɪŋ], reecMAHruh ['ril·ˌmɑːˌrʊ], suhRANnuh ['sɑː·ˈræ·nə], skwidiTAHroo ['skwɪd·təˌɹoʊ], huhRIHFnuh ['hɚ·ˌrɪf·nə], sprarRIHshus ['spɹə·ɹɪ·ʃʊs],

kahlahMOO ['kɑ·lɑ·ˈmuː']

Whole Tetrosyllables:

BOOguhviiluh ['buʊ·ˌɡə·vɪ·lʊ],
ahnZHOYuuhmak ['ən·z̩hɔ·juː·mæk], suhKLEEZeemuh ['sɑː·kʰlɪˌzi·ə], disTRIHNSeeuh ['dɪz·ˈtrɪn·sɪˌə],
aluhSTAYshus ['æ·lə·steɪ·ʃʊs], likwuhNYzuh ['lɪkˌwʊˈnæ·lə·ˈsʌm], juruhLAHsum ['dʒuː·ˈlɑː·ˈsʌm], mahmuhTEHrus ['mɑ·mʌn·təˌɹəs],

Whole Tetrasyllables:
### Segmental and Supra-Segmental Profile Data Sheet

#### Segments

**Monosyllable Onset:** #pʰ(2), p(2), #f, #tʰ(2), #s(3), #j, l(4), #l(3), #kʰ(3), #k, w, #h  
**Monosyllable Nucleus:** i¹, i(2), o^*", æ(2), a^#, a(6), a#  
**Monosyllable Coda:** p#, m#, t#, d#, d#(2), dʒ, s#, f#, j(2), k, k#(2), g#  

**First Syllable Segment Stressed Onset:** #pʰ(7), #b(7), #m(5), #f(4), #v, #tʰ(5), #d(4), #tf, #dʒ, r, #s(4), #s, #l(6), j(9), #l(3), l(4), j(3), #k(3), #kʰ(6), k(2), #g(4), #w(3), w(2)  
**First Syllable Segment Stressed Nucleus:** i, i¹, #u^", u^"(6), t(10), u, e(3), oʰ(2), æ(4), #a, ε(3), x(3), ç, ç¹, æ(5), a(2), #a, a(16), a  
**First Syllable Segment Stressed Coda:** m(5), t, d(2), n(6), r, l(6), l(2), k(6), k¹, g, #  

**First Syllable Segment Unstressed Onset:** #p(2), #pʰ, #b(2), #m(3), #f, #v(2), #t, t(2), #d(2), #n, #s, #z, #j, l(2), #l, #k(2), #kʰ(5), #w, w(2)  
**First Syllable Segment Unstressed Nucleus:** i, i¹, oʰ(2), #a, a(10), æ, ε, e¹, æ, a¹, #a, a(3)  
**First Syllable Segment Unstressed Coda:** m(2), s, j(2), t, #(2),  

**Second Syllable Segment Stressed Onset:** pʰ(2), b(3), m, f, tʰ(4), d(2), n, s, z, j(7), l(4), j, kʰ(2), g(2)  
**Second Syllable Segment Stressed Nucleus:** i¹, i#, u^", r(2), e(3), oʰ(2), o^#(3), ε¹, æ, æ(3), æ(3), a¹#, a(7)  
**Second Syllable Segment Stressed Coda:** #f, d¹#, d#, dʒ#, n(5), n(3), s, j(3), j(2), t, k(2), #  

**Second Syllable Segment Unstressed Onset:** #p(2), #pʰ, #b(2), #m(3), #f, #v(2), #t, t(2), #d(2), #n, #s, #z, #j, l(2), #l, #k(2), #kʰ(5), #w, w(2)  
**Second Syllable Segment Unstressed Nucleus:** i¹, i#, u^", x(9), e¹, o#, oʰ(2), o^#(4), a(11), #a, æ, æ(3), æ(3), æ, æ  
**Second Syllable Segment Unstressed Coda:** m#, s¹#, d#, n(4), θ#, l#, #l, #l, k(3), k¹#, k#(5), #, #  

**Third Syllable Segment Stressed Onset:** tʰ, j  
**Third Syllable Segment Stressed Nucleus:** ç¹, æ  
**Third Syllable Segment Stressed Coda:** n  

**Third Syllable Segment Unstressed Onset:** p, b, f(3), t(6), d(3), ts, n(4), r(2), s, z(3), j, l(4), k  
**Third Syllable Segment Unstressed Nucleus:** i¹, tʰ, u^", e¹, e¹#, oʰ, o^#(2), a(5), a#(2), #tʰ(2), #η, #η#, #η#, æ, æ(2), a¹(2), a, a#  
**Third Syllable Segment Unstressed Coda:** m#, t#(2), t¹#, dʒ#, n(4), s(3), z#, #, k#(2)  

**Fourth Syllable Segment Stressed Onset:**  
**Fourth Syllable Segment Stressed Nucleus:**  
**Fourth Syllable Segment Stressed Coda:**  

**Fourth Syllable Segment Unstressed Onset:** f, dʒ, r(2), z, l, k  
**Fourth Syllable Segment Unstressed Nucleus:** i, a, a#(2), #t#, æ#, æ¹, a¹  
**Fourth Syllable Segment Unstressed Coda:** d#, s#  

**Fifth Syllable Segment Stressed Onset:**  
**Fifth Syllable Segment Stressed Nucleus:**  
**Fifth Syllable Segment Stressed Coda:**  

**Fifth Syllable Segment Unstressed Onset:** n  
**Fifth Syllable Segment Unstressed Nucleus:** e¹  
**Fifth Syllable Segment Unstressed Coda:** t¹#  

---

615
Stressed Onset: p*(7), p*(7), b(7), b(3), #m(5), m, #f(4), f, #v, #t(5), t(5), #d(4), d(2), #tf, #dʂ, n, r, #s(4), s, z, #z, #j(6), #j(17), #l(3), #l(8), j(4), #k(3), #kʰ(6), kʰ(2), k(2), #g(4), g(2), #w(3), w(2)

Stressed Coda: m(5), f#, t, d(2), d’#, d#, dʒ#, n(12), n(2), s, r, j(9), j(#2), k(3), k(8), k’, γ, g, η(2)

Unstressed Onset: #p(2), #pʰ(3), p(3), #b(2), b(4), #m(3), m(2), #f, f(5), #v(2), #t(18), #d(2), d(9), ts, dʒ, #n, n(11), r(9), δ, #s, s(9), #z, z(7), f(2), #j, #l(10), j, #k(2), #kʰ(5), k(9), k’, g(5), γ, #w, w(6)

Unstressed Coda: p#, m(2), m#, f#, t’(#3), t(#6), d#, ts, dʒ#, n(2), n(#8), Θ#, s, s(#6), z#, j(2), j(#2), l#, l, k(3), k’, γ#, k(7), η(3), η#

Segment Total for Onsets and Codas

Onset: #p(2), #pʰ(10), pʰ(4), p(5), #b(9), b(7), #m(8), m(3), #f(6), f(6), #v(3), #t, #tʰ(5), t(5), #d(6), d(11), ts, #tʃ, #dʒ, dʒ, #n, n(12), r, r(9), δ, #s(8), s(10), #z, z(8), #j, j(2), #j(8), j(31), #i(5), l(21), j(5), #k(6), #kʰ(14), kʰ(3), k(12), #g(4), g(7), γ, #w(4), w(9), #h

Coda: p(2), m(7), m(2), f#, t’(4), t(#7), d(2), d’(2), d#, ts, dʒ, dʒ(#2), n(14), n(#10), Θ#, s(2), s(#7), z#, j(#2), j(#4), l#, l(4), k(12), k’, k’, k(#9), g, g#, η(5), η#

Segment Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllabic Segment: #pʰ(2), p(2), p#, m#, #f, #t(#4), t#, t’#, d’#, d#, dʒ#, s#, #s(3), f#, #j, j(6), #l(3), #kʰ(3), #k, k(2), kʰ(2), g#, w, #h

First Syllable Segment Stressed: #pʰ(7), #b(7), #m(5), m(5), #f(4), #v, t, #tʰ(5), #d(4), d(2), #tf, #dʒ, n(6), r(2), #s(4), #z, j(6), j(15), #l(3), l(4), l(2), j(#3), k(#3), #kʰ(6), k(8), k’, γ#, g(4), γ, γ, #w(3), w(2)

Second Syllable Segment Stressed: pʰ(2), b(3), s, f, f#, tʰ(4), d(2), d’#, d#, dʒ#, n(6), n(#2), s(2), z, j(10), j(#2), l(4), l, j, kʰ(2), k(2), g(2), η

Second Syllable Segment Unstressed: p(2), pʰ(2), p#, b(3), s, #s(4), s(6), n(8), n(#4), η, #η(3), r(5), Θ#, δ, s(8), s(#2), z(3), j(7), #s, s, #z, j(4), #l, l, k(2), kʰ(5), η(2), #w, w(2)

Third Syllable Segment Stressed: tʰ, n, z

Third Syllable Segment Unstressed: p, b, m#, #m#, #t(3), t(6), t(2), t’#, d(3), d#, dʒ#, n(4), n(#4), η, #η(3), r(2), s, s(#3), z(3), z#, j, j#, l(4), #l(2), k, k(#2)

Fourth Syllable Segment Stressed: Fourth Syllable Segment Unstressed: f, d#, dʒ, r(2), s#, z, l, #l, #k

Fifth Syllable Segment Stressed: Fifth Syllable Segment Unstressed: t’#, n

616
First Syllable Segment: #p(2), #pʰ(8), #b(9), #m(8), m(7), #f(5), #v(3), t(3), #tʰ(5), #t, #d(6), d(2), #tʃ, #dʒ, #n, n(6), r(2), #s(5), s, #z, #ʒ, j(7), ʃ(19), #l(4), l(3), j(3), #k(5), #kʰ(11), k(8), kʰ, #g(4), g, g(3), #w(4), w(4)

Second Syllable Segment: p(2), pʰ(4), p#, b(6), m(3), #m(#3), f(2), f#(2), t(10), tʰ(4), t’, t#(4), d#, d#, n(14), n(#6), #n, #n(3), r(5), Θ#, ď, s(10), s#(2), z(4), j(17), j#(3), l(9), l#, t, t#, j(2), k(12), kʰ(3), k’, k#(5), g(7), η(2), η#, γ, ω(4)

Third Syllable Segment: p, b, m#, #m#(3), f(3), t(6), t#, t’#(2), t’#, d(3), ts, dʒ#, n(5), n#(4), #n, #n(3), r, s, s#(3), z(3), z#, j(2), ʃ(4), j#(2), k, k#(2)

Fourth Syllable Segment: f, d#, dʒ, r(2), s#, z, l, #t, k, ω(4)

Fifth Syllable Segment: t’#, n

Segment Stressed and Unstressed Total

Stressed Segment: #pʰ(7), pʰ(2), #b(7), b(3), #m(5), m(6), #f(4), f, #k, #v, t, #tʰ(5), t(5), #d(4), d(4), d’, d#, d#, #tʃ, #dʒ, dʒ#, n(13), n#(2), r(2), #s(4), s(2), z, #z, #j(6), j(26), j#(2), #l(3), l(8), l#, j(4), #k(3), #kʰ(6), kʰ(2), k(10), k’, #g(4), g(3), η(2), #w(3), w(2)

Unstressed Segment: #p(2), #pʰ, p(3), pʰ(2), p#, #b(2), b(4), #m(3), m(4), m#, #m#(4), #f, f(5), f#, #v(2), t, t(18), t’#(2), t#(6), t’, #d(2), d(9), d#, ts(2), dʒ, dʒ#, #n, n(13), n#(8), #n(2), #n#(4), r(9), Θ#, ď, #s, s(10), s#(6), #z, z(7), z#, j(2), j#, j(12), j#(2), #l, l(10), l#, t, t, #t, #t(7), j, #k(2), #kʰ(5), k(12), kʰ, k’, k#(7), g(5), η(3), η#, γ, #w(4), w(6)

Segment Total (absolute)

Narrow: #p(2), #pʰ(10), p(5), pʰ(4), p#, b(9), b(7), #m(8), m(10), m#, #m#(4), #f(6), f(6), f#(2), #v(3), t, #tʰ(7), t(5), t(19), t’#(2), t#(7), t’, #d(6), d(13), d#(4), d’, #d(2), ts(2), #tʃ, #dʒ, dʒ#, #n, n(26), n#(10), #n(2), #n#(4), r(2), r(9), Θ#, ď, #s(8), s(12), s#(7), #z, z(8), z#, #j, #j(2), j#, #j(44), j#(4), #l(5), l(21), l#, h, h’, j’, #t, #k(9), #g(4), g(8), g#, #w(4), w(9), #h

Broad: p(23), b(16), m(24), f(14), v(3), t(43), d(25), ts(2), tʃ, dʒ(5), n(43), r(2), r(9), Θ, ď, s(27), z(10), j(3), ʒ, j(56), l(27), l(12), j(5), k(58), g(13), η(6), γ, w(13), h

Supra-Segments: Consonant Clusters

Consonant Cluster Total for Stressed and Unstressed Syllables and Monosyllables according to Syllable Configuration

Monosyllable Consonant Cluster Onset (all entries are word initial): #pʰl, #pʰw, #fl, #spʃ, #spl, #sk, #kʰʃ, #kj

Monosyllable Consonant Cluster Coda (all entries are word final): dʒd#, ʃd#, js#, kt#
First Syllable Consonant Cluster Stressed Onset (all entries are word initial): #pʰᵢ, #pʰl, #ḅl(2), #ḅu(2), #f̣l, #f̣s, #ṭu, #ḍs, #skw(2), #kʰj(2), #kʰj, #kʰw, #gr
First Syllable Consonant Cluster Stressed Coda: #g

First Syllable Consonant Cluster Unstressed Onset (all entries are word initial): #kʰᵢ, #kʰw
First Syllable Consonant Cluster Unstressed Coda:

Second Syllable Consonant Cluster Stressed Onset: fᵢ, tʰᵢ(3)
Second Syllable Consonant Cluster Stressed Coda: ndʃ#, ℓd#

Second Syllable Consonant Cluster Unstressed Onset: pᵢ, ḅi, uᵢ, ḍ, fᵢ, kʰw
Second Syllable Consonant Cluster Unstressed Coda: tsk#, ntᵢ(2), ks#, kt#, ʃk#

Third Syllable Consonant Cluster Stressed Onset:
Third Syllable Consonant Cluster Stressed Coda:

Third Syllable Consonant Cluster Unstressed Onset: tᵢ
Third Syllable Consonant Cluster Unstressed Coda: n̩z#

Fourth Syllable Consonant Cluster Stressed Onset:
Fourth Syllable Consonant Cluster Stressed Coda:
Fourth Syllable Consonant Cluster Unstressed Onset: Fourth Syllable Consonant Cluster Unstressed Coda:

Fifth Syllable Consonant Cluster Stressed Onset:
Fifth Syllable Consonant Cluster Stressed Coda:
Fifth Syllable Consonant Cluster Unstressed Onset: Fifth Syllable Consonant Cluster Unstressed Coda:

Consonant Cluster Total for Stressed and Unstressed Onsets and Codas

Stressed Onset: #pʰᵢ, #pʰl, #ḅl(2), #ḅu(2), #f̣l, #f̣s, #ṭu, #ḍs, #skw(2), #kʰj(2), #kʰj, #kʰw, #gr

Stressed Coda: ndʃ#, #g, ℓd#

Unstressed Onset: pᵢ, ḅi, uᵢ, ḍ, fᵢ, kʰu(2), kʰw

Unstressed Coda: tsk#, ntᵢ(2), n̩z#, ks#, kt#, ʃk#

Consonant Cluster Total for Onsets and Codas

Onset: #pʰᵢ, pʰl, #pʰw, #ḅl(2), bl, #ḅu(2), bu, #f̣l(2), #f̣s, #ṭu, #ḍs, tᵢ, #ḍ, #skw(2), #sp̣, #spl, #sk, #ṭ, #kʰj(2), #kʰj(4), #kᵣ, #kʰw(2), kʰw, #gr

Coda: tsk#, dʒd#, ntᵢ(2), n̩z#, ndʒ#, jḍʷ#, js#, #g, ℓd#, ks#, ktᵢ(2), ʃk#

Consonant Cluster Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllabic Consonant Cluster: #pʰl, #pʰw, #f̣l, dʒd#, #sp̣, #spl, #sk, jḍʷ#, js#, #kʰj, #kᵣ, ktᵢ#

First Syllable Consonant Cluster Stressed: #pʰᵢ, #pʰl, #ḅl(2), #ḅu(2), #f̣l, #f̣s, #ṭu, #ḍ, #skw(2), #g, #kʰj(2), #kʰj, #kʰw, #gr

First Syllable Consonant Cluster Unstressed: #kʰᵢ(2), #kʰw

Second Syllable Consonant Cluster Stressed: fᵢ, tʰᵢ(3), ndʃ#, ℓd#
Second Syllable Consonant Cluster Unstressed: pᵢ, ḅi, uᵢ, tsk#, ntᵢ(2), fᵢ, kʰw, ks#, kt#, ʃk#

Third Syllable Consonant Cluster Stressed:

Third Syllable Consonant Cluster Unstressed: tᵢ, n̩z#

Fourth Syllable Consonant Cluster Stressed:
Fourth Syllable Consonant Cluster Unstressed:
Fifth Syllable Consonant Cluster Stressed:
First Syllable Consonant Cluster: #pʰj, #pʰl, #bl(2), #b(2), #fl, #fj, #f, #t, #d, #skw(2), #g, #kʰj(2), #kʰl(2), #kʰw(2), #gr
Second Syllable Consonant Cluster: pʰj, bl, tʰj(3), bj, dj, fj, tsk#, nt(2), ndʒ#, ft, ld#, kʰw, ks#, kt#, ηκ#
Third Syllable Consonant Cluster: tj, ηz#
Fourth Syllable Consonant Cluster:
Fifth Syllable Consonant Cluster:
Consonant Cluster Total per Syllable

Consonant Cluster Stressed and Unstressed Total

Consonant Cluster Stressed: #pʰj, #pʰl, #bl(2), #b(2), #fl, #fj, #f, #t, #d, #skw(2), #g, #kʰj(2), #kʰl(2), #kʰw, #gr
Consonant Cluster Unstressed: pʰj, bl, bj, tj, dj, tsk#, nt(2), ηz#, ft, #kʰj(2), #kʰl(2), #kʰw, #ks#, #kt#, #ηκ#

Consonant Cluster Total (absolute)

Narrow: #pʰj, #pʰl, #pʰw, #bl(2), bl, #bu(2), bj, #fl(2), #fj, #f, #t, #d, #tʰj(3), #d, #dʒd#, #sk#, #n, #nt(2), #ŋ, #sp, #spl, #sk, #skw(2), #t, #j, #dʒ, #s#, #l#, #kʰj(2), #kʰl(4), #k, #kʰw(2), #kʰ, #ks#, #kt#, #gr, #ηκ#

Broad: pj(2), pl(2), pw, bl(3), bj(3), fl(2), fj(2), tj(5), dj(2), dʒd, tsk, ndʒ, nt(2), ηz, sp, spl, sk, skw(2), ft, jg, jd, js, ld, kj(2), k(5), kw(3), ks, kt(2), gr, ηκ

Supra-Segments: Whole Syllables

Whole Syllable Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllable Whole Syllable:
#spʿi#, #j³dʒd#, #k³l#, #p³tʰo³g#, #flak#, #skætʿ#, #tʰaʿ#, #l³a³f#, #p³wad#, #t³audʿ#, #splakt#, #k³a³m#, #k³a³s#, #k³j³ap#, #ha#

First Syllable Whole Syllable Stressed (all entries are word initial):
#tʃi¹, #j¹l, #ɡri, #w³l, #u⁶m, #buʿŋ, #fʒu⁷, #fli⁷, #lu⁷, #k³ju⁷(2), #p³k, #p³t, #bj³k, #t³j³, #t³m, #t³i, #t³m, #dʒ₁, #l₁, #ɡ₁m, #w⁶u, #fie³(2), #sˌe¹, #do⁴, #k³o⁴, #a, #m⁸a, #s³ระยะ, #j unanimously, #w⁶ad, #p³te⁵k, #mᵉ, #dʒak, #t³ń, #s⁶m, #ɡ⁶n, #p³bª, #m³l, #blae, #dæn, #jæt, #k³sæ, #k³æm, #ba⁵, #v⁵l, #ja⁵, #ka, #kar, #o, #p³ª, #p³uª, #p³jªk, #bja, #blæ, #ma, #man, #da⁵ŋ, #skwaːn, #skw, #ják, #jæn, #l⁸a, #k³ja, #k³au, #gau

First Syllable Whole Syllable Unstressed (all entries are word initial):
#p₁, #d₁, #d₁s, #s₁ŋ, #z₁m, #k³j₁, #k₁, #k³w₁, #f₀⁷, #t₀⁷, #to, #a, #p₁a, #b₁a, #ma, #na, #ja, #l₁a, #k³ŋ, #k³j₁a, #p³ə, #me⁸l, #k³w²l¹, #tæ,
Second Syllable Whole Syllable Stressed:
\[ p^i\# , mi\# \]
\[ lu^f\# , sin, lit, ze^n\#, je^nk, le^l, jo^w, k^o^d^\# , glo^w\# , \]
\[ e, beld\# , f^e, t^e^s\# , ban, p^wnd\# , \]
\[ bae, t^s^jae, dæk, na^\# , t^s^jae, dan, san, ja, k^n\#an\# , gaa \]

Second Syllable Whole Syllable Unstressed:
\[ bli\# , bzi\# , dji\# , ri^\# , zl^\#(2) , li^\# , ku^\# , \]
\[ br^s\#, mt\#sk\#, tnt\#, n^k\#, d^t\#n\#, sin\#, lik, ktn\#, \]
\[ je^n\#, fo^\# , no^w , zo^w , jo^\#, ko^\#(2) , go^\# , ch^\# , \]
\[ pa, p^\#ja, ma, fr^m\#, t^n^\#(2) , t^\#, tja, t^\#, d^m^\# , na, na^\# , r^\# , ra^\# , r^k^\# , st^\# , s^m^\# , st^\# , sa, r^\#(2) , ga^\# , ga, gr^\# , wat^\# , \]
\[ t^\# , da^\#(2) , na^\# , ra , fta^\# , ke^\# , \]
\[ le^k^\# , d^\#z\#, k^\#l\#, ga^\# , \]
\[ p^w^\#ae\# , p^w^\#ap\# , na, sant\# , saf\# , san\# , lak\# , k^n\#at\# , kaks\# , wa^\#n\#k \]

Third Syllable Whole Syllable Stressed:
\[ t^\#o\# , j^n\# \]

Third Syllable Whole Syllable Unstressed:
\[ di^\# , zi^\#n\# , nu^\# , \]
\[ ttk\#, tss\#, r^k^\# , sz^k\#, f^s^n\#, l^t^\# , ktn\# , \]
\[ e^l , te^l\# , fo^\# , zo^\#(2) , \]
\[ pa, f^\#h\# , t^\# , ta , t^n^\# , d^m^\# , da\# , na , r^\# , las\# , lad^\# , ka\# , \]
\[ n^s\# , n^z\# , ba^\#t\# , ta^\#m\# , \]
\[ at\# , tsa^\# \]

Fourth Syllable Whole Syllable Stressed:
\[ Fourth Syllable Whole Syllable Unstressed: \]
\[ l^t^s\# , a^\# , d^\#a , r^\# , k^\#a\# , \]
\[ r^\#a\# , z^\#d\# , fa^\# \]

Fifth Syllable Whole Syllable Stressed:
\[ Fifth Syllable Whole Syllable Unstressed: \]
\[ ne^t^\# \]
First Syllable Whole Syllable (all entries are word initial):
#pi, #tsl#, #j1#, #gri, #wil#, 
#u"m, #bu"n, #fu", #fu", #lu", #k'ju"(2), 
#p't1k, #p'1t, #b21k, #t'1n, #t'1l, #t"1m, #d1, #d31, #s1n, #z1m, #l1, #k'b1, #k1, #k"w1, #g1m, 
#wud, 
#f1e(2), #s1l, 
#fo", #to", #du", #k'o", 
#a, #pa, #ba(2), #ma, #va, #n, #k'aj, #k'ia, #ia, 
#o, #p'ao, #ma, #5ak', #j1a, #wad, 
#p't1k, #me, #mel, #d1e, #k'w1l, 
#t'A, #s1m, #g1m, 
#p'b1, #m1l, 
#bæ, #tæ, #dæn, #jæt, #k'ia, #k'æm, 
#ba1, #va(2), #j1a, #ka, #kar, 
#a(2), #p'a, #p'1a, #p'1ak, #b1a, #b1a, #b1, #ma(2), #man, #da1g, #skwa:n, #skwa, #j1k, #s1n, #l1, #k'ia, #k'1a, #ka1, #ga1, #wam

Second Syllable Whole Syllable:
#p'1#, #b1l#, #b1l#, #ml#, #d1l, #d1l#, #r1#, #z1(2), #l1, 
lu"f#, #ku"#, 
#b1s#, #mtsk#, #tr1#, #nk#, #d1n#, #s1n, #s1n#, #l, #l1k, #k1n#, 
#z1#, #e1n#, #e1n#, #le1, 
#fo#, #n, #zo", #jo", #j1o#, #k1o"#(2), #k'o"d#, #po"#, #glo"#, #yo", 
#pa, #p'ja, #ma, #fa", #t'1n#(2), #t'1n, #tja, #ta#, #d'1#, #na, #na#, #r1#, #r1#, #r1#, #st#, #s1m#, #s1m#, #s1#, #j1#(2), #g1#, #g1#, #g1#, #w1#, 
#ta#, #da(2), #na#, #r1, #j1a, #k1a, 
#e, #b1d#, #f1e, #t'1l#, #le#, 
#bæ, #t'1a, #dæk, 
#n1#, #g1#, 
#p'a#, #p'1a#, #t'1a, #t'1a, #dan, #na, #s1nt#, #s1t#, #s1t#, #l1k#, #ja, #k'1an#, #k'w1t#, #k1s#, #ga1, #w1nk#

Third Syllable Whole Syllable:
#d1l, #z1l#, 
#nu", 
#tk#, #tr#, #r1#, #s1#, #f1#, #l1#, #k1#, 
e1, #le1, 
#fo", #z1", #zo"#(2), 
#pa, #f1#, #t1#, #tia, #t'1n#, #d'1n#, #da#, #na, #r1#, #l1s#, #l1d#, 
k1a, 
#n1e#, #n1e#, 
#t'1l, 
#j1n, 
#b1'#, #t'1m#, 
#at#, #tsa#

Fourth Syllable Whole Syllable:
#l1s#, 
#a#, #d1a, #r1#, #ka#, 
#r#, 
#z1d#, 
#fa#

Fifth Syllable Whole Syllable:
#ne't#

Whole Syllable Stressed and Unstressed Total

Whole Syllable Stressed:

621
Segmental and Supra-Segmental Profile Data Sheet

**Questions ID:** f.

<table>
<thead>
<tr>
<th>Segments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monosyllabic Onset: #pʰ, #b(3), #m, m, #f, t(2), #d(2), #tʃ, #dʒ, #s(4), #ʃ(2), #j, #l(6), #l, #l, #kʰ(5), k(2), w(2), #h</td>
</tr>
<tr>
<td>Monosyllabic Nucleus: i(2), #u&quot;#, o, o#, o&quot;#, e#, e, (2), λ, æ(6), a, a&quot;, a(7), a#</td>
</tr>
<tr>
<td>Monosyllabic Coda: f#, v#, tʃ(4), d#(2), n(4), n#(2), s#(4), z#(2), f#, j(2), l, h#, k(2), k#(3), g#, η</td>
</tr>
<tr>
<td>First Syllable Segment Stressed Onset: #pʰ(3), p(2), #f(4), #tʃ, #dʒ, #s(4), r, #s(17), #z(2), #ʃ(3), #j(5), l(4), #ʃ(2), j, #kʰ(5), k(7), #g(3), #w(2), w</td>
</tr>
<tr>
<td>First Syllable Segment Stressed Nucleus: i, #u&quot;#, u&quot;(5), u, t(2), #e(4), o&quot;(2), æ, #e, ε(3), #l, æ(2), æ(11), #a(2), #a(3), a(10)</td>
</tr>
<tr>
<td>First Syllable Segment Stressed Coda: p(2), b, m, t, n(8), s, z, j(3), k(3)</td>
</tr>
<tr>
<td>First Syllable Segment Unstressed Onset: #p, #b(2), #m, m, #f(2), #t, #dʒ, #n, #s(2), l, #k(3), #g, #x, #w, #h</td>
</tr>
<tr>
<td>First Syllable Segment Unstressed Nucleus: i, #u&quot;#, u&quot;(5), #t(5), o&quot;#, #a(2), a(4), æ, #e, Ω, a(3)</td>
</tr>
<tr>
<td>First Syllable Segment Unstressed Coda: m, n(2), s, k</td>
</tr>
<tr>
<td>Second Syllable Segment Stressed Onset: pʰ, m(5), f, t, tʃ(3), tʃ, dʒ, Ω, s(2), z, j(4), l(2), j, kʰ(4), g, w</td>
</tr>
<tr>
<td>Second Syllable Segment Stressed Nucleus: i, #u&quot;#, #t(3), t(2), e, o&quot;#, λ, v, æ, a¹#, a&quot;#, a(9)</td>
</tr>
<tr>
<td>Second Syllable Segment Stressed Coda: f#, ʃ#, d#, n(5), s(2), z, j(2), k#</td>
</tr>
<tr>
<td>Second Syllable Segment Unstressed Onset: p(4), f(6), v(3), t(8), d(3), dʒ(2), n(4), r(3), Ω, s(7), z, j(3), j(2), l(8), j, k(6), g, w</td>
</tr>
<tr>
<td>Second Syllable Segment Unstressed Nucleus: i¹#, u&quot;(3), u&quot;(2), #t(8), u(2), e, #o(3), o&quot;#, o&quot;(2), o&quot;(3), a(10), a#, æ#(4), æ(3), æ(11), æ#, æ#, æ(4), æ(3), æ#, æ(3), æ#, æ(3)</td>
</tr>
<tr>
<td>Second Syllable Segment Unstressed Coda: p#, v#, tʃ(2), d#, d#(2), n(2), n#(3), s#, z#(2), f#, j#(2), l(2), k#(4), g#</td>
</tr>
<tr>
<td>Third Syllable Segment Stressed Onset: n</td>
</tr>
<tr>
<td>Third Syllable Segment Stressed Nucleus: i¹</td>
</tr>
<tr>
<td>Third Syllable Segment Stressed Coda:</td>
</tr>
<tr>
<td>Third Syllable Segment Unstressed Onset: b(2), m(2), f(2), v, t(4), d(2), n(4), s(2), z, j(4), l(5), j(2), k, h(2)</td>
</tr>
<tr>
<td>Third Syllable Segment Unstressed Nucleus: i¹, i¹#, u&quot;#, #t(3), e, o&quot;, o#(2), å(6), æ#(2), æ#(3), æ#(4), æ#(5), æ#, æ#, æ(2), æ(3), æ(2), æ(3)</td>
</tr>
<tr>
<td>Third Syllable Segment Unstressed Coda: f#, n, n#(2), s#(3), z#, j#, h#(2), η#</td>
</tr>
<tr>
<td>Fourth Syllable Segment Stressed Onset: Fourth Syllable Segment Stressed Nucleus: Fourth Syllable Segment Stressed Coda:</td>
</tr>
<tr>
<td>Fourth Syllable Segment Unstressed Onset: J, l, t, g(2)</td>
</tr>
<tr>
<td>Fourth Syllable Segment Unstressed Nucleus: i¹#, l, æ(2), æ#, æ#</td>
</tr>
<tr>
<td>Fourth Syllable Segment Unstressed Coda: s#(3)</td>
</tr>
<tr>
<td>Fifth Syllable Segment Stressed Onset: Fifth Syllable Segment Stressed Nucleus: Fifth Syllable Segment Stressed Coda:</td>
</tr>
<tr>
<td>Fifth Syllable Segment Unstressed Onset: Fifth Syllable Segment Unstressed Nucleus: Fifth Syllable Segment Unstressed Coda:</td>
</tr>
</tbody>
</table>

Segment Total for Stressed and Unstressed Onsets and Codas

624
Stressed Onset: \#p^{3}(3), p^{5}, p^{2}, m^{5}, #f^{4}, f, #t^{4}, t^{7}(3), #d, tf, dz, #n^{4}(4), n, r, #s^{17}(2), z^{2}(2), \Theta, s^{2}(2), z, #j^{3}(3), j^{9}(6), #j^{2}(2), j^{2}(2), #k^{h}(5), k^{7}(7), k^{0}(4), #g^{3}(3), g, #w^{2}(2), w^{2}

Stressed Coda: p^{2}(2), b, m, f:#, t, t#, d#, n^{13}(3), s^{2}(2), z^{2}(5), k^{3}(3), k#

Unstressed Onset: #p, p^{4}(4), #b^{2}(2), b^{2}(2), #m, m^{3}(3), #f^{2}(2), f^{8}(4), #t, t^{12}(2), d^{5}(5), #d_{5}, d^{3}(2), #n, n^{8}(8), r^{3}(3), \Theta, s^{2}(2), s^{9}(9), z, j^{4}(4), z^{6}(6), l^{15}(1), t, j^{3}(3), #k^{3}(3), k^{7}(7), g^{3}(3), #x, #w, w, #h, h

Unstressed Coda: p^{#}, m, f#, v#, t^{#}(2), d^{#}, d_{2}^{#}(2), n^{5}(5), n^{5}(5), s, s^{7}(7), z^{3}(3), f^{#}, j^{#}(3), t^{2}(2), k, k^{#}(4), g^{#}, \eta^{#}

Segment Total for Onsets and Codas

Onset: #p, #p^{4}(4), p^{6}, #b^{5}(3), b^{2}(2), #m^{2}(2), m^{9}(9), #f^{7}(7), f^{9}(9), v^{4}(4), #t, #t^{5}, t^{2}(1), t^{3}(3), #d^{3}(3), d^{5}(5), #f^{3}, tf, #d^{2}(2), d^{3}(3), #n^{5}(5), n^{9}(9), r^{3}(3), #s^{2}(2), #z^{2}(2), \Theta^{2}(2), #s^{2}(2), s^{11}(11), z^{2}(2), #f^{2}(2), j^{4}(4), z^{4}(4), j^{2}(21), #l^{2}(23), l^{2}, #j^{3}(3), j^{5}(5), #k^{h}(10), #k^{3}(3), k^{16}(16), k^{0}(4), #g^{4}(4), g^{4}(4), #x, #w^{3}(3), w^{5}(5), #h^{2}(2), h

Coda: p^{2}(2), p^{#}, b, m^{2}(2), f^{#}(2), f^{#}, v^{#}(2), t, t^{#}(7), d^{#}(4), d_{2}^{#}(2), n^{22}(22), n^{#}(7), s^{4}(4), s^{#}(11), z^{2}(2), z^{#}(5), f^{#}(2), j^{#}(3), j^{7}(7), t^{#}(3), k^{#}(6), k^{#}(8), g^{#}(2), \eta, \eta^{#}

Segment Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllable Segment: #p^{6}, #b^{3}(3), #m, m, #f, f, v, t^{2}(2), t^{#}(4), #d^{2}(2), d^{#}(2), #f^{3}, #d_{5}, n^{4}(4), #n^{2}(2), #s^{4}(4), z^{#}(2), f^{#}(2), #j^{#}(3), j^{9}(8), l^{4}(4), #j^{2}(2), j, #k^{h}(5), k^{10}(10), #g^{3}(3), #w^{2}(2), w

#i^{2}(2), #u^{#}, o, o^{#}, o^{#}, e^{#}, e, e^{2}(2), \lambda, \ae(6), a, a^{#}, \alpha(7), a^{#}

First Syllable Segment Stressed: #p^{3}(3), p^{4}(4), b, m, #f^{4}, #t^{6}, t^{7}(7), #d, #n^{4}(4), n^{5}(8), r, #s^{17}(2), s, #z^{2}(2), z, #j^{3}(3), j^{9}(6), l^{4}(4), #j^{2}(2), j, #k^{h}(5), k^{10}(10), #g^{3}(3), #w^{2}(2), w

#i^{2}, #i^{5}(5), u, #u^{#}, u^{#}(5), u, t^{3}(2), #e^{l}(4), o^{#}(2), a, \#\epsilon, \epsilon^{(3)}, \#\lambda, \gamma^{2}(2), \#\ae(2), \ae(11), \#a^{2}(2), #a(3), a(10)

First Syllable Segment Unstressed: #p, #b^{2}(2), #m^{2}(2), #f^{2}(2), #t, #d^{3}, #n^{2}(2), #s^{2}(2), s, l, #k^{3}(2), k, #g, #x, #w, #h

#i^{2}, #u^{#}, u^{#}(5), #i^{5}(5), o^{#}, #a^{2}(2), a^{4}(4), \#\epsilon, \epsilon, \alpha(3)

Second Syllable Segment Stressed: #p^{6}, m^{5}(5), f, f:#, t, t^{#}(3), t^{#}, d^{#}, tf, dz, n^{5}(5), \Theta, s^{4}(4), z^{2}(2), j^{6}(6), l^{2}(2), j, k^{h}(4), k^{#}, g, w

#i^{2}, u^{#}(3), i^{2}(2), e^{l}(4), o^{#}, \lambda, \gamma^{l}, a^{l}, a^{l#}, a^{#}, a^{9}(9)

Second Syllable Segment Unstressed: p^{4}(4), p^{#}, #m^{#}(4), f^{6}(6), v^{3}(3), v^{#}, t^{8}(8), t^{#}(2), d^{3}(3), d^{#}, d_{2}^{#}(2), d^{3}(2), n^{6}(6), #n^{#}(3), #n^{3}(3), #n^{#}, r^{3}(3), \Theta, s^{7}(7), s^{#}, z, z^{#}(2), j^{3}(3), f^{#}, j^{2}(2), j^{#}(2), l^{8}(8), t^{2}(2), f^{#}(2), j^{#}, j^{3}(6), k^{#}(4), g, g^{#}, w

#i^{2}(3), u, #u^{#}(2), u^{#}(8), u^{2}(2), e^{l}, e^{#}(3), o^{#}, o^{#}(2), o^{#}(3), a^{10}(10), a^{#}, a^{4}(4), #a^{#}(2), \epsilon, \epsilon, a^{l#}, a^{3}(3), a^{#}, a^{l#}, a^{#}, a^{#}

Third Syllable Segment Stressed: n

#i^{2}

Third Syllable Segment Unstressed: b^{2}(2), m^{2}(2), f^{2}(2), f#, v, t^{4}(4), d^{2}(2), n^{5}(5), #n^{#}(2), #m^{#}(4), s^{2}(2), s^{#}(3), z^{2}(2), j^{4}(4), j^{#}, l^{5}(5), l^{#}(2), #d^{#}, j^{2}(2), k, #n^{#}, h^{2}(2)

#i^{2}, #i^{#}, i^{#}(3), e^{l#}, o^{#}(4), a^{6}(6), #a^{#}(2), a, \epsilon^{l}(2), a^{#}, a^{l#}, a^{2}(2)

Fourth Syllable Segment Stressed:

Fourth Syllable Segment Unstressed: #m^{#}(3), j, l, g^{2}(2)

#i^{2}(2), l, a^{2}(2), a^{#}

Fifth Syllable Segment Stressed:

Fifth Syllable Segment Unstressed:

Segment Total by Syllable
First Syllable Segment: #p, #pʰ(3), p(4), #b(2), b, m(3), #f(6), #t, #tʰ, t(7), #d, #dʒ, #n(5), n(10), r, #s(19), s(2), #z(2), z, #x(3), ʒ(8), l(5), #j(2), j, #k(3), kʰ(5), k(11), #g(4), #x, #w(3), w, #h

### Monosyllable Consonant Cluster Onset (all entries are word initial):
- Monosyllable Consonant Cluster Coda (all entries are word final):

### Unstressed Segment:
- First Syllable Segment:
- Fifth Syllable Segment:
- Third syllable Segment:
- First Syllable Consonant Cluster Stressed Onset (all entries are word initial):
- First Syllable Consonant Cluster Unstressed Coda:
- First Syllable Consonant Cluster Unstressed Onset (all entries are word initial):

### Stressed Segment:
- First Syllable Consonant Cluster Stressed Unstressed Coda:
- First Syllable Consonant Cluster Stressed Onset (all entries are word initial):

### Third syllable Segment:
- Fourth Syllable Segment:
- Fifth Syllable Segment:

### Supra-Segments: Consonant Clusters

Consonant Cluster Total for Stressed and Unstressed Syllables and Monosyllables according to Syllable Configuration

---

Monosyllable Consonant Cluster Onset (all entries are word initial): #bl, #bʃ, #skʃ, #ʃt(2), #sk, #ʃmʃ, #ʃw, #kʰl, #kʰʃ, #kʰw

Monosyllable Consonant Cluster Coda (all entries are word final): nd#, nt#(2), nz#, st#, ʃʃ#, ff#, ks#(2), ɳk#

First Syllable Consonant Cluster Stressed Onset (all entries are word initial): #pʰʃ, #ʃl(2), #sk(5), #sp, #stʃ, #spl, #skw, #gr, #kʰʃ, #kʰl, #kʰʃ

First Syllable Consonant Cluster Stressed Coda:

- First Syllable Consonant Cluster Unstressed Onset (all entries are word initial): #s#m, #k₁
- First Syllable Consonant Cluster Unstressed Coda: ks
Second Syllable Consonant Cluster Stressed Onset: \( p^h_u, t^h_u, k^h_w, gl \)
Second Syllable Consonant Cluster Stressed Coda: \( nt#, sk# \)
Second Syllable Consonant Cluster Unstressed Onset: fl, sk, g\( _u \)
Second Syllable Consonant Cluster Unstressed Coda: \( nd#, nt#, \eta s# \)

Third Syllable Consonant Cluster Stressed Onset: 
Third Syllable Consonant Cluster Stressed Coda: 
Third Syllable Consonant Cluster Unstressed Onset: b\( _j, f\( _j, st(2) \)
Third Syllable Consonant Cluster Unstressed Coda: \( ns# \)

Fourth Syllable Consonant Cluster Stressed Onset: 
Fourth Syllable Consonant Cluster Stressed Coda: 
Fourth Syllable Consonant Cluster Unstressed Onset: 
Fourth Syllable Consonant Cluster Unstressed Coda: 

Fifth Syllable Consonant Cluster Stressed Onset: 
Fifth Syllable Consonant Cluster Stressed Coda: 
Fifth Syllable Consonant Cluster Unstressed Onset: 
Fifth Syllable Consonant Cluster Unstressed Coda: 

Consonant Cluster Total for Stressed and Unstressed Onsets and Codas

Stressed Onset: \( #p^h_u, p^h_u, #fl(2), t^h_u, #sk(5), #st(5), #sp, #st\_u, #spl, #skw, #gr, #k^h_u, #k^h_l, k^h_j, k^h_w, gl \)

Stressed Coda: \( nt#, sk# \)

Unstressed Onset: b\( _j, f\( _j, fl, sk, st(2), #sm, #kl, g\( _u \)

Unstressed Coda: \( nd#, nt#, \eta s#(2), ks \)

Consonant Cluster Total for Onsets and Codas

Onset: \( #p^h_u, p^h_u, #bl, #b\( _j, f\( _j, fl, #fl(2), t^h_u, sk, #sk(6), st(2), #st(7), #sp, #sm, #st\_u, #spl, #skw, #sk\_u, #fmu, #fw, #gr, #k^h_u(2), #k^h_l(2), #kl, #k^h_j, k^h_w, gl, g\( _u \)

Coda: \( nd#(2), nt#(4), ns#(2), nz#, sk#, #t\_u, #f\_u, #f\_g, ks, ks#(2), \eta k# \)

Monosyllable Consonant Cluster: 

First Syllable Consonant Cluster Stressed: \( #p^h_u, #fl(2), #sk(5), #st(5), #sp, #st\_u, #spl, #skw, #gr, #k^h_u, #k^h_l, k^h_j \)
First Syllable Consonant Cluster Unstressed: \( #sm, #kl, ks \)

Second Syllable Consonant Cluster Stressed: \( p^h_u, t^h_u, nt#, sk#, k^h_w, gl \)
Second Syllable Consonant Cluster Unstressed: fl, nd#, nt#, \eta s#, sk, g\( _u \)

Third Syllable Consonant Cluster Stressed: 
Third Syllable Consonant Cluster Unstressed: b\( _j, f\( _j, ns#, st(2) \)

Fourth Syllable Consonant Cluster Stressed: 
Fourth Syllable Consonant Cluster Unstressed: 

Fifth Syllable Consonant Cluster Stressed: 
Fifth Syllable Consonant Cluster Unstressed: 

Consonant Cluster Total per Syllable

First Syllable Consonant Cluster: \( #p^h_u, #fl(2), #sk(5), #st(5), #sp, #sm, #st\_u, #spl, #skw, #gr, #k^h_u, #kl, #k^h_l, #k^h_j, ks \)
Second Syllable Consonant Cluster: \( p^h_u, fl, t^h_u, nt#(2), nd#, \eta s#, sk, sk#, k^h_w, gl, g\( _u \)
Third Syllable Consonant Cluster: b\( _j, f\( _j, ns#, st(2) \)
Fourth Syllable Consonant Cluster:

Consonant Cluster Stressed and Unstressed Total

Consonant Cluster Stressed: #p^{b}, p^{b}, #fl(2), t^{b}, nt#, #sk(5), sk#, #st(5), #sp, #st, #sp, #skw, #gr, #k^{b}, #k^{b}, k^{b}, gl

Consonant Cluster Unstressed: b, fl, f, nd#, nt#, ns#, sk, #sm, st(2), #kl, ks, g

Consonant Cluster Total (absolute)

Narrow: #p^{b}, p^{b}, #bl, #by, b, #fl(2), fl, #fz, f, t^{b}, nt(4), nd#(2), ns#, nz#, sk, #sk(6), sk#, #st(7), #sp, #sm, st(2), #st, #sp, #skw, #sk, #fml, #fw, #ft#, #ft#, ks, k#(2), k^{b}(2), kl, k^{b}(2), k^{b}, k^{b}, k^{b}, gl, g, #gr, #nk

Broad: p(2), bl, b(2), fl(3), f(2), tu, nt(4), nd(2), ns(2), nz, sk(8), st(7), sp, sm, st(2), st, spl, skw, sk, fml, fw, ft, ff, ks(3), kl(2), kl(3), kj, kw(2), gl, gl(2), n

Supra-Segments: Whole Syllables

Whole Syllable Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllable Whole Syllable:
#ski/nt#, #k^{b}i/ls#, #u#, #don#, #sto#, #ho#, #ja#, 
#ks#, #dev#, #dgy#, #funk#, #blaent#, #baent#, #maelf#, #skand#, #k^{b}aj#, #klaent#, #ban#, #fma#, 
#p^{b}and#, #sta#, #fwaks#, #fma#, #ja#, #laaf#, #k^{b}aut#, #k^{b}wat#

First Syllable Whole Syllable Stressed (all entries are word initial):
#i, #fl(2), #si, #wi, 
#k^{b}uk, #u, #stu, #sku, #ju, #ju, #k^{b}ju, #grun, 
#p^{b}, #skl, #spl, 
#e, #ne, #ste, #se, #ge, 
#flo, #so, #sko, 
#w, 
#s, #t'en, #sk, #k^{b}ep, 
#a, 
#p^{b}, #ja, 
#ae, #aen, #flae, #nae, #naek, #stæt, #skæ, #stæb, #zae, #jaen, #jaek, #k^{b}em, #gær, 
#al(2), 
a(2), #a, #p^{b}ja, #dan, #naz, #sta, #span, #skwa, #sta, #zau, #k^{b}ou, #k^{b}ja

First Syllable Whole Syllable Unstressed (all entries are word initial):
#ni, 
#u, #fu, #gu, #xu, #hu, 
i(2), #tn, #im, #fiks, 
#k#l, 
#k#o, 
a(2), #ba, #ta, #sa, #ka, 
#b, 
#e, 
#sm, 
#pa, #ma, #wan

Second Syllable Whole Syllable Stressed:
st, 

628
Second Syllable Whole Syllable Unstressed:

Third Syllable Whole Syllable Unstressed:

Fourth Syllable Whole Syllable Unstressed:

Fifth Syllable Whole Syllable Unstressed:

First Syllable Whole Syllable (all entries are word initial):

Whole Syllable Total per Syllable
#e, #es, #t^en, #ske, #k^l^ep,
#ap,
#p^s, #sma, #jcn,
#ae, #æn, #fla, #næ, #næk, #stæt, #skæ, #stæb, #zæ, #jæn, #jæk, #k^æm, #g^æp,
#a(2),
#a(2), #ai, #pa, #p^ja, #ma, #dan, #naz, #sta, #span, #skwa, #sta, #zau, #k^a, #k^s, #wan

Second Syllable Whole Syllable: v[^#], sk[^#], st[^], w[^#],
ku,
vu"m[^], t^u"[^], d^u"[^], fu"[^], ju"[^], lu"[^],
fi, ttk[^](2), tip[^], t^\i sk[^], d^\i n[^], n[^], k[^], k^"[^],
j\u[^], j\u[^],
f\e[^], f\e^z[^], le[^], le[^], gle[^],
p\o[^], fo[^], do[^], no[^], zo[^], jo[^], lo[^],
p^\a[^], p^\a[^], p^\a[^], flad[^], fa, nat[^], r^\a[^], r^\a[^](2), s^\m[^](3), sak[^], sa, z^\eta[^], ja, l^\eta[^], ja, k^\m[^], ka,
va, d^\a[^], d^\a[^], na[^], Θ[^], Θ[^], sa,
tez[^],
man,
s\a[^], Θ[^],
t\ae[^], r^\a[^], l^\a[^], l^\a[^], r^\a[^],
p^\a[^], t^\a[^], a^f[^],
ta[^], ta[^], tan[^], dan[^], ma(2) max(2), sa, k^\an, k^\as, k^\wa, kad[^], gla

Third Syllable Whole Syllable: n[^], l[^], l[^],
ju[^],
v^\eta[^], n[^], l[^],
te[^], le[^], he[^],
b^\a[^], no[^](2), sto^\n[^], jo[^],
b^\a[^], mans[^], fa[^], fja[^], da[^], sta[^], za[^], r^\a[^], ja,
n^\a[^],
me[^], de[^],
l[^], ka[^],
t^\a[^], haf[^]

Fourth Syllable Whole Syllable: t[^],
s[^],
\a[^], as[^], gas[^], g^\eta[^]

Fifth Syllable Whole Syllable:

Whole Syllable Stressed:
#l[^], #fl[^](2), n[^], #s[^], st[^], #w[^],
#k^\uk,
#u[^], t^u"[^], d^u"[^], #stu[^], #sku", #ju"[^], #j\u"[^], #k^\u"[^], #grun,
#p^\i[^], t^\i sk[^], #si^, #s[^], k^\i[^],
#[^], fe^z[^], le[^], le[^], gle[^],
#f[^], #a[^], #s[^], zo[^],
#wa[^],
#es, #t^en[^], #ske, #k^\i ep,
#ap, man,
#p^b[^], Θ[^], j^\a[^],
#ae, #æn, #fla, t^\a[^], #næ[^], #n^\a[^], #stæt[^], #skæ[^], #stæb[^], #zæ[^], #jæn[^], #jæk[^], l^\a[^], #k^\a[^], #g^\a[^],
#a(2), p^\a[^], t^\a[^], ja^f[^],
#a(2), #a[^], p^\a[^], ma(2) ma(2)[^], #dan[^], #naz[^], sa[^], #sta[^], #span[^], #skwa[^], #sta[^], #zau[^], #k^\a[^], #k^\s[^], k^\a[^], k^\as[^], k^\wa[^], gla
Whole Monosyllables:

pahd [pʰəd], dev [dev], dōn [don], blant [blænt], stoh [stəʊ], oo [u], rah [ra], mālf [məlf], shmrahk [ʃmək],
fruhk [ʃək], skad [skæd], branž [brænʃ], lahrsh [lærʃ], bahn [bæn], yur [jʊər], karts [kɑ:ts], choose [ʃəʊz], kresē [kres],
krag [kʰræg], kwahnt [kʰwɔnt], ho [ho], schwahks [ʃwɔks], jez [dʒɛz], klank [klæŋk], stall [stəʊ], eks [ɛks], skreaent [skrənt]

Whole Bisyllables:

AHske  [əˈski], SKWAHkum  [ˈskwɔ·kəm], YOUfay  [ˈjuˌfeɪ], FEEtah  [ˈfiˌtæ], GROONdoh  [ˈɡrʊnˌdoʊ], EHSStah  [ˈɛsˌtæ], KRAHnuhr  [ˈkɹənˌhər], SKOOTip  [ˈskuˌtɪp], NAKsh  [næˌkʃ], GAYden  [ˈgeˌdɛn], GRAPshur  [ˈɡræpˌʃʊr], AHRvck  [ˈɑɿˌvək], SPLInk  [ˈsplɪnk], KLEPtik  [ˈkɫəptɪk], NVYoom  [ˈnvəˌm], EYESum  [ˈɛɪzəˌm], FLOWtahn  [ˈfləʊˌtæn], STAYtez  [ˈsteɪˌtɛz], RANfuhld  [ˈrɑnˌfʊld], STRAHO  [ˈstrəˌhoʊ], STATsum  [ˈstætˌsʌm], OOWee  [ˈuˌwi], SKIHshuk  [ˈskɪˌʃʊk], RAKtkk  [ˈræktɪk], PIIjuhr  [ˈpɪjʊr], NAHzdahn  [ˈnɑzˌdæn], SKAthumnd  [ˈskeɪˌθɔmnd], KOOKsum  [ˈkʊkˌsʌm], SEElayg  [ˈsiˌleɪg], ANDurve  [ˈændvɚ], KAMLin  [ˈkæmlɪn], KAHRTic  [ˈkɑərtɪk], ZAHRglay  [ˈzɑːrˈɡlɛɪ], AYlay  [ˈeɪˌleɪ], PRAHjlnt  [ˈpɹəˈdʒlnt], WEEhunc  [ˈwiˌhʌŋk], EENohz  [ˈɛnˌoʊz], STAHNnut  [ˈstaʊˌnʌt], SPAHNsheo  [ˈspænˌʃuˌoʊ], RAHNkahd  [ˈraʊnˌkæd], SAYlow  [ˈseɪˌloʊ], DAHNfor  [ˈdɑnˌfoʊ], AHpul  [ˈɑpʊl], ZAPOe  [ˈzæˌpəʊ], TENl∞o  [tɛnˈlʌʊo], SKOWpuh  [ˈskəwˌpu]  

wahnJOO  [wɑˌdʒuˌ], chTRISK  [kˌtɪrsk], uhTYE  [aˌtɪə], nceeYOWF  [niˌˈjaʊf], smoROO  [sməˌˈjuʊ], fooLANT  [fuˌˈlænt], koeTOO  [koʊˌˌtʃuˌ], buhFYAZD  [bəˌˌfɛˈzəd]

Whole Trisyllables:

NAKsuhmunce  [ˈnækˌˌsuˌməns], ASUHrtahl  [ˈæˌsuˌtərl], YOUNyuhlus  [ˈjʊnˌjɑːˈluːs], UPshoollee  [ˈʌpˌʃuˌlɪ], SKEHUHKai  [ˈskɛˌˌhəkˌai],
WURrowbro  [ˈwʊrˌrəʊˌbɾəʊ], PORuhtay  [ˈpɔrˌuʊˌteɪ], FLAKuhhl  [ˈflækˌoʊˌhəl], STABvurns  [ˌsteɪbˌvərˈnəs], STOOuνurz  [ˈstʊˌˌfəˌnɛz],
EYEznahf  [ˈɛjəˌznəˌf], FEEOkoolah  [ˈfiˈəˌkʊˌla],
pahKASHyou  [ˈpɑˌˌkɑsˌjuˌ], KUHMAHtsonen  [kəˌˌmɑˌˌstoʊnəŋ], imbRYYveeng  [ɪmˈbɹiˌˌvɛŋ], hooMAHhow  [ˈhuˌˌmɑˌˌhəʊ], ooCHANoe  [uˌˌˌkɑnˌˌəʊ],
uhRANdu  [ˌəˌˌrænˌdə], bURMAHlin  [ˌbəˌˌmɑˌˌlɪn], klyMAHrun  [klɛˌˌmɑˌˌrən], jooSTEEfuh  [dɭuˌˌˌstɪˌˌf], ihKHInhuh  [iˌˌˈkɪnˌˌhə], fikSTHOYdale  [fɪksˌˌˈθəʊˌˌdeɪl], ihGLAHnoe  [ˈɪˌˈɡlæˌˌnəʊ], suhKWAHMair  [səˌˌˈkwaˌˌmər]

Whole Tetrasyllables:

SOpunhaygun  [ˈsoʊˌˌpʊnˌˌheɪˌˌgən], KYOUuhlayus  [ˈkˌjuˌˌraˌˌleɪˌˌeɪ],
tuhKANyuHlee  [təˌˌkɑnˌˌjɑˌˌlɪl], hooMUHnstuhtee  [xuˌˌˌmɑnˌˌstəˌˌtɪl], gooSAHfuhgus  [ˈɡəˌˌsɑˌˌfɑˌˌgəs], mahZOElecuh  [ˌmæˌˌˈzoʊˌˌlɪˌˌeɪ],
inffHNEeshi  [ɪnˌˌˌfɪˈnɪˌˌfiˌˌs]  

Whole Pentasyllables:
Segmental and Supra-Segmental Profile Data Sheet

Question ID: g.

Segments

Segment Total for Stressed and Unstressed Syllables and Monosyllables according to Syllable Configuration

Monosyllable Onset: #m(2), #f(3), #v, #t, t(2), #d(3), #f, #n, #s(4), #f(2), #j, #u(4), l, #k, w(2)
Monosyllable Nucleus: i, u, e, e#(2), #o, #a(2), #(2), #, #& (2), æ, a#, a(5)
Monosyllable Coda: p#, p, m#, t#(6), n, n#, Θ#, s(4), j(3), k(2), t#(2), k#(5), g#(2), η(2), h#

First Syllable Segment Stressed Onset: p(3), #p, #b(2), b, #m, #f, #v, #t, (2), #d(5), r, #s(6), #z, #f(3), #j(7), j(13), l, #k, #k(8), k, #g(4), #w(4), #h(4)
First Syllable Segment Stressed Nucleus: i(2), u, u*(3), #, t(10), e#, o*(2), #a, #(3), #ø, æ(3), #a(3), a*(2), a, #a, a(18)
First Syllable Segment Stressed Coda: b, m(3), v, n(5), r, Θ, s(5), z, j(5), l, g, η(3)

First Syllable Segment Unstressed Onset: p, #p, #m(5), #f(2), t(2), #d(2), #s(4), #(5), j(4), #k(3), #k, #g(2), #h
First Syllable Segment Unstressed Nucleus: i(2), #u*, u*(3), #, t(1), e#, o*(2), #α, æ(2), a(6), a(7)
First Syllable Segment Unstressed Coda: b#, f, t#, d#(2), n(3), n#, s#, Θ, k, k#

Second Syllable Segment Stressed Onset: b(4), v(2), t, t*(3), d(3), n(4), s, j, j(5), l(5), j, k(2), h
Second Syllable Segment Stressed Nucleus: i, u*(3), t(2), e*, o*(3), e(2), æ(2), a(6), a(7)
Second Syllable Segment Stressed Coda: b#, f, t#, d#(2), n, n#, s#, Θ, k, k#

Second Syllable Segment Unstressed Onset: p#, #p, #m(3), #f(2), t(2), #d(2), #s(4), #j(5), j(4), #k, #k, #g(2), #h
Second Syllable Segment Unstressed Nucleus: i*, i*(6), u*, t(8), u, e#, o*, o*#(3), a(13), #a, #j(5), #h(5), #ø, #ø(2), æ(2), æ(2), a, æ, æ(2), a(2), ã, æ, a(6), a(7)
Second Syllable Segment Unstressed Coda: p#, t#, d#, d#, n(2), n(2), s, s(3), f#, j#, l#(2), η#

Third Syllable Segment Stressed Onset: f, t*, j, k
Third Syllable Segment Stressed Nucleus: i, æ, a
Third Syllable Segment Stressed Coda: k

Third Syllable Segment Unstressed Onset: m, f, v(2), t(5), d(4), d#, n(2), r(2), s(3), z(4), j(5), l(2), j, k(5)
Third Syllable Segment Unstressed Nucleus: i#, i*(2), i#, u*(3), t(6), e*(3), e#, a(7), a#(2), æ#(2), æ#(2), æ(2), æ(2), a, a
Third Syllable Segment Unstressed Coda: p#, t#(2), n#, s(2), s(3), j#, l#(2), k#(4), g#*, η#

Fourth Syllable Segment Stressed Onset: #p, #f(4), t#, d#, n(2), s(2), s(3), j#, l(2), k#, g#(2), η#
Fourth Syllable Segment Stressed Nucleus: i, u*, o*, o*, a(2), æ(2), æ(2), æ#(2)
Fourth Syllable Segment Stressed Coda: d#

Fifth Syllable Segment Stressed Onset: #p, #f(4), t#, d#, n(2), s(2), s(3), j#, l#(2), k#(4), g#*, η#
Fifth Syllable Segment Stressed Nucleus: #p, #f(4), t#, d#, n(2), s(2), s(3), j#, l#(2), k#(4), g#*, η#
Fifth Syllable Segment Stressed Coda: d#
Stressed Onset: p(3), #p(3), #b(2), b(5), #m, #f, f, #v, v(2), #tʰ(2), t(3), tʰ(4), #d(5), d(3), n(4), r, #s(6), s, #z, #ʃ(3), f, #ʃ(7), l(19), l(7), j, #k, #kʰ(8), kʰ(3), k, #g(4), #w(4), #h(4), h

Stressed Coda: b, b#, m(3), f, v, t#, d(#2), n(8), r, Θ, s(5), s#, z, z#, j(5), l#, t, k(2), k#, g, η(3)

Unstressed Onset: #pʰ(2), pʰ, p(4), b(3), #m(5), m(6), #f(2), f(3), v(5), t(16), #d(2), d(9), #dʒ, dʒ(2), n(8), #r, r(6), #s(4), s(10), z(5), j(2), #j(5), j(18), l(9), j(3), #k(3), #kʰ(3), k(11), #g(2), g(3), h

Unstressed Coda: p#(2), b, m, t#(3), t′#, d#(4), dz#, n(2), n#(3), s(3), s#(6), j#, j(2), l#, t(2), #l(4), k, k#(4), g′#(2), η, η#(2)

Segment Total for Onsets and Codas
Onset: #pʰ(2), pʰ, p(7), #b(2), b(8), #m(8), m(6), #f(6), f(4), #v(2), v(7), #tʰ(3), t(21), tʰ(4), #d(10), d(12), #tʃ, #dʒ, dʒ(2), #n, n(12), #r, r(6), #s(14), s(11), #z, z(5), #ʃ(5), j(3), #ʃ(13), l(17), j(4), #k(4), #kʰ(10), kʰ(3), k(13), #g(6), g(3), #w(4), w(2), #h(5), h

Coda: p, #p(3), b(2), b#, m(4), m#, f, v, t#(10), t′#, d#(6), dz#, n(11), n#(4), r, Θ, Θ#, s(12), s#(7), z, z#, j#, j(10), j#(2), l#, t(4), l#(6), k(3), k#(10), g, g′#, g′#(2), η(6), η#(2), h

Segment Total for Stressed and Unstressed Syllables and Monosyllables
Monosyllabic Segment: p#, p, #m(2), m#, #f(3), #v, #tʰ(6), t(2), t#(6), #d(3), #ʃ(3), s(4), #ʃ(2), j(7), l, t(2), t#(2), #kʰ(3), k, k#(5), g#(2), η(2), w(2), h

i, u′, i, e′(2), e#, o, o#(2), e(2), ε(2), λ, #ɔ, ϵ(2), æ, æ#, æ(5)

First Syllable Segment Stressed: p(3), #pʰ, #b(2), b(2), #m, m(3), #f, #v, #tʰ(6), t(2), #d(5), n(5), r(2), Ω, #s(6), s(5), #z, z′, #ʃ(3), #ʃ(7), j(18), l, t, #k, #kʰ(8), k, #g(4), g, η(3), #w(4), #h(4)

i#(2), u, u′#(3), #i, t(10), e′, o′#(2), a#, z(3), λ(4), #ɔ, #æ, æ(3), #ə#(3), a#(2), a, #a, a(18)

First Syllable Segment Unstressed: p, #pʰ, b, #m(5), m, #f(2), t(2), #d(2), #dʒ, #r, #s(4), #ʃ(5), j(6), t, #k(3), #kʰ(8), k, #g(2), η, #h

i#(2), u′#(6), u′#(7), #i, t(3), e′#(2), a#(2), a(14), #æ, æ, a, a′#(2), a, #a#(2), a(2)

Second Syllable Segment Stressed: b(4), b#, f, v(2), t, t#(3), t#, d(3), d#(2), n(7), n#, s, s#, z#, j, j(5), l(5), l#, j, kʰ(2), k, k#(3, h

i, u′#(3), t(2), e′#, o′#(3), ε(2), λ, #æ(2), a#(6), a(7)

Second Syllable Segment Unstressed: pʰ, p(3), p#(2), b(3), m(4), #ʃ(2), f(2), v(2), t(9), t#, t′#, d#(3), d(5), dʒ, dz#, n(8), n#(2), #r(2), r(3), s(7), s#(3), z, j, j#, j(9), l#, l(6), #l(2), #j(2), #ʃ(5), j(2), k(4), g(3), η

i, i′#(6), u′#, i(8), u, e#, o′#, o′#(3), æ(13), a#, #æ(2), æ(2), #æ(2), #æ(2), æ, a′#(2), a′#, a′#, æ, æ, æ, æ, æ, æ(5)

Third Syllable Segment Stressed: f, tʰ, j, l, kʰ, k

i′, æ, æ

Third Syllable Segment Unstressed: p#, m, #ʃ#, f, v(2), t(5), t#(2), d(4), dz, n(2), n#, #ʃ#, r(2), s(5), s#(3), z(4), j, j(5), l#, l(2), t#(2), j#(4), j, k(5), k#(4), g′#, η

i′, i′#(2), i#, u′#(3), i(6), e′(3), e#, a(7), æ#(2), æ#(2), æ#(2), æ#(2), æ#(2)

Fourth Syllable Segment Stressed:
Fourth Syllable Segment Unstressed: m, v, d#, r, s, l, #ʃ(2), k(2)

i′#, u′##, o′#, a(2), æ#(2), æ#(2)

Fifth Syllable Segment Stressed:
Fifth Syllable Segment Unstressed: Segment Total by Syllable

634
First Syllable Segment: p(4), #pʰ(2), #b(2), b(3), #m(6), m(4), #f(3), #v, #tʰ(2), t(4), #d(7), #dʒ, n(5), #r, r(2), θ, #s(10), s(5), #z, z, #ʃ(3), #x(12), #t(24), l(2), #k(4), #kʰ(9), k(2), #g(6), g, η(4), #w(4), #h(5)

i(4), #u", u, u"(5), #i(2), u(13), e(3), o"(2), #a(2), a(14), ə(2), e(3), η(4), #ɔ, ɔ, #æ(3), #a(3), a(12), #a(2), a(20)

Second Syllable Segment: pʰ(6), p(3), #p(6), b(7), b#(4), m(4), #ŋ(3), #f(2), f(3), v(4), t(10), tʰ(3), t#(2), ɬ(4), #d(3), d(8), #d(2), dʒ, dʒ#, n(15), #n(2), η(2), #ŋ(2), r(3), s(8), ʃ(4), z, z#, f(2), f#, ʃ(14), #t(2), ʃ(5), j(3), k(5), kʰ(2), k#, g(3), η#, h

i(2), i#(6), u"(4), t(10), u, e#, e", e"(4), o"(4), o"(3), #a(3), ə(2), ə#(2), e(3), ɔ, æ(3), a(8), a#", a"#, a(12)

Third Syllable Segment: p#, m, #ŋ#, f(2), v(2), t(5), tʰ(1), t#(2), d(4), dʒ, n(2), η#, #ŋ#, r(2), s(5), s#(3), z(4), j, #l(3), #t(2), #t(4), j, k(6), k#, kʰ(4), g"#, η#

i(2), i#(2), i#, u"(3), i(6), e(3), e#(7), a(7), #a(2), ə#(2), æ(3), æ(2), α(2)

Fourth Syllable Segment: m, v, d#, r, s, l, #ַl(2), k(2)

i#, u"#, o"#, a(2), α(2), ə#

Fifth Syllable Segment:

Segment Stressed and Unstressed Total

Stressed Segment: p(3), #pʰ(2), #b(2), b(6), b#(4), #m, m(3), #f(2), #v, #tʰ(2), t(4), t#, #d(5), d(3), d#(2), n(12), n#, r(2), θ, #s(6), s(6), s#(2), z#, z#, #ʃ(3), j, #l(7), ʃ(24), l(7), ʃ, t, j, k#, kʰ(8), kʰ(3), k(3), k#, #g(4), g, η(3), #w(4), #h(4), h

i(4), u, u"(6), #i(12), e(2), o"(5), œ, ɛ(5), η(4), #ɔ, ɔ, #æ(6), #a(3), a(8), a, #a, α(26)

Unstressed Segment: #pʰ(6), p(4), #p(2), b(4), #m(5), m(7), #ŋ(3), #f(3), f(3), v(5), t(16), t#(3), t#(2), #d(2), d#(4), d(9), #dʒ, dʒ#, d#(2), n(10), n#(3), #ŋ(2), #ŋ(3), #r, (6), #s(4), s(13), s#(6), z(5), #ʃ(2), #ʃ(14), j(20), #ʃ(2), l(9), t, #t(4), #t(2), #t(11), j(3), #k(3), #kʰ, k(12), k#(4), #g(2), g(3), g"#, η#, η#, #ŋ(2), #h

i(4), i#(9), i#, #u", u"(6), u"#, #i(17), u, e(5), e#(6), e#, o", o"(4), #a(2), a(36), α#(5), α#(3), α#(5), ε, ɔ, æ(3), a, a#(4), a#", a"#, #a, α(8)

Segment Total (absolute)

Narrow: #pʰ(2), p(8), p#(3), #b(2), b(10), b#, #m(8), m(10), m#, #ŋ(3), #f(6), f(5), #v(2), v(8), #tʰ(3), t(4), t(21), t#(10), t#(2), #d(10), d(12), d#(6), #ʃ, #dʒ, dʒ#, d#(2), n(23), n#(5), #ŋ(2), #ŋ(3), #r, r(2), #n, n(6), θ, θ#, #s(14), s(23), s#(7), #z, z(6), z#, #ʃ(5), #ʃ(3), #ʃ(13), #ʃ(51), #ʃ(2), l(17), l#, (4), #t(6), #ʃ(2), #ʃ(11), j(4), #k(4), #kʰ(10), kʰ(3), k(16), k#(10), #g(6), g(4), g"#, #g(2), η(6), η#(2), #w(4), w(2), #h(5), h, h#

i(9), i#(9), i#, #u", u, u"(13), u"#, #ʃ(2), ʃ(30), u, e(9), e#(2), o, o"(6), o"(4), #a(2), a(36), α#(5), α#(6), α#(5), ε(8), η(5), #ɔ(2), ɔ(4), #æ(10), #a(3), a(12), a#", a#", #a, #a(2), a(39)

Broad: p(14), b(13), m(22), f(11), v(10), t(39), d(28), tf, dʒ(4), n(34), r(3), r(6), θ(2), s(44), z(9), #ʃ(9), #ʃ(66), l(18), l#(23), j(4), k(44), g(13), η(8), w(6), h(7)

i(19), u(16), t(32), u, e(12), o(11), α(43), α(11), ε(8), η(5), ɔ(6), æ(11), a(20), a(41)

Supra-Segments: Consonant Clusters

Consonant Cluster Total for Stressed and Unstressed Syllables and Monosyllables according to Syllable Configuration

Monosyllable Consonant Cluster Onset (all entries are word initial): #f, #d, #sw, #st(2), #skw, #ʃ, #kʰ(2)

Monosyllable Consonant Cluster Coda (all entries are word final): nt#, st#(2), #k#, #st#(2), #pθ#, #m#, #k#(2)

First Syllable Consonant Cluster Stressed Onset (all entries are word initial): #pʰ, #bl, #vr, #tʰw, #d, #sp, #spm(2), #st, #stu, #skj, #fb, #kʰ(5), #g(2)

First Syllable Consonant Cluster Stressed Coda:
First Syllable Consonant Cluster Unstressed Onset (all entries are word initial): #d, #st(2), #sp, #k

First Syllable Consonant Cluster Unstressed Coda:

Second Syllable Consonant Cluster Stressed Onset: p, b, bl, st(2), k
Second Syllable Consonant Cluster Stressed Coda: nz#, nd#

Second Syllable Consonant Cluster Unstressed Onset: b, f, t, d, st
Second Syllable Consonant Cluster Unstressed Coda: nd#, st#

Third Syllable Consonant Cluster Stressed Onset: fl, t
Third Syllable Consonant Cluster Stressed Coda:

Third Syllable Consonant Cluster Unstressed Onset: st
Third Syllable Consonant Cluster Unstressed Coda: st(#2)

Fourth Syllable Consonant Cluster Stressed Onset:
Fourth Syllable Consonant Cluster Unstressed Onset:

Fifth Syllable Consonant Cluster Stressed Onset:
Fifth Syllable Consonant Cluster Stressed Coda:
Fifth Syllable Consonant Cluster Unstressed Onset:
Fifth Syllable Consonant Cluster Unstressed Coda:

Consonant Cluster Total for Stressed and Unstressed Onsets and Codas

Stressed Onset: #p, p, b, bl, fl, #vr, #t, t, d, #st(2), #st, #st, #sk, #f, #k(5), k, k, k, k, k, g

Stressed Coda: nz#, nd#

Unstressed Onset: b, f, t, d, #st(2), st(2), #sp, #k

Unstressed Coda: nd#, st(#3)

Consonant Cluster Total for Onsets and Codas

Onset: #p, p, b, bl, fl, f, #vr, #t, t, d, #st(2), #st, #st, #sk, #f, #k(2), #k(7), k, k, k, k, k, g

Coda: nt#, nd(#2), nz#, st(#5), k, k, k, #st(#2), #t, k#

Consonant Cluster Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllabic Consonant Cluster: #fl, #d, #st(2), #st, #sk, #f, #k, #st, #st, #sk, #f, #k(2)

First Syllable Consonant Cluster Stressed: #p, p, b, bl, #vr, #t, t, d, #st(2), #st, #st, #sk, #f, #k(5), g

First Syllable Consonant Cluster Unstressed: #d, #st(2), #sp, #k

Second Syllable Consonant Cluster Stressed: p, b, bl, nz#, nd#, st(2), k, k

Second Syllable Consonant Cluster Unstressed: b, f, t, d, nd#, st, st#

Third Syllable Consonant Cluster Stressed: fl, t, k

Third Syllable Consonant Cluster Unstressed: st, st(#2)

Fourth Syllable Consonant Cluster Stressed:
Fourth Syllable Consonant Cluster Unstressed:

Fifth Syllable Consonant Cluster Stressed:
Fifth Syllable Consonant Cluster Unstressed:

Consonant Cluster Total per Syllable

First Syllable Consonant Cluster: #p, p, b, bl, #vr, #t, t, d, #st(2), #st, #st, #sk, #f, #k(5), k, g
Second Syllable Consonant Cluster: pj, bj(2), bl, fj, tj, dj, nz#, nd#(2), st(3), st#, kʰj, kʰl

Third Syllable Consonant Cluster: fl, tʰj, st, st#(2), kl

Fourth Syllable Consonant Cluster:

Fifth Syllable Consonant Cluster:

Consonant Cluster Stressed and Unstressed Total

Consonant Cluster Stressed: #pʰj, pj, #bl, bj, fj, #vr, #tʰw, tʰj, dj, nz#, nd#, #sp, #spμ(2), #st, st(2), #stμ, #skj, #fjb, #kʰj(5), kʰj, kʰl, #gμ(2)

Consonant Cluster Unstressed: bj, fj, tj, #dj, dj, nd#, #sp(st(2), st(2), st(3), #kʰj)

Consonant Cluster Total (absolute)

Narrow: #pʰj, pj, #bl, bj(2), #fl, fj, #vr, #tʰw, tʰj, tj, #dj(3), dj, nz#, nt#, nd#(2), #sp(2), #spμ(2), #st(5), st(4), st#(5), #stμ, #skj, #skw, #sw, #fjb, #fjμ, st(2), tμθ#, tm#, #kʰμ(7), kʰj, kʰl, kʰj, #gμ(2), #kʰμ(2)

Broad: #pʰj, bl(2), bj(2), fl(2), fj, vr, tw(2), dj(4), nz, nt, nd(2), sp(2), spμ(2), st(14), stμ, skj, skw, sw, #fjb, fjμ, jst(2), tμθ, tm, kμ(9), kl, kj, gμ(2), #kʰμ(2)

Supra-Segments: Whole Syllables

Whole Syllable Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllable Whole Syllable:

First Syllable Whole Syllable Stressed (all entries are word initial):

First Syllable Whole Syllable Unstressed (all entries are word initial):

Second Syllable Whole Syllable Stressed:

Second Syllable Whole Syllable Unstressed:

Third Syllable Whole Syllable Stressed:

Third Syllable Whole Syllable Unstressed:

Fourth Syllable Whole Syllable Stressed:

Fourth Syllable Whole Syllable Unstressed:

Fifth Syllable Whole Syllable Stressed:

Fifth Syllable Whole Syllable Unstressed:

637
Second Syllable Whole Syllable Stressed:
ʃi/,
bju"n#, ju"d#,
dzb#, ni,
stei,
blo", t'o", jo",
tëk, nês#,
bɔ,
da, jæn, kʰæk#,
ba't#, va'nd#, da¹, la¹, ha¹,
t'ə, dan, na, ja(2), jan, laf, kʰla

Second Syllable Whole Syllable Unstressed:
pil#, pil/#, si¹, sti/#, zi¹#, kl/#,
bju", lu"#,
ms#, fən#, vis#, nî, nîf#, nîs, lîn#, lîŋ#, jup#,
te#,
to"#, sto"#, lo"#,
b³j, ma#, mas#, ν³, l̠a, ta, dʰm#, da, dʰm#, na(2), r²(2), r²n#, sa(2), st'n#, f²n#, ja(2), lan, la, ñ³#, kat˚#, k³#, gast#, tə#, dʒəd#, na, gə#,
pəd#,
p³a"#, fa²#, ja¹#, ka¹,
ma³#, toɬ#, laɗ³#

Third Syllable Whole Syllable Stressed:
tʰj³/

Third Syllable Whole Syllable Unstressed:
di#, ri³#, zi³, zi¹#,
nu", ju"p#, ju"#,
mæk#, vəŋ#, tig˚#, dʒst#, rik#, ut#,
ve³#, te³#, je¹, ke¹,
ta, da#, n³##, sa, sta, sʰm#, z³#, zə#, fas#, jəst#, laə(2), k³(3),
ə#,#, fa#,#
dæk#, kuək#,
da'n#,
to#

Fourth Syllable Whole Syllable Stressed:
Fourth Syllable Whole Syllable Unstressed:
si¹#,
ku"#,
o"#,
ə#,#, ma#, rəd#, la#, tɑ#, kʰ#,
va#

Fifth Syllable Whole Syllable Stressed:
Fifth Syllable Whole Syllable Unstressed:
Whole Syllable Total per Syllable
First Syllable Whole Syllable (all entries are word initial):
#mi, #fl, #sti, #k#ju, #hi'm,
#u", #p"ju", #vrun, #ju"m, #k"u"n, #wu", #hu",
#t(2), #fj, #t"win, #t"ni, #d#n, #dzf, #spt(2), #fj, #k"ju, #k"ju(2), #win, #h1,
#spt#, #je(2),
#jo", #ho",
#a(2), #ma, #mat#, #da, #da, #sa, #sta(2), #ja(3), #ka(2), #k#ja, #ga,
#ma-, #fj#,
#de, #dev, #ze,
#dja#, #dsn, #jns, #wam,
#m#, #k#,
#ae, #spja, #ja#, #k#ja,
#a(3), #fja, #ra, #skja, #kar, #ha, #ag, #ak, #ma, #p"aj, #ba#, #blaz, #ma#, #sta, #fj#, 
#ja(4), #jam, #k"o, #k"am, #gu#, #ga#, #ga(2), #ga

Second Syllable Whole Syllable:
pi#, pi#, bi#, si#, zi#, fi, ki#,
bju", bju"m#, ju"d#, lu"m#,
miss#, fain#, vis#, db#, nt(2), nt#, nts, ltn#, ltn#,
ulp#,
te#, ste#,
to"#, sto", blo", t"o", jo", lo"#, go"#,
b#, ma#, mas#, v#, ta, ta, d"m#, dja, d"m#, d"m#, na(2), ri"(2), ri"#, sa(2), st"#, j"#, #g#, #k#t#, #k#t#

Third Syllable Whole Syllable:
#t"ji, #di#, ri#, zl#, zl#

nu", ju"p#, ju"m#

m#k#, v#n#, trg"#, dgst#, r#t#, j#t#,
ve#t#, te#, je#, ke#

ta, da#, n"#, sa, sta, s"#, z"#, za#, fas#, jast#, las#(2), k#j#(3),
#j#, fa#,

da#, k#æ, k#æk#

da#n#,
flak, ta#

Fourth Syllable Whole Syllable:
si#,
ku#,
o#,
æ#,
ma#, rad#, la#, r#t#, k#t#,
va#

Fifth Syllable Whole Syllable:

Whole Syllable Stressed and Unstressed Total

Whole Syllable Stressed:
#t"ji, #sti, fi#, #k#ju, #hi'm,#
bju"m#, #vrun, ju"d#, #k"u"n, #wu", #hu",
#t#, #t"win, #t"ni, #d#n, #dz#, n#, #spt, #fj, #k"ju, #k"ju(2), #win, #h1,
#spt#, #je(2),
#jo", #ho",
#fj, #
Supra-Segments: Whole Words

Whole Word Total per Word Length

Whole Monosyllables:

vay [ve], swust [swast], dark [dæk], stah [stah], maynk [meŋk], nik [nik], mark [mærk], teen [tʰin],
krahnk [kʰæŋk], skeuhl [skwel], dant [dænt], chait [ʃeit], stall [stɔl], shurst [ʃəst], forst [ʃɔrst(2)], drahp [dɹap], olph [əlfθ],
shreg [ʃrəg], rolm [rolm], flah [flæ], kroog [kʰrʊɡ]

Whole Bisyllables:

GAHRshuhnd [ɡər-ʃənd], DINkee ['dɪŋ-ki], SHIHmuh ['ʃi-ма], SHURloo ['ʃər-lu], KRIHkul [kʰri-ku], KARtay ['kær-te],
RAHpee ['ʃə-pi], SPRAYgoh ['spreɪ-ɡo], MAHniss ['meɪ-nis], RANjurd ['ræn-dʒəd], WUHNgur ['wʌn-ɡə], STRAIVhis ['strai-θi], BLAHZeeeng ['bləz-θiŋ], DEHfrin ['di-θfrin], KRIShtuhm ['kʰris-θəm], KAHtoe ['kʰə-toʊ], STEEkuh ['stɪ-θkət], TILLmar ['tʰɪl-mər], ORIFie ['ɔr-θfi], HISschee ['hɪs-θs], EYEnup ['eɪ-θnp], RAHNisht ['ræn-θs], KAHMpow ['kʰɑm-pəu], GRAHblo ['ɡɹə-θlo],
FAELduh ['fæl-θ], RAHMnus ['ræm-θs], KREEduh ['kʰri-θ], HEEMlum ['hɪm-θm], KRILOjde ['kʰri-loj], BAHTHyre ['bɑθ-θ],
PAHRtul ['pʰɑr-təl], KOONtahl ['kʰənθ-θl], TWINDuh ['twɪn-θd], EYEEbee ['eɪ-θbi], SKRYuhl ['skrəθl], RUSpee ['rʌs-θpi],
SHBAHRgust ['ʃbər-θst], DUSTur ['dʌst-θ], AHGdahm ['əɡ-θm], DRUNGstuhm ['drʌŋ-θst], SPIHzee ['spɪ-θ], ROHped ['rɔ-θp]

dribDIB [drɪb-θdɪb], uhVYNZ [ə-θvənθ], murreNESS [mər-θnəs], rayBYOUNE [reɪ-θˈbjuːnθ], korrVYN [koʊ-θˈvənd], juhBITE [dʒə-θˈbait],
ruhKRAK [rə-θˈkæk], hyRROD [hæ-θˈˈrʊd], rahHAL [rə-θˈhal]

Whole Trisyllables:

finkeyyou ['fɪŋ-θ-θˈjʊʊ'],

KRANuhdyne ['kʰræn-θ-daθn], GRAHvuhvaii ['ɡər-θ-θvai], RAHMbyouluhs ['ræm-θˈbju-θluθ], VROINSuhdeh ['vro-θn-səθ-də], EYEstoruust ['eɪ-θ-θˈstər-θt],
Anihkul ['æn-θ-θˈkʊl], SPRASmuhuh ['spreɪs-θ-θˈmuh], IHRuhxhr ['ɪ-θˈθai], ZEHruhfr ['θeθ-θˈfr], WOObahroop ['wʌ-θˈbɑ-θˈrʊp],
RAHlukul ['rə-θˈlʊkʊl], WINdruhls ['wɪn-θˈdrʌls], HOLEnzc ['hələnθ-θs], GAHnrul ['ɡə-θˈnərul],
ooNAIDee ['uθˈ-θˈnəl-θˈrɪl], muhLYEur ['mæ-θˈlɛər], guhRAHjst ['ɡə-θˈræθst], duhSHEEVeeneg ['dʌθ-θˈvɪnθ],
mulTAHsum ['mʌl-θˈθəm], mecYANDak ['miθˈ-θən-θˈdæk], uhRAHtihg ['θə-θˈθərθɨh], kuhDYZul ['kəθˈdəzθəl], feCDAHnuh ['fɪθˈdʌnθə],
nyKLATHay ['θəl-θˈkʰlɑθ-θl], stuhLAHFnun ['stə-θˈləfθ-θn], kruhSTYshus ['kʰə-θˈstɹθ-θs], suhROMik ['θə-θˈɹəm-θəθk],
suhBLOWkrak ['səθ-θˈbləwθ-θk], stuhRAHNdun ['stəθˈ-θˈjænt-θd], spihNAHthik ['spɪθ-θˈnə-θθk]

Whole Tetrasyllables:

DEVruhkahytud ['dɛv-θˈrək-θˈræd], HOOsahnoovur ['huθˈ-θˈsənůvθ-θvər],
kuhROWsuhmuh ['kəθ-θˈərθ-θˈsəθ-θm], prooNIShstukoo ['pɾəʊ-θˈnɪs-θˈstəθ-θˈkʊθ], roomTEKnuhkul ['roʊm-θˈθɛkθ-θˈkʊθ], ruhDAZeeo ['rəθ-θˈdɛzθ-θl-θˈʊθ'],
garBORayul ['ɡə-θˈbɔθ-θˈræθ],

mahnuhKaluh ['mən-θˈkʰæθ-θl], ahskeetalAHKsee ['əθk-θˈsiθˈfəθk-θˈsiθ], inisTREEuθ ['θɪθ-θˈrɛθ-θˈjuθ]

Whole Pentasyllables:
APPENDIX E

COMPLETE SEGMENTAL AND SUPRA-SEGMENTAL RANKING DATA SHEETS
Segmental and Supra-Segmental Ranking Data Sheet

Question ID: S. the wad of hair removed when cleaning a hairbrush

Segments

Segment Total for Stressed and Unstressed Syllables and Monosyllables according to Syllable Configuration

Monosyllable Onset: $\lambda(9), \#s(5), \#g(5), l(4), \#f(3), \#d(3), \#p^h(2), k(2), p, \#b, \#m, \#t, \#n, n, r, \Theta, \#f, \#j, \#k^h$ (46)

Monosyllable Nucleus: $\alpha(8), \#v(5), \epsilon(3), l^h(2), u^v(2), \alpha^l(2), \alpha^r(2), u, \Theta^l$ (26)

Monosyllable Coda: $t^h(4), \#p^h(3), k^h(3), t^h(2), d^h(2), t^h(2), z^h(2), f^h(2), b^h, f^h, d^h, s^h, j^h, t, k, g^h$ (29)

First Syllable Segment Stressed Onset: $\#g(11), \alpha(8), \#w(8), s(6), l(5), \#k^h(5), \#n(4), \#l(4), k(4), \#b(3), \#f(3), \#d(3), \#f^h(3), \#p^h(2), \#t^h(2), \#p, \#b, \#m, \#v, \#f, \#d^h, \#z, \#j, \#h$ (81)

First Syllable Segment Stressed Nucleus: $a(14), \alpha(11), z(9), \alpha(6), l^h(5), \epsilon(4), u^v(3), \#u^v(2), o^v(2), \alpha^l(2), o^l(2), a^l(2), \#a(2), l^h, \#l^h, \#u^v, \#z^h, \#a^v$ (72)

First Syllable Segment Unstressed Coda: $k(9), m(5), n(3), s(3), t(3), p(2), \#i(2), \#z(2), v, d^h, j, g^h$ (34)

First Syllable Segment Unstressed Onset: $\#s(3), \#b, \#f, \#l^h, \#j, \#i, \#k, \#g, \#h$ (13)

First Syllable Segment Unstressed Nucleus: $a(6), u^v(3), \#e(3), \#i, \#a, \#a$ (16)

First Syllable Segment Unstressed Coda: $n(2), k(2), g, \eta$ (6)

Second Syllable Segment Stressed Onset: $s(3), b(2), t(2), w(2), p^h, p, m, d, \Theta, z, l^h, l$ (17)

Second Syllable Segment Stressed Nucleus: $\alpha(3), a(3) \wedge(2), u^v, \epsilon, \alpha^l, a^v$ (14)

Second Syllable Segment Stressed Coda: $\alpha(2), n^h, j^h, k^h, \eta$ (6)

Second Syllable Segment Unstressed Onset: $s(11), b(7), \alpha(7), t(6), d(6), l(5), g(5), f(4), k(4), w(4), p(3), m(3), \Theta(3), z(3), f(3), n(2), r(2), z, j, k^h, h$ (82)

Second Syllable Segment Unstressed Nucleus: $a(16), \#l^h(10), a(10), z(9), l^h(6), \alpha^l(4), \#l^h(4), o^v(2), o^l(2), o^l, u^v, e^l, o^v, \eta, \alpha, \#z, a^h, a^h$ (74)

Second Syllable Segment Unstressed Coda: $n^h(4), b^h(2), f^h(2), s^h(2), j^h(2), b^h, t^h, t^h, d^h, n, z^h, f^h, j, k^h, g^h$ (24)

Third Syllable Segment Stressed Onset: $b, t, s$ (3)

Third Syllable Segment Stressed Nucleus: $u^v^h, \alpha^v$ (2)

Third Syllable Segment Stressed Coda: $b, t, s$ (3)

Third Syllable Segment Unstressed Onset: $l(8), \alpha(5), s(4), f(3), k(3), t(2), p, b, m, f, v, d, d^h, n, z, j, h$ (36)

Third Syllable Segment Unstressed Nucleus: $a^l(4), a^l(4), t(3), a^l(3), l^h(2), u^v(2), u^v^h(2), o^v(2), o^v$ (14)

Third Syllable Segment Unstressed Coda: $s^h(3), n^h(2), z^h(2), p^h, m, f^h, t^h, d^h, n, f^h, k^h, \eta^h$ (16)

Fourth Syllable Segment Stressed Onset: $f^h, \alpha, o^v$ (3)

Fourth Syllable Segment Stressed Coda: $f^h, \alpha, o^v$ (3)

Fourth Syllable Segment Unstressed Onset: $l^h, a, o^v$ (3)

Fourth Syllable Segment Unstressed Coda: $p^h s^h$ (2)

Fifth Syllable Segment Stressed Onset: $f^h s^h, l^h(2)$

Fifth Syllable Segment Stressed Nucleus: $o^v^h$ (1)

Fifth Syllable Segment Stressed Coda: $o^v^h$ (1)

Fifth Syllable Segment Unstressed Nucleus: $o^v^h$ (1)

Fifth Syllable Segment Unstressed Coda: $o^v^h$ (1)

Segment Total for Stressed and Unstressed Onsets and Codas

Stressed Onset: $\#g(11), \#w(8), \#s(6), l(6), \#k^h(5), \#n(4), s(4), \#l(4), k(4), \#b(3), b(3), \#f(3), t(3), \#d(3), \#f^h(3), \#p^h(2), \#p^h(2), m(2), \#t^h(2), w(2), \#p^h, p^h, \#b, \#v, d, \#f, \#d^h, \Theta, \#z, l^h, \#i, \#h$ (101)

Stressed Coda: $k(9), m(5), \alpha(4), n(3), s(3), t(3), \eta(3) p(2), v, d^h, n^h, j^h, k^h, g^h, g$ (40)
First Syllable Segment: k(16), #g(12), j(11), #s(9), #w(8), m(6), n(5), #l(5), l(5), #kʰ(5), #b(4), #f(4), #n(4), #f(4), p(3), #tʰ(3), #d(3), s(3), t(3), η(3), #pʰ(2), g(2), #j(2), #h(2), #p, #b, #v, #j, #d, #z, j, ɣ (134)

Second Syllable Segment: s(14), j(10), #j(10), b(9), t(8), d(7), l(6), w(6), n(5), #g(5), p(4), m(4), f(4), Θ(4), z(4), k(4), n(3), j(3), j(3), #q(3), b(2), f(2), η(2), r(2), s(2), k(2), #p, #b, #j, #d, #v, #z, j, ɣ, η, h (145)

Third Syllable Segment: l(8), s(5), j(5), t(3), s(3), j(3), k(3), b(2), m(2), n(2), n(2), z(2), #j(2), p, p, #f, #t, d, d, #d, η, #z, j, k, #j, g, h (59)

Fourth Syllable Segment: #p, s#, j, l (5)

Fifth Syllable Segment: o# (1)

Segment Stressed and Unstressed Total

Stressed Segment: k(13), j(12), #g(11), #w(8), m(7), s(7), #s(6), l(6), #n(5), #kʰ(5), p(4), #b(4), #l(4), b(3), #f(3), t(3), #d(3), n(3), #j(3), t(3), η(3), #pʰ(2), #tʰ(2), w(2), #p, #p, #v, #d, #j, Θ, #z, #g, j, #j, #j, #k, #g, g, h (140)

Unstressed Segment: s(15), j(15), l(14), #j(12), k(10), b(8), t(8), d(7), n(7), j(7), #n(6), #s(6), #g(6), m(5), f(5), p(4), z(4), w(4), b#(3), f#(3), η(3), #j(3), s(3), z(3), #j(3), #j(3), η(2), r(2), f#(2), j#(2), j(2), k#(2), h(2), p#, #b, #f, v, t#, #tʰ, d#, #d, #j, #g, #j, #j, #j, #k, #g, g, h (202)

Segment Total (absolute)

Narrow: l(36), k(26), l(24), s(22), #g(17), #s(14), m(13), b(12), #j(12), t(11), n(11), p(9), d(8), f(8), #w(8), #f(7), s(7), g(7), #d(6), n(6), #s(6), k(6), w(6), #b(5), f(5), #f(5), Θ(5), z(5), #z(5), #j(5), #j(5), #kʰ(5), p#(4), #pʰ(4), b#(4), f#(4), #tʰ(4), t#(4), #f(4), t#(4), η(4), #d(3), #s(3), #j(3), #j(3), #j(3), #j(3), #j(3), #j(3), j(3), v(2), #s(2), d#(2), η(2), r(2), #j(2), k#(2), g#(2), #h(2), h(2), #p, #b, #p, #p, #b, #m, #v, t#, #j, #d, #d, r, #z, #g, #j, #j, #j, η, #j (411)

Broad: s(43), j(39), k(39), n(28), g(27), l(25), b(22), p(20), t(20), l(20), d(17), j(17), f(17), f(16), m(14), w(14), z(11), t#(6), Θ(5), j(5), #j(5), #j(4), h(4), v(3), #s(2), r(2), r, #z, #g, #j (411)

Total segments: 627 total segments

Supra-Segments: Consonant Clusters

Consonant Cluster Total for Stressed and Unstressed Syllables and Monosyllabic according to Syllable Configuration

Monosyllabic Consonant Cluster Onset (all entries are word initial): #g(3), #d(2), #s(2), #pʰ(1), #b, #f, #tʰ, #n, #Θ, #s, #s, #s, #s, #kʰ, #g(19)

Monosyllabic Consonant Cluster Coda (all entries are word final): b#z, nt#, nd#, #g, #j, #t, k# (6)

First Syllable Consonant Cluster Stressed Onset (all entries are word initial): #s(4), #g(3), #g(3), #kʰ(2), #b, #f, #tʰ, #s, #f, #j, #m, #kʰ (18)
First Syllable Consonant Cluster Stressed Coda: ks, ηk,  (2)
First Syllable Consonant Cluster Unstressed Onset (all entries are word initial): #sk (1)
First Syllable Consonant Cluster Unstressed Coda:

Second Syllable Consonant Cluster Stressed Onset: st, sw, sp, tłɔ (4)
Second Syllable Consonant Cluster Stressed Coda: ɳk# (1)
Second Syllable Consonant Cluster Unstressed Onset: st(2), pʃ, bʃ, Θj, gʃ (6)
Second Syllable Consonant Cluster Unstressed Coda: st#, ɬz# (2)

Third Syllable Consonant Cluster Stressed Onset: st, sk (2)
Third Syllable Consonant Cluster Stressed Coda:
Third Syllable Consonant Cluster Unstressed Onset: sp, st, ʃm, kʰʃ (4)
Third Syllable Consonant Cluster Unstressed Coda: mp#, ɳs#, nz# (3)

Fourth Syllable Consonant Cluster Stressed Onset:
Fourth Syllable Consonant Cluster Stressed Coda:
Fourth Syllable Consonant Cluster Unstressed Onset:
Fourth Syllable Consonant Cluster Unstressed Coda:

Fifth Syllable Consonant Cluster Stressed Onset:
Fifth Syllable Consonant Cluster Stressed Coda:
Fifth Syllable Consonant Cluster Unstressed Onset:
Fifth Syllable Consonant Cluster Unstressed Coda:

Consonant Cluster Total for Stressed and Unstressed Onsets and Codas

Stressed Onset: #sk(4), #gʃ(3), #gJ(3), st(2), #kʰʃ(2), #bl, #ʃJ, #tʰʃ, tłɔ, sk, sw, sp, #spʃ, #ʃm, #kʰl (24)
Stressed Coda: ks, ηk, ɳk# (3)

Unstressed Onset: st(3), pʃ, bʃ, Θj, sp, #skʃ, ʃm, kʰʃ, gʃ (11)
Unstressed Coda: mp#, ɳs#, nz#, st#, ɬz# (5)

Consonant Cluster Total for Onsets and Codas

Onset: #sk(6), #gJ(6), st(5), #gʃ(4), #kʰʃ(3), #ʃJ(2), #tʰʃ(2), #dʃ(2), sp(2), pʃ, #pʰʃ, bʃ, #br, #bl, #fl, tłɔ, #ŋʃ, #Θj, ɬʃ, #sn, #sm, sk, sw, #spʃ, #spʃl, #skʃ, ʃm, #kʰl, kʰʃ, gʃ (54)

Coda: bž#, #mp#, ɳs#, nz#, ɳtʃ#,  nd#, #gʃ#, st#, ɬz#, #tʃ#, #kt#, ks, ηk, ɳk# (14)

Consonant Cluster Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllable Consonant Cluster: #gJ(3), #dʃ(2), #sk(2), #pʰʃ, #br, bž#, #ʃJ, #fl, #tʰʃ, #ŋʃ, #tʃ#, #kt#, #gʃ, #sn, #sm, #spʃ, #spʃl, #skʃ, #kʰʃ, #kʰl, ks, ηk (25)

First Syllable Consonant Cluster Stressed: #sk(4), #gʃ(3), #gJ(3), #kʰʃ(2), #bl, #ʃJ, #tʰʃ, #spʃ, #ʃm, #kʰl, ks, ηk (20)
First Syllable Consonant Cluster Unstressed: #sk (1)

Second Syllable Consonant Cluster Stressed: st, sw, sp, tłɔ, ηk# (5)
Second Syllable Consonant Cluster Unstressed: st(2), pʃ, bʃ, Θj, st#, ɬz#, gʃ (8)

Third Syllable Consonant Cluster Stressed: st, sk (2)
Third Syllable Consonant Cluster Unstressed: mp#, ɳs#, nz#, sp, st, ʃm, kʰʃ (7)

Fourth Syllable Consonant Cluster Stressed: Fourth Syllable Consonant Cluster Unstressed:

Fifth Syllable Consonant Cluster Stressed: Fifth Syllable Consonant Cluster Unstressed:

Consonant Cluster Total per Syllable

First Syllable Consonant Cluster: #sk(4), #gJ(3), #gʃ(3), #kʰʃ(2), #bl, #ʃJ, #tʰʃ, #spʃ, #skʃ, #ʃm, #kʰl, ks, ηk (21)
Second Syllable Consonant Cluster: \textbf{st(3), pù, bu, θù, sw, sp, tł, \textit{t}#}, \textit{t}ző, gu, ηk# (13)

Third Syllable Consonant Cluster: \textbf{st(2), mp#, ηs#, nz#, sp, \textit{sk}, fm, k#} (9)

Fourth Syllable Consonant Cluster: 

Fifth Syllable Consonant Cluster:

<table>
<thead>
<tr>
<th>Consonant Cluster Stressed and Unstressed Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consonant Cluster Stressed: #sk(4), #gl(3), #gu(3), st(2), #kʰu(2), #bl, #fù, #tʰu, #spu, sw, sk, sp, #fm, tł, #kʰl, ks, ηk, ηk# (27)</td>
</tr>
</tbody>
</table>

| Consonant Cluster Unstressed: st(3), pù, bu, mp#, ηs#, nz#, θù, sp, #skù, fm, \textit{t}#}, \textit{t}ゾ, k#} (16) |

<table>
<thead>
<tr>
<th>Consonant Cluster Total (absolute)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Narrow: #sk(6), #gl(6), st(5), #gu(4), #kʰu(3), #fù(2), #tʰu(2), #du(2), sp(2), pù, #pʰu, #bl, bu, #br, bz#, mp#, #fl, #nj, ntf#, ηs#, nz#, nd#, θù, #θù, #sm, #sn, #spu, #spl, sw, sk, #sku, #fm, tł, \textit{t}#}, \textit{t}g#, \textit{t}f#, \textit{t}z#, #kʰl, k#} (68)</td>
</tr>
</tbody>
</table>

| Broad: sk(7), gl(6), st(5), gu(5), kʰ(4), pù(2), fù(2), tʰ(2), du(2), sp(2), \textit{fm}(2), \textit{ŋ}(2), bl, bu, br, bz, mp, fì, nj, ntf, ns, nz, nd, θù, θù, sm, sn, sp, spl, sw, skù, tł, \textit{t}g#, \textit{t}f#, \textit{t}z#, kl, ks, kt (68) |

68 total consonant clusters

**Supra-Segments: Whole Syllables**

Whole Syllable Total for Stressed and Unstressed Syllables and Monosyllables

<table>
<thead>
<tr>
<th>Monosyllable Whole Syllable:</th>
</tr>
</thead>
<tbody>
<tr>
<td>#pʰu, #fù, #tʰu, #tʒu, #bru, #sku, #lu, #gu, #g,j, #btk, #tʰu, #dʒt, #spu, #fj, #gj, #wjk, #wù, #pʰo, #fuo, #na, #ga, #nès, #fme, #lɛ, #gje, #an, #fam, #ska, #ják, #gãŋk, #gl, #gļm, #ʒ, #fŋ, #wọ, #æ, #baŋ, #dæk, #nae, #skæp, #læm, #læs, #kʰjæk, #kʰjæ, #gæ, #gæn, #hæk, #pã, #zã, #aŋ, #ap, #bak, #van, #da, #skam, #sa, #fj, #kʰl, #kʰa, #ga, #glam, #wa, #wa, #woks (71)</td>
</tr>
</tbody>
</table>

First Syllable Whole Syllable Stressed (all entries are word initial): 

#i, #dî, #fjì, #ni, #kʰl, #wî, #u, #u*v, #u*, #sku*, #lu*, #gu*, #jã, #btk, #tʰi, #dʒt, #spu, #fj, #gj, #wjk, #wù, 

First Syllable Whole Syllable Unstressed (all entries are word initial):

#bí, #lú*, #jú*, #gu*, #nã, #bã, #fa, #san, #skjã, #sa, #fjã, 

647
Second Syllable Whole Syllable Stressed:
\[bæ(2),
swu^,,
\]
\[p^ʰə,\]
\[zə,\]
\[mə, dəŋk#,\]
\[θæ, læ')#,\]
\[tʃən#, wa"#,\]
\[ə1, spaɪ, sta (14)\]

Second Syllable Whole Syllable Unstressed:
\[bʌ(3), ɡə(3), kə#(2), sə#(2), zə#(2),\]
\[pɪ#;, fɪ#;, dɪ#;, sɪ#;, li#;, kʰ#;, gi#;,\]
\[ju#;,\]
\[bə, bɪ.JButton#, mɪʃ#, sɪk#, sɪb#, sɪs#, fɪn#, gmɪn#,\]
\[nɛ#;,\]
\[jo";,\]
\[pʰ#, pə, bʰ, mʰn, mə, fʰ#, da, ra, θəb"#, θʰ#, sa, sta#, stʰ#, zʰ#, ʃʰz#, ʒa, jə#, la, kʰ#, kat'#, wə,\]
\[fə#, tʰa#dg#, də#, rə#, sta#, wə#,\]
\[ʃət#,\]
\[θæ#, læn,\]
\[ja#,\]
\[baʃ#, ta, taf#, dag#, da#, da#, sə#, la#, wab#, watʃ#, haʃ (74)\]

Third Syllable Whole Syllable Stressed:
\[bu"#,\]
\[stæ (2)\]

Third Syllable Whole Syllable Unstressed:
\[lo#(2),\]
\[vi#;, zi#;,\]
\[skju"#, ʃmʊ"z#, ʃu"#, lu"d#,\]
\[fɪʃ#, lɪs#, lɪŋ#,\]
\[lo"#,\]
\[tə#, dʰ#, stʰŋs#, sə, ʃʰŋ#, jə#, ləs#, kʰ#, kʰjamp#,\]
\[spa-,\]
\[læk#,\]
\[dʒən#,\]
\[bjə#, nat#, jəŋ#, haf# (29)\]

Fourth Syllable Whole Syllable Stressed:

Fourth Syllable Whole Syllable Unstressed:
\[ʃi,\]
\[ʃəs#,\]
\[lo"p# (3)\]

Fifth Syllable Whole Syllable Stressed:

Fifth Syllable Whole Syllable Unstressed:
\[o"# (1)\]

First Syllable Whole Syllable (all entries are word initial):
\[#lu"(2), #gu"(2),\]
\[#i, #bi, #dɪl, #tfʒl, #nɪ, #kʰl, #wɪf,\]
\[#u,\]
\[#u"v, #u", #sku", #ju".\]

Whole Syllable Total per Syllable

648
#1η, #1g, #blk, #t⁺1, #t⁺1, #d1, #sp1η, #fs, #g1, #wk, #w1, #wu,
#p"o"p, #f10", 
#ba, #fa, #t⁺æn, #sæn, #sk1a, #sa, #fæ, 
#na, #ga, 
#l, #eg, #ek, #nes, #fme, #le, #g1e, 
#1n, #fm, #sk1, #jak, #g1k, #gil, #glm, 
#š, #fš, #wo, 
#æ, #baël, #dæk, #næ, #skæp, #læm, #læs, #k"æek, #k"æe, #gæ, #gæn, #hæk, 
#ak, #pa1, #za1, 
#au, #aq, #p"a, #bak, #van, #da, #skam, #sa, #fau, #k"la, #k"a, #ga, #glam, #wa, #wa, #waks, #ha (88)

Second Syllable Whole Syllable:
#b#(3), #g#(3), #ko#(2), #s#(2), #z#(2), #bæ(2), 
#m#l, #f#l, #d#l, #li#, #k"l, #gil#, 
#swu", #ju", 
#b1, #blm#, #ms#, #sik#, #sib#, #ss#, #fin#, #g1n#, 
#ne#, 
#ø", 
#p#l, #pa, #b#, #m"n, #ma, #f#l, #da, #ra, #θab#, #θ#l, 
#sa, #st#, #st", #z#, #f#l, #ga, #ja, #jaf#, 
#la, #k"#, #kat", #wa, 
#p"a, #fa#, #t"ød#, #da, #ra#, #st#, #wa#, 
#zie, 
#ma, #dæk#, 
#f3t#, 
#θæ, #θæ#, #læ,"#, #læn, 
#tš#n, #ja#, #wa"#, 
#au, #ba#, #ta, #tø#, #dø#, #da#, #da#, #san#, #spa, #sta, #la#, #wab#, #wat#, #haf# (88)

Third Syllable Whole Syllable:
#læ(2), 
#vl#, #zl#, 
#bų", #skj"#, #fmu"z#, #ju", #lu"d#, 
#fš#, #lss#, #fr#, 
#lo#, 
#ta#, #d#l, #st", #sa, #f#, #ja#, 
#las#, #k#l, #k#jamp#, 
#spa, 
#stæ, #lak#, 
#d3a"n#, 
#bą", #nat#, #jan#, #janz#, #haf# (31)

Fourth Syllable Whole Syllable:
#fš, 
#jas#, 
#l#p" (3)

Fifth Syllable Whole Syllable:
o" (1)

Whole Syllable Stressed and Unstressed Total

Whole Syllable Stressed:
#bæ(2), 
#i", #d#l, #fš#, #n#, #k"l, #wil#, 
#u, 
#u"v, #u", #bų", #skj"#, #swu", #lu", #gu", 
#1g, #bšk, #t"1, #t"1, #d1, #sp1η, #fš, #g1, #wik, #wi, 
#wu, 
#p"o"p, #fš", 
#p"a, #na, #go, 

469
Whole Monosyllables:
treats [tɹɪlt̪s], nyak [ɲaɛk], skrooch [skjuә̆ŭ], broop [brup], ruff [ɪ̆fr], mair [mɛ̆j], ghlah [glæt], grunch [ɡrʌntʃ], smuch [smaʃ], drek [dɾɛk], fruss [ʃʌs], gahk [ɡɑk], krush [kɾɔʃ], ghlap [ɡlæp], thrudge [θʌdʒ], skaz [skæz], pahd [pʰd], shoop [ʃŭp], preets [pʰf], ghitch [glɪtʃ], dreb [dɾɛb], snabz [snæb], dush [dɹʃ], flekt [flekt], splahrg [splæʒ], foind [fɹɪnd]

Whole Bisyllables:
WIKsul [ˈwɪk sʊl], KHAbul [ˈkʰə bʊl], LOObul [ˈluʊ bʊl], BOKshoo [ˈbɒk ʃuʊ], PIÉyah [ˈpɑi ʃa], BLIKsee [ˈblɪk sɪ], GLUHMpul [ˈɡlʌm pʊl], NESTahf [ˈnɛst əʊf], SKAHMfıl [ˈskɔm fɪl], WÜHgee [ˈwʊ ɡi], NURdee [ˈnɔr dɪ], SKOOObul [ˈskʊu bʊl], FOLkuhn [ˈfɔl kʊn], GANgrin [ˈɡæn ɡrɪn], THIHjuul [ˈθɪtʃ juʊl], WHIHuul [ˈwɪt ʒuʊl], TRIIHkuht [ˈtri tʃ kʊt], NATuhr [ˈnæt ɦɜ], UNThuub [ˈʌn tʰuub], Awur [ˈæw], GRIHShuulz [ˈɡɪr ʃuulz], GUNKsis [ɡʌŋk sɪs], GLAHMshin [ˈɡlæm sɪn], SHIHfur [ˈʃɪ fr], KRAStur [ˈkɹæ stʊr], DAKSik [ˈdæk stɪk], CHEEnis [ˈtʃi ɪnɪs], HAKlee [ˈhæk lɪ], SKUHHee [ˈskə hɪ], OOVlah [ˈuʊv lɑ], WAHHuul [ˈwɑ hʊul], FUMbahr [ˈfɑm bɑ], DAHSul [ˈdɑs ʊl], GAHkoo [ˈgɑ kʊʊ], LASpree [ˈlæs pɹɪ], AHKlaan [ək ˈtʃæn], SAHruh [ˈsɑ rʊ], GOOWahl [ˈɡʊw ɔl], OLmish [ˈɔl mʃ], GRAsib [ˈɡɹæ sɪb], GLUHblin [ˈɡlʌ hlɪn], EEWatv [ˈɛ lʊt v], SKAPtha [ˈskæp ˈθeɪ], SHARStuuh [ˈʃær ʃtu], WAHKkoe [ˈwɑ kʊ], WAHKsny [ˈwɔks nɪ], DÆt urge [dɹ tɹdʒ], AHGDagh [ˈæg dɹɡ], YUKstun [ˈjʊk stʊn], WEEShdaah [ˈwɪʃ dɹ], POAPDAHL [ˈpɑ pʰp dɹ], LAMFORT [ˈlæm fərt], KRAKSahn [kʰɑɛk sɑn],
buhDUNK [bʌ dɔŋk], skruhWOW [skɹ wʌ], fuhLAIR [fə lɛɪ ʃ]

Whole Trisyllables:
inkeemsnoor [ɪŋ kʰ ɪ l ɹmˈʃə l],
FRoumnijne [ˈfrɔ m ən dʒa n], WAHDIauhlood [ˈwɔrə lʊd], KLASHbulhaf [ˈkʰlə bʊ l haf], SPRINGluhluh [ˈsprɪŋ lə lʊ], SHMEMluhluh [ʃm lə lʊ], POPluhluhs [pʰp lʊ lʊs], IGmuhluoh [ɪg mʌ ləʊ], GURHUHRAHN [ɡʊr ˈhʌr ɹən], ZYlandul [ˈzæl lən dʒ], JHBRUHtuht [ˈdʒt bɹ tʊt], KEERuhshoo [ˈkʰlə ʃuʊ], OOWuhaul [ˈu oʊ lʊ], OOGuhfish [ˈuʊ ɡ ʃɪʃ], LEHShuul [ˈle sə kʰ], GRILAHshkyou [ˈɡɪə lə sku], VAHNDu urb [ˈvɒ bə lɪŋ], NEEZu lkump [ˈni l ʃʊ l kəmp], BALDu hrhnz [ˈbæl də ɹən],
youMUHluh [ju ˈmæ ˈtən], sunBalIs [ˈsɒn bæ lɪs], gosoSTAHbrah [gu ˈstə bɹə], shuhsWOOOzee [ʃə swu zɪ], sUhPURruh [ʃə pʰɹə], egZESTunse [ˈɛ ɡ ˈzɛst ən], eKSPARshun [ˈɛk ˈspə ʃn], beeERVee [bɹl aʊ vɪ],
haftABOO [hə tə ˈbʊ]

Whole Tetrasyllables:
loobAspurus [ˈlu bə ˈspə ɹəs], tanTHAsuhlope [tʰæn ˈθæ sə lə pʰ]
Whole Pentasyllables:

ehroSTAsheeo  [ɛ·ɹoʷ·ˈstæ·ʃi·ˑō]
Segmental and Supra-Segmental Ranking Data Sheet

Question ID: T. the grease that accumulates on top of a hot pizza

Segments

Segment Total for Stressed and Unstressed Syllables and Monosyllables according to Syllable Configuration

Monosyllable Onset: #s(14), l(114), #1(3), #p(2), p(2), #b(2), m(2), #r(2), #g(2), #p, #m, #n, #z, f, #l, #j, #k(6), k, k(4), w (54)

Monosyllable Nucleus: ι(6), æ(4), ɪ(3), ɛ(3), ε(2), ι(2), a(2), #1, u, o, æ, æ#, ɛ, ɛ#, æ, a, æ” (32)

Monosyllable Coda: k(7), f(4), t(3), z(3), m(2), #m, #t, s, #s(2), #r(2), #g(2), p, p#, b#, tʃ#, n, #j, k#, η (40)

First Syllable Segment Stressed Onset: #s(17), j(8), #g(8), l(7), #k(6), #p(5), #n(4), #b(3), #d(3), k(3), w(3), #h(3), p(2), #f(2), #j(2), #l(2), #w(2), m, #m, t, #t#, #tʃ, n, #s: (89)

First Syllable Segment Stressed Nucleus: ι(11), u(8), æ(8), a(8), ι(5), i(4), e(3), ε(3), a(3), u(2), #1, #u, #u”, #t, u, #o”, o”, ç, #æ, a, #a (67)

First Syllable Segment Stressed Coda: ι(6), m(3), n(3), k(3), s(2), j(2), t, z (21)

First Syllable Segment Unstressed Onset: #s(3), #d(2), j(2), b, #m, #f, #tʃ, #l, #k(6), #g (15)

First Syllable Segment Unstressed Nucleus: a(6), æ(2), a(2), i(4), u(6), ε (13)

First Syllable Segment Unstressed Coda: f(6), m, s (4)

Second Syllable Segment Onset: #l(4), d(2), n(2), b, m, s, k(6) (12)

Second Syllable Segment Nucleus: e(2), i(4), u(6), æ, o, æ, ε, a, a, a (11)

Second Syllable Segment Coda: t, #f#, s, η (4)

Second Syllable Segment Unstressed Onset: f(7), l(7), t(6), s(6), j(6), g(6), d(5), k(5), n(4), w(4), m(3), r(3), j(3), p(2), b(2), d(2), Θ(2), p#, v, z, h (77)

Second Syllable Segment Unstressed Nucleus: η(11), a(10), a(8), i(7), u(5), u(4), ι(4), æ(3), i(2), e(2), o(2), o(2), #η(2), ã#, α, æ, æ, æ#, æ, æ” (70)

Second Syllable Segment Unstressed Coda: s(5), d(3), f(2), n(2), t(2), k(2), t, z, x (19)

Third Syllable Segment Onset: j(2), n, k(6) (4)

Third Syllable Segment Nucleus: a(3), u(6) (4)

Third Syllable Segment Coda: tʃ#, k (2)

Third Syllable Segment Unstressed Onset: f(4), t(3), l(3), g(3), s(2), j(2), k(2), b, n, w (24)

Third Syllable Segment Unstressed Nucleus: ι(4), a(4), i(2), l#, u(6), i(6), u(4), #l, #e, #a, a, a” (21)

Third Syllable Segment Unstressed Coda: s(4), k(2), t#, d#, n#, s, j, #, #, k (13)

Fourth Syllable Segment Onset: Fourth Syllable Segment Nucleus: Fourth Syllable Segment Coda:

Fourth Syllable Segment Unstressed Onset: f, d, t, j, l (6)

Fourth Syllable Segment Unstressed Nucleus: o(2), # (6)

Fourth Syllable Segment Unstressed Coda:

Fifth Syllable Segment Onset: Fifth Syllable Segment Nucleus: Fifth Syllable Segment Coda:

Fifth Syllable Segment Unstressed Onset: Fifth Syllable Segment Unstressed Nucleus: Fifth Syllable Segment Unstressed Coda:

Segment Total for Stressed and Unstressed Onsets and Codas

Stressed Onset: #s(17), l(11), j(10), #g(8), #k(6), #p(5), #n(4), n(4), #b(3), #d(3), k(3), w(3), #h(3), p(2), m(2), #f(2), d(2), j(2), #l(2), j(2), k(2), #w(2), b, #m, t, #t#, #tʃ, #s: s (105)

Stressed Coda: ι(6), k(4), m(3), n(3), s(3), t(2), j(2), #, #, #, η (27)

653
ι(11), ρ(10), α(10), u"(8), a(6), l(5), ν(5), ε(4), e(3), a(3), #u"(2), u"(2), #i, #u, #t, u, #o", o", ω, ω, a, a (80)

Second Syllable Segment: ι(11), †η(11), s(8), f(7), t(6), n(6), ω(6), g(6), δ(5), s#(5), k(5), m(4), d(4), w(4), b(3), d#(3), r(3), j(3), p(2), f#(2), n#(2), *η#(2), Θ(2), ti#(2), k#(2), p', *m#, v, t', t#, z#, η, k, n#, h (127)

θ(10), α(9), l(7), u"(6), u"#(5), s(4), e(4), l#(3), o"(3), a#(3), o"#(2), α(2), ε(2), a(2), α#(2), #a, l, a# (66)

Third Syllable Segment: f(4), s#(4), ω(4), k(4), t(3), s(3), l(3), g(3), n(2), t#(2), j(2), k#(2), b, t#, d#, n#, j#, ¼#, k, w (44)

ι(4), α(4), α(4), l(2), u"(2), l#, u"#, e", o"#, a, a# (24)

Fourth Syllable Segment: *η#, f, d, r, f, ι, l (7)

o"(2)#, l#, e#, #a (5)

Fifth Syllable Segment:

Segment Stressed and Unstressed Total

Stressed Segment: *m#, s(17), s(12), l(11), #g(8), n(7), k(7), t(6), #k(6), #p(5), m(5), #n(4), s(4), #b(3), t(3), #d(3), w(3), #h(3), p(2), #f(2), d(2), #η(2), #j(2), j(2), k#(2), w(2), b, #m, #t, #s; z, #, η (132)

α(12), l(11), u"(9), z(8), λ(6), e(5), i(4), ε(4), a(4), o"(3), θ(2), l#, #i, #u, #u", u"#, #i, u, #o", ω, ω, a, a# (82)

Unstressed Segment: ι(13), f(12), †ι(12), l(11), s(10), t(9), s#(9), g(9), k(8), m(5), d(5), s#(5), n(5), w(5), b(4), d#(4), r(4), k#(4), d(3), n#(3), s#(3), t#(3), p(2), *m#(2), f#(2), #d(2), *η#(2), Θ(2), j(2), p', #m, m, f, v, t", t#, #f, z, z#, j, #i, #l, #k, #g #, h (172)

α(20), α(11), l#(10), ι(8), u"(6), u"#(5), o"#(5), l#(4), θ(4), e(3), a#(3), o"(2), α#(2), ε(2), a(2), #u", e", #a, a#, a#, #a (93)

Segment Total (absolute)

Narrow: l(36), #s(34), ω(29), s(16), k(16), m(14), n(13), f(12), t(12), †ι(12), s#(11), k#(11), #g(11), g(9), w(9), #k(8), #p(7), p(7), #l(6), l(6), #b(5), b(5), d(5), s#(5), n#(5), f#(4), t#(4), d#(4), r(4), z#(4), f#(4), l#(4), j(4), #m(3), #f(3), #d(3), #η(3), #j(3), #h(3), m#(2), *m#(2), #d#(2), *η#(2), Θ(2), z(2), f(2), j#(2), k#(2), g#(2), η(2), #w(2), p', #p, p#, b#, v, t", t#, #t, #f, #s; z, #, #j, #k, #, k, #, h (397)

ι(25), α(25), α(20), u"#(19), l#(17), λ(16), e(11), ε(8), λ(8), u"#(6), a#(6), l#(5), o"#(5), o"#(5), a#(4), a(3), #i(2), #u"(2), a#(2), a(2), #u, #u, #i, e, #o", #i, #i, #j, a, a#, #a, a# (207)

Broad: s(62), l(42), k(39), j#(34), n(23), l#(23), g(22), m(21), f(19), t(18), p(17), d(12), b(11), w(11), d#(7), z(7), j(6), j#(4), r(4), h(4), Θ(2), η(2), v, x (397)

u(28), α(27), l(26), l(24), #a(22), #e(18), e(12), o(11), α(11), ε(9), λ(8), #e(7), u, u, z, ι (207)

604 total segments

**Supra-Segments: Consonant Clusters**

Consonant Cluster Total for Stressed and Unstressed Syllables and Monosyllables according to Syllable Configuration

Monosyllabic Consonant Cluster Onset (all entries are word initial): #s(8), b(2), #spl(2), #p#, #m, #sk, #sk, #sm, #sn, #k, w (19)

Monosyllabic Consonant Cluster Coda (all entries are word final): st#(2), mps#, mp#, ns#, j#, j#, jk# (8)

First Syllable Consonant Cluster Stressed Onset (all entries are word initial): #p#(2), #f(2), #sp(2), #d#(2), #g#(2), #p#(2), #bj, #bl, #mj, #st, #ml, #sk, #sw, #skw, #sk, #sm, #gw, #gl (25)

First Syllable Consonant Cluster Stressed Coda: ks (1)

First Syllable Consonant Cluster Unstressed Onset (all entries are word initial): #sm, k#(2), #g# (3)

First Syllable Consonant Cluster Unstressed Coda: Second Syllable Consonant Cluster Stressed Onset: sm (1)

655
Second Syllable Consonant Cluster Stressed Coda:
Second Syllable Consonant Cluster Unstressed Onset: st(2), f, sk, kʰl, k, g, gl (8)
Second Syllable Consonant Cluster Unstressed Coda:
Third Syllable Consonant Cluster Stressed Onset:
Third Syllable Consonant Cluster Stressed Coda:
Third Syllable Consonant Cluster Unstressed Onset: st(2), kl, gl, g (5)
Third Syllable Consonant Cluster Unstressed Coda: st#, ks# (2)
Fourth Syllable Consonant Cluster Stressed Onset:
Fourth Syllable Consonant Cluster Stressed Coda:
Fourth Syllable Consonant Cluster Unstressed Onset: f (1)
Fourth Syllable Consonant Cluster Unstressed Coda:
Fifth Syllable Consonant Cluster Stressed Onset:
Fifth Syllable Consonant Cluster Stressed Coda:
Fifth Syllable Consonant Cluster Unstressed Onset:
Fifth Syllable Consonant Cluster Unstressed Coda:

Consonant Cluster Total for Stressed and Unstressed Onsets and Codas

Stressed Onset: #pʰl(2), #fl(2), #dʒ(2), #sp(2), #kʰj(2), #g(2), #pʰj, #bl, #mj, #st, #sl, #sk, #sw, #skw, #skj, #sm, sm, #gw, #gl (26)
Stressed Coda: ks (1)
Unstressed Onset: st(4), gl(2), f, sk, #sm, f, #kʰj, kʰl, k, kl, #g, gj(2) (17)
Unstressed Coda: st#, ks# (3)

Consonant Cluster Total for Onsets and Codas

Onset: #sl(9), st(4), #bl(3), #sm(3), #kʰj(3), #g(3), #pʰl(2), #fl(2), #dʒ(2), #sp(2), #sk(2), #spl(2), gl(2), #pʰj, #pʰj, #bl, #mj, fs, #st, sk, #sw, #skw, #skj, sm, #sm, #sml, #skj, f, #kʰw, kʰl, kl, kl, gj(2), #gw, #gl (62)
Coda: st#(3), mps#, mp#, ns#, st#, sf#, ks, ks#, nk# (11)

Consonant Cluster Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllabic Consonant Cluster: #sl(8), #bl(2), st(2), #spl(2), #pʰj, mps#, mp#, ns#, #sml, #skj, #sk, #sm, #sn, st#, sf#, #kʰw, nk# (27)
First Syllable Consonant Cluster Stressed: #pʰl(2), #fl(2), #dʒ(2), #sp(2), #kʰj(2), #g(2), #pʰj, #bl, #mj, #st, #sl, #sk, #sw, #skw, #skj, #sm, ks, #gw, #gl (26)
First Syllable Consonant Cluster Unstressed: #sm, #kʰj, #g (3)
Second Syllable Consonant Cluster Stressed: sm (1)
Second Syllable Consonant Cluster Unstressed: st(2), f, sk, kʰl, k, gj, gl (8)

Third Syllable Consonant Cluster Stressed:
Third Syllable Consonant Cluster Unstressed: st(2), st, kl, ks#, gl, gj (7)

Fourth Syllable Consonant Cluster Stressed:
Fourth Syllable Consonant Cluster Unstressed: f (1)

Fifth Syllable Consonant Cluster Stressed:
Fifth Syllable Consonant Cluster Unstressed:

Consonant Cluster Total per Syllable

First Syllable Consonant Cluster: #kʰj(3), #g(3), #pʰl(2), #fl(2), #dʒ(2), #sp(2), #sm(2), #pʰj, #bl, #mj, #st, #sl, #sk, #sw, #skw, #skj, ks, #gw, #gl (29)
Second Syllable Consonant Cluster: st(2), f, sk, sm, kʰl, k, gj, gl (9)
Third Syllable Consonant Cluster: `st(2), st#, kl, ks#, gl, gj` (7)

Fourth Syllable Consonant Cluster: `fl` (1)

Fifth Syllable Consonant Cluster:

Consonant Cluster Stressed and Unstressed Total

Consonant Cluster Stressed: `#pʰl(2), #fl(2), #dʒ(2), #sp(2), #kʰj(2), #gj(2), #p[i], #bJ, #bl, #mj, #st, #sl, #sk, #sw, #skw, #skj, #sm, sm, ks, #gw, #gl` (27)

Consonant Cluster Unstressed: `st(4), gj(2), gl(2), fj, st#, #sm, sk, jl, kʰl, kl, kl, #kʰj, ks#, #gj` (19)

Consonant Cluster Total (absolute)

Narrow: `#sl(9), st(4), #bl(3), st#(3), #sm(3), #kʰj(3), #gj(3), #pʰl(2), #fl(2), #dʒ(2), #sp(2), #pl(2), #sk(2), #skj(2), gj(2), gl(2), #p[i], #p[i], #bJ, #mj, mps#, mp#, fj, ns#, #st, sk, #sw, skw, sm, #sml, #sm, #jl, #jt, #j#, #k®, kl, #kʰw, ks, ks#, kl, #gw, #gl, #k#` (73)

Broad: `sl(9), st(8), gj(5), bl(3), sm(3), kl(3), gj(3), pl(2), fl(2), dʒ(2), sp(2), pl(2), sk(2), skj(2), kl(2), ks(2), pj, µ, bj, mj, mps, mp, fj, ns, sk, sw, skw, sm, sml, sn, #jl, #jt, #j#, #kw, #gw, #k#` (73)

73 total consonant clusters

Supra-Segments: Whole Syllables

Whole Syllable Total for Stressed and Unstressed Consonants and Monosyllables

Monosyllable Whole Syllable:
`#i[ʃ]#, #pʰl'z#, #bl'k#, #ni'l'z#, #gu['f]#, #sliz#, #sljmpl#, #ztk#, #fmtpl#, #lns#, #jtf#, #p'jes't#, #bl'k#, #spl'ŋk#, #mo'b#, #sla-m#, #skl'a#, #slj#, #skl#m#, #skl#, #slae's#, #splaeg'#, #lae#, #k'waeg#, #la's't#, #pa'f#, #slaf#, #gak#` (34)

First Syllable Whole Syllable Stressed (all entries are word initial):
`#sæ(2), #l#, #tʃ#, #st#, #sn#, #kʰj#, #gl#, #hi, #u", #u", #p'u", #p'ju", #blu", #mu", #du"#, #słu", #sp'u"k, #su", #gu", #gu"m, #i#, #fl#, #dʒ#, #dʒ#, #skw#, #s#, #swt, #t, #kʰt, #gi, #w#, #p"l#, #be#, #he#, #o", #jo", #p'ek, #ne, #gwe, #bam, #sl#, #skl, #skl#, #k'h#, #na, #p'lae, #flæ, #næn, #sæn, #spa, #la#, #k'a, #ha", #na, #s'A, #s'ma, #la, #k'la, #gj, #ga, #gwa#, #wan` (67)

First Syllable Whole Syllable Unstressed (all entries are word initial):
`#sA(2), #gl#, #u"`,

657
Second Syllable Whole Syllable Stressed:
kʰiʃ,  
du"#, nu"#,  
be₁, le₁,  
lo"#,  
sma-tʃ,  
ʃes,  
ɔnŋ,  
a't#,  
lə (11)

Second Syllable Whole Syllable Unstressed:
ch#(2), la(2), ʃ#(2), fə#(2),  
ti#, di#, ni, dɡi#, sɨ#, li¹, kuis#, wi¹,  
mu"#, fuu"#, tu"#, dɡu", θu"#, ju"#, lu"f#, ju",  
pid#, fih#, nʃ#,  
ʃəl#, ste¹,  
vo"#, do"#,  
ˈpʰɛʃ, ba#, mʃ#, fa, dɡas#,  
ˈdʒəŋ,  
ar, sta, ʃt#, əŋ#, jæ#, kʰ##,  
g#, gɬ#, gʃ#, was#,  
#ba-, ma-, wa-,  
nes#,  
kła,  
patʰ#,  
fəh#, tad#, ska#,  
san#, jæx#, la#, jaz#, gas#, wad# (71)

Third Syllable Whole Syllable Stressed:
kʰuʃk,  
na, jə#, ja (4)

Third Syllable Whole Syllable Unstressed:
fi'n#, ni¹, gvi#,  
gu"k#,  
ˈʃtʃ#, sttk#, ʃr̩#,  
ɾiks#,  
je¹,  
sto"#,  
as#, ə#, ta, jash#, kʰ#,  
klæst#,  
fa'd#, la#,  
ba#, faʃ# (21)

Fourth Syllable Whole Syllable Stressed:

Fourth Syllable Whole Syllable Unstressed:
fi¹#,  
de#,  
ˈʃlɒ", ʃo"#,  
ˈmʃ#,  
ra# (6)

Fifth Syllable Whole Syllable Stressed:

Fifth Syllable Whole Syllable Unstressed:
First Syllable Whole Syllable (all entries are word initial):

#u^n(2), #sa(2), #sə(2),
#i, #tʃi, #sti, #snı, #kʰi, #gI, #gI, #hI,
#u^n,
#u, #pʰu^n, #pʰu^n, #blu^n, #mu^n, #du^n, #slu^n, #spʰu^n, #su^n, #gu^n, #gu^n,
#iz, #flI, #dI, #dI, #skwI, #slI, #sI, #swI, #II, #kʰI, #gI,
#wuI,
#pʰIoI, #bIoI, #heI,
#o^n, #jo^n,
#ba, #dga, #sma, #kIa,
#pʰIk, #fes, #ne, #gIe,
#bam, #sI, #ska, #skam, #kʰIa,
#mI,
#aks, #pʰIoI, #flI, #tfI, #næn, #sæn, #spæ, #læm,
#tIaI, #lI, #kIa, #hIa,
#a, #mai, #dgaI, #na, #sIa, #sma, #la, #kʰa, #kʰau, #ga, #gwaI, #wan (82)

Second Syllable Whole Syllable:

*r^#(2), la(2), *s#(2), fə#(2),
I^n, I, ni, dI, dI, sI, lI, kI, sI, kI^n, wi,
mu^n, fu^n, tu^n, du^n, dgu^n, nu^n, ßu^n, ju^n, lu^n, ju,
pI^#, fI^#, nI^#, gI^#
beI, teI, stI, leI,
vo^n, do^n, so^n, lo^n, ho^n,
p^#I, boI, m^#, fo, daI, dsI, dʒI, nIk, ra, sta, z^#I, θ^#I, jakI, j^#I, k^nI, k^I, ga, g^I, gu^I, gu^I, wasI,
#bIa, mIa, smaI, waI,
nesI, les,
dIŋ,
kaI,
pat^#, na^tI,
foI, tadI, skaI, sanI, IajI, laI, IajI, gasI, wadI (82)

Third Syllable Whole Syllable:

fI^n, ni, guI^n,
kʰu^k, gu^kI, glu^I,
ftI^#, stI^#, sI^#, wI^#,
jelI,
sto^n,
asI, aI, ta, jasI, k^I,
klæstI,
faI, laI,
baI, faI, naI, saI, ja (25)

Fourth Syllable Whole Syllable:

fi^#,
de^#,
flo^n, jo^n,
*m^#,
rə^n (6)

Fifth Syllable Whole Syllable:

Whole Syllable Stressed and Unstressed Total

Whole Syllable Stressed:

#sə(2),
#i, #tʃI, #sti, #snI, #kʰI, #kʰI, #gI, #hI,
#u^n,
#u, #u^n, #pʰu^n, #pʰu^n, #blu^n, #mu^n, #du^n, #slu^n, #spʰu^n, #su^n, #gu^n, #gu^n,
<table>
<thead>
<tr>
<th>Word Length</th>
<th>Total</th>
<th>Monosyllabic</th>
<th>Bisyllabic</th>
<th>Trisyllabic</th>
<th>Tetrasyllabic</th>
<th>Pentasyllabic</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>114</td>
<td>32</td>
<td>57</td>
<td>19</td>
<td>6</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>First</td>
<td>67</td>
<td>0</td>
<td>53</td>
<td>13</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Second</td>
<td>11</td>
<td>0</td>
<td>4</td>
<td>5</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Third</td>
<td>4</td>
<td>0</td>
<td>1</td>
<td>5</td>
<td>3</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Fourth</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Fifth</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
Segmental and Supra-Segmental Ranking Data Sheet

Question ID: U. an unexpected cool breeze on a sultry day

Segments

Segment Total for Stressed and Unstressed Syllables and Monosyllables according to Syllable Configuration

Monosyllable Onset: s(6), l(6), w(5), b(4), f(4), d(3), z(2), k(2), w(2), p, #p, #m, #l, #t, #b, #g (42)
Monosyllable Nucleus: u*(6), i(6), l*(3), u*(2), a(2), a(2), u, u, o#, ε (27)
Monosyllable Coda: f*(6), f(6), #f(6), #f(3), #f(2), #f(2), #f(2), #t(2), #t(2), #m (29)

First Syllable Segment Stressed Onset: #w(12), #s(10), l(7), #k(6), d(5), #f(4), l(4), #v(3), #t(3), #g(3), #p(2), p, #m, t, #t, #f, #d, n, #r, j, w, #h (71)
First Syllable Segment Stressed Nucleus: u*(11), i(9), a(9), l*(8), a(5), e*(4), l(3), u(2), e(2), a(2), i, #t, #o, #o, #a, #α, a, #a (63)
First Syllable Segment Stressed Coda: n(3), s(3), p(2), m(2), f(2), l(2), l(2), z (17)

First Syllable Segment Unstressed Onset: #k(3), #h(3), #b(2), #m(2), #f(2), l(2), #k(2), #p, #t, j, #j, j, k, #w, w (25)
First Syllable Segment Unstressed Nucleus: a(7), a(4), o*(2), ε(2), l, u*, #i, #o, #o, #a, #α, a, #a (20)
First Syllable Segment Unstressed Coda: m, n, l (3)

Second Syllable Segment Stressed Onset: l(4), t*(3), f(2), d(2), n(2), f(2), m, v, z, w (20)
Second Syllable Segment Stressed Nucleus: a(4), a(3), l*(2), u*(2), i(2), e(2), o*, a* (20)
Second Syllable Segment Stressed Coda: n(3), t#, s#, l, t, k (8)

Second Syllable Segment Unstressed Onset: t(9), l(6), v(5), z(5), r(4), p(3), m(3), f(3), n(3), s(3), k(3), b(2), t(2), z(2), g(2), w(2), t#, d, t, j, f, h (69)
Second Syllable Segment Unstressed Nucleus: i*(8), z(8), a(7), l*(7), #η(5), #η(5), #η(4), #η(4), #η(3), #η(3), u*(2), #η(2), #η(2), a*(2), a*(2), a*(2), a*(2), a(2), o, o*, o#, a#, a*, a# (67)
Second Syllable Segment Unstressed Coda: n(5), f(3), l(3), k(2), p#, s, z#, t#, η# (17)

Third Syllable Segment Stressed Onset: d, l (2)
Third Syllable Segment Stressed Nucleus: i#, u*, l, ε (4)
Third Syllable Segment Stressed Coda: s#, s (2)

Third Syllable Segment Unstressed Onset: ʃ(8), p#(3), f(3), s(3), l(3), w(2), m, v, t, n, r, ʃ, z, h (31)
Third Syllable Segment Unstressed Nucleus: l*(4), t*(4), #η(3), #η(3), #η(2), #η(2), #η(2), u#, e#, a#, a (28)
Third Syllable Segment Unstressed Coda: f*(2), l*(2), t#, t#, n#, s#, z#, t#, k#, η# (12)

Fourth Syllable Segment Stressed Onset: Fourth Syllable Segment Stressed Nucleus: Fourth Syllable Segment Stressed Coda:
Fourth Syllable Segment Unstressed Onset: m, t#, r, j, k (5)
Fourth Syllable Segment Unstressed Nucleus: a(3), u#*, l, a* (6)
Fourth Syllable Segment Unstressed Coda: s(2), d#, η# (4)

Fifth Syllable Segment Stressed Onset: Fifth Syllable Segment Stressed Nucleus: Fifth Syllable Segment Stressed Coda:
Fifth Syllable Segment Unstressed Onset: n, z (2)
Fifth Syllable Segment Unstressed Nucleus: i#, ʃ (2)
Fifth Syllable Segment Unstressed Coda: η# (1)

Segment Total for Stressed and Unstressed Onsets and Codas

Stressed Onset: #w(12), #s(10), l(9), #l(7), #k(6), d(5), #f(4), #v(3), #t(3), #d(3), #n(3), #g(3), #p(2), f(2), #f(2), w(2), p, #m, m, v, t, #t, #f, #d, #r, z, #j, j, g, #h (93)

Stressed Coda: s(4), n(3), n#, j(3), l(3), p(2), m(2), f(2), s(2), t#, z, k (27)
Unstressed Onset: \(1(15), l(t(11), t(10), f(6), v(6), r(6), (6), z(6), m(5), n(5), k(5), w(5), p(3), p^h(3), j(3), #k(3), #h(3), #b(2), b(2), m(2), f(2), t^h(2), g^j(2), \Theta(2), z(2), j(2), #k^h(2), g(2), h(2), p, \#t^h, d, s, s, \#s, i, \#j, \#w \) (133)

Unstressed Coda: \(n#(6), f#(5), i#(4), \eta#(4) s#(3), k#(3), z#(2), j(2), p#, m, t^#, d#, n, s, t# \) (37)

**Segment Total for Onsets and Codas**

Onset: \(l(26), z(23), s(s(16), w(w(15), w(12), t(t(11), f(f(10), f(8), n(n(8), l(l(8), k^h(8), v(v(7), z(7), b(b(6), m(6), r(r(6), s(s(6), p(p(5), t^h(5), t^h(5), m(m(4), d(d(4), j(j(4), j(j(4), h(h(4), p^h(3), p^h(3), v(v(3), j(j(3), #k(3), g(g(3), b(b(2), t(t(2), j(j(2), \Theta(2), z(z(2), z(z(2), h(h(2), p, \#t^h, \#f, \#f, \#d, \#r, \#j, \#w \w) (267)

Coda: \(f#(13), n#(9), s#(9), m(5), s(s(5), j(j(5), n(n(4), l(l(4), t(t(4), #t(4), \eta#(4) p#(3), m(m(3), k#(3), p(p(2), f(f(2), f#(2), v#(2), t#(2), d#(2), z#(2), k(2), t^#, z \) (93)

**Segment Total for Stressed and Unstressed Syllables and Monosyllables**

Monosyllable Segment: \(f#(8), s(s(6), l(l(6), w(w(5), b(b(4), f(f(4), s(s(4), m(m(3), j(j(3), t#(3), k(k(3), p(p#(2), m(m(2), f(f#(2), v#(2), z(z(2), w(w(2), p, p^h, m, f, t, d#, j, t, w \w) (71)

\[ u^*(6), z(6), i(3), \#u^*(2), o^*(2), a^*(2), a(2), u, o, o^#, \varepsilon \] (27)

First Syllable Stressed Segment: \(#w(12), s(s(10), z(z(7), k^h(6), f(f(4), n(n(4), l(l(4), p(p(3), v(v(3), t^h(3), s(s(3), #g(3), p^h(2), m(m(2), f(f(2), t(t(2), #m, t, \#f, \#d, \#r, z, \#j, j, w, \#h \w) (88)

\[ u^*(11), i(9), \#e(9), i^1(8), a(5), e^1(4), \lambda(3), u(2), \varepsilon(2), a^1(2), i, \#i, \#o^*, \varepsilon, \varepsilon, \#a, a, \#a \] (63)

First Syllable Stressed Segment: \(#k(3), \#h(3), \#b(2), \#m(2), \#f(2), j(j(2), l(l(2), \#k^h(2), \#p, m, \#t^h, n, \#s, \#l, \#f, \#j, k, \#w, w \) (29)

\[ a(7), a(4), o^*(2), \varepsilon(2), i, u^*, \#i, \#o, \#a, \#e, \#a, a, \#a \] (24)

Second Syllable Stressed Segment: \(l(l(4), t^h(3), n#(3), f(f(2), d(d(2), n(n(2), f(f(2), m, v, t#, s#, z, j, j, k, w \w) (28)

\[ a(4), \#e(3), i^1(2), u^*(2), z(z(2), e(2), e^1, o^#, a^1 \] (20)

Second Syllable Stressed Segment: \(t(9), l(l(6), v(v(5), n#(5), \#n#(4), z(z(5), r(4), s(s(4), t#(4), p(p(3), m(m(3), f(f(3), n(3), \#n(3), \#j#(3), k(k(3), b(b(2), j(j(2), g(g(2), w(w(2), p#, \#m, t^h, d, \Theta, z#, f, \#f, j, \#j, \#h \w) (99)

\[ i^1#(8), t(8), a(7), i^1(5), \#a(4), \#a(4), \#a(3), u^*(2), \#a#(2), a^1#(2), a^1#(2), o, o^#, o^*, a^1, a^1# \w) (54)

Third Syllable Stressed Segment: \(d, s#, s, l \w) (4)

\[ i^1#, u^#, i, \varepsilon \] (4)

Third Syllable Stressed Segment: \(l(9), p^h(3), f(f(3), s(s(3), l(l(3), f#(2), j#(2), w(w(2), m, v, t, \#t, t#, n, \#n, r, \Theta, s#, z#, f, j, k#, \#n, \#h, h \w) (43)

\[ i^1#(4), i^1#(4), \#i#(4), \#a#(3), \#s(3), \#a(2), \#a#(2), a^1#(2), u^*, e^1, a^1#, a^1 \w) (28)

Fourth Syllable Stressed Segment:

Fourth Syllable Stressed Segment: \(s#(2), m, t^h, d^#, r, j, k, \eta# \) (9)

\[ a(3), u^*; i, a^1 \] (6)

Fifth Syllable Stressed Segment:

Fifth Syllable Stressed Segment: \(n, z, \eta# \) (3)

\[ i^1#, i \] (2)

**Segment Total by Syllable**
First Syllable Segment: #w(13), #s(10), #l(9), #l(8), #kʰ(8), #f(6), l(6), n(5), #tʰ(4), #h(4), p(3), #m(3), m(3), #v(3), s(3), #k(3), #g(3), #pʰ(2), #b(2), l(2), #s(2), w(2), #p, t, #θ, #f, #d, z, j, j, k (117)

uⁿ(12), lⁿ(9), ɪ(9), æ(9), a(9), ə(7), eⁿ(4), ɪ(3), #ɪ(2), oⁿ(2), #e(2), e(2), ɪ(2), æ(2), aⁿ(2), #a(2), i, #oⁿ, #o, #ɛ, #ə, #ɜ, aⁿ(4), a¹(1), a¹(87)

Second Syllable Segment: l(10), t(9), n(#8), ɪ(7), v(6), z(6), f(5), n(5), #n(5), #tʰ(4), r(4), s(4), tʰ(#4), k(4), p(3), d(3), #n(3), j(3), f(3), #j(3), g(3), w(3), b(2), t(2), ɪ(2), z(2), ɪ(2), j(2), k(2), p#, #m, t#, Θ, s#, z#, t#, l, j, #n, h (127)

a(11), t(10), lⁿ(#8), ɪ(7), æ(5), ø(4), ɪ(4), æ(3), uⁿ(#2), uⁿ(2), æ(#2), e(2), ɪ(2), æ(2), a(#2), e¹(2), o, oⁿ, oⁿ, aⁿ, aⁿ, aⁿ(74)

Third syllable Segment: j(9), s(4), l(4), pʰ(3), f(3), s(2), f(#2), j(#2), w(2), m, v, t, t’, t#, d, n, #n, r, Θ, z#, f, j, k#, #g, h (47)

lⁿ(#5), l(5), ø(4), æ(#3), ɪ(3), a(2), ø(#2), a(#2), uⁿ, uⁿ(#2), e¹, e¹, æ, æ, æ, æ, æ, æ(32)

Fourth Syllable Segment: s(#2), m, tⁿ, d#, r, j, k, #g (9)

a(3), uⁿ: i, a¹ (6)

Fifth Syllable Segment: n, z, #g (3)

[ babe # 1 (2)

Segment Stressed and Unstressed Total

Stressed Segment: #w(12), #s(10), #l(9), #l(8), #kʰ(6), #f(4), f(4), s(4), p(3), m(3), #v(3), tʰ(3), tʰ(3), d(3), n#(#3), t(3), #g(3), #pʰ(2), s(2), x(2), j(2), w(2), #m, v, t, #t, #θ, #f, #d, #r, #j, j, k, g, #h (120)

uⁿ(13), t(12), æ(12), lⁿ(10), ø(9), eⁿ(5), eⁿ(5), λ(3), ɪ(3), aⁿ(3), u(2), lⁿ#, i, uⁿ#, #i, #oⁿ, oⁿ, #ɛ, #ə, a¹, #a (87)

Unstressed Segment: j(17), l(11), t(10), s(7), m(6), f(6), v(6), n(6), n#(#6), r(#6), z(6), #n(5), #t(5), k(5), w(5), j(#4), j(#4), #n(4), p(3), #pʰ(3), #m(#3), #x(3), j(#3), k(#3), k(#3), #h(3), #p(2), b(2), #b(2), #m(2), #f(2), tʰ(2), #j(2), #z(2), z(2), f(2), #kʰ(2), g(2), h(2), p#, #m, #t, t#, d, d#, #j, #l, #j, #j, #w (184)

a(16), l(#14), lⁿ(#13), a(11), lⁿ(10), ø(#7), æ(4), æ(#4), ɪ(4), a(#4), aⁿ(#3), aⁿ(3), uⁿ(#2), uⁿ(2), oⁿ(2), e(2), æ(2), uⁿ: #i, e¹, o, oⁿ, #o, oⁿ, æ, æ, æ, æ, æ, æ, æ, æ, æ (114)

Segment Total (absolute)

Narrow: j(28), l(26), #s(16), #w(15), #s(#15), l(#13), n(#12), w(#12), m(#11), t(#11), s(#11), #f(#10), f(#10), n#(#9), s(#9), k(9), z(8), #l(#8), #kʰ(8), p(#7), v(#7), #b(#6), r(#6), #tʰ(#5), tʰ(#5), #n(#5), #m(#4), d(#4), j(#4), j(#)(#4), #t(#)(#4), k(#4), #h(#4), #p(#3), #pʰ(#3), #m(#3), #x(#3), #n(#3), #z(#3), #k(#3), #g(#3), g(#3), #p(2), b(2), f(#2), #v(#2), t(#2), #t(2), d(#2), t(#2), #j(2), #z(2), z(#2), g(#2), h(#2), #m, #t, #θ, #f, #d, #r, #j, #j, #w (375)

x(32), lⁿ(#23), a(22), uⁿ(21), a(16), lⁿ(#14), æ(14), ε(8), a¹(#8), a(#7), ɪ(7), e¹(#6), oⁿ(#5), æ(4), æ(#4), a(#4), aⁿ(#3), uⁿ(#3), t(#3), #a(#3), #uⁿ(#2), #x(2), oⁿ(#2), #a(2), i, u, oⁿ: o, oⁿ, #o, #o, #a, #ɛ, a, aⁿ, a¹, a¹ (228)

Broad: s(#6), j(#5), #s(#4), n(#2), w(#8), t(#6), f(#3), k(#3), m(#19), p(#18), j(#17), l(#13), v(#12), z(#12), b(#8), d(#6), r(#6), g(#6), h(#6), j(#5), #n, t(#3), t(#3), #j(2), #z(2), d, r (375)

i(#8), l(#34), u(#28), a(#28), a(#24), a(#15), æ(#14), o(#11), ε(#9), æ(#8), ɪ(#7), e(#6), u(#3), t(#3) (228)

663 total segments

Supra-Segments: Consonant Clusters

Consonant Cluster Total for Stressed and Unstressed Syllables and Monosyllables according to Syllable Configuration

Monosyllabic Consonant Cluster Onset (all entries are word initial): #f(3), #s(#3), #s(#2), #bl, #b, #f, #t, #w, #t, #s, #s, #z (16)

665
Monosyllable Consonant Cluster Coda (all entries are word final): mf#, mp#, ld#, ks# (4)

First Syllable Consonant Cluster Stressed Onset (all entries are word initial): #p^hj, #fj, #fl, #stj, #spj, #sl, #sn, #sw, #k^h, #kl, #gj (11)
First Syllable Consonant Cluster Stressed Coda:

First Syllable Consonant Cluster Unstressed Onset (all entries are word initial): #bj(2), #p^hj, #kw (4)
First Syllable Consonant Cluster Unstressed Coda:

Second Syllable Consonant Cluster Stressed Onset:
Second Syllable Consonant Cluster Stressed Coda: jn#, jt# (2)
Second Syllable Consonant Cluster Unstressed Onset: tj(2), vj, kl (4)
Second Syllable Consonant Cluster Unstressed Coda: ηz#, sp# (2)

Third Syllable Consonant Cluster Stressed Onset:
Third Syllable Consonant Cluster Stressed Coda:
Third Syllable Consonant Cluster Unstressed Onset: p^hj(2), st (3)
Third Syllable Consonant Cluster Unstressed Coda: jt# (1)

Fourth Syllable Consonant Cluster Stressed Onset:
Fourth Syllable Consonant Cluster Stressed Coda:
Fourth Syllable Consonant Cluster Unstressed Onset: t^hj (1)
Fourth Syllable Consonant Cluster Unstressed Coda:

Fifth Syllable Consonant Cluster Stressed Onset:
Fifth Syllable Consonant Cluster Stressed Coda:
Fifth Syllable Consonant Cluster Unstressed Onset:
Fifth Syllable Consonant Cluster Unstressed Coda:

Consonant Cluster Total for Stressed and Unstressed Onsets and Codas

Stressed Onset: #p^hj, #fj, #fl, #stj, #spj, #sl, #sn, #sw, #k^h, #kl, #gj (11)

Stressed Coda: jn#, jt# (2)

Unstressed Onset: p^hj(2), #bj(2), tj(2), #p^hj, vj, t^hj, st, kl, #kw (12)

Unstressed Coda: ηz#, sp#, jt# (3)

Consonant Cluster Total for Onsets and Codas

Onset: #f(4), #sw(4), #bj(3), p^hj(2), #fj(2), #t(2), #sk(2), #p^hj, #bj, mj, vj, #t^w, #t^j, tj, st, #sp, #stj, #spj, #sl, #sn, #zw, #k^h, #kl, kl, #kw, #gj (39)

Coda: mf#, mp#, ηz#, sp#, jt#, jn#, lt#, ld#, ks# (9)

Consonant Cluster Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllable Consonant Cluster: #f(3), #sw(3), #sk(2), #bl, #bj, mj, mf#, mp#, #fj, #t^w, #t^j, #sp, #zw, ld#, ks# (20)

First Syllable Consonant Cluster Stressed: #p^hj, #fj, #fl, #stj, #spj, #sl, #sn, #sw, #k^h, #kl, #gj (11)
First Syllable Consonant Cluster Unstressed: #bj(2), #p^hj, #kw (4)

Second Syllable Consonant Cluster Stressed: jn#, jt# (2)
Second Syllable Consonant Cluster Unstressed: tj(2), vj, ηz#, sp#, kl (6)

Third Syllable Consonant Cluster Stressed:
Third Syllable Consonant Cluster Unstressed: p^hj(2), st, jt# (4)

Fourth Syllable Consonant Cluster Stressed:
Fourth Syllable Consonant Cluster Unstressed: t^hj (1)

Fifth Syllable Consonant Cluster Stressed:
Fifth Syllable Consonant Cluster Unstressed:
Consonant Cluster Total per Syllable

First Syllable Consonant Cluster: #b(l(2), #p(o), #f, #t, #s, #s, #sw, #k, #kl, #kw, #g (15)

Second Syllable Consonant Cluster: t(2), v, n, #p, #k, #t (8)

Third Syllable Consonant Cluster: p(o), #s, #t, j# (4)

Fourth Syllable Consonant Cluster: t(1)

Fifth Syllable Consonant Cluster:

Consonant Cluster Stressed and Unstressed Total

Consonant Cluster Stressed: #p(o), #f, #t, #s, #sw, #k, #kl, #kw, #g (13)

Consonant Cluster Unstressed: p(o), #s, #t, j# (15)

Consonant Cluster Total (absolute)

Narrow: #f(l(4), #sw(4), #b(l(3), p(o), t(2), #sk(2), #p(o), #b(u, m, #s, #sw, #k, #kl, #kw, #g (48)

Broad: f(l(4), sw(4), p(o), #s, #t, #s, #f, #sk(2), #p(o), #b(u, m, #s, #sw, #k, #kl, #kw, #g (48)

48 total consonant clusters

Supra-Segments: Whole Syllables

Whole Syllable Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllable Whole Syllable:
#b(l#,#sp,#l#,#p,#u,#t,#w,#m,#s,#sw,#k,#kl,#kw,#g (27)

First Syllable Whole Syllable Stressed (all entries are word initial):
#wu(#4), #w(#3), #s(#2), #wa(2),
#vi, #t(#i, #t(#i, #t(#i, #s(#i, #i, #k(#i, #p(#u, #fu, #su, #l#,#g#,
#p(#u, #fu, #su, #l#,#g#,
#s(#i, #t(#i, #sw(#f, #sp(#n, #k(#i, #w(#s, #p(#u,#u,#t,#w,#m,#s,#sw,#k,#kl,#kw,#g (62)

First Syllable Whole Syllable Unstressed (all entries are word initial):
#ka(4), #t(#i, #blu,#i, #im,
Second Syllable Whole Syllable Stressed:

Second Syllable Whole Syllable Unstressed:

Third Syllable Whole Syllable Stressed:

Third Syllable Whole Syllable Unstressed:

Fourth Syllable Whole Syllable Stressed:

Fourth Syllable Whole Syllable Unstressed:
Fifth Syllable Whole Syllable Stressed:

Fifth Syllable Whole Syllable Unstressed:

ni#,
z1n# (2)

Whole Syllable Total per Syllable

First Syllable Whole Syllable (all entries are word initial):

#wu*(4), #ka(4), #wi(3), #wa(3)#si*(2), #fe(2),
#vi, #ti', #ti', #ti', #ri, #si', #ji, #ki',
#p"u", #blu", #flu", #vu", #su", #lu", #gu"p,
#is, #tm, #ti'p, #swif, #si'ni, #k1ni, #k"i, #w1s,
#p"ju, #hu,
#fei, #dei', #le', #k"le',
#o", #o, #p"o", #ho",
#a, #bla, #la, #k"d, #ha,
#ma, 
#e, #wel, #he,
#lam, #lam, #gu,
#fui, #t'o,
#mae, #snae, #sae, #sae, #læn, #læ, #k"a, #ga,
#a1, #ma1, #ta, #sa1, #wa1,
#o, #a3, #vai, #ja, #laf, #la, #jan, #kwa, #k"a (87)

Second Syllable Whole Syllable:

zi*l#(2), t*n#(2),
p'i#, vi', vi', ti'k#, ti'#, di', ti'i#', ni'i#, ri', #i'i#, li'#, wi'f#,
t"u", fu"n#, lu"#, lu",
#n, m#t, ft, dt, #n#, #k#, zi', j#f, l#sp, g#j#,
le',
t"o", tf#o, #o", #o,
p#o(2), b#a, ma#, f#t#, v#n#z#, v#n, t"n#, t#a, na, r#t, r#m, sa, s#n#, z#n, #a, la, k#n#, g#a, 
#o, #a-, #a-, #a-, #o-, va, 
#e, ne, 
#o, g#n#

bae, ma, fa, #æn#, #æn#, 
a#, ra#, la#, la#, ka, 
ma#, fan#, fa#, t"o, t"ak, da#, nan#, zan#, ja#, la#t, kla, wa, ha# (87)

Third Syllable Whole Syllable:

p"si*l#(2),
fi's#, vi', si'#, ji'z#, ji', ji'#, li#,
u"#, mu"f#, 
fi'f#, dts, st#k#, fi's#, j#n#, 
le',
na#, ra, #a, j#a#, w#a, 
sa#, j#a#, 
e#, 
j#t, b#n#, w#t#, 
fa#, j#t#, 
p"a#, ha# (32)

Fourth Syllable Whole Syllable:

as#(2),
t"ju"d#, 
#n.

669
ka, 
ma1 (6)

Fifth Syllable Whole Syllable:
ni#,
zin# (2)

Whole Syllable Stressed and Unstressed Total

Whole Syllable Stressed:
#wu*(4), #wi(3), #si(2), #wa(2),
#vi, #ti#h, dl, #tj#, #i#s#, #ri, #su#, j#, li#, k#l,
u"#, #p"u", #flu", #vu", #su", j#u", lu", #gu"p,
#is, fi, #tj#p, di, dis, #swf#, #spun, #klm, k#i,
#p"ju", #hu,
#fe, #dje, #ie, k"le1,
#o, #o", #p"jo", #muo", to"#, #jfo#, #swou"v", jo", 3o, #wo"ki#, #ho".
#a, ba#, #bla, ma#, fj#, v#nz#, v#n, t"#o, ta#, na, #a, #a, ri#, r"m, z#a, sa, si#o, z#n, 3a, ja#, la, #la, k#h, ka, k#h, g#a, wa#, #ha, 
#ma, va-, ta-, sa, sa#, ja-, ja#, w#a, 
#fe, #he,
#fj, j#, l#, w#, 
#a#, #maa, ma1, fa#, ra#, ja"#, la#, ka#,
#a, p*a#, ma#, fan#, fa#, daj#, non#, zan#, #ja, ja#, #jan, kla, kwa, #wa (127)

Whole Syllable Total (absolute)

Narrow:
#wu*(4), #ka(4), #si(3), #wi(3), #wa(3), p#i(2), vi(2), zi(2), #i(2), #a(2), pi#, fi#, #ti#k, #k#, tu#, ti#, t#j#, fi#, ti#, di#, li#, fi#, #i#, #a, j#, #j, #ja, li#, #k#l, 
#v#, #p"o", to", #fj, 3o, #ho, 
#a, ba#, #bla, ma#, fj#, v#nz#, v#n, t"#o, ta#, na, #a, #a, ri#, r"m, z#a, sa, si#o, z#n, 3a, ja#, la, #la, k#h, ka, k#h, g#a, wa#, #ha, 
#ma, va-, ta-, sa, sa#, ja-, ja#, w#a, 
#fe, #he,
#fj, j#, l#, w#, 
#a#, #maa, ma1, fa#, ra#, ja"#, la#, ka#,
#a, p*a#, ma#, fan#, fa#, daj#, non#, zan#, #ja, ja#, #jan, kla, kwa, #wa (127)
TIPsuhlayteeng  \[t^\text{th} \cdot s\cdot \text{le}^l \cdot \text{r}\eta\],

proFIHthitoode  \[p^\text{h} \cdot \text{fi} \cdot \Theta\cdot \text{t}^\text{h} \cdot \text{ju}^\text{h} \cdot \text{d}\], rahSHOWveeus  \[\text{\textipa{m} \cdot \text{\textipa{f}o}^w \cdot \text{vi}^l \cdot \text{\textipa{a}s}\], luhVOrceus  \[\text{\textipa{l} \cdot \text{\textipa{v}e} \cdot \text{\textipa{j}i}^l \cdot \text{\textipa{a}s}\]

Whole Pentasyllables:

imFATuhmyzeeng  \[\text{\textipa{m} \cdot \text{\textipa{f}ae} \cdot \text{\textipa{r}a} \cdot \text{\textipa{ma}^l} \cdot \text{\textipa{z}i}\eta\],

hevuhnDISkuhnee  \[\text{\textipa{h} \cdot \text{\textipa{v}e} \cdot \text{\textipa{d}i\text{s}} \cdot \text{\textipa{k}o} \cdot \text{\textipa{n}i}\]

<table>
<thead>
<tr>
<th>Word Length Total</th>
<th>Syllable</th>
<th>Receiving</th>
<th>Stress</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monosyllabic: 27</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bisyllabic: 55</td>
<td>0</td>
<td>50</td>
<td>5</td>
</tr>
<tr>
<td>Trisyllabic: 26</td>
<td>0</td>
<td>11</td>
<td>12</td>
</tr>
<tr>
<td>Tetrasyllabic: 4</td>
<td>0</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Pentasyllabic: 2</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Total: 114</td>
<td>0</td>
<td>62</td>
<td>21</td>
</tr>
</tbody>
</table>
Segmental and Supra-Segmental Ranking Data Sheet

Question ID: V. the feeling experienced by a death-row inmate after being pardoned or exonerated

Segments

Segment Total for Stressed and Unstressed Syllables and Monosyllables according to Syllable Configuration

Monosyllable Onset: #w(5), #f(2), ɹ(2), #g(2), #b, ʰ, #d#, #z, #ʃ, #j, #h (18)

Monosyllable Nucleus: i̓̑(3), æ(3), i̓(2), u, u̓, ɪ, o, e, e̓, o̓, a, a: (17)

Monosyllable Coda: m#(3), t#(3), f#(2), s#(2), t(2), t#(2), h#(2), p, b, m, f, tʃ, z#, f#, j, k (25)

First Syllable Segment Stressed Onset: j(7), l(6), #g(6), #w(4), #pʰ(3), p(3), #b(3), #m(3), #f(3), #tʰ(3), #s(3), #j(3), #kʰ(3), #v(2), #d(2), #n(2), #z(2), #ʃ(2), #l(2), #h(2), m, #θ, #ʃ, w (68)

First Syllable Segment Stressed Nucleus: i(14), æ(11), a(10), #a(7), ɪ(6), a*(3), ε(2), #æ(2), u", e", o", æ, ə, η, a₁, a (63)

First Syllable Segment Stressed Coda: n(8), t(4), k(4) m(2), s(2), j(2), f, d', j (25)

Second Syllable Segment Stressed Onset: s(6), t(4), l(4), b(3), n(3), pʰ(2), z(2), j(2), kʰ(2), g(2), p, f, v, tʰ, d, h (38)

Second Syllable Segment Stressed Nucleus: æ(8), ε(5), u*(3), t(3), ʃ(2), i, l, u"#, u, o", æ, ə (28)

Second Syllable Segment Stressed Coda: n#(2), n(2), j(2), t(2), t#(2), m, t#, j, s#, z, k#, η (18)

Second Syllable Segment Stressed Onset: s(13), f(7), t(7), l(7), b(6), n(5), j(5), w(4) m(3), d(3), k(3), g(3), p(2), r(2), z(2), d$, Θ, ð, j, j (77)

Second Syllable Segment Stressed Nucleus: a(13), ɪ(9), ɪ̓(7), æ(7), ɻ(6), a(5), æ(4), ɻ(3), ε(3), ɪ(2), o"(3), a(2), i#, u", o", æ#, æ (69)

Second Syllable Segment Stressed Coda: d#(5), s#(4), n#(3), t#(2), n(2), j(2), g# (22)

Third Syllable Segment Stressed Onset: f(2), n, j, l, kʰ, w (7)

Third Syllable Segment Stressed Nucleus: ɪ̓(2), u", u, e, e (6)

Third Syllable Segment Stressed Coda: t#(2) (2)

Third Syllable Segment Stressed Onset: t(8), j(6), m(4), s(4), n(3), g(3), b(2), f(2), p, f, d, tʃ, d$, Θ, l, j, w (41)

Third Syllable Segment Stressed Nucleus: i(8), a(5), æ(4), ɪ(2), e#(2), æ#(2), ɻ(2), i#, u", o", æ#, æ, æ#, æ, æ, æ (40)

Third Syllable Segment Stressed Coda: s#(4), t#(3), k#(2), d#, d', n#, n, z#, j, t#, k, k' (18)

Fourth Syllable Segment Stressed Onset: n, l (2)

Fourth Syllable Segment Stressed Nucleus: e(2) (2)

Fourth Syllable Segment Stressed Coda: t#(2) (2)

Fourth Syllable Segment Stressed Onset: m(2), f(2), j(2), t, l, g (9)

Fourth Syllable Segment Stressed Nucleus: a(3), ɪ(2), i#, ɪ, a#, æ#, æ (10)

Fourth Syllable Segment Stressed Coda: s#(3), t#(2), n, l (7)

Fifth Syllable Segment Stressed Onset:

Fifth Syllable Segment Stressed Nucleus:

Fifth Syllable Segment Stressed Coda:

Fifth Syllable Segment Stressed Onset: f(2) (2)

Fifth Syllable Segment Stressed Nucleus: *æ(2) (2)

Fifth Syllable Segment Stressed Coda:

Segment Total for Stressed and Unstressed Onsets and Codas

Stressed Onset: l(12), j(10), #g(6), s(6), n(5), p(4), t(4), #w(4), #pʰ(3), b(3), #b(3), #m(3), #f(3), f(3), #tʰ(3), #s(3), #j(3), #kʰ(3), kʰ(3), pʰ(2), #v(2), #d(2), #n(2), #z(2), z(2), j(2), l(2), j(2), g(2), w(2), #h(2), m, v, d, #Θ, #ʃ, h (114)

Stressed Coda: n(10), h(6), k(5), f(4), m(3), t#(3), n#(2), s(2), j(2), f, t#, t", d', s#, z, k#, η (45)

673
Segment Total by Syllable

First Syllable Segment: j(11), n(9), l(8), k(8), f(6), g(6), p(5), m(5), t(5), w(5), m(4), d(4), s(4), u(4), k(4), p(3), b(3), v(3), t(3), z(3), j(3), k(3), d(2), n(2), l(2), h(2), p, f, t, d, r, θ, η, f, g, w (131)

Second Syllable Segment: s(19), n(12), t(11), b(9), f(8), a(8), d(5), n(5), η(5), s(5), z(5), g(5), p(4), m(4), d(4), η(4), k(4), w(4), t(3), f(3), j(3), k(3), p(2), r(2), f(2), l(2), k(2), h(2), m#, f#, v, t#, θ, η, θ, f#, k#, g#, h (169)

Third Syllable Segment: t(8), l(7), n(5), m(4), η(4), s(4), s(4), f(4), f(3), t(3), g(3), b(2), l(2), j(2), k(2), w(2), p, d#, d*, t#, j, k, k#, h (75)

Fourth Syllable Segment: s(3), m(2), t(#2), n(2), j(2), l(2), t, n#, η#, g (19)

Fifth Syllable Segment: η(2), f(2) (4)

Segment Stressed and Unstressed Total

Stressed Segment: n(15), l(12), s(8), t(6), g(6), k(5), p(4), m(4), f(4), t(4), f(4), w(4), p(3), b(3), m(3), f(3), t(3), s(3), z(3), j(3), k(3), k(3), p(2), v(2), d(2), n(2), z(2), j(2), l(2), g(2), w(2), h(2), v, t#, t#, d, d*, θ#, s#, f#, k#, η, h (158)

Unstressed Segment: s(19), t(16), x(16), n(13), η(12), m(11), s(11), l(11), b(8), f(8), f(8), k(8), g(8), t(7), d(6), n(5), η(5), w(5), p(4), d(4), f(3), j(3), k(3), p(2), d(2), s(2), d(2), r(2), θ(2), z(2), j(2), f(2), j(2), k(2), p, m, η#, f#, v#, t#, d#, t#, r, θ, s#, z#, #t, l, k#, h#, #w (238)

Segment Total (absolute)

Narrow: j(31), n(28), s(27), l(23), t(20), m(16), s(14), k(14), f(13), b(12), t(12), t(#11), η(#12), g(10), w(10) p(9), l(9), f(8), g(8), n(#7), w(7), d(6), p(5), d(5), η(5), z(5), b(4), m(4), t(#4), d(4), s(4), z(4), j(4), t(4), j(4), k(#4), m(3), f(3), v(3), d(#3), f(#3), j(#3), k(#3), k(#3), h(3), p(2), t(2), d(#2), n(2), r(2), θ(2), z(#2), f(2), h(2), p, η#, v, t#, t#, d#, #r, #θ, #k, η, h (439)

Broad: n(54), s(45), t(38), s(35), k(28), l(25), m(24), f(24), f(19), g(19), p(17), d(17), f(17), w(17), b(16), z(11), j(8), h(6) d(#5), v(4), θ(3), f(2), r(2), θ, h (439)

segments (142), a(34), l(30), o(30), æ(28), ε(17), u(13), æ(13), a(13), e(7), o(6), l(5), (5), u(3), e (246)

685 total segments

**Supra-Segments: Consonant Clusters**

Consonant Cluster Total for Stressed and Unstressed Syllables and Monosyllables according to Syllable Configuration

Monosyllable Consonant Cluster Onset (all entries are word initial): #gj(3) (3)

Monosyllable Consonant Cluster Coda (all entries are word final): pt#, bz#, m#, fs#, tf#, jf#, lt#, lm#, ks# (9)
First Syllable Consonant Cluster Stressed Onset (all entries are word initial): #gʃ(2), #bw, #bl, #ml, #ʃj, #fl, #vl, #tʰj, #spl, #sp, #ʃm, #kʰj (13)

First Syllable Consonant Cluster Stressed Coda:

First Syllable Consonant Cluster Unstressed Onset (all entries are word initial): #pʃ, #ʃj, #fl, #vl (4)
First Syllable Consonant Cluster Unstressed Coda: ks (1)

Second Syllable Consonant Cluster Stressed Onset: st(2), pʰʃl, fl, sn, sp, stʃ, gʃ, kʰʃj (9)

Second Syllable Consonant Cluster Stressed Coda: fʃt# (1)

Second Syllable Consonant Cluster Unstressed Onset: st(2), bʃl, fl, Θʃ, sn, kʃ (7)
Second Syllable Consonant Cluster Unstressed Coda: nt#, ʃt#, ld# (3)

Third Syllable Consonant Cluster Stressed Onset: fl, kʰʃj (2)

Third Syllable Consonant Cluster Stressed Coda:

Third Syllable Consonant Cluster Unstressed Onset: st(3), gw (4)
Third Syllable Consonant Cluster Unstressed Coda: nt#, ʃt#, ks# (3)

Fourth Syllable Consonant Cluster Stressed Onset:

Fourth Syllable Consonant Cluster Stressed Coda:

Fourth Syllable Consonant Cluster Unstressed Onset:
Fourth Syllable Consonant Cluster Unstressed Coda: nt# (1)

Fifth Syllable Consonant Cluster Stressed Onset:

Fifth Syllable Consonant Cluster Stressed Coda:

Fifth Syllable Consonant Cluster Unstressed Onset:
Fifth Syllable Consonant Cluster Unstressed Coda: ks (1)

Consonant Cluster Total for Stressed and Unstressed Onsets and Codas

Stressed Onset: fl(2), st(2), #gʃ(2), pʰʃl, #bw, #bl, #ml, #ʃj, #fl, #vl, #tʰj, #spl, stʃ, #sp, sn, #ʃm, #kʰj, kʰʃj, gʃ (24)

Stressed Coda: fʃt# (1)

Unstressed Onset: st(5), #pʃ, bʃl, #ʃj, #fl, fl, #vl, Θʃ, sn, kʃ, gw (15)

Unstressed Coda: nt#(3), ʃt#, ld#, ks, ks# (8)

Consonant Cluster Total for Onsets and Codas

Onset: st(7), #gʃ(5), fl(3), #ʃj(2), #fl(2), #vl(2), sn(2), pʰʃl, #pʃ, bʃl, #bw, #bl, #ml, #tʰj, Θʃ, #spl, stʃ, #sp, sn, #ʃm, #kʰj, kʰʃj, kʃ, gw (42)

Coda: nt#(3), ʃt#(2), ks#(2), pt#, bz#, mf#, fs#, tʃt#, ʃt#, ld#, ks, ks# (18)

Consonant Cluster Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllable Consonant Cluster: #gʃ(3), pt#, bz#, mf#, fs#, tʃt#, ʃt#, ld#, ks# (12)

First Syllable Consonant Cluster Stressed: #gʃ(2), #bw, #bl, #ml, #ʃj, #fl, #vl, #tʰj, #spl, #sp, #ʃm, #kʰj (13)
First Syllable Consonant Cluster Unstressed: #pʃ, #ʃj, #fl, #vl, ks (5)

Second Syllable Consonant Cluster Stressed: st(2), pʰʃl, fl, sn, sp, stʃ, fʃt#, gʃ, kʰʃj (10)
Second Syllable Consonant Cluster Unstressed: st(2), bʃl, fl, nt#, ʃt#, Θʃ, sn, ld#, kʃ (10)

Third Syllable Consonant Cluster Stressed: fl, kʰʃj (2)
Third Syllable Consonant Cluster Unstressed: st(3), nt#, ʃt#, ks#, gw (7)

Fourth Syllable Consonant Cluster Stressed:
Fourth Syllable Consonant Cluster Unstressed: nt# (1)

Fifth Syllable Consonant Cluster Stressed:
Fifth Syllable Consonant Cluster Unstressed:
Consonant Cluster Total per Syllable

First Syllable Consonant Cluster: \#f1(2), \#fl(2), \#vl(2), \#g1(2), \#p1, \#b1, \#ml, \#t\#u, \#spl, \#sp, \#fm, \#k\#j, k\#s (18)

Second Syllable Consonant Cluster: fl(2), st(2), sn(2), st(2), p\#1, b\#, n\#, Θ\#, sp, st\#, jt\#, fd\#, k\#, j\#, g\# (20)

Third Syllable Consonant Cluster: st(3), fl, n\#, jt\#, ks\#, k\#b, gw (9)

Fourth Syllable Consonant Cluster: nt\# (1)

Fifth Syllable Consonant Cluster:

Consonant Cluster Stressed and Unstressed Total

Consonant Cluster Stressed: fl(2), st(2), \#g1(2), p\#1, \#b1, \#ml, \#f1, \#fl, \#vl, \#t\#j, \#spl, \#sp, sn, sp, st\#, \#t\#, \#fm, \#k\#j, k\#b, j\#, g\# (25)

Consonant Cluster Unstressed: st(5), n\#t\#, \#p1, b\#, \#f1, \#fl, \#vl, nt\#, nd\#, Θ\#, sn, jt\#, jd\#, ks, ks\#, k\#, gw (23)

Consonant Cluster Total (absolute)

Narrow: st(7), \#g1(5), fl(3), \#f1(2), \#fl(2), \#vl(2), n\#t(2), sn(2), jt(2), ks(2), p\#1, \#p1, pt\#, \#b1, b\#, m\#, \#ml, fs\#, \#t\#j, t\#j, nd\#, Θ\#, \#spl, \#sp, sp, st\#, \#fm, j\#, it\#, lm\#, jd\#, \#k\#j, k\#b, j\#, ks, k\#, gw, g\# (60)

Broad: st(7), g\#(6), fl(5), nt(3), ks(3), k\#j(3), f\#j(2), vl(2), sp(2), sn(2), jt(2), pl, p\#, pt, bw, bl, b\#, bz, m\#, ml, fs, ti, j\#, nd, Θ\#, spl, st\#, jm, jf, it, lm, ld, kj, gw (60)

60 total consonant clusters

Supra-Segments: Whole Syllables

Whole Syllable Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllable Whole Syllable:
#j\#fl\#s\#, #wll\#m\#, #wll\#h\#, #t\#u\#t\#, #hun\#, #ft\#m\#, #d\#f\#b\#, #g\#u\#f\#, #waf\#, #fom\#, #g\#e\#h\#, #b\#k\#s\#, #f\#j\#p\#, #w\#h\#, #z\#a\#t\#f\#, #w\#h\#, #h\#j\#f\# (17)

First Syllable Whole Syllable Stressed (all entries are word initial):
#a\#(3), #d\#n(2), #æk(2), #æk(2),
#p\#l\#j\#, #m\#l\#, #t\#l\#, #j\#l\#, #k\#l\#, #w\#, #b\#w\#, #m\#, #f\#l\#, #s\#, #l\#, #l\#, #j\#, #k\#j\#, #g\#k\#, #g\#, #b\#, #n\#, #e\#, #c\#, #v\#, #g\#k\#, #f\#, #m\#, #æ\#, #Ø\#, #s\#, #k\#, #k\#, #g\#, #a\#, #m\#, #z\#, #j\#, #w\#, #s\#, #b\#, #n\#, #g\#, #g\#, #w\#, #w\#, #h\#, #h\#, #h\#, #h\# (61)

First Syllable Whole Syllable Unstressed (all entries are word initial):
#j\#l\#(2), #æk(2),
#i\#, #u\#m, #t\#, #1g, #p\#, #f\#, #d\#, #w, #r,
Fifth Syllable Whole Syllable Stressed:

Fifth Syllable Whole Syllable Unstressed:

Whole Syllable Total per Syllable

Second Syllable Whole Syllable (all entries are word initial):

Third Syllable Whole Syllable:

Fourth Syllable Whole Syllable:
Whole Tetrasyllables:

SPANduhtore [ˈspæn·də·tʃi·lə],

zuhGREthuhrus [zə·ˈɡɛr·θə·dʒæs],

kuhLAMurrmine [kʰə·ˈlæm·mər·maːn],

fruhTAMpuhlite [fə·ˈtʰæm·pə·læt],

juhPIhruhmint [dʒə·ˈpiː·rə·mənt],

kuhPLAZmeeuh [kə·ˈpʰlæz·miː·ə],

vlahfahNAHtah [ˈvɔ·fə·nə·tə],

argoFLOOgus [ɑɹ·ˈɡəflə·ɡəs],

maluhKREEshus [mæ·lə·ˈkʰə·ʃəs],

calkeeAYshun [kæ·li·ˈeɪ·ʃən]

Whole Pentasyllables:

ahlbichooLAYshun [ɑɪ·bɪ·ˈtʃu·ˈleɪ·ʃən],

korahptihNAYshun [kə·ˈørə·ti·ˈneɪ·ʃən]
Segmental and Supra-Segmental Ranking Data Sheet

Question ID: W. a feeling of extreme disappointment

### Segments

<table>
<thead>
<tr>
<th>Segment Total for Stressed and Unstressed Syllables and Monosyllables according to Syllable Configuration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monosyllable Onset: #b(4), #f(4), l(3), #z(2), #l(2), #kʰ(2), #g(2), #tʰ, #d, #n, #s, #j, #w (29)</td>
</tr>
<tr>
<td>Monosyllable Nucleus: o''(3), a(3), o(2), a(2), i, u`, i, α, α#, λ, λ (20)</td>
</tr>
<tr>
<td>Monosyllable Coda: d#(4), j(3), m#(2), f#(2), t#(2), n(2), k#(2), h#(2), b, m, ts#, tʃ#, dʒ#, n#, s#, z#, j#, l#, η#, x# (31)</td>
</tr>
<tr>
<td>First Syllable Segment Stressed Onset: #d(10), #s(9), #b(5), #m(5), j(5), #f(4), #kʰ(4), #tʰ(3), #j(3), #l(3), #g(3), #w(3), #pʰ(2), #ʃ(2), p, m, dʒ, #dʒ, #dʒ`, n, r, l, 1 (70)</td>
</tr>
<tr>
<td>First Syllable Segment Stressed Nucleus: æ(13), a(10), u<code>(7), i(7), i`(6), e(4), o</code>(3), æ(3), u(2), æ(2), æ(2), æ(2), u``, #u`&quot;, #e&quot;, #o&quot;, #α&quot;, #α#, α, α (25)</td>
</tr>
<tr>
<td>First Syllable Segment Stressed Coda: m(6), n(4), j(4), p(2), t(2), g(2), f, d, d`, tʃ, s, η (26)</td>
</tr>
<tr>
<td>First Syllable Segment Unstressed Onset: #d(3), #pʰ(2), #m(2), #f(2), #s(2), #h(2), #b, l, #kʰ, #k (17)</td>
</tr>
<tr>
<td>First Syllable Segment Unstressed Nucleus: a(6), #a(3), i<code>(2), i(2), #a(2), æ(2), u``#, #u</code>&quot;, #e&quot;, #o&quot;, #α&quot;, #α#, α (25)</td>
</tr>
<tr>
<td>First Syllable Segment Unstressed Coda: n(2), s (3)</td>
</tr>
<tr>
<td>Second Syllable Segment Stressed Onset: j(5), l(3), tʰ(2), d(2), s(2), kʰ(2), b, m, t, x, w, h (22)</td>
</tr>
<tr>
<td>Second Syllable Segment Stressed Nucleus: æ(5), e<code>(2), o``(2), e(2), a(2), u``#, i, ε</code>, a, α, α#, α`# (20)</td>
</tr>
<tr>
<td>Second Syllable Segment Stressed Coda: d#(3), n(2), m, n#, r#, s, j#, l, x# (12)</td>
</tr>
<tr>
<td>Second Syllable Segment Unstressed Onset: n(9), t(7), k(7), b(6), s(6), g(6), d(5), j(5), l(5), m(3), f(3), r(3), p(2), z(2), v, Θ, w (72)</td>
</tr>
<tr>
<td>Second Syllable Segment Unstressed Nucleus: z(13), a(10), a(7), o<code>#(6), æ#(5), #η(3), #j#(3), #η#(3), i`(2), #η(2), i`, i`, u</code>#, u, e#<code>, e</code>, α<code>, α</code>, ε<code>, ε#, ε</code>#, ε`# (68)</td>
</tr>
<tr>
<td>Second Syllable Segment Unstressed Coda: s#(7), n#(5), t#(4), d#(2), s(2), t(2), i`(2), k(2), m#, f##, n, z, z#, j#, k#, η# (34)</td>
</tr>
<tr>
<td>Third Syllable Segment Stressed Onset: tʰ, t, s, kʰ (4)</td>
</tr>
<tr>
<td>Third Syllable Segment Stressed Nucleus: i<code>(2), u``#, a</code># (3)</td>
</tr>
<tr>
<td>Third Syllable Segment Stressed Coda:</td>
</tr>
<tr>
<td>Third Syllable Segment Unstressed Onset: j(4), f(3), n(3), s(3), Θ(2), k(2), b, v, t, d, r, z, j, l, j, g, w (28)</td>
</tr>
<tr>
<td>Third Syllable Segment Unstressed Nucleus: a(4), i<code>(3), o``#(3), a(3), e</code>(2), e<code>#(2), æ#(2), #η(2), α</code>, #α#, #α##, α, α# (25)</td>
</tr>
<tr>
<td>Third Syllable Segment Unstressed Coda: d#, d`#, n#, j#, f# (4)</td>
</tr>
<tr>
<td>Fourth Syllable Segment Stressed Onset:</td>
</tr>
<tr>
<td>Fourth Syllable Segment Stressed Nucleus:</td>
</tr>
<tr>
<td>Fourth Syllable Segment Stressed Coda:</td>
</tr>
<tr>
<td>Fourth Syllable Segment Unstressed Onset: m(2), f(2), r(2), n, j, l (9)</td>
</tr>
<tr>
<td>Fourth Syllable Segment Unstressed Nucleus: z(3), #j#(3), u``#, #η#(3), a, æ (10)</td>
</tr>
<tr>
<td>Fourth Syllable Segment Unstressed Coda: n#(2), s# (3)</td>
</tr>
<tr>
<td>Fifth Syllable Segment Stressed Onset: kʰ (1)</td>
</tr>
<tr>
<td>Fifth Syllable Segment Stressed Nucleus: e` (1)</td>
</tr>
<tr>
<td>Fifth Syllable Segment Stressed Coda:</td>
</tr>
<tr>
<td>Fifth Syllable Segment Unstressed Onset: m (1)</td>
</tr>
<tr>
<td>Fifth Syllable Segment Unstressed Nucleus: i (1)</td>
</tr>
<tr>
<td>Fifth Syllable Segment Unstressed Coda: n# (1)</td>
</tr>
<tr>
<td>Sixth Syllable Segment Unstressed Onset: f (1)</td>
</tr>
<tr>
<td>Sixth Syllable Segment Unstressed Nucleus: i (1)</td>
</tr>
<tr>
<td>Sixth Syllable Segment Unstressed Coda: n# (1)</td>
</tr>
</tbody>
</table>

#### Segment Total for Stressed and Unstressed Onsets and Codas

Stressed Onset: #d(10), j(10), #s(9), #b(5), #m(5), #f(4), l(4), #kʰ(4), #tʰ(4), #j(3), #l(3), #g(3), #w(3), #pʰ(2), m(2), t(2), d(2), #ʃ(2), p, b, dʒ, #dʒ, #dʒ`, n, r, l, z, x, w, h (97)
Stressed Coda: m(7), n(6), j(4), d#(3), t(3), p(2), s(2), g(2), f, d, d', tf, n#, r#, i, η, x# (38)

Unstressed Onset: n(13), j(10), s(9), k(9), f(8), t(8), l(8), b(7), g(7), m(6), d(6), r(6), #d(3), Θ(3), z(3), #pʰ(2), p(2), #m(2), #f(2), v(2), #s(2), f(2), w(2), h#(2), #b, j, #k#, #k (128)

Unstressed Coda: n#(10), s#(8), t#(4), d#(3), n(3), s(3), t(2), t#(2), k(2), m#, f#, d'#, z, z#, j#, #k#, k#, η# (46)

Segment Total for Onsets and Codas

Onset: j(24), l(15), #d(14), n(13), #s(12), s(12), #b(10), t(10), #f(9), k(9), b(8), m(8), f(8), d(8), #m(7), #kʰ(7), g(7), r(6), #l(5), #g(5), #pʰ(4), #tʰ(4), #j(4), kʰ(4), #w(4), p(3), tʰ(3), Θ(3), #z(3), z(3), #j(3), w(3), v(2), #n(2), j(2), #h(2), d₃, #d₃, #d₃, r, j, #k, x, h (254)

Coda: n#(12), n(11), d#(10), s#(9), m(8), j(7), t#(6), s(5), l(5), m#(3), f#(3), k#(3), p(2), z#(2), j#(2), t#(2), k(2), g(2), η#(2), x#(2), h#(2), b, d, d’, d”#, ts#, tf#, d₃#, r#, z, l, η (115)

Segment Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllabic Segment: j(7), #b(4), d#(4), #f(3), l(3), m#(2), f#(2), t#(2), n(2), #z(2), #l(2), k#(2), #kʰ(2), #g(2), h#(2), b, m, #tʰ, #d, ts#, tf#, d₃#, n#, #n, s, s#, z#, j#, f#, #l, #, η, x#, #w (60)

ο”(3), λ(3), α(3), ς(2), α(2), i’, u”, i, o, α#, #λ, α (20)

First Syllable Stressed: #d(10), #s(9), j(9), m(7), #b(5), #m(5), #f(4), n(4), #kʰ(4), p(3), #tʰ(3), #j(3), #l(3), #g(3), #w(3), #pʰ(2), #j(2), t(2), g(2), f, d, d’, tf, d₃, #d₃, #d₃, n, r, s, #z, l, η (96)

æ(13), a(10), u”(7), i(7), i’(6), ε(4), o”(3), α(3), u(2), λ(2), ς(2), α(2), y, e’, #λ, α” (63)

First Syllable Unstressed: #d(3), #pʰ(2), #m(2), #f(2), n(2), #s(2), #h(2), #b, s, l, #kʰ, #k (20)

α(6), #α(3), i'(2), ι(2), #α(2), æ(2), u”, #u”, #e, o”, #o”, #α, α, a (25)

Second Syllable Stressed: j(5), d#(3), s(3), l(3), m(2), tʰ(2), d(2), n(2), kʰ(2), b, t, n#, r#, ι#, t, x, x#, w, h (34)

æ(5), e’(2), o”(2), ε(2), a(2), u”, i, e’, o, α, α’, α#, α” (20)

Second Syllable Unstressed: n(10), k(9), s(8), t(7), s#'(7), b(6), g(6), d(5), n#(5), j(5), l(5), t#(4), *m#(3), m(3), f(3), *η(3), r(3), z(3), *ς#(3), p(2), d#(2), *η#(2), t(2), t#(2), m#, f#, v, Θ, z#, j#, #t, #k, #k, η#, w (118)

ς(13), α(10), ι(7), o”#(6), α#5(5), i’#(2), i’, i’, u”, u, e’#, e’, o”, o”, α”, α, α#, α# (56)

Third Syllable Stressed: tʰ, t, s, kʰ (4)

i’, u”, α’ (3)

Third Syllable Unstressed: #j(4), f(3), n(3), s(3), Θ(2), k(2), b, v, t, d, d’, #n#, #v, n, r, z, j, f#, i, *η#, j, g, w (34)

α(4), i’#(3), o”#(3), α(3), e’(2), e’#(2), α#(2), α, α#, α, α (23)

Fourth Syllable Stressed:

Fourth Syllable Unstressed: m(2), f(2), n#(2), r(2), *m#(3), n, s#, ι, l (13)

ς(3), α#(3), u”#, α, α (9)

Fifth Syllable Stressed: kʰ (1)

e’ (1)

Fifth Syllable Unstressed: m, n# (2)
Sixth Syllable Segment Unstressed: n#, f (2)

Segment Total by Syllable

First Syllable Segment: #d(13), #s(11), j(9), #m(7), m(7), #b(6), #f(6), n(6), #k(h)(5), #p(h)(4), p(3), #t(h)(3), #l(3), #i(3), #g(3), #w(3), s(2), #j(2), l(2), t(2), g(2), #h(2), f, d, d', tf, dj, #dg, #dg', #n, r, z, #k, η (116)

æ(15), a(10), t(9), i(8), u*(8), a(6), ọ*(4), ẹ(4), ɭ(3), u(2), #a(2), λ(2), γ(2), y, #u", #e, e', #o", #a#, a, a" (88)

Second Syllable Segment: n(12), s(11), j(10), k(9), t(8), l(8), b(7), d(7), s#(7), n#(6), g(6), m(5), d#(5), t#(4), #m(3), f(3), *ŋ(3), z(3), ɭ(3), t(3), p(2), t(h)(2), #n(2), #h(2), g(2), m#, f#, v, r#, Θ, z#, ñ#, k#, η#, x, x#, h (152)

Third Syllable Segment: s(4), #j(4), f(3), n(3), t(2), Θ(2), k(2), b, v, f, d, d', #d#, *n#, r, z, f, f#, l, *j#, k", g, w (38)

Fourth Syllable Segment: m(2), f(2), n#(2), r(2), *ŋ#, n, s#, l (13)

i(3), a#(3), u"#, a, ə (9)

Fifth Syllable Segment: m, n#, k" (3)

i, e (2)

Sixth Syllable Segment: n#, f (2)

Segment Total (absolute)

Stressed Segment: j(14), #d(10), m(9), #s(9), n(6), #b(5), #m(5), s(5), #f(4), l(4), #k(h)(4), k(h)(4), p(3), #t(h)(3), #t(h)(3), d#(3), d(3), #j(3), #l(3), #g(3), #w(3), #p(h)(2), t(2), #j(2), g(2), b, f, d', tf, dj, #dg, #dg', #n, r, z, #z, η, x, x#, w, h (135)

æ(18), a(12), u*(9), i(8), i(l)(6), e(6), o*(5), e(l)(4), ɭ(3), ɭ(3), u(2), λ(2), a(l)(2), i(#), y, e', a, η, a"#, a" (87)

Unstressed Segment: n(16), s(12), k(11), n#(10), f(8), t(8), s#(8), l(8), b(7), g(7), m(6), d(6), r(6), j(6), *n#, t#(4), z(4), #j(4), #l(4), #g(3), d#(3), #n(3), η#, Θ(3), p(2), #p(h)(2), #m(2), #f(2), v(2), #s(2), f(2), t(2), #l(2), w(2), #h(2), #b, m#, f#, d#, z#, θ#, f#, l#, i#, j, k#, k", η#, #j# (189)

i(20), a(20), a(11), o*(9), ɭ(7), i(l)(5), a#(4), e(4), i(l)(3), e(l)(3), e(l)(3), æ(3), #a(3), u*(2), o"(2), #a(2), i(:), u"#, u", #e, #o", #a", ə, ɭ, j, a, a", a^1#, a^1# (115)

Segment Total (absolute)

Narrow: j(27), n(24), s(17), b(16), m(16), l(15), d#(14), n#(12), #s(12), k(11), #b(10), t(10), d#(10), #f(9), f(9), d(9), s#(9), g(9), #j(8), #m(7), #k(h)(7), t#(6), r(6), p(5), #l(5), h(5), #g(5), #p*h(4), #n#, #t#, #u", #n#, #a", #o", #a", #e, e', ñ#, o, ñ, v(2), #n(2), z#, f(2), #l#, #j#, #k", #k, η, x, h (384)

i(29), o(26), æ(22), ø(20), u*(12), i(l)(10), o*(10), o*(9), e(7), ɭ(7), ø(7), æ(7), e(7), l(l)(6), o(6), λ(5), #a(5), #a(4), u(3), e(l)(3), a(l)(3), #a(2), #a(2), i(:), y, u"#, u", #e, o, ñ#, #o", #a", ə, e', ç, #a", #a", a, a^1#, a^1# (222)

Broad: n(44), s(38), j(37), d(35), m(30), b(26), k(26), t(23), f(21), l(21), g(14), h(12), p(9), z(9), j(7), w(7), r(6), h(5), d#(4), #θ(3), η#(3), x(3), v(2), #f(2), r(2), s, j (384)

a(32), i(29), ø(26), æ(22), o(20), l(17), ø(15), u(14), e(11), e(8), λ(7), ø(7), e(6), u(3), #a(2), y, æ, ø (222)

606 total segments
Supra-Segments: Consonant Clusters

Consonant Cluster Total for Stressed and Unstressed Syllables and Monosyllables according to Syllable Configuration

Monosyllable Consonant Cluster Onset (all entries are word initial): #b(2), #g(2), #b#, #fl, #d, #k(2) (8)
Monosyllable Consonant Cluster Coda (all entries are word final): bl#, mf#, nts#, nd#, st#, dt#, jt#, jtf# (7)

First Syllable Consonant Cluster Stressed Onset (all entries are word initial): #fl, #d, #sp, #fm, #k(2), #g (6)
First Syllable Consonant Cluster Stressed Coda: mp (1)
First Syllable Consonant Cluster Unstressed Onset (all entries are word initial): #fl, #g (2)
First Syllable Consonant Cluster Unstressed Coda:

Second Syllable Consonant Cluster Stressed Onset: t#, st, st#, k(2) (4)
Second Syllable Consonant Cluster Stressed Coda: nd# (1)
Second Syllable Consonant Cluster Unstressed Onset: f#, t#, st, kw, g (5)
Second Syllable Consonant Cluster Unstressed Coda: ηt#(2), st#(2), zm#, ld#, tz#, ks# (8)

Third Syllable Consonant Cluster Stressed Onset:
Third Syllable Consonant Cluster Stressed Coda:
Third Syllable Consonant Cluster Unstressed Onset: st(2), d, k (4)
Third Syllable Consonant Cluster Unstressed Coda:
Fourth Syllable Consonant Cluster Stressed Onset:
Fourth Syllable Consonant Cluster Stressed Coda:
Fourth Syllable Consonant Cluster Unstressed Onset:
Fourth Syllable Consonant Cluster Unstressed Coda:
Fifth Syllable Consonant Cluster Stressed Onset:
Fifth Syllable Consonant Cluster Stressed Coda:
Fifth Syllable Consonant Cluster Unstressed Onset:
Fifth Syllable Consonant Cluster Unstressed Coda:

Consonant Cluster Total for Stressed and Unstressed Onsets and Codas

Stressed Onset: #fl, t#, #d, st, st#, #sp, #fm, #k(2), #g (10)
Stressed Coda: mp, nd# (2)

Unstressed Onset: st(3), f#, #fl, t#, d#, kw, k#, #g, g (11)
Unstressed Coda: ηt#(2), st#(2), zm#, ld#, tz#, ks# (8)

Consonant Cluster Total for Onsets and Codas

Onset: st(4), #g(4), #fl(3), #b(2), #d(2), #k(2), #b, f#, t#, st, st#, #sp, #fm, k(2), #g, k#, kw, g (29)
Coda: ηt#(2), st#(2), bl#, mf#, mp, nts#, nd#, zd#, zm#, st#, nd#, jtf#, ld#, tz#, ks# (17)

Consonant Cluster Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllable Consonant Cluster: #b(2), #g(2), bl#, #b, mf#, #fl, #d, nts#, nd#, zd#, st#, jtf#, ld#, tz#, ks# (15)
First Syllable Consonant Cluster Stressed: mp, #fl, #d, #sp, #fm, #k(2), #g (7)
First Syllable Consonant Cluster Unstressed: #fl, #g (2)
Second Syllable Consonant Cluster Stressed: t#, nd#, st, st#, k(2) (5)
Second Syllable Consonant Cluster Unstressed: ηt#(2), st#(2), f#, t#, st, zm#, ld#, tz#, ks#, kw, g (13)

Third Syllable Consonant Cluster Stressed:
Third Syllable Consonant Cluster Unstressed: st(2), d, k (4)
Fourth Syllable Consonant Cluster Stressed:
Fourth Syllable Consonant Cluster Unstressed:

Fifth Syllable Consonant Cluster Stressed:
Fifth Syllable Consonant Cluster Unstressed:

Consonant Cluster Total per Syllable

First Syllable Consonant Cluster: #fl(2), #gʮ(2), mp, #dʮ, #spʮ, #fʮ, #kʰʮ (9)
Second Syllable Consonant Cluster: ηtʮ(2), stʮ(2), st(2), fi, ti, tʰl, ndʮ, stʮ, zmʮ, ɬdʮ, ɭzʮ, ksʮ, kw, kʰʮ, gj (18)
Third Syllable Consonant Cluster: st(2), dʮ, kʮ (4)
Fourth Syllable Consonant Cluster:
Fifth Syllable Consonant Cluster:

Consonant Cluster Stressed and Unstressed Total

Consonant Cluster Stressed: mp, #fl, tʰl, #dʮ, ndʮ, #spʮ, st, stʮ, #fʮm, #kʰʮ, kʰʮ, #gʮ (12)
Consonant Cluster Unstressed: st(3), ηtʮ(2), stʮ(2), fi, #fl, ti, dʮ, zmʮ, ɬdʮ, ɭzʮ, ksʮ, kj, kw, gj, #gʮ (19)

Consonant Cluster Total (absolute)

Narrow: st(4), #gʮ(4), #fl(3), #bl(2), #dʮ(2), ηtʮ(2), stʮ(2), #kʰʮ(2), bɭʮ, #bɭ, mfʮ, mp, fi, tʰl, ti, dʮ, ntsʮ, ndʮ, ndʮ, #spʮ, stʮ, zmʮ, #fʮm, jtʮ, ɬdʮ, ɭfʮ, ɭdʮ, kʰʮ, ksʮ, kj, kw, gj (46)
Broad: st(6), gʮ(5), kʮ(4), fl(3), dʮ(3), bl(2), nt(2), blɭ, bj, mf, mp, fi, ti, ti, nts, ndʮ, nd, spʮ, stʮ, zm, jm, jt, ɬd, ɭf, ɭd, ɭz, ks, kw (46)

46 total consonant clusters

Supra-Segments: Whole Syllables

Whole Syllable Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllable Whole Syllable:
#flnʮ,
#ju*șʮ,
#fımʮ,
#bloʃʮ,
#bʊo*ðʮ, #sʊ*ɾʮ, #gjo*ɾʮ, #fleșʮ,
#bɭlʮ, #zɭmʃʮ, #kʃʃntsʮ, #gʃʌhʮ,
#bɭitʮ, #nɔkʮ,
#lædʮ,
#axʮ, #afʮ, #bahʮ, #fətʃʮ, #tʰaudʮ, #dakʮ, #zaŋʮ, #lætʮ, #kʰʌndʮ, #wazʮ (25)

First Syllable Whole Syllable Stressed (all entries are word initial):
#di(2), #sI(2), #bu*ɾ(2), #dɛ(2), #sə(2), #maʃ(2), #kʰa(2), #fiI, #fi, #jI, #fiJ, #fmy,
#u*ɾ, #dju*ɾ, #dɭu*ɾ, #lu*ɾ, #wu*ɾ,
#brdʮ, #tʰl, #dɾs, #dʃf, #dʒɭ, #dm, #sim,
#buʃ, #fuf,
#sɛɭ, #dʒɔ*ɾ, #ʃɔ*ɾʃ, #wo*ɾ,
#pʰə, #kʰə, #ɡrəɭ, #eg, #neɭ,
#am, #səm, #kʰʃmp,
#fŋɭ, #tʰjɭ, #pʰə, #mæ, #mən, #dɪə, #spəɭ, #zəp, #jæɡ, #læd, #læ, #ɣæ, #gæ,
First Syllable Whole Syllable Unstressed (all entries are word initial):
#a(2), #sɑ(2), #a(2),
#pʰl, #flu,
#d1, #d1s,
#e, #o, #bo,
#ma, #ka, #kʰa, #ha,
#a, #ha,
#pʰæn, #fae,
#ma, #an
(65)  

Second Syllable Whole Syllable Stressed:
lu, kʰim,
le, he,
so, stuo'n#,
ε, tʰle'd#, wer#,
ax#,
də#,
æn, mad#, dæl, jænd#, jæs,
tʰa', ja'#,
ba, kʰa (20)  

Second Syllable Whole Syllable Unstressed:
no*#(2), lo*#(2), r*n#(2), g*#(2),
bi'n#, dli#, kl, ku"s#,
min#, ftn, fırst#, vik#, nık, nıs#, niḳs#, stt, sis#, zis#, jın#, lın#, kızm#,
pust#, ne'd#, kwe#,
də#,
bo", so"#, jo",
pʰl, bʰl#, ma, mas#, fa, tiʃ#,
ra"#, ta"#
(68)  

Third Syllable Whole Syllable Stressed:
kʰ#,
tʰu, a  (3)  

Third Syllable Whole Syllable Unstressed:
jí#(2), na(2),
fi#,
fe#, se#, ste#, le,
no"#, s'o"#, go"#, vn#,
θa, fɑ, kʰ#,
ra#,
宿, kʰ,
dz̈d#,
fa'd#,
#da", #ba", #tʰam, #san, #fa, #wam
Whole Syllable Stressed:
#dli(2), #slj(2), #bu*(2), #des(2), #sae(2), #mae(2), #kah(2), #fli, #fil, #jli, kʰl#,
#fmy,
#u", t"u", #du", #dju", #du"m, #lu", lu", #wu",
#brd", #t"l, #drj, #drl, #dm#, #sλm, kʰλm,
#bof, #θ, #se, le!, kʰle!, he!,
#dʒo", so", stgo"m#, jo"tʃ, #wo",
#p"a, #k³a", #gka:, e, #eg, t"le"d#, #ne, wer#,
xax#,
#an, #sam, #kʰλm,
#fŋ, #t"i, dʒi, æn, #p"a, #mæ, #mæn, mæd#, #dæ, dæ, #spæ, #zæ, #əŋ, #æŋ, #æs, #le, #gæ, #gæ, a!, t"a!, #da", ja"#, #ba, ba, #ma, #t"a, #san, #fa, kʰa, #wam (89)

Whole Syllable Unstressed:
#mλ(3), #o"(3), #næ(3), #lji(2), #o"(2), #æ(2), #r#(2), #o"(2), #θæ(2), #sæ(2), gʰ(2), #a(2), #p"h, bi:ŋ#, fl#, dl#, il#, kʰl,
#flu", nu"#, ku"s#,
#ss#, #dt, #dsl, fin, fin#, frst#, vsk#, nǐk, #sλs#, mλks#, st#, sss#, zís#, fín#, ιn#, lín#, kṣm#,
pust#,
#e, fe", ne"d#, se!, ste#, le!, kwe#,
#d#,
#o", #bo", bo"#, so"#, #o"#, #o", go"#,
#l#, #fli, b#l#, ma, #ma, mas#, #v#', taf#, t"n#, r#m#, r#, s#n#, sa, fa#, sa#, l#, k#m#, k#, k#, #k#, g#, g#, #h, #a, #b#, da#, na#, sa#, l#, ka#, ka#, ga#, #ha,
dʒed#,
t#l, t#l,
#p"æn, #fae, zæ, ba#, #ma, fa"d#,
#an, ba, ban#, ta#, ta#, db#, da#d, da#d, nol#, #tha, stan#, zan#, ga#, waf# (128)

Whole Syllable Total (absolute)

Narrow:
Whole Bisyllables:

KAHow ['kʰə·loʊ'], PAssunt [pʰæ·sʊnt], FULLso ['fʊl·soʊ'], EGzis [ɪɡ·zɪs], TORdur [tʰɔr·dʊr], DINruf [dɪn·ruf], GRUReen ['ɡray·bɪ·rɛn'], BOOgah [boʊ·ɡæ], WOEBahm ['wəʊ·bæhm], SEEkuhm [sɪˈkiːm], DRAduhn ['dræd·ɑn], ROWChnis [roʊˈtʃnɪs], DEHHfrist [ˈdɛ·fɜːst], GRAnuhr ['ɡɑːn·nʊhr], REEvik ['ɹiː·vɪk], TAHMbur ['tʰæm·bʊr], DILow ['dɪl·wɔʊ'], FLEEzizm ['flɛɪzɪz̩m], LOOum [ˈluː••m], UNdahld ['ʌn·dəld'], SPRAsis ['spɹəsɪs], WAHMpust ['wɔrm·pʊst'], MAHRtah ['mɑː·tɑː], MAHRlee ['mɑː·lɪ'], LADunt ['læd·tʊnt], BIDno ['bɪd·noʊ'], LADuh ['læd·u'], Jono ['dʒoʊ·noʊ'], JOOMbye ('dʒuʊm·beɪ], PURnks ['pɜːrnks], BAHRem ['bɑː·rɛm], FEEnul ['flɛ·nʊl], BURPlins ['ˈbɜːr·plɪns], MANdeec ['mæn·deɪk], Diffnahl ['dɪf·nɑːl], ZAPtolez ['zæp·təlɛz], BULLdahl ['bʊl·dɑːl], SAYgruhs ['seɪ·ɡruːs], SAHNDuhr ['sæn·dʊr], DRIHbul ['draɪ·bʊl], DOWgur ['dəʊ·ɡʊr], FONgkway ['fɑŋkweɪ], OOMus ['uː·mʌs], KURgul ['kɜːr·ɡʊl], BOOnayde ['boʊ·nɛi], DUEeum ['diː·u], SHMVOdeu ['ʃmʊ·dɑʊ], DARRin ['dɛr·ɪn], SUMboe ['sʌm·boʊ], DDOtah ['du·tɑː], NEHstahn ['nɛ·stɑːn], KAHKoose [ˈkɑː·kʊs],

huhMAD ['hɑː·mæd], kuhRAND [kʰɑ·ˈrænd], mAHOH [mɑ·ˈxɑʊ], hurRAW [hɑː·ˈrɑʊ], panWAIR [pʰɑnˈwɛɹ], ahnILED [ɑn·ˈtɛld], boeDOOR [boʊ·ˈdɔːr], muhSTRONE [mɑ·ˈstrəʊn]

Whole Trisyllables:

SApulwahsh ['sæ·pʊl·wɑʃ], MAHNmuhere ['mɑ:n·mʊhˈreɪ], JOSTihfyd ['dʒuʊstɪˈfɪd], MAUlfay ['mæ·lʊfæ], GAthukur ['ɡæθ·kʊr], SASuhtur ['sæs·ʊtəɹ], SIMfuhno ['sɪm·fʊnəʊ], WOOkahure ['wʊˈkoʊəɹ],

clowHAYvun ['flʊ·hɛɪ·vʊn], ayEHsayo ['e·ɪ·ɛ·sɛɪˌoʊ], suhILAYahn ['sɑ·ˈleɪˌzɑn], deCEAnred ['dɪˌænˌrɛd], disTYEgoe ['dɪs·tɪˌeɪ·ˈɡoʊ], ahhBAHstay ['ɑ·ˈbɑ·stɪ], uhKRIMshuh ['ɑ·ˈkrɪmˌʃɑ], ahDLALice ['ɑ·ˈdæl·əɹs], ohLOOKruhl ['ɑʊˌluʊˌkɹʊrl],

uhrowKEE ['ə·rəˌkɪ·vɪ]

Whole Tetrasyllables:

TIHfinbatuhtn ['tʰɪˌfɪn·bɑ·tʊˌtɛn], SHAHniksaymini ['ʃæ·nɪˈkɪz·seɪˌmɪn], RAGmuhlaydah ['ræg·mɑ·lɛ·dɑ],

suhsOWnuhmis ['sɑˌsoʊ·nəˌmɪs], uhrRASthuunoo ['oʊˌræs·θəˌnuʊ], kuhKAHnuhruh ['kɑˌkʰɑ·nəˌjɑ],

fakuhTOOuh ['fɑˌkɑ·ˈtʊˌu], peekeeAlfin ['pʰɪˌklɪˌəlfɪn]

Whole Pentasyllables:

SEEguntahullurmin ['sɪˌɡəŋˌtə·hʊˌlʊrˌmɪn]

Whole Hexasyllables:

dihzastuhrrhKAYshin ['dɪˌzæ·stə·fɑˌkʰɛˌliˌʃɪn]

<table>
<thead>
<tr>
<th>Syllable Receiving Stress</th>
<th>None</th>
<th>First</th>
<th>Second</th>
<th>Third</th>
<th>Fourth</th>
<th>Fifth</th>
<th>Sixth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monosyllabic Total</td>
<td>25</td>
<td>0</td>
<td>52</td>
<td>8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bisyllabic</td>
<td>60</td>
<td>0</td>
<td>52</td>
<td>8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trisyllabic</td>
<td>18</td>
<td>0</td>
<td>8</td>
<td>9</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tetrasyllabic</td>
<td>8</td>
<td>0</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Pentasyllabic</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Hexasyllabic</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>113</td>
<td>0</td>
<td>64</td>
<td>20</td>
<td>3</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>
Segmental and Supra-Segmental Ranking Data Sheet

Question ID: X. the feeling of being woken in the middle of the night by a strange noise

Segments

Segment Total for Stressed and Unstressed Syllables and Monosyllables according to Syllable Configuration

Monosyllable Onset: Ɂ(5), l(4), #p(3), #Ɂ(3), #f(2), #s(2), #j(2), #kʰ(2), #g(2), #w(2), t, #d, #h (30)

Monosyllable Nucleus: Ɂ(4), æ(3), i(2), u(2), a(2), a(2), #a(2), #i, u#, e, æ, α, a (24)

Monosyllable Coda: t#(5), k(4), k#(4), s#(3), d#(2), m, m#, f, tf#, d#, n, f#, j#, l, t#, q#, χ# (31)

First Syllable Segment Stressed Onset: Ɂ(9), #s(8), #b(5), #f(4), l(4), k(4), kʰ(4), #w(4), #tʰ(3), #h(3), #v(2), t(2), #J(2), #l(2), #pʰ, #m, #d#, n, #z, #ʃ, #j, #g (47)

First Syllable Segment Stressed Nucleus: a(11), æ(8), i(6), ε(6), Λ(5), #æ(4), #a(3), u(2), e(2), o(2), #æ(2), #a(2), #i(2), #i, α, #ε, Ω, #a, a (61)

First Syllable Segment Stressed Coda: k(7), Ɂ(9), n(5), m(3), s(2), l(2), t, Θ, z, η (32)

First Syllable Segment Unstressed Onset: #s(3), l(3), #m(2), #f(2), #d(2), #k(2), #pʰ, #v, #d#, #n, #z, #ʃ, #j, #g, #h (23)

First Syllable Segment Unstressed Nucleus: Ɂ(7), a(6), #a(3), #e(3), i(2), a(2), #i, α, æ, #a, #a (29)

First Syllable Segment Unstressed Coda: k(4), s(3), J(2), n, z (11)

Second Syllable Segment Stressed Onset: Ɂ(9), s(6), t(4), l(3), tʰ(2), k(2), kʰ(2), g(2), p, b, m, f, d (35)

Second Syllable Segment Stressed Nucleus: æ(6), i(4), i(3), a(3), u(2), e(2), ε(2), ι, o, æ, α, a (27)

Second Syllable Segment Stressed Coda: d#(5), n(5), t#(2), J(2), n(2), m#, f#, s, k (20)

Second Syllable Segment Unstressed Onset: Ɂ(8), t(7), g(5), p(4), b(4), f(4), s(4), f(4), d(3), n(3), r(3), J(3), k(3), l(2), h(2), pʰ, v, tʰ, d, θ, tf, d#, θ, z (67)

Second Syllable Segment Unstressed Nucleus: Ɂ(9), a(9), #i(7), u(6), æ(6), a(4), i(3), o(3), o(3), #i(2), #η(2), æ(2), æ(2), i, i#, e#, a#, η, η#, α, a (63)

Second Syllable Segment Unstressed Coda: d(6), n(6), k(4), f(3), f(3), J(3), t#(2), p#, m#, tf#, s#, l (32)

Third Syllable Segment Stressed Onset: pʰ (1)

Third Syllable Segment Stressed Nucleus: æ (1)

Third Syllable Segment Stressed Coda:

Third Syllable Segment Unstressed Onset: n(4), J(4), t(3), b(2), d(2), f(2), l(2), g(2), p, r, s, z, J (26)

Third Syllable Segment Unstressed Nucleus: æ(4), i(3), r(3), η(3), i(2), i#, u#, e#, o#, α#, #η#, #i#, æ, α, a (25)

Third Syllable Segment Unstressed Coda: n#(2), t#, d#, s#, k#, η# (7)

Fourth Syllable Segment Stressed Onset:

Fourth Syllable Segment Stressed Nucleus:

Fourth Syllable Segment Stressed Coda:

Fourth Syllable Segment Unstressed Onset: n(2), m, t, d, r, j (7)

Fourth Syllable Segment Unstressed Nucleus: a#(4), t, e, a, a (9)

Fourth Syllable Segment Unstressed Coda: v#, d#, d#, s#, t, k# (6)

Fifth Syllable Segment Stressed Onset: #p, pʰ, p, b, #m, m, f, d, #d#, #n, #z, #ʃ, #j, #g (100)

Fifth Syllable Segment Stressed Coda: #p, pʰ, p, b, #m, m, f, d, #d#, #n, #z, #ʃ, #j, #g (100)

Stressed Onset: Ɂ(18), #s(8), l(7), t(6), s(6), k(6), #b(5), #f(4), #kʰ(4), #w(4), #tʰ(3), #h(3), #v(2), tʰ(2), #J(2), #l(2), kʰ(2), g(2), #pʰ, p, pʰ, b, #m, m, f, d, #d#, #n, #z, #ʃ, #j, #g (100)

Stressed Coda: Ɂ(11), n(10), k(8), d(5), m(3), s(3), q(3), t#(2), l(2), m#, f#, t, Θ, z (52)

693
Unstressed Onset: J(12), t(11), n(9), l(7), g(7), b(6), d(6), f(6), p(5), r(5), s(5), f(4), j(4), #s(3), k(3), #m(2), #f(2), #d(2), z(2), #k(2), h(2), #p, m, v, t, dz, tf, #d5, #n, ð, ðz, j, #g, #h (116)

Unstressed Coda: d(#)8, n(#)8, k(#)5, k(4), f(#)3, t(#)3, s(3), f(#3), j(#)3, s(#)2, j(2), t(2), p#, m#, d', t'f#, n, s:, z, k'#, ð# (56)

Segment Total for Onsets and Codas

Onset: J(35), t(18), l(18), #s(13), s(11), n(9), k(9), g(9), #f(8), b(7), d(7), p(6), f(6), j(6), #j(6), #k(h6), #w(6), #p(#5), #b(5), f(5), r(5), #h(5), j(4), #g(4), #m(3), #v(3), t(#3), #(#3), #d(3), #j(3), p(#2), m(2), #d5(2), #n(2), #z(2), z(2), #f(2), #l(2), #k(2), #h(2), v, dz, tf, d5, ð, j: (246)

Coda: k(16), d(#)15, j(14), n(12), t(#)10, k(#)9, n(#)8, s(6), s(#)5, l(5), m(4), f(#)4, j(#)4, m(#)3, f(#)3, ð(3), j(#2), z(2), p#, f, f#:#, v#, t, ð#, d5#, ð, z:, ð#, k'#, g#, ð#:#, ð# (139)

Segment Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllable Segment: j(6), t(#)5, l(4), k(4), k(#)4, #p(#3), s(#)3, #j(3), #f(2), #s(2), d(#)2, #j(2), #k(h#), #g(2), #w(2), m, m#, f, t, #d, tf#, d5#, n, j#, j, t, #g, ð#, #h (61)

1(4), æ(3), l(#2), u"(2), a"(2), #a(2), #l#, u"#, e#, ð, æ, a, a# (24)

First Syllable Segment Stressed: J(18), k(11), #s(8), #b(5), n(5), #f(4), l(4), #k(h#), #w(4), m(3), t(3), #t(h#3), #h(3), #v(2), s(2), #j(2), #l(2), l(2), #p#, #m, #d5, #n, ð, ðz, z, #f, #j, #g, #h (96)

a(11), æ(8), #6(6), æ(#5), #æ(4), #a(3), u"(2), e"(2), #ɔ(2), #a(2), #i, #i, #a, #f, #j, #g, #h (34)

1(7), a(6), #æ(3), #e(3), l(#2), a(2), #i, #i, #æ, #a, #a (29)

Second Syllable Segment Stressed: J(11), s(7), d(#)5, n(5), t(4), l(3), k(3), t(#3), t(#)2, k(#2), g(2), #a(2), p, b, m, m#, #f, #, d (55)

æ(6), i(4), l(#3), a(3), u"(2), e"(2), æ(2), #i, #o", æ#, æ#, a# (27)

Second Syllable Segment Unstressed: J(8), t(#7), #t(#7), d(#6), n(#6), g(5), p(4), b(4), f(4), s(4), f(#4), k(#4), f(#3), d(3), n(#3), r(#3), #f(#3), #j(3), k(#3), t(#2), #n(2), l(#2), #j(2), h(2), p#, #m#, m#, #m#, v, t#, dz, tf#, #d5, #n, ð, ð, ð, ð#, z, l, l (112)

1(9), æ(9), u"(6), æ(#6), a(4), l(#3), o"(3), #æ(2), æ(#2), i, #i, #e#, #a, #a, #a (50)

Third Syllable Segment Stressed: p# (1)

æ (1)

Third Syllable Segment Unstressed: n(4), j(4), t(3), #n(3), b(2), d(2), n(#2), f(#2), l(2), g(2), p, #m#, #t, #d#, r, s, s#, z, j, #t, k'#, ð#, ð# (38)

#æ(4), l(#3), t(#3), e"(2), l#, u"#, e"#, o"#, #a#, æ, #æ, æ# (20)

Fourth Syllable Segment Stressed:

Fourth Syllable Segment Unstressed: n(2), m, v#, t, d, d#, #d', r, s:#, f, j, k# (13)

#æ(4), t, e#, a, æ, æ (9)

Fifth Syllable Segment Stressed:

Fifth Syllable Segment Unstressed:

Segment Total by Syllable

First Syllable Segment: J(20), k(15), #s(8), l(7), #f(#6), n(6), #b(5), #k(h6), #w(#4), #h#, m(#3), m(3), #v(3), t(3), #t(#3), #s(3), s(3), #j(3), #p(#2), #d(2), #n(2), s(2), #l(2), t(2), #k(2), #g(2), #d5, ð, ð, #z, #f, #d5, z, ð, ð, #j, # (130)
First Syllable Consonant Cluster Unstressed Coda: jk (1)

Second Syllable Consonant Cluster Stressed Onset: st(2), tʰ\(j\), sp, st\(\), sk, kʰ\(j\) (7)
Second Syllable Consonant Cluster Stressed Coda: nd#(2), nt\#, st\#, ηk (5)

Second Syllable Consonant Cluster Unstressed Onset: st\(\) (1)
Second Syllable Consonant Cluster Unstressed Coda: ηs\#, ld\#, ŋd\# (3)

Third Syllable Consonant Cluster Stressed Onset: Third Syllable Consonant Cluster Stressed Coda:
Third Syllable Consonant Cluster Unstressed Onset: t\(j\), st (2)
Third Syllable Consonant Cluster Unstressed Coda:

Fourth Syllable Consonant Cluster Stressed Onset: Fourth Syllable Consonant Cluster Stressed Coda:
Fourth Syllable Consonant Cluster Unstressed Onset: Fourth Syllable Consonant Cluster Unstressed Coda: ld\# (1)

Fifth Syllable Consonant Cluster Stressed Onset: Fifth Syllable Consonant Cluster Stressed Coda:
Fifth Syllable Consonant Cluster Unstressed Onset: Fifth Syllable Consonant Cluster Unstressed Coda:

Consonant Cluster Total for Stressed and Unstressed Onsets and Codas

Stressed Onset: #kʰ\(j\)(3), #sk(2), st(2), #pʰ\(l\), #bl, #bj, #f\(j\), tʰ\(j\), sk, #sk\(\), st\(\), st, sp, #st, kʰ\(j\), #g\(j\) (20)
Stressed Coda: nd#(2), nt\#, st\#, jk, ηk (7)
Unstressed Onset: #f\(j\), #f\(j\), t\(j\), st, st\#, #kl, #gl (7)
Unstressed Coda: ņd#(3), ηs\#, jk (5)

Consonant Cluster Total for Onsets and Codas

Onset: #f\(j\)(3), #kʰ\(j\)(3), #pʰ\(l\)(2), #sk(2), #st\(\)(2), st(2), #g\(j\)(2), #gl(2), #bl, #bj, #f\(j\), tʰ\(j\), t\(j\), #d\(j\), sk, #sk\(\), sp, #st, st, #sl, kʰ\(j\), #k\(j\), #kʰ\(l\), #kl (36)
Coda: ņd#(3), kt#(3), nd#(2), mt\#, ft\#, nt\#, ns\#, st\#, jk, ŋns\#, ks, ks\#, ηk (19)

Consonant Cluster Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllabic Consonant Cluster: kt#(3), #pʰ\(l\), mt\#, #f\(j\), ft\#, #d\(j\), st\(\), sl, ŋns\#, #k\(j\), #kʰ\(l\), ks\#, #g\(j\), #gl (16)

First Syllable Consonant Cluster: #kʰ\(j\)(3), #sk(2), #pʰ\(l\), #bl, #bj, #f\(j\), #sk\(\), #st\(\), st, jk, ηk (15)
First Syllable Consonant Cluster Unstressed: #f\(j\), #f\(j\), jk, #kl, #gl (5)

Second Syllable Consonant Cluster: nd#(2), st(2), tʰ\(j\), nt\#, sp, st\(\), sk, st\#, kʰ\(j\), ηk (12)
Second Syllable Consonant Cluster Unstressed: ηs\#, st\(\), ld\#, ŋd\# (4)

Third Syllable Consonant Cluster: Third Syllable Consonant Cluster Unstressed: t\(j\), st (2)

Fourth Syllable Consonant Cluster: Fourth Syllable Consonant Cluster Unstressed: ld\# (1)

Fifth Syllable Consonant Cluster: Fifth Syllable Consonant Cluster Unstressed:

Consonant Cluster Total per Syllable

First Syllable Consonant Cluster: #kʰ\(j\)(3), #f\(j\)(2), #sk(2), #pʰ\(l\), #bl, #bj, #f\(j\), #sk\(\), #st\(\), st, jk, ks, #kl, #gl, #g\(j\) (20)
Second Syllable Consonant Cluster: nd#(2), st(2), st\(\), tʰ\(j\), nt\#, ηs\#, sp, sk, st\#, ld\#, ŋd\#, kʰ\(j\), ηk (16)

696
Third Syllable Consonant Cluster: tl, st (2)

Fourth Syllable Consonant Cluster: ld# (1)

Fifth Syllable Consonant Cluster:

Consonant Cluster Stressed and Unstressed Total

Consonant Cluster Stressed: #k^3j(3), nd#(2), #sk(2), st(2), #pʰl, #bl, #bj, #fj, tʰj, nt#, #skj, sk, #stj, #st, st#, sp, jt, k^3j, ks, #gj, nj (27)

Consonant Cluster Unstressed: ld#(2), #fl, #fj, t, ηs#, st, jk, fj#, #kl, #gl (12)

Consonant Cluster Total (absolute)

Consonant Cluster Total (absolute)

Narrow: #fj(3), st(3), #k^3j(3), kt#(3), #pʰl(2), nd#(2), #sk(2), #st(2), st(2), ld#(2), #gj(2), #gl(2), #bl, #bj, mt#, ft#, #fl, tʰj, tj, #dj, nt#, ηs#, sk, #skj, #st, st#, sp, #sl, jk, lns#, ld#, #kl, #kʰl, k^3j, ks, #kj, ks#, nj (55)

Broad: st(5), k(5), st(4), fj(3), sk(3), ld(3), kt(3), pl(2), tj(2), nd(2), kl(2), ks(2), gj(2), gl(2), bl, bj, mt, ft, fl, dj, nt, ns, skj, sp, sl, jk, lns, nj (55)

55 total consonant clusters

Supra-Segments: Whole Syllables

Whole Syllable Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllable Whole Syllable:

First Syllable Whole Syllable Stressed (all entries are word initial):

First Syllable Whole Syllable Unstressed (all entries are word initial):

697
Second Syllable Whole Syllable Stressed:

<table>
<thead>
<tr>
<th>Stressed Syllable</th>
<th>Unstressed Syllable</th>
</tr>
</thead>
<tbody>
<tr>
<td>tɪn#(2)</td>
<td></td>
</tr>
<tr>
<td>tʰu&quot;</td>
<td>gu&quot;</td>
</tr>
<tr>
<td>mint#</td>
<td>tt, stɪŋk, jɪŋ</td>
</tr>
<tr>
<td>fɛ, stɛl</td>
<td></td>
</tr>
<tr>
<td>mɪn#</td>
<td></td>
</tr>
</tbody>
</table>

Second Syllable Whole Syllable Unstressed:

<table>
<thead>
<tr>
<th>Unstressed Syllable</th>
<th>Stressed Syllable</th>
</tr>
</thead>
<tbody>
<tr>
<td>pʰ#(2)</td>
<td></td>
</tr>
<tr>
<td>piʃ#</td>
<td>ji#</td>
</tr>
<tr>
<td>pʰu&quot;k#</td>
<td>du&quot;n#</td>
</tr>
<tr>
<td>bɪʃ#</td>
<td>tɪn#</td>
</tr>
<tr>
<td>sɪl#</td>
<td>giʃ#</td>
</tr>
</tbody>
</table>

Third Syllable Whole Syllable Stressed:

<table>
<thead>
<tr>
<th>Stressed Syllable</th>
<th>Unstressed Syllable</th>
</tr>
</thead>
<tbody>
<tr>
<td>pʰæ (1)</td>
<td></td>
</tr>
</tbody>
</table>

Third Syllable Whole Syllable Unstressed:

<table>
<thead>
<tr>
<th>Unstressed Syllable</th>
<th>Stressed Syllable</th>
</tr>
</thead>
<tbody>
<tr>
<td>ni#</td>
<td>ji#</td>
</tr>
<tr>
<td>nu&quot;</td>
<td></td>
</tr>
<tr>
<td>rʰ#</td>
<td></td>
</tr>
<tr>
<td>tr#</td>
<td></td>
</tr>
<tr>
<td>le#</td>
<td>ge#</td>
</tr>
<tr>
<td>tɑ#</td>
<td></td>
</tr>
<tr>
<td>pl#</td>
<td></td>
</tr>
<tr>
<td>bʰ#</td>
<td></td>
</tr>
<tr>
<td>dɑ#</td>
<td></td>
</tr>
<tr>
<td>rːɛ</td>
<td></td>
</tr>
<tr>
<td>ba&quot;n#</td>
<td>(25)</td>
</tr>
</tbody>
</table>

Fourth Syllable Whole Syllable Stressed:

<table>
<thead>
<tr>
<th>Stressed Syllable</th>
<th>Unstressed Syllable</th>
</tr>
</thead>
<tbody>
<tr>
<td>#ə#(2)</td>
<td></td>
</tr>
<tr>
<td>trv#</td>
<td></td>
</tr>
<tr>
<td>me'k#</td>
<td></td>
</tr>
<tr>
<td>nɑ#</td>
<td>rad'#</td>
</tr>
<tr>
<td>nəs#</td>
<td></td>
</tr>
<tr>
<td>dəld#</td>
<td>(9)</td>
</tr>
</tbody>
</table>

Fifth Syllable Whole Syllable Stressed:

<table>
<thead>
<tr>
<th>Stressed Syllable</th>
<th>Unstressed Syllable</th>
</tr>
</thead>
<tbody>
<tr>
<td>#ə#(2)</td>
<td></td>
</tr>
<tr>
<td>#i#(2)</td>
<td></td>
</tr>
<tr>
<td>#dɪs(2)</td>
<td>#st#(2)</td>
</tr>
<tr>
<td>#wɔ#(2)</td>
<td>#ə#(2)</td>
</tr>
</tbody>
</table>

Whole Syllable Total per Syllable

First Syllable Whole Syllable (all entries are word initial):

<table>
<thead>
<tr>
<th>Syllable</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>#ə#(3)</td>
<td></td>
</tr>
<tr>
<td>#i#(2)</td>
<td></td>
</tr>
<tr>
<td>#dɪs(2)</td>
<td></td>
</tr>
<tr>
<td>#st#(2)</td>
<td></td>
</tr>
<tr>
<td>#wɔ#(2)</td>
<td></td>
</tr>
<tr>
<td>#ə#(2)</td>
<td></td>
</tr>
<tr>
<td>#κ#(2)</td>
<td></td>
</tr>
<tr>
<td>#tʰ#(2)</td>
<td></td>
</tr>
<tr>
<td>#ə#(2)</td>
<td></td>
</tr>
</tbody>
</table>
### Fourth Syllable Whole Syllable:

<table>
<thead>
<tr>
<th>Syllable</th>
<th>Stressed</th>
<th>Unstressed</th>
</tr>
</thead>
<tbody>
<tr>
<td>/ba/</td>
<td>/b/</td>
<td>/a/</td>
</tr>
<tr>
<td>/pʰa/</td>
<td>/pʰ/</td>
<td>/a/</td>
</tr>
</tbody>
</table>

### Second Syllable Whole Syllable:

<table>
<thead>
<tr>
<th>Syllable</th>
<th>Stressed</th>
<th>Unstressed</th>
</tr>
</thead>
<tbody>
<tr>
<td>/pʰi/</td>
<td>/pʰ/</td>
<td>/i/</td>
</tr>
<tr>
<td>/tʃi/</td>
<td>/tʃ/</td>
<td>/i/</td>
</tr>
<tr>
<td>/tʰi/</td>
<td>/tʰ/</td>
<td>/i/</td>
</tr>
<tr>
<td>/tʃi/</td>
<td>/tʃ/</td>
<td>/i/</td>
</tr>
<tr>
<td>/li/</td>
<td>/l/</td>
<td>/i/</td>
</tr>
<tr>
<td>/hi/</td>
<td>/h/</td>
<td>/i/</td>
</tr>
</tbody>
</table>

### Third Syllable Whole Syllable:

<table>
<thead>
<tr>
<th>Syllable</th>
<th>Stressed</th>
<th>Unstressed</th>
</tr>
</thead>
<tbody>
<tr>
<td>/n/</td>
<td>/n/</td>
<td>/n/</td>
</tr>
<tr>
<td>/j/</td>
<td>/j/</td>
<td>/j/</td>
</tr>
<tr>
<td>/gi/</td>
<td>/g/</td>
<td>/i/</td>
</tr>
<tr>
<td>/nu/</td>
<td>/n/</td>
<td>/u/</td>
</tr>
<tr>
<td>/ntʃ/</td>
<td>/n/</td>
<td>/tʃ/</td>
</tr>
<tr>
<td>/jə/</td>
<td>/j/</td>
<td>/ə/</td>
</tr>
<tr>
<td>/nətʃ/</td>
<td>/n/</td>
<td>/tʃ/</td>
</tr>
<tr>
<td>/geɪ/</td>
<td>/g/</td>
<td>/eɪ/</td>
</tr>
</tbody>
</table>

### Fourth Syllable Whole Syllable:

<table>
<thead>
<tr>
<th>Syllable</th>
<th>Stressed</th>
<th>Unstressed</th>
</tr>
</thead>
<tbody>
<tr>
<td>/ʃə/</td>
<td>/ʃ/</td>
<td>/ə/</td>
</tr>
<tr>
<td>/tʃə/</td>
<td>/tʃ/</td>
<td>/ə/</td>
</tr>
</tbody>
</table>

### Fifth Syllable Whole Syllable:

<table>
<thead>
<tr>
<th>Syllable</th>
<th>Stressed</th>
<th>Unstressed</th>
</tr>
</thead>
<tbody>
<tr>
<td>/d/</td>
<td>/d/</td>
<td>//</td>
</tr>
</tbody>
</table>

### Whole Syllable Stressed and Unstressed Total:

<table>
<thead>
<tr>
<th>Syllable</th>
<th>Stressed</th>
<th>Unstressed</th>
</tr>
</thead>
<tbody>
<tr>
<td>/pʰi/</td>
<td>/pʰ/</td>
<td>/i/</td>
</tr>
<tr>
<td>/tʃi/</td>
<td>/tʃ/</td>
<td>/i/</td>
</tr>
<tr>
<td>/tʰi/</td>
<td>/tʰ/</td>
<td>/i/</td>
</tr>
<tr>
<td>/tʃi/</td>
<td>/tʃ/</td>
<td>/i/</td>
</tr>
<tr>
<td>/li/</td>
<td>/l/</td>
<td>/i/</td>
</tr>
<tr>
<td>/hi/</td>
<td>/h/</td>
<td>/i/</td>
</tr>
<tr>
<td>/n/</td>
<td>/n/</td>
<td>/n/</td>
</tr>
<tr>
<td>/j/</td>
<td>/j/</td>
<td>/j/</td>
</tr>
<tr>
<td>/gi/</td>
<td>/g/</td>
<td>/i/</td>
</tr>
<tr>
<td>/nu/</td>
<td>/n/</td>
<td>/u/</td>
</tr>
<tr>
<td>/ntʃ/</td>
<td>/n/</td>
<td>/tʃ/</td>
</tr>
<tr>
<td>/jə/</td>
<td>/j/</td>
<td>/ə/</td>
</tr>
<tr>
<td>/nətʃ/</td>
<td>/n/</td>
<td>/tʃ/</td>
</tr>
<tr>
<td>/geɪ/</td>
<td>/g/</td>
<td>/eɪ/</td>
</tr>
<tr>
<td>/ʃə/</td>
<td>/ʃ/</td>
<td>/ə/</td>
</tr>
<tr>
<td>/tʃə/</td>
<td>/tʃ/</td>
<td>/ə/</td>
</tr>
<tr>
<td>/d/</td>
<td>/d/</td>
<td>//</td>
</tr>
</tbody>
</table>
Supra-Segments: Whole Words

Whole Word Total per Word Length

Whole Monosyllables:

eekt [ɪkt], hadge [hæʤ], krak [kræk], strahmt [straɪmt], yiks [jɪks], klookt [kluːt], freeg [frɛɡ], yuh [juː], ark [aːk], ak [aːk], ride [raɪd], roo [ruː], ahr [aːr], plam [pʌlæm], glice [ɡliːs], peekt [pɛkt], wowsh [wɔʃ], slich [slɪtʃ], wift [wɪft], rouk [ruːk], faw [fɔː], pilnse [pɪlns], drale [dɹæl], moo [ɡuːd]

Whole Bisyllables:

FLUHburd [ˈflaʊbɜrd], HAHKin [ˈhɑk.tn], FRIMtin [ˈfrɪmtin], YAIZee [ˈjɑɪ.zi], HAHHoon [ˈhɑh.tn], AZnuf [ˈæznəf], METHRuhl [ˈmeθrʊl], SOOpeesh [ˈsʊpiʃ], SLLHpook [ˈsɛl.puːk], FORshan [ˈfɔrʃn], AYlee [ˈæyl], Arbish [ˈær.bɪʃ], WOEYak [ˈwɔ.jeɪk], BLAYgurd [ˈblɛɪɡɜrd], ARTnūm [ˈært.nuːm], KREHnuc [ˈkɾeɪnuːk], SHEEree [ˈsɛr.ri], INstray [ˈɪnstriː], BRAYkuh [ˈbreɪkuː], WODuh [ˈwɔdə], SKRUPal [ˈskrʌpʊl], AHHum [ˈɑh.əm], VEEENGo [ˈvɛn.ɡoʊ], STRAHPul [ˈstrə.ˈpʊl], PLEKsk [ˈpleksk], URLHaf [ˈɜrləf], WUHHdahr [ˈwʌh.ðə], UNlit [ˈʌn.lɪt], TERR [ˈtɛr], ZAVich [ˈzæv.ɪtʃ], KRAθul [ˈkrəθʊl], ILKIN [ˈɪlkɪn], NURjip [ˈnɜr.ʃip], BAHLTurd [ˈbæl.tʊrd], URGuld [ˈɜɹɡʊld], SAHRRzahr [ˈsæh.ɹr.ɹzə], EEtite [ˈɪt.ʃeɪt], LAHRGIS [ˈlaɪ.ɡɪs], FRIItul [ˈfɹɪtʊl], Akul [ˈɑkʊl], LAMpur [ˈlæmpər], BAHNShoof [ˈbanˌʃuːf], T𝐀Told [ˈtæ.ˈtɔld], VALshah [ˈvælˌsæn], HOOroo [ˈhuˌroʊ], KRAHdul [ˈkɹæ.ɹd], SKARfoe [ˈskɑɹfəʊ], AK البحر [ˈæk.bɛːr], REENTun [ˈrɛnt.tn], BAHbrook [ˈbæ.ɹkʊ], STIHful [ˈstɪ.fʊl], shahREEF [ˈʃæ.ɹɪf], fleuREEU [ˈflɪˌɹiː], suhRAND [ˈsɑ.ɹænd], klahSTOWD [ˈklɑ.ʃtɔ.ɹd], aHEE [ˈæhi], AECRAM [ˈjɪl.kʰæm], zumLAST [ˈzɑ.ɹæst], FØRUND [ˈfɑ.ɹænd], vihTREED [ˈvɪ.ɾɪd], mahrLEED [ˈmɑ.ɹleɪd], eeKAh [ˈɪk.ɹɪt], peeMINT [ˈpɪl.mɪnt]

Whole Trisyllables:

RAPKahnhnayte [ˈrækˌfɑ.ɹænˌtet], WUNdurstun [ˈwʌnˌdɑ.ɹəstn], KAHRRuhree [ˈkɹɑˌɹər], JIHgurbon [ˈʤɪ.ɹənˌbɑn], TAIRshureeng [ˈtɛɹ.ʃuˌɹæŋ], GRAStyουlay [ˈɡræsˌfʊlˈleɪ],

disROWduhn [ˈdɪsˌɹɔ.ɹuːn], arkTOOwin [ˈɑrkˈtʊ.ɹʊn], huhFAYshus [ˈhʌ.ɹə.ˈfɑs], uhLAHPuhul [ˈaɹ.ɹæ.ɹuː], uhBAHtruh [ˈəɹ.ˈboʊ.ɹuː], disKERTtoe [ˈdisˌkæ.ɹə.ˈtʊɹ], mazGOObul [ˈmeɪˌgʊ.ɹə], estTINik [ˈɛst.ˈtɪ.ɹɪk], jesTINKshun [ˈdʒesˌʃtɹɪŋk], kuhnDERnu [ˈkɹænˌdɛɹ.ɹən], uhGAZuhm [ˈɑ.ɹə.ɹɛzən]

Whole Tetrasyllables:

SKAuhrehnes [ˈskəɹə.ɹə.ɹɛzən], KUMBhyluhihiv [ˈkʌmb.ɹə.ɹæ.ɹə.ɹɪv], EKSFurgyuhud [ˈɛksˌfɹə.ɹi.ɹæ.ɹid], ekSPANshumayke [ˈɛkˌspænˌɹæ.ɹæ.ɹɪ.ɹɪm], glikSANdurchuhl [ˈɡlɪkˌʃænˌɹæ.ɹæ.ɹɪd], eckSTRAYneeu [ˈɛkˌstrəɪˌnɹɪ.ɹæ.ɹə], sisKAHreeuh [ˈsɪsˌkɹæ.ɹə.ɹæ.ɹə], suhREENGheeh [ˈsɪ.ɹə.ɹɛnˌɡəɹ],

nihkuhPAHnuh [ˈnɪhˌkɹæ.ɹə.ɹæ.ɹə]

Whole Penta syllables:
<table>
<thead>
<tr>
<th>Word Length</th>
<th>Total</th>
<th>None</th>
<th>First</th>
<th>Second</th>
<th>Third</th>
<th>Fourth</th>
<th>Fifth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monosyllabic</td>
<td>24</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bisyllabic:</td>
<td>64</td>
<td>0</td>
<td>52</td>
<td>12</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trisyllabic:</td>
<td>17</td>
<td>0</td>
<td>6</td>
<td>11</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tetrasyllabic</td>
<td>9</td>
<td>0</td>
<td>3</td>
<td>5</td>
<td>1</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Pentasyllabic</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total:</td>
<td>114</td>
<td>0</td>
<td>61</td>
<td>28</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
Segmental and Supra-Segmental Ranking Data Sheet

Question ID: Y. the name of the remotest island on earth

Segments

Segment Total for Stressed and Unstressed Syllables and Monosyllables according to Syllable Configuration

Monosyllable Onset: #b(2), #s(2), l(2), #kʰ(2), #w(2), p, #pʰ, #f, #s; #f, #j (16)

Monosyllable Nucleus: a(3), l(2), o#(2), æ(2), #i, o#, œ (12)

Monosyllable Coda: n(2), k#(2), b#, t, t#; d#, #, z, f#, #j, #l, #, ñ (11)

First Syllable Segment Stressed Onset: #s(7), #l(7), #pʰ(5), #kʰ(4), #m(3), #f(3), #d(3), l(3), #w(3), #tʰ(2), #j(2), #g(2), n, #n, #θ, #z, #j, #k, #h (51)

First Syllable Segment Stressed Nucleus: a(9), l(8), æ(5), u#(4), ε(4), #a(3) #l(2), o(2), o#(2), a#(2), #i, #u#, e#; e, œ, #, n, #a# (56)

First Syllable Segment Stressed Coda: n(10), j(4), t(3), s(2), p, b, d, z, ñ, k, ñ (26)

First Syllable Segment Unstressed Onset: #b(6), #s(4), #kʰ(4), #d(3), #j(3), #k(3), #m(2), #z(2), #f, #l, #d, #, f, j, #l, g, w, #h (36)

First Syllable Segment Unstressed Nucleus: a(11), l(4), a(4), #a(4), l#(3), #a(3), #u#(2), o#(2), ε(2), u#, u, #i, u, e, œ, #e, œ, a#, #a# (46)

First Syllable Segment Unstressed Coda: n(6), j(2), m, l, k (11)

Second Syllable Segment Stressed Onset: l(7), l(6), tʰ(3), n(3), s(3), z(3), pʰ(2), b(2), d(2), w(2), p, m, v, k, kʰ, g (39)

Second Syllable Segment Stressed Nucleus: a(7), l(6), u#(4), l(4), æ(3), e#(2), ε(2), e#, o#, e#, æl, a, a#, a# (36)

Second Syllable Segment Stressed Coda: n(2), j(2), t(2), n#, l#, s, z, f, j, k (15)

Second Syllable Segment Unstressed Onset: s(7), f(6), d(6), l(6), b(5), t(5), k(5), w(4), pʰ(3), m(3), j(3), v(2), n(2), z(2), f(2), j(2), g(2), p, tʰ, d#, r, k, h (73)

Second Syllable Segment Unstressed Nucleus: a(14), l(6), a(6), #η#(4), ε(4), o#(3), #η#(3), æ#(3), l#(2), i#(2), u#(2), o#(2), #η(2), a#(2), a#(2), a#(2), #i(2), i, u#, e#, #η#, #η, æ#, æ#, æ, æ#, a#, a# (67)

Second Syllable Segment Unstressed Coda: n#(5), n(4), d#(3), s#(2), k#(2), f#, t#, t#, Ψ#, z#, #j, t, k (22)

Third Syllable Segment Stressed Onset: d, n, s, z, j, l, k, h (8)

Third Syllable Segment Stressed Nucleus: e#(2), u#, o#, æ#, æ, æ, æ, æ (8)

Third Syllable Segment Stressed Coda: 

Third Syllable Segment Unstressed Onset: l(6), l(5), t(4), n(4), w(4), s(3), b(2), f(2), r(2), f(2), j(2), k(2), m, tʰ, d, θ, z, g (45)

Third Syllable Segment Unstressed Nucleus: o#(6), a(5), a#(4), a#(4), l#(3), u#(2), e#(2), #η#(2), #η#(2), æ#(2), a#(2), l#, i, u, #i#, #η#, æ, æ, æ# (43)

Third Syllable Segment Unstressed Coda: d#(3), n#(2), t#, z#, j, t#, k# (10)

Fourth Syllable Segment Stressed Onset: tʰ (1)

Fourth Syllable Segment Stressed Nucleus: a (1)

Fourth Syllable Segment Stressed Coda: 

Fourth Syllable Segment Unstressed Onset: l(3), m(2), l(2), θ, s, l, h (11)

Fourth Syllable Segment Unstressed Nucleus: a#(3), l(2), o#(2), a(2), a#(2), l#, i#, i, e#, a# (15)

Fourth Syllable Segment Unstressed Coda: n#(2), s#, η# (4)

Fifth Syllable Segment Stressed Onset:

Fifth Syllable Segment Stressed Nucleus: 

Fifth Syllable Segment Stressed Coda: 

Fifth Syllable Segment Unstressed Onset: j (1)

Fifth Syllable Segment Unstressed Nucleus: e#; a# (2)

Fifth Syllable Segment Unstressed Coda:

Stressed Onset: l(11), #s(7), l(7), #pʰ(5), n(5), tʰ(4), s(4), z(4), #kʰ(4), #m(3), #f(3), #d(3), d(3), #w(3), pʰ(2), b(2), #tʰ(2), #j(2), k(2), #g(2), w(2), p, m, v, #n, #θ, #z, #j, #k, kʰ, g, #h, h (99)

Stressed Coda: n(12), j(5), s(3), l(3), z(2), j#(2), j#(2), k(2), p, b, t#, t#, d, n#, s#, f, z, η (41)

703
Unstressed Syllable Segment Unstressed: 

Fifth Syllable Segment Unstressed:

Unstressed Onset: (15), (12), s(11), t(9), w(9), f(8), b(7), d(7), k(7), #b(6), m(6), n(6), #s(4), f(4), j(4), #k#(4), p#(3), #d(3), r(3), z(3), #x(3), #k(3), g(3), #m(2), v(2), t(2), Θ(2), #z(2), h(2), p, #f, #t#, d#, r, #d, #j, z, l, v, k#, #g, #h (165)

Unstressed Coda: n(10), n#(9), d#(6), j(4), s#(3), t(3), k#(3), t#(2), z#(2), m, f#, t#, Θ#, j#, l#, k, η# (50)

Segment Total for Onsets and Codas

Onset: l(28), j(20), s(15), #s(13), n(11), w(11), #k#(10), b(9), t(9), k(9), #b(8), f(8), #l(8), m(7), z(7), #p#(6), t#(6), #d(6), p#(5), #m(5), #f(5), #j(5), #w(5), f(4), j(4), #k(4), g(4), p(3), v(3), #t#(3), r(3), #z(3), #g(3), h(3), Θ(2), #j(2), k#(2), #h(2), d(10), dg, #n, r, #Θ, #d, #s:, z, l, v, k#, #g, #h (280)

Coda: n(24), n#(10), j(10), d#(7), Θ(7), l(6), s#(5), k#(5), t#(4), t#(3), t#(3), s(3), z(3), k(3), z#(2), η(2), η#(2), p, b, b#, m, f#, t, d, Θ#, j#, #j, z, l, v, k#, #g, #h (107)

Segment Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllable Segment: #b(2), n(2), #s(2), j(2), l(2), #k#(2), k#(2), #w(2), i(2), o#(2), æ(2), p, #p#, #f, #t, #d, #s, #z, f#, #j, #k, η (41)

a(3), i(2), o#(2), æ(2), l, o, v (12)

First Syllable Segment Stressed: n(11), #s(7), #l(7), #p#(5), j(4), #k#(4), #m(3), #f(3), #d(3), l(3), t(3), #w(3), #t#(2), s(2), #j(2), #g(2), p, b, d, #n, #Θ, #z, z, s, #j, #k, k, η, #h (77)

a(9), i(8), I(8), æ(5), u#(4), e(4), #a(3), #l(2), o(2), o*(2), a(l(2), #i, #u*, e, #a, η, a* (56)

First Syllable Segment Unstressed: #b(6), n(6), #s(4), #k#(4), #d(3), #j(3), j(3), #k(3), #m(2), #z(2), m, #f, #t#, #d, #j, l, k, #g, w, #h (47)

a(11), I(4), a(4), #a(4), l(3), #a(3), #u*(2), o#(2), e(2), u*, u, #i, u, e, æ, #ε, æ, æ, a*, #a* (46)

Second Syllable Segment Stressed: j(7), l(7), n(5), s(4), z(4), t#(3), p#(2), b(2), d(2), j#(2), t#(2), k(2), w(2), p, m, v, t#, #n, #s, #j, k#, g (54)

a(7), i(l(6), u#(4), I(4), æ(3), e(l(2), e(l, o#*, o, e, æ, æ, a*, a* (36)

Second Syllable Segment Unstressed: s(7), f(6), d(6), n(6), l(6), b(5), t(5), n(5), k(5), #η#(4), w(4), p#(3), m(3), d#(3), j(3), #j#(3), v(2), #η(2), s#(2), z(2), j(2), j(2), k#(2), g(2), p, #m#, #m, #f, #t#, #t#, #t#, d#, r, r, #Θ, z#, #j, #k, h (106)

a(14), I(6), a(6), e(4), o#*#(3), æ(3), l(2), i(l(2), u#(2), o#(2), a#(2), æ(2), i, u*, e#, æ, æ, a#, a#, a* (56)

Third Syllable Segment Stressed: d, n, s, z, j, l, k, h (8)

e(l(2), u*, o, #a#, #a#, æ, æ (8)

Third Syllable Segment Unstressed: l(6), j(5), t(4), n(4), w(4), d#(3), s(3), b(2), f(2), n#(2), #η#(2), r(2), j(2), #j#(2), j(2), k(2), m, #m#, #t#, #t#, d, #Θ, z, #s, z, l, #t#, #j, k#, g (61)

o#*(6), a(5), æ(4), a(4), l(3), u#(2), e(l(2), æ(2), a(2), i(l#, i, u, æ, æ, æ, a# (37)

Fourth Syllable Segment Stressed: t# (1)

a (1)

Fourth Syllable Segment Unstressed: l(3), m(2), n#(2), j(2), Θ, s, s#, l, η#, h (15)

æ#(3), z(2), o#*(2), a(2), æ#(2), l#, l#, e#, æ, a# (15)

Fifth Syllable Segment Stressed:

Fifth Syllable Segment Unstressed: j (1)

704
Supra-Segments: Consonant Clusters

Consonant Cluster Total for Stressed and Unstressed Syllables and Monosyllables according to Syllable Configuration

Monosyllable Consonant Cluster Onset (all entries are word initial): #fj, #spl, #kʰl (3)
Monosyllable Consonant Cluster Coda (all entries are word final): nd#, nt#, ztk#, ʃs#, ɲk# (5)

First Syllable Consonant Cluster Stressed Onset (all entries are word initial): #pʰl, #fl, #sn, #kʰl (4)
First Syllable Consonant Cluster Stressed Coda:

First Syllable Consonant Cluster Unstressed Onset (all entries are word initial): #dj, #kʰw (2)
First Syllable Consonant Cluster Unstressed Coda:

Second Syllable Consonant Cluster Stressed Onset: spl, kl (2)
Second Syllable Consonant Cluster Stressed Coda: ks# (2)

Second Syllable Consonant Cluster Unstressed Onset: fl, fj, sw, ţt, kw (5)
Second Syllable Consonant Cluster Unstressed Coda: ʃmd#, ʃs#, nz#, ɬd# (4)

Third Syllable Consonant Cluster Stressed Onset:
Third Syllable Consonant Cluster Stressed Coda:

Third Syllable Consonant Cluster Unstressed Onset: st(2), bʃ, gw (4)
Third Syllable Consonant Cluster Unstressed Coda: ɬz#, ɬd (2)

Fourth Syllable Consonant Cluster Stressed Onset:
Fourth Syllable Consonant Cluster Stressed Coda:
Fourth Syllable Consonant Cluster Unstressed Onset:
Fourth Syllable Consonant Cluster Unstressed Coda:

Fifth Syllable Consonant Cluster Stressed Onset:
Fifth Syllable Consonant Cluster Stressed Coda:
Fifth Syllable Consonant Cluster Unstressed Onset:
Fifth Syllable Consonant Cluster Unstressed Coda:

Consonant Cluster Total for Stressed and Unstressed Onsets and Codas

Stressed Onset: #pʰl, #fl, #sn, spl, kl, #kʰl (6)
Stressed Coda: ks# (1)

Unstressed Onset: st(2), bʃ, fj, #dʃ, sw, ţt, kw, #kʰw, gw (11)
Unstressed Coda: ʃmd#, ʃs#, nz#, ɬz#, ɬd, ɬd# (6)

Consonant Cluster Total for Onsets and Codas

Onset: st(2), #kʰl(2), #pʰl, bʃ, #fl, #ʃt, fʃ, #dʃ, #sn ,sw, #spl, spl, ţt, kw, kl, #kʰw, gw (20)
Coda: ʃmd#, ʃs#, nz#, nd#, nt#, ztk#, ʃs#, ɬz#, ɬd, ɬd#, ks#, ɲk# (12)

Consonant Cluster Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllable Consonant Cluster: #fj, nd#, nt#, #spl, ztk#, ʃs#, #kʰl, ɲk# (8)

First Syllable Consonant Cluster Stressed: #pʰl, #fl, #sn, #kʰl (4)
First Syllable Consonant Cluster Unstressed: #dʃ, #kʰw (2)

Second Syllable Consonant Cluster Stressed: spl, kl, ks# (3)
Second Syllable Consonant Cluster Unstressed: ʃmd#, fl, fj, ʃs#, nz#, sw, ţt, ɬd#, kw (9)

Third Syllable Consonant Cluster Stressed:
Third Syllable Consonant Cluster Unstressed: st(2), bʃ, ɬz#, ɬd, gw (6)

Fourth Syllable Consonant Cluster Stressed:
Fourth Syllable Consonant Cluster Unstressed:

**Fifth Syllable Consonant Cluster Stressed:**
Fifth Syllable Consonant Cluster Unstressed:

Consonant Cluster Total per Syllable

First Syllable Consonant Cluster: #pʰl, #fl, #dʒ, #sn, #kʰl, #kʰw (6)

Second Syllable Consonant Cluster: md#, fl, fʃ, ɲs#, nz#, sw, spl, fʃ, ld#, kw, kl, ks# (12)

Third Syllable Consonant Cluster: st(2), bj, ɬz#, ld, gw (6)

Fourth Syllable Consonant Cluster:

Fifth Syllable Consonant Cluster:

Consonant Cluster Stressed and Unstressed Total

**Consonant Cluster Stressed:** #pʰl, #fl, #sn, spl, #kʰl, kl, ks# (7)

Consonant Cluster Unstressed: st(2), bj, md#, fl, fʃ, #dʒ, ɲs#, nz#, sw, fʃ, ld#, ɬz#, ld, kw, #kʰw, gw (17)

Consonant Cluster Total (absolute)

Narrow: st(2), #kʰl(2), #pʰl, bj, md#, fl, #fl, fʃ, #dʒ, ɲs#, nz#, nd#, sw, #sn, spl, #spl, ztk#, fʃ, ɬs#, ɬd#, ɬz#, ld, kw, #kʰw, kl, ks#, gw, ɲk# (32)

Broad: kl(3), fl(2), fʃ(2), st(2), spl(2), ɬd(2), kw(2), pl, bj, md, dj, ns, nz, nd, nt, sw, sn, ztk, fʃ, ɬs, ɬz, ks, gw, ɲk (32)

32 total consonant clusters

**Supra-Segments: Whole Syllables**

Whole Syllable Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllable Whole Syllable:
#fʌl's#,
#splæŋk#, ɹ:s:zt#k#,
#so*#, #kʰo*#, #wɔ*#l,
#wɔn#,
#fænd#, #kʰlɛnt#,
#pʰaɪ#, #baɪs#, #bæb# (12)

First Syllable Whole Syllable Stressed (all entries are word initial):
#ɪl(2), #pʰ*l(2),
#i, #pʰl, #tʰl, #dli, #si, #sin, #zli, #kʰl, #wi,
#u*, #bʊ*, #lu*, #lu*n, #kʰu*, #wu*,
#flin, #θin, #ɹɪn, #lɪn, #kʰɪ, #hin,
#wel, #mo*, #lo, #lo*, #ko,
#pʰɛ*, #dɛ, #sɛ, #sep,
#n, #sɔ,
#pʰɔi,
#næ, #snæ, #sæn, #kʰɛɪk, #ɡæs,
#aʒ, #tʰəl, #ʃal,
#a, #ab, #al, #mad, #man, #fæt, #fa, #daɪ, #læɹ, #læŋ, #ʃən, #gæn (57)

First Syllable Whole Syllable Unstressed (all entries are word initial):
#ə(3), #ɪl(2), #u* (2), #də (2), #a (2),
#kʰl,
#bu*, #zum,
#ɪ, #bɪ, #sɪn, #kʰwɪn, #hɪ,
Second Syllable Whole Syllable Stressed:
\( p^\text{a}(2), \text{da}(2), \text{s}^\text{n}\#(2), \text{sa}(2), \text{di}, \text{di}#, \text{ri}, \text{lin}#, \text{kwi}#, \)
\( \text{nu}^\text{u}#, \text{ju}^\text{n}#, \text{kju}^\text{u}, \text{ttk}#, \text{zin}, \text{lnz}#, \text{ltt}#, \text{ln}#, \text{wi0}#, \)
\( \text{do}^\text{u}#, \text{so}^\text{u}#, \text{k0}#, \text{go}^\text{u}#, \text{ho}#, \)
\( \text{pa}, \text{ba}, \text{b}^\text{e}#, \text{man}, \text{ma}, \text{f}^\text{a}#, \text{v}^\text{n}#, \text{v}^\text{h}#, \text{na}, \text{v}^\text{h}#, \text{ra}, \text{s}^\text{v}#, \text{z}^\text{md}#, \text{j}^\text{v}#, \text{j}^\text{as}#, \text{la}#, \text{ja}, \text{k}^\text{h}#, \text{ga}, \)
\( \text{fa}, \text{da}, \)
\( \text{br}, \text{med}#, \text{t}^\text{ek}#, \text{ten}, \)
\( \text{f}^\text{æ}#, \text{f}^\text{æ}, \text{da}, \text{k}^\text{æ}#, \)
\( \text{ba}^\text{e}, \text{ta}^\text{h}#, \text{ta}^\text{h}, \)
\( \text{p}^\text{a}#, \text{b}^\text{ald}#, \text{f}^\text{a}#, \text{f}^\text{at}^\text{h}#, \text{swaf}#, \text{lan}#, \text{wan}# (67) \)

Third Syllable Whole Syllable Stressed:
\( \text{nu}^\text{u}, \)
\( \text{de}^\text{e}, \text{he}^\text{e}, \)
\( \text{so}, \)
\( \text{lat}^\text{h}#, \)
\( \text{la}^\text{h}, \)
\( \text{z3}, \)
\( \text{ja}^\text{e} (8) \)

Third Syllable Whole Syllable Unstressed:
\( \text{lo}^\text{u}#(2), \)
\( \text{ni}^\text{h}#, \text{ri}, \text{0}^\text{h}#, \text{gi}^\text{h}, \)
\( \text{ju}^\text{u}#, \text{ju}^\text{m}#, \)
\( \text{sttk}#, \)
\( \text{fu}^\text{h}#, \)
\( \text{me}^\text{e}#, \text{ke}^\text{e}#, \text{gwe}^\text{e}#, \)
\( \text{0}^\text{h}#, \text{to}^\text{u}#, \text{zo}^\text{u}#, \text{jo}^\text{u}#, \)
\( \text{m}^\text{h}#, \text{na}, \text{ra}, \text{sta}#, \text{sta}, \text{j}^\text{h}#, \text{ja}#, \text{la}#, \text{la}, \text{l}^\text{h}#, \text{j}^\text{h}#, \text{ka}#, \text{k}^\text{h}#, \text{w}^\text{h}#, \)
\( \text{fa}, \text{da}^\text{h}#, \text{ka}^\text{h}#, \text{wa}^\text{h}#, \)
\( \text{brd}#, \)
\( \text{nae}, \)
\( \text{ba}#, \)
\( \text{ald}#, \text{t}^\text{a}#, \text{nan}#, \text{ja}#, \text{jad}#, \text{wa} (44) \)
### Fourth Syllable Whole Syllable Stressed:

tʰa (1)

### Fourth Syllable Whole Syllable Unstressed:

itals, tʰi, 
ists, mɪtʰ, 
jei, 
oʰ-, loʰ-, 
aɪ, maɪ, ɪəɪ; 
sa, 
Thei, ɪən, ɪəh (14)

### Fifth Syllable Whole Syllable Stressed:

#### Fifth Syllable Whole Syllable Unstressed:

jei, 
ə (2)

Whole Syllable Total per Syllable

First Syllable Whole Syllable (all entries are word initial):

<table>
<thead>
<tr>
<th>Entry</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>#uʰ(3), #a(3), #a(3), #i(1), #j(1), #kʰ(2), #b(un)(2), #pʰ(2), #də(2), #i, #pʰi, #tʰi, #dli, #sli, #sin, #zli, #wli, #zum, #lu^n, #kʰu^n, #wu^n, #i, #bi, #flin, #θin, #sin, #jiz, #lin, #kʰi, #kʰwin, #hi, #hin, #fj, #be, #weʰ, #boʰ, #moʰ, #tʰoʰ, #lo, #loʰ, #ko, #ba, #ma, #fa, #dja, #da, #sa, #jə, #ka, #gə, #sa, #ek, #pʰle, #me, #de, #se, #sep, #ken, #ət, #sa, #pʰə, #lə, #nə, #səj, #sən, #kʰæk, #kʰən, #gəs, #ə, #əz, #tʰə, #za, #ja, #ab, #at, #ən, #əj, #bəj, #məd, #man, #fət, #fa, #dəj, #sa, #ləj, #lən, #kʰən, #ka, #gən (102)</td>
<td></td>
</tr>
</tbody>
</table>

Second Syllable Whole Syllable:

<table>
<thead>
<tr>
<th>Entry</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>pʰa(2), da(2), sʰ#(2), sa(2), pʰi, miʃ, tʰi, di, dʒi#, ni, splitʰ#, ri, li, lin#, kwli#, tʰu^n, ju^n#, ju^n, lu^n, kju^n, tk#, ni, si, zin, ji, jin##, l##, l##, kʰi, wrθ#, jei, weʰ#, weʰ, bo, doʰ#, soʰ#, soʰ#n#, ko#, goʰ#, ho#, pa, ba, bʰ#, man, ma, fa#, vʰs#, vʰ#, na, ʰ#n, ra, sʰ#n, zʰmd#, ftein#, fas#, la#, ja, kʰ#, gə, fa, da, be, med#, tʰek#, ten, deks#, nez, zeʰ#, flæ#, fa, dæ, zæ, sən, kla#u#, kʰsən, sən, ba#i, tʰa, tʰ#, ta#, lə, pʰa#, pʰə, bald#, fa#, fatʰ#, vəs#, da, swaf#, za, jat#, ɪə, las, lə#, lan#, wən# (102)</td>
<td></td>
</tr>
</tbody>
</table>

Third Syllable Whole Syllable:

<table>
<thead>
<tr>
<th>Entry</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>loʰ#(2), ni#, ri, Θi/h#, ʃi#, nu^n, ju^n#, ju^n#, sttk#, fuʰ#, meʰ#, deʰ, keʰ#, gweʰ#, heʰ, oʰ#, toʰ#, so, zoʰ#, joʰ# (102)</td>
<td></td>
</tr>
</tbody>
</table>

709
Segmental and Supra-Segmental Ranking Data Sheet

Question ID: Z

Segments

Segment Total for Stressed and Unstressed Syllables and Monosyllables according to Syllable Configuration

Monosyllable Onset: \#b(4), \#s(4), \#j(4), \#l(4), \#f(3), \#a(3), \#p(2), \#f(2), \#t(2), \#w(2), p, \#m, \#t, \#d, \#b, \#l, \#k, \#g, \#h (41)

Monosyllable Nucleus: \#a(7), \#l(3), \#m(3), \#e(3), \#o(2), \#n(2), i, \#n, \#t, \#s, \#f, \#l # (28)

Monosyllable Coda: \#d(5), \#s(11), \#b(4), \#m#(2), \#f(2), \#t(2), \#w(2), b, f, t, ts, s, s, f, z, j, h (70)

First Syllable Segment Stressed Onset: \#s(11), \#j(11), \#m(6), \#j(5), \#l(5), \#b(4), \#w(4), \#f(3), \#w(3), \#f(2), \#v(2), \#d(2), \#n(2), l(2), \#k(2), p, \#t, t, z, j, h (70)

First Syllable Segment Stressed Nucleus: \#a(11), \#l(7), \#m(7), \#e(6), \#e(4), \#o(3), \#a(2), \#i, \#n, \#o, \#a, a (57)

First Syllable Segment Stressed Coda: \#n(7), \#j(7), \#z(2), \#t(2), \#k(2), \#g(2), p, b, t, d, s, z (27)

First Syllable Segment Unstressed Onset: \#f(4), \#s(4), \#j(4), \#d(3), l(3), \#p, \#m, \#v, \#d, \#z, k, \#h, w (26)

First Syllable Segment Unstressed Nucleus: \#a(12), \#a(3), \#l(2), \#u(2), \#e(2), \#o(2), \#i, \#n, \#a, \#æ, \#a (28)

First Syllable Segment Unstressed Coda: n(3), s (4)

Second Syllable Segment Stressed Onset: \#j(5), \#l(5), \#f(3), \#j(3), \#m(2), \#t(2), \#n(2), \#s(2), \#w(2) b, v, t, d, k, g (32)

Second Syllable Segment Stressed Nucleus: \#e(4), \#o(4), \#e(4), \#e(4), \#a(3), \#u(2), \#e(2), \#i, \#u, \#a, \#a (27)

Second Syllable Segment Stressed Coda: n(4), t(2), \#s(2), \#f(2), d#, \#t#, \#n#, \#s#, \#k, \#k (18)

Second Syllable Segment Unstressed Onset: \#z(8), \#l(7), \#n(6), \#d(5), \#s(5), \#f(4), \#t(4), \#j(4), \#k(3), \#b(2), r(2), k(2), m, v, \#o, \#l, \#g (59)

Second Syllable Segment Unstressed Nucleus: \#a(8), \#a(6), \#a(6), \#o(5), \#i(3), \#a(3), \#u(2), \#e(2), \#i, \#u, \#a, \#a (23)

Second Syllable Segment Unstressed Coda: n(8), t#, \#a(4), \#d(4), \#k(3), \#t#, \#s#, \#z#, \#f#, \#j#, \#g (24)

Third Syllable Segment Stressed Onset: \#n(5), \#j(5), \#f(4), \#s(3), \#z(3), \#d(2), m, t, \#o (25)

Third Syllable Segment Stressed Nucleus: \#a(6), \#a(6), \#a(3), \#i(3), \#l(2), \#i(2), \#z(2), \#e(2), \#o(2), \#o(2), \#a (23)

Third Syllable Segment Stressed Coda: n#, t#, \#s#, \#i, \#t (8)

Fourth Syllable Segment Stressed Onset: \#l (1)

Fourth Syllable Segment Stressed Nucleus: \#e (1)

Fourth Syllable Segment Stressed Coda: \#n, \#t, \#f, \#s (4)

Fourth Syllable Segment Unstressed Onset: \#f, \#n, \#r, \#s (4)

Fourth Syllable Segment Unstressed Nucleus: \#a(2), \#n#, \#a#(2), \#a (6)

Fourth Syllable Segment Unstressed Coda: \#d, \#t, \#s (4)

Fifth Syllable Segment Stressed Onset: \#b(10), \#j(10), \#l(8), \#m(6), \#w(6), \#l(5), \#b(4), \#n(4), \#j(4), \#f(3), \#f(3), \#w(3), \#m(2), \#f(2), \#v(2), t(2), \#d(2), \#s(2), \#k(2), p, b, v, \#t, \#d, \#z, \#k, \#l, \#g, \#h (103)

Stressed Onset: \#s(11), \#j(11), \#l(10), \#l(8), \#m(6), \#w(6), \#l(5), \#b(4), \#n(4), \#j(4), \#f(3), \#f(3), \#w(3), \#m(2), \#f(2), \#v(2), \#t(2), \#d(2), \#s(2), \#k(2), p, b, v, \#t, \#d, \#z, \#k, \#l, \#g, \#h (103)
Stressed Coda: n(11), j(7), k(3), t#(2), n#(2), s(2), z(2), f#(2), t(2), g(2), p, b`, d, d#, d`#, tf#, s#, ʒ, ɬ#, k# (45)

Unstressed Onset: n(12), j(10), l(10), s(8), z(8), d(7), t(6), f(5), j(5), #f(4), #s(4), #j(4), k(4), #d(3), r(3), z(3), b(2), m(2), Θ(2), kʰ(2), w(2), #p, #m, #v, v, #dʒ, ʃz, j, kʰ#, g (115)

Unstressed Coda: n#(8), t`#(6), d#(5), s#(4), n(3), k#(3), t#(2), d `#(2), s(2), z#, f#, j#, g# (39)

Segment Total for Onsets and Codas

Onset: j(24), l(22), #s(19), #j(18), n(16), t(10), s(10), w(10), #b(8), #m(8), #f(8), f(8), d(8), z(8), #d(6), #f(6), #l(6), j(5), m(4), #kʰ(4), k(4), b(3), #v(3), r(3), #z(3), z(3), kʰ(3), #w(3), #pʰ(2), p(2), v(2), #tʰ(2), tʰ(2), #dʒ(2), Θ(2), g(2), #h(2), #p, r, #g (259)

Coda: n(16), d#(11), n#(10), j(8), t`#(7), t#(6), s#(6), j(6), s(5), z#(5), l(5), k#(5), d`#(3), k(3), m#(2), f#(2), z(2), j#(2), g(2), p, b, b`, f, d, ts#, tf#, j#, ʒ#, ʃ#, g#, ʒ, h# (120)

Segment Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllable Segment: d#(5), j(5), #b(4), #s(4), z#(4), l(4), #f(3), j#(3), #l(3), #pʰ(2), m#(2), f#(2), #f(2), #v(2), d#(2), z(2), l(2), t#, #kʰ(2), k(2), g(2), b`, #tʰ, t, d, s, #z, ʒ, j, #h (97)

a(7), i`(3), i(3), ε(3), æ(3), o*(2), Λ(2), i, #ɪ, e`, o`# (28)

First Syllable Segment Stressed: j(12), #s(11), #j(11), n(9), #m(6), #l(5), #b(4), w(4), #j(3), #w(3), p(2), #f(2), #v(2), d#(2), z(2), l(2), t#, #kʰ(2), k(2), g(2), b`, #tʰ, t, d, s, #z, ʒ, j, #h (97)

a(11), i(8), i`(7), æ(6), u*(4), e`(4), o*(3), a`(2), #i`, #ʌ, ɔ, ɑ#, #a# (57)

First Syllable Segment Unstressed: #f(4), #s(4), #j(4), #d(3), n(3), l(3), #p, #m, #v, #dʒ, s, #z, k, #kʰ, w (30)

a(12), #a(3), i`(2), u*(2), æ(2), #i`, #ɪ, o*, æ, æ̃, #a, a (28)

Second Syllable Segment Stressed: n(6), j(5), l(5), f(3), s(3), j(3), m(2), tʰ(2), t#(2), n#(2), f#(2), w(2), b, v, t, d#, d`#, d, tf#, s#, t#, kʰ, k, k#, g (50)

e`(4), o*(4), æ(4), i(3), a(3), u*(2), ε(2), i`, u, ɔ, ɑ`, ə (27)

Second Syllable Segment Unstressed: z(8), n#(7), l(7), n(6), d(5), *η#(5), s(5), f(4), t(4), t`#(4), d#(4), j(4), *η(3), *f#(3), k(3), k#(3), b(2), *m#(2), r(2), kʰ(2), m, v, t#, Θ, s#, z#, f#, j#, f#, ʃ#, ʃ, g#, g, w (97)

ι(8), ι(8), a(6), i`#(3), o`#(3), æ#(3), u`#(2), o`#(2), æ(2), i`, e`#, ι, ε, æ#, æ`, æ`, æ # (44)

Third Syllable Segment Stressed:

Third Syllable Segment Unstressed: n(5), j(5), s(4), f(4), *η#(3), z(3), t`#(2), d(2), s#(2), m, t, t#, n#, Θ, ɬ# (36)

a(6), æ#(3), i`#(2), i#(2), z(2), e`(2), o`, o`#, ε (20)

Fourth Syllable Segment Stressed: i (1)
ε (1)

Fourth Syllable Segment Unstressed: d`#(2), *m#, f, d#, n, *n#, r, s#, j (10)

ə(2), ɔ`, a (4)

Fifth Syllable Segment Stressed:

Fifth Syllable Segment Unstressed: t (1)

e`(1)

Segment Total by Syllable

714
First Syllable Segment: #s(15), #u(15), n(12), j(12), #m(7), #f(6), #d(5), #l(5), l(5), w(5), #b(4), #v(3), #f(3), #kʰ(3), k(3), #w(3), p(2), s(2), z(2), #z(2), t(2), g(2), #p, b, #l, t, d, #dʒ, ʃ, j, h (127)

Second Syllable Segment: n(12), l(12), n#(9), j(9), s(8), z(8), f(7), d(6), t(5), d#(5), η#(5), tʰ#(4), j(4), k(4), k#(4), b(3), m(3), t#(3), η(3), j#(3), t#(3), kʰ(3), w(3), η#(2), v(2), tʰ(2), r(2), s#(2), g(2), d', #f, Θ, ʃ, j, #h, 't, g (147)

Third syllable Segment: n(5), j(5), s(4), f(4), η#(3), z(3), tʰ#(2), d(2), s#(2), m, t, #t, n#, Θ, # (38)

Fourth Syllable Segment: d' #(2), *m#, f, d#, n, *η#, r, s#, j, l (11)

Fifth Syllable Segment: t (1)

e# (1)

Segment Stressed and Unstressed Total

Stressed Segment: j(17), n(15), #s(11), #u(11), l(8), #m(6), w(6), #l(5), #b(4), s(4), j(4), f(3), #f(3), k(3), g(3), #w(3), p(2) m(2), #f(2), #v(2), t(2), tʰ(2), #d(2), d(2), z(2), #f(2), #f(2), #d(2), m(2), t#(2), θ(2), kʰ(2), w(2), #p, #m, v, #dʒ, z#, z, #j, #f, #s, t#, j, #kʰ, g#, g (174)

Unstressed Segment: n(15), s(10), j(10), l(10), *η#(9), n#(8), z(8), d(7), t(6), tʰ#(6), f(5), d#(5), #f(5), #f(4), #s(4), s#(4), j#(4), k(4), *m#(3), #d(3), *η(3), r(3), s(3), t#(3), k#(3), b(2), m(2), t#(2), d' #(2), θ(2), kʰ(2), w(2), #p, #m, #v, #dʒ, z#, #j, #f, #s, t#, j, #kʰ, g#, g (399)

Segment Total (absolute)

Narrow: n(32), j(32), l(22), #s(19), #u(18), s(15), d#(11), t(10), n#(10), z(10), w(10), f(9), d(9), *η#(9), #b(8), #m(8), #f(8), t η#(7), k(7), t#(6), #d(6), s#(6), #f#(6), f#(6), z#(5), j#(5), l(5), j(5), k#(5), b(4), m(4), η#(4), kʰ#(4), g(4), p(3), *m#(3), η#(3), d' #(3), η#(3), z(3), t#(3), j#(3), kʰ(3), w(3), #p#(2), m#(2), f#(2), v(2), t#(2), tʰ(2), t#(2), #dʒ(2), θ(2), j#(2), #kʰ(2), #h(2), #p, b, #l, t#, #f, #s, #k, #g, #s, t, j, #η (399)

Broad: n(54), j(52), s(40), d(29), l(28), t(27), f(19), k(19), z(18), f(18), m(17), #l(13), p(6), g(6), v(5), η#(5), j(5), r(3), h(3), d#(2), Θ(2), t, s, #j, r (399)

609 total segments

Supra-Segments: Consonant Clusters

Consonant Cluster Total for Stressed and Unstressed Syllables and Monosyllables according to Syllable Configuration

Monosyllable Consonant Cluster Onset (all entries are word initial): #b(2), #b#j, #b, #fl, #fl, #st, #sp, #st, #zw, #fjw, #kʰj, #gl (13)

Monosyllable Consonant Cluster Coda (all entries are word final): b#z, ft#, nd#, nz#, #st#, #f#, #lm#, #ls#, #d#, #k#j, #ŋk#j (10)

First Syllable Consonant Cluster Stressed Onset (all entries are word initial): #sw(3), #b#j(2), #mj, #fl, #d#j, #sn, #sl, #sn, #sp, #st, #fjw, #kʰj (15)
First Syllable Consonant Cluster Stressed Coda: ns, jd, ţg (3)

First Syllable Consonant Cluster Unstressed Onset (all entries are word initial): #fl, #sk, #sw, #kʰl (4)
First Syllable Consonant Cluster Unstressed Coda:

Second Syllable Consonant Cluster Stressed Onset: bl, mj, fj, fj, gj (5)
Second Syllable Consonant Cluster Stressed Coda: ntʃ# (1)

Second Syllable Consonant Cluster Unstressed Onset: bl(2), fl (3)
Second Syllable Consonant Cluster Unstressed Coda: ns#, nj#, st#, td# (4)

Third Syllable Consonant Cluster Stressed Onset: Third Syllable Consonant Cluster Stressed Coda:

Third Syllable Consonant Cluster Unstressed Onset: st, dʒ (2)
Third Syllable Consonant Cluster Unstressed Coda: st# (1)

Fourth Syllable Consonant Cluster Stressed Onset:
Fourth Syllable Consonant Cluster Stressed Coda:

Fourth Syllable Consonant Cluster Unstressed Onset:
Fourth Syllable Consonant Cluster Unstressed Coda:

Fifth Syllable Consonant Cluster Stressed Onset:
Fifth Syllable Consonant Cluster Stressed Coda:

Fifth Syllable Consonant Cluster Unstressed Onset:
Fifth Syllable Consonant Cluster Unstressed Coda:

Consonant Cluster Total for Stressed and Unstressed Onsets and Codas

Stressed Onset: #sw(3), #bʃ(2), bl, #mj, mj, #fl, fj, fj, #dʒ, #sn, #sl, #sn, #sp, #stʃ, #fʃ, #kʰʒ, gj (20)

Stressed Coda: ns, ntʃ#, jd, ţg (4)

Unstressed Onset: bl(2), fl, #fl, dʒ, #sk, #sw, st, #kʰl (9)

Unstressed Coda: st#(2), nj#, njz#, td# (5)

Consonant Cluster Total for Onsets and Codas

Onset: #sw(4), #bʃ(3), bl(3), #fl(3), #sp(2), #stʃ(2), #fʃw(2), #kʰʒ(2), #pʰʃ, #bl, #mj, mj, fl, fj, fj, #dʒ, dʒ, #sn, #sl, #sn, #st, st, #sk, #zw, #kʰl, gj, #gl (42)

Coda: st#(3), njz#(2), td#(2), bz#, ft#, nd#, nj# #, ns, ntʃ#, sf#, jd, ţg, ɻm#, ɻz#, njk# (19)

Consonant Cluster Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllable Consonant Cluster: #bl(2), #pʰʃ, bz#, #bʃ, #fl, ft#, fj, fj, nd#, nz#, #st, st#, #sp, #stʃ, #fʃw, #ʃ, ɻm#, ɻz#, td#, #kʰʒ, #gl, njk# (23)

First Syllable Consonant Cluster Stressed: #sw(3), #bʃ(2), #sn(2), #mj, #fl, #dʒ, ns, #sl, #sp, #stʃ, #fʃw, #dʒ, gj, #kʰʒ (18)
First Syllable Consonant Cluster Unstressed: #fl, #sk, #sw, #kʰl (4)

Second Syllable Consonant Cluster Stressed: bl, mj, fj, fj, ntʃ#, gj (6)
Second Syllable Consonant Cluster Unstressed: bl(2), fl, nj#, njz#, st#, td# (7)

Third Syllable Consonant Cluster Stressed:
Third Syllable Consonant Cluster Unstressed: st, st#, dʒ (3)

Fourth Syllable Consonant Cluster Stressed:
Fourth Syllable Consonant Cluster Unstressed:

Fifth Syllable Consonant Cluster Stressed:
Fifth Syllable Consonant Cluster Unstressed:

Consonant Cluster Total per Syllable
First Syllable Consonant Cluster: \texttt{#sw(4), #bj(2), #fl(2), #sn(2), #mj, #dj, ns, #sl, #sk, #sp, #stj, #fw, jd, jg, #kʝ, #kʰl} (22)

Second Syllable Consonant Cluster: \texttt{bl(3), mj, fj, fl, ntf#, ηs#, ηz#, st#, ld#, gj} (13)

Third Syllable Consonant Cluster: \texttt{st, st#, dj} (3)

Fourth Syllable Consonant Cluster: 

Fifth Syllable Consonant Cluster:

<table>
<thead>
<tr>
<th>Consonant Cluster Stressed and Unstressed Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consonant Cluster Stressed: \texttt{#sw(3), #bj(2), bl, #mj, mj, #fl, fj, fi, #dj, ns, ntf#, #sn, #sl, #sn, #sp, #stj, #fw, jd, jg, #kʝ, gj} (24)</td>
</tr>
<tr>
<td>Consonant Cluster Unstressed: \texttt{bl(2), st(#2), fl, #fl, dj, ηs#, ηz#, #sk, #sw, st, ld#, #kʰl} (14)</td>
</tr>
</tbody>
</table>

Consonant Cluster Total (absolute)

Narrow: \texttt{#sw(4), bl(3), #fl(3), st(#3), #bl(2), #bj(2), #sn(2), #sp(2), #stj(2), #fw(2), #kʰj(2), #pʰj, #bj, bz#, #mj, mj, fl, ft#, #fj, fj, dj, dj, ns, ηs#, nd#, ηz#, nt#, #sl, sk, st, #st, #zw, jd, jg, #fj#, #εf#, #lz#, #ld#, #kd#, #kʰl, gj, #gl, ηk#} (61)

Broad: \texttt{bl(5), st(5), fl(4), sw(4), bj(3), mj(2), fj(2), dj(2), ns(2), nz(2), sn(2), sp(2), stj(2), #fw(2), #kd(2), kj(2), p#j, bz, ft, fj, nd, ntf, sl, sk, zw, jd, jg, #fj, #fm, #lz, #kl, gj, #gl, ηk} (61)

61 total consonant clusters

**Supra-Segments: Whole Syllables**

Whole Syllable Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllable Whole Syllable:
\texttt{#blĩʃ#, #brɪʃ#, #fui#d#, #si#l#, #siʃ#, #binz#, #film#, #spŋk#, #dʒe#, #ste#b#, #mo#z#, #jo#nd#, #jo#r#, #p'etz#, #fwe#, #k'ʃef#, #p'mast#, #blah#, #ʃænd#, #æt#, #læt#, #t#af#, #dais#, #st#ad#, #zwɔŜ#, #jas#, #gla#b#, #həm#} (28)

First Syllable Whole Syllable Stressed (all entries are word initial):
\texttt{#iʃ, #mi#n, #viʃ, #si#l#, #zil#, #fiʃ, #iʃl#, #mj#u, #swu#, #ju#s, #lub, #vins, #swin, #jiz, #jik, #k#tλ, #k#tλ, #win, #wi, #me#, #fle#, #swe#, #je#, #b#o#, #k#o#, #kom, #sne, #fwe, #je#, #r#, #le, #lep, #a, #spοug, #mau, #t#ø#, #d#, #sæ, #st#, #l#, #læ, #b#a#, #da#, #sl#, #ha, #o#, #b#, #ba#, #ba#, #man, #fan, #sna#, #f#, #ja, #jag, #wa} (57)

First Syllable Whole Syllable Unstressed (all entries are word initial):
\texttt{#o#(3), #d#o(2), #s#o(2), #j#o(2), #iʃ, #diʃ, #zil#, #flu#, #jui#, #in, #jo, #pa, #ma, #fa, #va, #ska, #k#læ, #dʒa, #æ, #fæn, #fa#s, #a, #swan} (28)

717
Second Syllable Whole Syllable Stressed:

Fifth Syllable Whole Syllable Stressed:

Fourth Syllable Whole Syllable Unstressed:

Third Syllable Whole Syllable Unstressed:

Second Syllable Whole Syllable Unstressed:

First Syllable Whole Syllable (all entries are word initial):

Whole Syllable Total per Syllable

718
Whole Syllable Stressed:
t*ē(2), lo*#(2), sa(2), z*ŋ#(2), k*ŋ#(2), rad#(2),

Second Syllable Whole Syllable:
t*ē(2), lo*#(2), sa(2), z*ŋ#(2), k*ŋ#(2), rad#(2),
iš#, mln#, ili#, liš#,
mju*#", fju*", du*#, su*#,
fi, ftn#, ftt#, tkt#, tgg#, ti, sin#, ltn#, lntf#, k*ltn#, ksk#,
wud#
ble#, nei, fie,
lei#
mo*"#, no*"#, so*"#, jo*"#, k*o*"#, goto*",
blat#, fa, vŋ##, da, d*ŋ#, d*ld#, nak#, *ŋz#, r*#/#, rad#, θ*#/#, s*ŋ#, z*#/#, sa,g*ŋ#, w*ŋ#,
ta#,#, na#, za#,#, fα#, jα#,
de#, vet#, wdn*#,
jo,
dæn#, sæ, ræn, læk,
ta#,#, za*t#, ja*lk#,
blåf#, nat#,#, naf#, nat#,#, zan#, ra#, sa, lan, k*an (85)

Third Syllable Whole Syllable:
j*#(2),
ni#, θi#,
nt#,#, jin#, jis#,
ne*#/#, sei,
s*#/#, jo*#,#,
ma, da, djø#, na#, n*ŋ#,#, sta, fas#, j*ŋ#,#, ja, zø#,#, ʒ*ŋ#,#,
lest# (23)

Fourth Syllable Whole Syllable:
*ŋ#, *ŋ#, nas#,#, rad*#,#,
le,
fsd*#,#,
rad# (7)

Fifth Syllable Whole Syllable:
te# (1)

Whole Syllable Stressed and Unstressed Total

Whole Syllable Stressed:
t*ē(2),

#l#, ili#, #ml#n, #vl#, #sl#, #zl#, #fj#, #li#,
#mju*"z, mju"#, fju*", #swu*", #su*"g, #lu"b,
fi, #vns#, ti, #swin#, #jiz#, #jik#, lntf#, #k*l#, #k*jo#, #win#, #w1,
wud#,
#me#, #fle#, #j#, #ne#, #sw#, #je#,
#bvr", mo*"s#, so*"n#, #j0", #jo*"n, lo*"st#, gto*",
vet#, #sne, #fwe, #jek, #je, #le, #lep, wdn*#,
#a,#
jo, #spjg,
#mau, #t*æl, #djae, dæn#, #stæ#, #sæ, #jae, ræn, #læ, læk,
ba, ta, da, sla, zat, jak, ha,
a, a, blaf, bsa, baad, maw, man, fan, taf, daaf, nat, naʃ, nat, stiʌd, swan, snaw, zan, zwaŋ, ja, jah, jah, lan, kan, glaabz, wa, halm (229)

229 total whole syllables

Supra-Segments: Whole Words

Whole Word Total per Word Length

<table>
<thead>
<tr>
<th>Word Length Total</th>
<th>None</th>
<th>First</th>
<th>Second</th>
<th>Third</th>
<th>Fourth</th>
<th>Fifth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monosyllabic:</td>
<td>28</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bisyllabic:</td>
<td>62</td>
<td>0</td>
<td>50</td>
<td>12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trisyllabic:</td>
<td>16</td>
<td>0</td>
<td>7</td>
<td>9</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Tetrasyllabic:</td>
<td>6</td>
<td>0</td>
<td>0</td>
<td>6</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Pentasyllabic:</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total: 113</td>
<td>0</td>
<td>57</td>
<td>27</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>
Segmental and Supra-Segmental Ranking Data Sheet

**Segments**

Segment Total for Stressed and Unstressed Syllables and Monosyllables according to Syllable Configuration

Monosyllable Onset: #s(4), #s(4), #l(3), #b(2), #t(2), #d(2), #l(2), #k(2), w(2), #p, p, #p#, #f, #v, r, #f, #g, #w, #h (36)

Monosyllable Nucleus: i(5), a(4), a(2), a#(2), i, i', l', e, v, o, x, a, a', a#, a# (25)

Monosyllable Coda: m#, n#, t#, f#, t#, f#, s, z#, j, l#, t, h# (28)

First Syllable Segment Stressed Onset: #s(1), #f(7), #l(7), #b(6), #l(5), #j(4), #j(4), #p#(3), w(3), #d(2), #f(2), #k(2), #p, #m, #v, #t#, #t, #g, #z, #w (75)

First Syllable Segment Stressed Nucleus: x(1 3), a(1 0), æ(8), i(7), e(6), a'(6), u*(2), e'(2), u, o#, e, c (57)

First Syllable Segment Stressed Coda: n(8), s(4), j(3), k(3), t(2), m, t, g (24)

First Syllable Segment Unstressed Onset: #s(4), #l(4), #f(3), #k(3), #b(2), #m(2), #t(2), #d(2), #j(2), #g(2), #w(2), #h (29)

First Syllable Segment Unstressed Nucleus: a(6), a(6), i(3), u*(3), #a(3), #a(2), e(2), e', o, o#, e, c (30)

First Syllable Segment Unstressed Coda: t(3), n (5)

Second Syllable Segment Stressed Onset: l(7), #j(5), d(3), b(2), n(2), s(2), j(2), t, z, j, w (28)

Second Syllable Segment Stressed Nucleus: u*(4), i(3), e#(3), a(3), a(3), e(2), i, u#, o#, æ, æ, æ, a# (28)

Second Syllable Segment Stressed Coda: n#, t#, l# (2), v#, t', d', n, l#, t# (11)

Second Syllable Segment Unstressed Onset: t(9), s(6), b(5), m(5), j(5), l(5), p(4), f(4), n(4), r(3), d(2), g(2), v, t, z, j, k, w, ? (61)

Second Syllable Segment Unstressed Nucleus: a(1 0), a(7), #j#(6), i#(5), s(4), #η#(4), o#(3), æ(3), a(3), i(2), u*(2), #ς#(2), #ς#(2), #ς, #ς#(2), #ς, #ς#(2), #ς, #ς#(2), #ς, #ς#(2), #ς (59)

Second Syllable Segment Unstressed Coda: n(4), v#, s#, k#, p#, m#, t#, t#, d#, s#, t# (17)

Third Syllable Segment Stressed Onset: l (1)

Third Syllable Segment Stressed Nucleus: e# (1)

Third Syllable Segment Stressed Coda: m#, t#, t#, t#, d#, s#, t# (1)

Third Syllable Segment Unstressed Onset: n(5), t(3), j(3), b(2), f(2), v(2), s(2), z(2), j(2), k(2), g(2), p, m, t, l (31)

Third Syllable Segment Unstressed Nucleus: a(6), a#(5), i#(5), #ς(2), t(2), #ς#(2), #ς#(2), #ς#(2), #ς#(2), i, u#, e#, #ς, #ς, #ς, #ς, #ς, a# (31)

Third Syllable Segment Unstressed Coda: n(2), s#, j(2), t#, k#, m#, t#, n, η (14)

Fourth Syllable Segment Stressed Onset: n (1)

Fourth Syllable Segment Stressed Nucleus: a (1)

Fourth Syllable Segment Stressed Coda: 

Fourth Syllable Segment Unstressed Onset: r, Θ, f (3)

Fourth Syllable Segment Unstressed Nucleus: a(2), i, t, t# (5)

Fourth Syllable Segment Unstressed Coda: m#, n#, η# (4)

Fifth Syllable Segment Stressed Onset: 

Fifth Syllable Segment Stressed Nucleus: 

Fifth Syllable Segment Stressed Coda: 

Fifth Syllable Segment Unstressed Onset: t (1)

Fifth Syllable Segment Unstressed Nucleus: e# (1)

Fifth Syllable Segment Unstressed Coda: 

Segment Total for Stressed and Unstressed Onsets and Codas

722
a(2), \text{ i, I (4)}

Fifth Syllable Segment Stressed:
Fifth Syllable Segment Unstressed: t (1)

e^# (1)

Segment Total by Syllable

First Syllable Segment: \( #s(15), j(13), l(12), #f(10), n(9), #b(8), #j(6), #l(5), h(5), #d(4), s(4), #j(4), #p^h(3), #m(3), #t(3), #k(3), #g(3), w(3), #w(3), #f(2), #k^h(2), #p, m, f, \#v, \#t^h, t, \#d_g, \#g \#h \) (133)

Second Syllable Segment: \( l(12), j(11), t(10), s(8), b(7), n(7), \#n(7), \#^h(6), m(5), d(5), p(4), f(4), \#^h(4), v(3), t(3), r(3), \#s(2), z(2), j(2), j(2), k(2), g(2), w(2), p#, m#, \#m^h, v, t', t^h, \#d_g, \#j, \#t, \#j, k, t \) (130)

Third Syllable Segment: \( n(6), j(5), t(3), b(2), f(2), v(2), n(2), \#^h(2), s(2), s(2), z(2), l(2), \#^h(2), \#^h(2), j(2), k(2), k(2), g(2), p, m, m#, \#i^h, \#^h, \#^h, \#^h, \#^h, \) (51)

Fourth Syllable Segment: \( s(2), n#, n, \#^h, r, \Theta, j, \#j \) (9)

\( a(2), \text{ i, } a \) (5)

Segment Stressed and Unstressed Total

Stressed Segment: \( j(19), l(16), n(12), \#s(11), \#f(7), \#b(6), s(6), \#l(5), \#a(4), \#j(4), w(4), \#p^h(3), d(3), \#n(3), k(3), b(2), t(2), \#d(2), \#f(2), j(2), l(2), k^h(2), \#p, \#m, m, f, \#v, \#t^h, t, t', \#d_g, \#z, \#z, \#^j, j, g \#g, \#w \) (140)

Unstressed Segment: \( t(14), n(11), j(10), l(10), s(8), \#^h(8), b(7), n(7), \#^h(7), m(6), f(6), s(6), p(5), r(4), \#s(4), \#l(4), k^h(4), g(4), \#f(3), v(3), z(3), j(3), \#k(3), k(3), \#b(2), \#m(2), m(2), v(2), \#t(2), t(2), d(2), \#d(2), \#^h(2), \#z(2), \#z(2), \#t^h(2), \#j(2), \#g(2), \#w(2), p#, \#m^h, \#^h, \#^h, \#^h, \#^h, \) (184)

\( a(19), a(19), \text{ i, I (7), i (7)}, \#a(7), u^s(5), \#a(5), \#a(4), e(4), o^s(3), a^s(3), \#a(3), e^s(2), e^s(2), \#a(2), a^s(2), u^s, o^s, a, a^l, a^# \) (87)

Segment Total (absolute)

Narrow: \( j(34), l(29), n(23), \#s(19), t(15), n(15), s(15), \#f(11), \#b(10), t(10), b(9), \#j(9), \#^h(8), p(7), m(7), f(7), \#^h(7), \#l(7), \#l(7), w(7), \#d(6), s(6), k(6), d(5), g(5), \#p^h(4), r(4), z(4), \#j(4), \#^h(4), j(4), \#k^h(4), k^h(4), \#g(4), \#w(4), \#m(3), m(3), v(3), v(3), \#t^h(3), \#t(3), \#f(3), j(3), \#s(3), \#k(3), \#p(2), v(2), \#^h(2), \#^h(2), \#z(2), \#z(2), \#^j, \#^j, \#v, \#w \) (387)

Broad: \( n(47), s(40), j(40), l(38), t(33), b(20), t(20), f(19), k(17), p(14), m(14), d(13), j(13), w(11), f(9), g(9), v(8), z(6), r(4), \#^j(2), \#^j(2), \eta(2), h(2), t^s, d_g, r, t \) (387)

724
Supra-Segments: Consonant Clusters

Consonant Cluster Total for Stressed and Unstressed Syllables and Monosyllables according to Syllable Configuration

Monosyllable Consonant Cluster Onset (all entries are word initial): #pr, #pʰj, #bʃ, #bl, #fl, #vʃ, #spl, #sl, #sw, #kʰw, #ŋj (11)
Monosyllable Consonant Cluster Coda (all entries are word final): pf#, st#, jʃ#, tʃ# (4)

First Syllable Consonant Cluster Stressed Onset (all entries are word initial): #bʃ(3), #fʃ(3), #bl(2), #fl(2), #sw(2), #pʰj, #tw, #sp, #kʰj (16)
First Syllable Consonant Cluster Stressed Coda:

First Syllable Consonant Cluster Unstressed Onset (all entries are word initial): #fl, #kl, #gl (3)
First Syllable Consonant Cluster Unstressed Coda:

Second Syllable Consonant Cluster Stressed Onset: bʃ, dʃ, st (3)
Second Syllable Consonant Cluster Stressed Coda: nt# (1)
Second Syllable Consonant Cluster Unstressed Onset: pl, tʃ, st, stʃ (4)
Second Syllable Consonant Cluster Unstressed Coda:

Third Syllable Consonant Cluster Stressed Onset:
Third Syllable Consonant Cluster Stressed Coda:

Third Syllable Consonant Cluster Unstressed Onset: bʃ, stʃ (2)
Third Syllable Consonant Cluster Unstressed Coda: nʃ#, jns#, njk# (3)

Fourth Syllable Consonant Cluster Stressed Onset:
Fourth Syllable Consonant Cluster Stressed Coda:
Fourth Syllable Consonant Cluster Unstressed Onset:
Fourth Syllable Consonant Cluster Unstressed Coda:

Fifth Syllable Consonant Cluster Stressed Onset:
Fifth Syllable Consonant Cluster Stressed Coda:
Fifth Syllable Consonant Cluster Unstressed Onset:
Fifth Syllable Consonant Cluster Unstressed Coda:

Consonant Cluster Total for Stressed and Unstressed Onsets and Codas

Stressed Onset: #bʃ(3), #fʃ(3), #bl(2), #fl(2), #sw(2), #pʰj, bʃ, #tw, dʃ, #sp, st, #kʰj (19)

Stressed Coda: nt# (1)

Unstressed Onset: stʃ(2), pl, bʃ, #fl, tʃ, st, #kl, #gl (9)

Unstressed Coda: nʃ#, jns#, njk# (3)

Consonant Cluster Total for Onsets and Codas

Onset: #bʃ(4), #fʃ(4), #bl(3), #fl(3), #sw(3), #pʰj(2), bʃ(2), stʃ(2), #pr, pl, #vʃ, #tw, tʃ, dʃ, #sp, #spl, #sl, #kʰw, #kʰj, #kl, #gl, #ŋj (39)

Coda: nʃ#(2), pf#, st#, jʃ#, jns#, tʃ#, njk# (8)

Consonant Cluster Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllable Consonant Cluster: #pr, #pʰj, pf#, #bʃ, #bl, #fl, #vʃ, #spl, #sl, #sw, st#, jʃ#, tʃ#, kʰw, #ŋj (15)

First Syllable Consonant Cluster Stressed: #bʃ(3), #fʃ(3), #bl(2), #fl(2), #sw(2), #pʰj, #tw, #sp, #kʰj (16)
First Syllable Consonant Cluster Unstressed: #fl, #kl, #gl (3)

Second Syllable Consonant Cluster Stressed: bʃ, dʃ, nt#, st (4)
Second Syllable Consonant Cluster Unstressed: pl, tʃ, st, stʃ (4)
Third Syllable Consonant Cluster Stressed:
Third Syllable Consonant Cluster Unstressed: bj, nj#, st#, Ëns#, Ëk# (5)

Fourth Syllable Consonant Cluster Stressed:
Fourth Syllable Consonant Cluster Unstressed:

Fifth Syllable Consonant Cluster Stressed:
Fifth Syllable Consonant Cluster Unstressed:

Consonant Cluster Total per Syllable
First Syllable Consonant Cluster: #bj(3), #fl(3), #bl(2), #fl(2), #sw(2), #p̩, #fl, #tw, #sp, #k̩, #kl, #gl (19)
Second Syllable Consonant Cluster: st(2), pl, bj, tj, dj, nt#, st# (8)
Third Syllable Consonant Cluster: bj, nj#, st#, Ëns#, Ëk# (5)
Fourth Syllable Consonant Cluster:
Fifth Syllable Consonant Cluster:

Consonant Cluster Stressed and Unstressed Total
Consonant Cluster Stressed: #bj(3), #fl(3), #bl(2), #fl(2), #sw(2), #p̩, bj, #tw, dj, nt#, #sp, st, #k̩ (20)
Consonant Cluster Unstressed: st#(2), pl, bj, #fl, ti, nj#, st, Ëns#, #kl, #gl, nk# (12)

Consonant Cluster Total (absolute)
Narrow: #bj(4), #fl(4), #bl(3), #fl(3), #sw(3), #p̩s(2), bj(2), st#(2), pl, #pr, pf#, #uv, #tw, tj, dj, nt#, #sp, #sl, st#, jf#, Ëns#, #t#, #k̩w, #kl, #k̩j, #gi, #gl, nk# (47)
Broader: bj(6), fl(4), p̩j(3), bl(3), fj(3), sw(3), st(3), nt(2), st#(2), pl, pf, vj, tw, tj, dj, spl, sl, jf, Ëns, ft, kw, kl, ji, gj, gl, nk (47)
47 total consonant clusters

Supra-Segments: Whole Syllables
Whole Syllable Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllable Whole Syllable:
#prin#, #li'm#, #jil#, #flit#, #t'iz#, #t'if#, #swip#, #fin#, #k'eb#, #helt#, #p̩mast#, #lal#, #jif#, #daen#, #a't#, #bla'f#, #da'tf#, #sal#, #ga't#, #bau#, #va't#, #slat#, #splat#, #ja#, #k'wan#, #wan# (26)

First Syllable Whole Syllable Stressed (all entries are word initial):
#bj(2), #su(2), #sa(2), #la(2), #p̩v, #liv, #lajk, #li, #k'iv, #ju,
#bil, #bj, #bin, #fj, #v#, #dj, #s1, #sin, #fj, #jm, #li, #ji, #w#, #p̩e#, #je#, #lo#
,#jek, #me, #dges, #dgel, #jes, #jel, #flb,
#bæs, #flæn, #faeg, #dæn, #sæn, #æs, #læ, #jaek,
#fla#, #t'ala#, #tw#, #ja#, #swa#, #swaf, #spa#, #sa, #ja, #k'an, #ga# (57)

726
First Syllable Whole Syllable Unstressed (all entries are word initial):
#a(2), #a(2), #wa(2), #fi, #di, #si,
#mu, #tu, #ju,
#be,
#son, #ho,
#ba, #ma, #ta, #da, #sa, #ga,
#fla,
#kls, #gl,f,
#fls,
#al,
#sof, #jat, #ka, #kař (30)

Second Syllable Whole Syllable Stressed:
lu"(2), le̝/#(2),
ni.vn,
ju"r#, ju"n#, ju"#,
m̩, s, sint#, l,t,
ṭe#, zel, ṭe̝d#, ṭe,#,
dzi, 
de, ṭe,
æ, dæl#,
ba, ba̝t', wa̝t#,
ja#, lan, la#, jano# (28)

Second Syllable Whole Syllable Unstressed:
้า(2), ra(2), fa(2),
pi#, bl#, mi#, tui#, ti'k#, sli#, jii,
pu"v#, bu"m#,
im#, nip#, zti#,
o"#, tjo"#, lo"#,
pla, b̩, b̩a#, m̩#,#, f#,#, f#m#,#, v'ñ, tas#, ta, da, d#,#, na, na#, n̩#,#, r#,#, str̩ñ#, s#n#, str#,#, ja, ga, g̩#,#, ṭ#n#,#,
p̩a#, b̩a#, ta#d#,
mi,#,
ma#, na#, la̝t'#, wa#,
a#,#, tak#, sta#, san#, lav#, la, jano#, kano# (59)

Third Syllable Whole Syllable Stressed: le̝ (1)

Third Syllable Whole Syllable Unstressed:
na#(2),
ni, ṭi#,#,
vu"#,
łt#, jn#,#,
me#, ṭe#,#,
ə, p#n#, b̩a#, f#,#, t#n#, s#nt#, z#n#, n̩#, ka#,
ə#,#, fa, va#,#,
nes#,
gæ#,#,
ət#, b̩a, tâns#, stran#, ja#, kam#, gaŋk# (30)

Fourth Syllable Whole Syllable Stressed:
na (1)

Fourth Syllable Whole Syllable Unstressed:
ṉ#n#,
ɾiŋ#,
əs#, ɾ#n#, jəs# (5)

Fifth Syllable Whole Syllable Stressed:
Fifth Syllable Whole Syllable Unstressed:
te¹# (1)

Whole Syllable Total per Syllable

First Syllable Whole Syllable (all entries are word initial):
#bji²(2), #su²(2), #a(2), #flα(2), #saι(2), #a(2), #la(2), #wa(2),
#pʰi₁, #fi¹, #fji², #fi², #di², #sλ, #li³, #kʰj₁:
#mu⁹, #tu⁹, #ju⁹,
#bł, #bł, #bł, #fj, #p₁, #s₁, #s₁, #j₁m, #l₁, #j₁, #w₁n,
#pʰel, #be₁, #je₁,
#son, #lo⁹, #ho⁹,
#ba, #ma, #t₁, #da, #sa, #ga,
#fλ, #p³jk, #me, #dżes, #dże, #jes, #jel, #kle, #gle,
#blæs, #fλen, #fλe, #dæn, #sæn, #zæs, #læ, #jæk,
#ał, #fλa¹, #t¹a¹, #twa⁷, #ja¹,
#soł, #swa¹, #swaf, #spa¹, #so, #ja, #jot, #ka, #k³an, #ga¹ (87)

Second Syllable Whole Syllable:
lu⁹(2), le¹#(2), a(2), rα(2), fα(2), jan#(2),
pi¹, bi¹, mi¹, ti¹, ni¹, si¹, jl¹,
pu¹w, bu¹m, fu¹m, ju¹n, ju¹w,
mi¹, m₁, n₁, s₁n, z₁t, sl, ti,
te¹, ze¹, je¹d¹, je¹,
o¹#, do¹w, jfo¹w, lo¹w,
pla, bγ, bλw, m¹#, f¹#, f³#, f³#, v¹, t¹s, t₁, d¹#, n₁, n¹#, n³#, r¹#, st¹n#, s¹#, st¹#, j₁, ga, gr¹#, p¹#,
plλ, ba¹, ta³d, es¹, de, je,
æ, da³j, 
ba¹, ba³t, ma¹, na¹, la³t, wa¹, w³t, 
a¹, tak¹, sta¹, san¹, jα¹, lan, la¹, lav¹, la, kan¹ (87)

Third Syllable Whole Syllable:
na¹#(2),
ni¹, Θi¹#

vu²#

l₁k¹, j₁n¹,
me¹, ze¹#, le¹,
æ, p³n#, bλw, f¹#, t¹n#, s³n#, z³#, j₁, ka¹, æ#,
fa, va¹,
nes¹,
qe³#,
œ³#, ba¹, ta³n#,
swan#, jα¹, kam#, ga³k# (31)

Fourth Syllable Whole Syllable:
Θ/n#,
re³#,
as#, r³#, fas#,
na (5)

Fifth Syllable Whole Syllable:
te¹# (1)

Whole Syllable Stressed and Unstressed Total

Whole Syllable Stressed:
#bji²(2), #su²(2), lu²(2), le¹#(2), #sa¹(2), #la(2),
#p³j, #fj, #fj³k, ni¹v#, #i³j, #k³j
Whole Monosyllables:

- tahsh [tʰʃ], shin [ʃn], yah [ja], preen [prɛn], splaht [splæt], yorsh [ɔrʃ], pruht [pɾuɑt], helt [helt], ies [iəs], brah [bɹɑ], swipf [swɪp], leem [liːm], grit [ɡrɪt], slah [slɑ], flit [flɪt], dan [dæn], luh [luh], wann [wən], blowsh [blaʃ], yee [jɪ], kwan [kʰwɑn], sahl [sɑl], tihz [tʰtʃ], vraht [ˈvɑt], dowch, [dɑtʃ], kabe [kʰeɪb]

Whole Bisyllables:

- JELbroom [ˈdʒelbɹuəm], WINstruhn [ˈwinstrən], LOWsun [ˈloʊsun], BLAShurst [ˈblesasonry], FRIHnul [ˈfrɪnəl], SHOOwah [ˈʃuwa], FYLys [ˈflaɪli], LAHpee [ˈleɪpi], YAHlstah [ˈjaːlsta], BINDERH [ˈbaɪndər], SHINthahk [ˈʃɪnθæk], YAKmee [ˈjækmɪ], SINthre [ˈsɪnθri], YELbee [ˈjɛlbi], LEEtuhn [ˈliːtən], SOOSess [ˈsuːsɛs], BREEo [ˈbrɛəʊ], PREKshahm [ˈprɛkʃəm], FLANTEEK [ˈflænk tɪk], SOONuh [ˈsoʊnə], GAHrmhin [ˈɡɑrmən], TYpoov [ˈtaɪpəv], RAYahr [ˈreɪər], SAIHmul [ˈsɑɪmʌl], LAZit [ˈlæzɪt], RIMfum [ˈraɪmfʊm], BREElit [ˈbriːlɪt], JESSlahv [ˈdʒeslahv], DIHful [ˈdɪfʊl], SANSees [ˈsʌnziːz], RAHlow [ˈrɑːləʊ], SYKahn [ˈsɑːkən], SWAHFnhip [ˈswɑfnɪp], HNILnul [ˈhnilnʊl], ZASPuhru [ˈzæspəɾə], FLEEGuhl [ˈflɛɡʌl], FREEkstuhnu [ˈfriːkstʊn], SILESchoe [ˈsɪlɛʃoʊ], PAYyahnu [ˈpɛjənə], YIHbru [ˈjɪbɹu],

ahSHOON [əˈʃuːn], DECYAHN [dɛˈʃeɪn], mooLAH [muˈlæ], SECNEEV [ˈsɛknɪv], guhLAHN [ɡəˈlæn], SOWNAY [ˈsɔːnə], SUHROO [ˈsərəu], MUHesL [ˈmaʊli], KLEHDAIR [klɛˈdɛər], GEHSEINT [ɡ̝ɛˈʃɛnt], FLORAYD [ˈflɔrɪd], youWIT [juˈwɪt], FeeLAH [ˈfiːlɐ], YAHtSHOOL [ˈjɑːtʃuːl]

Whole Trisyllables:

- BLHvuNTUHnace [ˈblɪhuŋtənəs], FLOrecahl [ˈflɔrɪkəl], SYRunee [ˈsərəni], FRAGmyur [ˈfɾæɡmɪər], RESpluhgahnk [ˈrespluhgəŋk], MEGuhstrahn [ˈmɛɡəhstrən], LAHtuhk [ˈlæθʊk], DANDhul [ˈdændəŋ], TWILefurvr [ˈtwɪlɪfʊrəvər], BRIHThuhnuh [ˈbriːθuhnə], SWAHrruhkham [ˈswɑːrəhək], KREEUhthe [ˈkɹɪəθə], VIHHBGIL [ˈvɪhɪbɡɪl], PEEnzhay [ˈpɛnʒeɪ], SPAHrULIK [ˈspæhrəlɪk],

flurEHsun [ˈflʊrɨjʊən], duhBITEnes [daˈbɪtənəs], uhLOObru [əˈluəbru], bAYANnuh [ˈbeɪənə], WAHRAHvee [ˈwəhərəvə], ahRAYful [əˈreɪfl], uhLOOtuhn [əˈluətuhn], WAHDOpuh [ˈwɑhdoʊpʊə], ahBYyah [əˈbaɪjə], SAHLDERuh [ˈsældərʊ], BuhMILyin [ˈbʊmɪliŋ]

Whole Tetrasyllables:

- KAHNfurmayteeng [ˈkɑːnˈfərməteŋ], kahlShHneun [kɑːlˈʃiːnən], hozAYuhteens [hoʊˈzeiəˈθiən], tooLIHfrus [ˈtuəlɪfɹəs],

TuhneyeLYshus [təˈnəliːˈʃəs]

Whole Pentasyllables:

- kahlahbahrNAHtay [kaˈlæbəˌnɑːˈteɪ]
<table>
<thead>
<tr>
<th>Word Length</th>
<th>None</th>
<th>First</th>
<th>Second</th>
<th>Third</th>
<th>Fourth</th>
<th>Fifth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monosyllabic:</td>
<td>26</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bisyllabic:</td>
<td>55</td>
<td>0</td>
<td>41</td>
<td>14</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trisyllabic:</td>
<td>26</td>
<td>0</td>
<td>15</td>
<td>11</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Tetrasyllabic:</td>
<td>5</td>
<td>0</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Pentasyllabic:</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Total:</td>
<td>113</td>
<td>0</td>
<td>57</td>
<td>28</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Syllable</th>
<th>Receiving</th>
<th>Stress</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>First</td>
<td>Second</td>
</tr>
<tr>
<td>Third</td>
<td>Fourth</td>
<td>Fifth</td>
</tr>
</tbody>
</table>

731
<table>
<thead>
<tr>
<th>Segment Total for Stressed and Unstressed Syllables and Monosyllables according to Syllable Configuration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monosyllable Onset: #s(5), #b(4), l(3), #kʰ(3), #w(3), #m(2), m(2), #v(2), #f(2), w(2), #p, #pʰ, #f, #d, #l, #j, #x (36)</td>
</tr>
<tr>
<td>Monosyllable Nucleus: i^1(4), u&quot;ʰ(4), a(4), ã(2), e(2), a^l(2), u&quot;ⁿ, #u&quot;ⁿ, u#, e', #o&quot;ⁿ, o&quot;, æ, a; a^n, a, #a (30)</td>
</tr>
<tr>
<td>Monosyllable Coda: t#(5), n#(4), f#(3), b#(2), z#(2), l(2), p#, f#, tf#, Θ#, s#, l, #j, g# (28)</td>
</tr>
<tr>
<td>First Syllable Segment Onset: kʰ(11), w(10), l(9), b(8), s(8), l(6), pʰ(4), tʰ(3), d(3), w(3), h(2), p, #m, #f, #n, #z, #f, k (74)</td>
</tr>
<tr>
<td>First Syllable Segment Stressed Coda: n(8), m(3), l(3), f(2), tf(2), p, v, s, k (22)</td>
</tr>
<tr>
<td>First Syllable Segment Unstressed Coda: #h(4), #b(3), #s(3), d(2), l(2), #p, #v, l, #g, w (19)</td>
</tr>
<tr>
<td>First Syllable Segment Nucleus: a(6), #a(3), a(3), #a(2), a^l(2), #i^1, u&quot;ⁿ, #i, o&quot;ⁿ, æ, #ε (23)</td>
</tr>
<tr>
<td>First Syllable Segment Unstressed Onset: n(2), l (3)</td>
</tr>
<tr>
<td>Second Syllable Segment Coda: t(3), l(3), pʰ(2), b(2), w(2), v, tʰ, n, s, l, j, kʰ (19)</td>
</tr>
<tr>
<td>Second Syllable Segment Unstressed Coda: #s(3), #d(3), #s(3), d(3), l(2), #p, #v, l, #g, w (19)</td>
</tr>
<tr>
<td>Second Syllable Segment Nucleus: i^1(3), e⁽¹⁾(3), a(3), u&quot;ⁿ(2), l(2), æ, ε, ε', æ', æ⁽¹⁾, a⁽¹⁾ (20)</td>
</tr>
<tr>
<td>Second Syllable Segment Stressed Coda: n(2), l(3), f(2), t(3), p, v, s, k (10)</td>
</tr>
<tr>
<td>Second Syllable Segment Unstressed Onset: l(11), l(9), b(8), l(6), f(5), m(4), d(3), n(3), s(3), f(3), t(3), k(3), v(2), p, r, t, z, j, g (66)</td>
</tr>
<tr>
<td>Second Syllable Segment Stressed Coda: a(9), i^¹(8), i^¹(7), s(5), o&quot;ⁿ(5), a⁽¹⁾(5), o⁻¹(5), a(3), a(3), i^¹(2), u&quot;ⁿ(2), e⁽¹⁾(2), #n⁽¹⁾(2), t, u&quot;ⁿ, o&quot;ⁿ, œ, ŋ, ε, a⁽¹⁾ # (64)</td>
</tr>
<tr>
<td>Second Syllable Segment Unstressed Onset: d⁽¹⁾(2), n⁽¹⁾(2), #s(2), f#(2), k#(2), f#, #v, s, #j, #l⁽¹⁾ (15)</td>
</tr>
<tr>
<td>Third Syllable Segment Stressed Onset: m, n (2)</td>
</tr>
<tr>
<td>Third Syllable Segment Stressed Nucleus: i^¹(2) (2)</td>
</tr>
<tr>
<td>Third Syllable Segment Stressed Coda:</td>
</tr>
<tr>
<td>Third Syllable Segment Unstressed Onset: t(4), l(4), n(3), r(3), l(3), j(2), b, v, tʰ, d, r, s, z, s, t, k, g, w (30)</td>
</tr>
<tr>
<td>Third Syllable Segment Unstressed Nucleus: a(6), i^¹(4), #n⁽¹⁾(3), a(3), i^¹(2), #n⁽¹⁾(2), o&quot;ⁿ⁽¹⁾, a⁽¹⁾, #n⁽¹⁾, ε, æ, æ⁽¹⁾, a⁽¹⁾ (27)</td>
</tr>
<tr>
<td>Third Syllable Segment Unstressed Coda: s⁽¹⁾(3), n⁽¹⁾(2), #s(2), p#, #l⁽¹⁾, k#, #n⁽¹⁾ (11)</td>
</tr>
<tr>
<td>Fourth Syllable Segment Stressed Onset: n (1)</td>
</tr>
<tr>
<td>Fourth Syllable Segment Stressed Nucleus: ε (1)</td>
</tr>
<tr>
<td>Fourth Syllable Segment Stressed Coda:</td>
</tr>
<tr>
<td>Fourth Syllable Segment Unstressed Onset: l⁽¹⁾(2), t, r, z (5)</td>
</tr>
<tr>
<td>Fourth Syllable Segment Unstressed Nucleus: i^¹(2), a⁽¹⁾, #n⁽¹⁾(2), i#, t, a⁽¹⁾ (9)</td>
</tr>
<tr>
<td>Fourth Syllable Segment Unstressed Coda: s⁽¹⁾(2), k# (3)</td>
</tr>
<tr>
<td>Fifth Syllable Segment Stressed Onset: l⁽¹⁾(1)</td>
</tr>
<tr>
<td>Fifth Syllable Segment Stressed Nucleus:</td>
</tr>
<tr>
<td>Fifth Syllable Segment Stressed Coda:</td>
</tr>
<tr>
<td>Fifth Syllable Segment Unstressed Onset: l⁽¹⁾ (1)</td>
</tr>
<tr>
<td>Fifth Syllable Segment Unstressed Nucleus: e⁽¹⁾ # (1)</td>
</tr>
<tr>
<td>Fifth Syllable Segment Unstressed Coda:</td>
</tr>
</tbody>
</table>

Segment Total for Stressed and Unstressed Onsets and Codas
Stressed Onset: #kʰ(11), l(10), #w(10), j(9), #b(8), #s(8), w(5), #pʰ(4), f(3), #tʰ(3), #d(3), n(3), pʰ(2), b(2), #h(2), p, #m, m, #f, v, tʰ, #n, s, #z, #f, j, kʰ, k (96)

Stressed Coda: n(10), j(5), m(3), f(2), tʰ(2), p, m#, v, d#, dʰ, s, z#, j, k (33)

Unstressed Onset: j(16), l(16), b(9), t(6), n(6), l(6), f(5), r(5), m(4), d(4), s(4), j(4), k(4), #h(4), #b(3), v(3), #s(3), j(3), #d(2), z(2), g(2), w(2), #p, p, #v, tʰ, r, d, #g (120)

Unstressed Coda: s#(7), n#(4), k#(4), j#(3), dʰ(2), n(2), f#(2), tʰ(2), p#, f#, v#, z#, j, n̂# (32)

Segment Total for Onsets and Codas

Onset: l(29), j(26), #s(16), #b(15), #kʰ(14), #w(13), b(11), n(9), w(9), f(8), m(7), t(6), #d(6), t(6), #h(6), #pʰ(5), r(5), s(5), k(5), v(4), d(4), f(4), j(4), m(3), #v(3), #tʰ(3), #f(3), #p(2), pʰ(2), p(2), #f(2), tʰ(2), z(2), g(2), #n, r, d, #z, #l, #j, kʰ, #g, #x (252)

Coda: n(12), n#(8), s#(8), j(8), j#(6), t#(5), f#(5), z#(4), l(4), k#(4), m(3), dʰ#(3), p#(2), b#(2), f#(2), s(2), f(2), tʰ(2), p, m#, v, v#, d#, tf#, Θ#, k, g#, n̂# (93)

Segment Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllable Segment: t#(5), #s(5), #b(4), n#(4), f#(3), j(3), l(3), #kʰ(3), #w(3), b#(2), #m(2), m(2), #v(2), z#(2), #j(2), l(2), w(2), #p, #pʰ, #p, #f, #d, tf#, Θ#, s#, s, j#, #l, #j, g#, #x (64)

l¹(4), u"(4), a(4), æ(2), ε(2), a¹(2), u"#, #u"#, u#, e¹, #o", o", e¹, æ, a", a, #α (30)

First Syllable Segment Stressed: #kʰ(11), #w(10), j(9), l(9), #b(8), n(8), #s(8), #pʰ(4), m(3), #tʰ(3), #d(3), w(3), p(2), f(2), j(2), l(2), k(2), #h(2), #m, #f, v, #n, s, #z, #f (96)

æ(10), a(10), i(9), ε(9), u"(6), e¹(3), #a(3), l¹(2), o"(2), #i¹, #u"#, o, æ, #a, æ, a, a" (62)

First Syllable Segment Unstressed: #h(4), #b(3), #s(3), #d(2), n(2), j(2), l(2), #p, #v, #g, w (22)

a(6), #a(3), a(3), #a(2), a¹(2), #i¹, u"#, #i, i, o", æ, æ, æ, ε (23)

Second Syllable Segment Stressed: j(5), f(3), n(3), pʰ(2), b(2), j#(2), w(2), m#, v, tʰ, d#, dʰ, s, z#, l, j, kʰ (29)

l¹(3), e¹(3), a(3), u"(2), i(2), æ, ε, ε¹, æ¹, æ, a¹ (20)

Second Syllable Segment Unstressed: l¹(11), j(9), b(8), t¹#(7), l(6), f(5), m(4), #m#(3), d(3), n(3), s(3), j(3), k(3), v(2), d¹#(2), n#(2), #η#(2), s¹(2), f¹(2), k²#(2), p, #f#, v#, #n, r, d, #z, #z, j, #l, #t#, #j, g (95)

a(9), l¹#(8), i(5), o"#(5), æ#(5), æ(3), a(3) l¹(2), u"(2), e¹(2), i, u"#, o", ε, a¹#, a# (45)

Third Syllable Segment Stressed: m, n (2)

l¹(2) (2)

Third Syllable Segment Unstressed: t(4), j(4), n(3), #η#(3), r(3), s#(3), l(3), n#(2), j#(2), t¹#(2), j¹#(2), j¹(2), p#, b, #η#, v, tʰ, d, r, s, z, #ή, k, k#, g, #η#, w (47)

a(6), i(4), a(3), l¹(2), o"#, æ#, æ#, æ, æ, a¹ (21)

Fourth Syllable Segment Stressed: n (1)

ε (1)

Fourth Syllable Segment Unstressed: #η#(2), s#(2), j(2), t, r, z, k̂# (10)

l¹#(2), a(2), i#(2), i, æ, æ (7)

Fifth Syllable Segment Stressed:

733
Fifth Syllable Segment Unstressed: t (1)

\( e^{i\#} \) (1)

Segment Total by Syllable

First Syllable Segment: \( \#b(11), \#s(11), \iota(11), t(11), \#k(11), n(10), \#w(10), \#h(6), \#d(5), \#p^{h}(4), w(4), m(3), \#t^{h}(3), p(2), f(2), t(2), k(2), \#p, \#m, \#l, \#v, \#n, s, \#z, \#f, \#g \) (118)

\( a(13), t(10), \alpha(10), \varepsilon(9), u^{*}(7), a(6), \#a(6), e^{i}(3), o^{*}(3), \#l^{i}(2), l^{i}(2), \#a(2), \varepsilon(2), a^{i}(2), \#u^{*}, \#i, \varepsilon, \#\lambda, \varepsilon, a^{*} \) (85)

Second Syllable Segment: \( \iota(14), l(12), b(10), f(8), i^{\#}(7), n(6), t(6), m(4), s(4), \#m(3), v(3), d(3), d^{\#}(3), f(3), j(3), k(3), p^{h}(2), n^{\#}(2), \varepsilon^{\#}(2), s^{\#}(2), z^{\#}(2), f^{\#}(2), j^{\#}(2), k^{\#}(2), w(2), p, m^{\#}, f^{\#}, v^{\#}, t^{\#}, d^{\#}, \#\eta, r, \#\delta, z, \#\iota, \#j, k^{\#}, g \) (124)

\( a(9), l^{i\#}(8), z(7), a(6), l^{i}(5), e^{i}(5), o^{\#}(5), a^{\#}(5), u^{\#}(4), \varepsilon(4), \varepsilon(2), i, u^{*\#}, o^{\#}, \varepsilon^{\#}, \varepsilon^{\#}, a^{\#}, a^{\#} \) (70)

Third Syllable Segment: \( t(4), n(4), \iota(4), \#m^{\#}(3), r(3), s^{\#}(3), l(3), n^{\#}(2), j^{\#}(2), \#i^{\#}(2), j^{\#}(2), p^{\#}, b, m, \#m^{\#}, v, t^{\#}, d, r, s, z, f, \#l, k, k^{\#}, g, \#\eta, w \) (49)

\( a(6), l^{i}(4), \iota(4), a(3), o^{\#}, a^{\#}, \varepsilon^{\#}, \varepsilon, a^{\#}, a^{\#} \) (23)

Fourth Syllable Segment: \( \#m^{\#}(2), s^{\#}(2), j^{\#}(2), t, n, r, z, k^{\#} \) (11)

\( l^{i\#}(2), a^{\#}(2), i^{\#}, i, a^{\#}, \varepsilon(8) \)

Fifth Syllable Segment: t (1)

\( e^{i\#} \) (1)

Segment Stressed and Unstressed Total

Stressed Segment: \( \iota(14), n(13), \#k^{h}(11), l(10), \#w(10), \#b(8), \#s(8), w(5), \#p^{h}(4), m(4), f(3), \#t^{h}(3), d(3), p(2), p^{h}(2), b(2), v(2), s(2), f(2), l^{\#}(2), k^{\#}(2), \#h(2), m^{\#}, \#m, \#l, t^{\#}, d^{\#}, \#n, \#z, \#\iota, \#j, k^{\#} \) (128)

\( a(13), \zeta(11), \varepsilon(11), \alpha(10), u^{*}(8), l^{i\#}, \varepsilon(6), \#a(3), o^{\#}(2), \varepsilon(2), \varepsilon(2), \#i^{\#}, \#u^{*}, \#\lambda, \varepsilon, \varepsilon^{\#}, \#\lambda, \#\alpha, a^{\#}, a^{*} \) (85)

Unstressed Segment: \( \iota(17), l(16), b(9), i^{\#}(9), n(8), s^{\#}(7), \#m^{\#}(6), t(6), f(5), \#\eta(5), r(5), m(4), d(4), n^{\#}(4), s(4), f(4), k(4), \#k^{\#}(4), \#h(4), \#b(3), v(3), \#s(3), z(3), \#j^{\#}(3), j^{\#}(3), \#d(2), \#d^{\#}(2), j^{\#}(2), l^{\#}(2), g^{\#}(2), w^{\#}(2), p, \#p, \#p^{\#}, \#e^{\#}, \#v^{\#}, t^{\#}, \#\eta, r, \#\delta, z^{\#}, \#j, \#g, \#\eta \) (175)

\( a(24), \zeta(11), l^{i\#}(10), a(9), o^{\#}(6), \#a(5), l^{i\#}(4), \#a(4), u^{*}(3), a^{\#}(3), \#a(3), e^{i\#}(2), o^{\#}(2), \#a(2), \#a(2), \#i^{\#}, i, u^{*\#}, \#i, e^{i\#}, \varepsilon, \varepsilon^{\#}, \varepsilon^{\#}, \varepsilon, \varepsilon^{\#}, \#\alpha, a^{\#}, a^{\#} \) (97)

Segment Total (absolute)

Narrow: \( \iota(34), l(29), n(21), \#s(16), \#b(15), \#k^{h}(14), \#w(13), b(11), m(10), t(10), i^{\#}(9), w(9), f(8), n^{\#}(8), s^{\#}(8), s(7), \#m^{\#}(6), t(6), d^{\#}(6), t(6), \#h(6), \#p^{h}(5), v(5), t^{\#}(5), \#\eta^{\#}(5), r(5), f^{\#}(5), j^{\#}(4), k^{\#}(4), p^{\#}(3), \#m^{\#}(3), \#t^{h}(3), d^{\#}(3), z^{\#}(3), \#f^{\#}(2), p^{\#}(2), f^{\#}(2), f^{\#}(2), f^{\#}(2), v^{\#}(2), t^{\#}(2), g^{\#}(2), m^{\#}, v^{\#}, d(4), d^{\#}, t^{\#}, \#n, \#\eta, r, \#\theta, \#\delta, \#\eta, \#i^{\#}, \#j, k^{\#}, \#g, \#\eta, \#x \) (367)

\( a(26), a(24), \zeta(22), l^{i\#}(15), u^{*}(15), \varepsilon(14), \#\lambda(12), l^{i\#}(10), e^{i\#}(9), \#s(8), \#a(7), o^{\#}(6), a^{i}(6), o^{\#}(5), \#a(5), \#a(5), \#s(3), l^{i\#}(2), u^{*\#}(2), \#a(2), s^{\#}(2), e^{i\#}(2), i^{\#}, i, u^{*\#}, \#u^{*\#}, \#\lambda, \varepsilon, \#e^{\#}, \#s, \#\alpha, \#\lambda, \#\varepsilon, \#\lambda, \#\alpha, a^{i\#}, a, a^{\#}, a^{\#}, a^{\#} \) (212)

Broad: \( \iota(40), n(36), s(31), l(30), b(28), k(25), h(22), w(22), m(20), t(16), p(14), d(14), f(14), f(12), v(8), z(8), h(6), r(5), j(5), g(4), t^{\#}, r, \#\theta, \#\delta, \#x \) (367)

\( a(34), l(28), \#a(28), i^{\#}(23), u(20), e(19), \#a(13), \#a(13), o(12), a(11), e(10), o(3), \lambda(2), i, \varepsilon(212) \)

579 total segments

Supra-Segments: Consonant Clusters

734
Consonant Cluster Total for Stressed and Unstressed Syllables and Monosyllables according to Syllable Configuration

Monosyllable Consonant Cluster Onset (all entries are word initial): \(#sm(2)\), \(\#p^l\), \(#bl\), \(#b_j\), \(#sl\), \(#fw\), \(#k^h\)w (8)

Monosyllable Consonant Cluster Coda (all entries are word final): \(nt#(2)\), st#, jtf#, hv#, lb# (6)

First Syllable Consonant Cluster Stressed Onset (all entries are word initial): \(#bl(5)\), \(#t^h_j(2)\), \(#sw(2)\), \(#k^h\)j(2), \(#p^l\), \(#fl\), \(#d_j\), \(#s_j\), \(#sk\), \(#spl\), \(#k^h\)w (18)

First Syllable Consonant Cluster Stressed Coda:

First Syllable Consonant Cluster Unstressed Onset (all entries are word initial): \(#pl\), \(#bl\), \(#b_j\), \(#gw\) (4)

First Syllable Consonant Cluster Unstressed Coda:

Second Syllable Consonant Cluster Stressed Onset: \(p^l\) (1)

Second Syllable Consonant Cluster Stressed Coda:

Second Syllable Consonant Cluster Unstressed Onset: \(st(2)\), \(v_j\) (3)

Second Syllable Consonant Cluster Unstressed Coda: \(\eta s#\) (1)

Third Syllable Consonant Cluster Stressed Onset:

Third Syllable Consonant Cluster Stressed Coda:

Third Syllable Consonant Cluster Unstressed Onset: \(d_j\), \(kw\) (2)

Third Syllable Consonant Cluster Unstressed Coda:

Fourth Syllable Consonant Cluster Stressed Onset:

Fourth Syllable Consonant Cluster Stressed Coda:

Fourth Syllable Consonant Cluster Unstressed Onset: \(st(2)\), \(v_j\) (3)

Fourth Syllable Consonant Cluster Unstressed Coda:

Fifth Syllable Consonant Cluster Stressed Onset:

Fifth Syllable Consonant Cluster Stressed Coda:

Fifth Syllable Consonant Cluster Unstressed Onset: \(st(2)\), \(v_j\), \(\eta s#\) (4)

Fifth Syllable Consonant Cluster Unstressed Coda:

Consonant Cluster Total for Stressed and Unstressed Onsets and Codas

### Stressed Onset:
- \(#bl(5)\), \(#t^h_j(2)\), \(#sw(2)\), \(#k^h\)j(2), \(#p^l\), \(#fl\), \(#d_j\), \(#s_j\), \(#sk\), \(#spl\), \(#k^h\)w (18)

### Stressed Coda:

- Unstressed Onset: \(st(2)\), \(#pl\), \(#bl\), \(#b_j\), \(v_j\), \(d_j\), \(kw\), \(#gw\) (9)

- Unstressed Coda: \(\eta s#\) (1)

Consonant Cluster Total for Onsets and Codas

### Onset:
- \(#bl(7)\), \(#p^l(2)\), \(#b_j(2)\), \(#t^h_j(2)\), \(#sm(2)\), \(#st(2)\), \(#sw(2)\), \(#k^h\)j(2), \(#k^h\)w(2), \(#pl\), \(#fl\), \(#v_j\), \(#d_j\), \(#s_j\), \(#sk\), \(#spl\), \(#sl\), \(#fw\), \(kw\), \(#gw\) (36)

### Coda:
- \(nt#(2)\), \(#s\), \(st#\), \(jtf\), \(hv\), \(lb#\) (7)

Consonant Cluster Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllable Consonant Cluster: \(nt#(2)\), \(#sm(2)\), \(#p^l\), \(#bl\), \(#b_j\), \(#sl\), \(st#\), \(#fw\), \(#jtf\), \(#hv\), \(#lb#\), \(#k^h\)w (14)

First Syllable Consonant Cluster Stressed: \(#bl(5)\), \(#t^h_j(2)\), \(#sw(2)\), \(#k^h\)j(2), \(#p^l\), \(#fl\), \(#d_j\), \(#s_j\), \(#sk\), \(#spl\), \(#k^h\)w (18)

First Syllable Consonant Cluster Unstressed: \(#pl\), \(#bl\), \(#b_j\), \(#gw\) (4)

Second Syllable Consonant Cluster Stressed: \(p^l\) (1)

Second Syllable Consonant Cluster Unstressed: \(st(2)\), \(v_j\), \(\eta s#\) (4)

Third Syllable Consonant Cluster Stressed:

Third Syllable Consonant Cluster Unstressed: \(d_j\), \(kw\) (2)

Fourth Syllable Consonant Cluster Stressed:

Fourth Syllable Consonant Cluster Unstressed:

Fifth Syllable Consonant Cluster Stressed:

Fifth Syllable Consonant Cluster Unstressed:
Consonant Cluster Total per Syllable

First Syllable Consonant Cluster: 

#bl(6), #tʰʃ(2), #sw(2), #kʰʃ(2), #pʰl, #pl, #bʃ, #ʃl, #dʒ, #sk, #spl, #kʰw, #gw (22)

Second Syllable Consonant Cluster: 

st(2), pʰl, ṿ, ηʃ# (5)

Third Syllable Consonant Cluster: 

dʒ, kw (2)

Fourth Syllable Consonant Cluster: 

Fifth Syllable Consonant Cluster: 

Consonant Cluster Stressed and Unstressed Total

Consonant Cluster Stressed: 

#bl(5), #tʰʃ(2), #sw(2), #kʰʃ(2), #pʰl, pʰl, #fl, #dʒ, #sk, #spl, #kʰw (19)

Consonant Cluster Unstressed: 

st(2), #pl, #bʃ, #ʃl, ṿ, dʒ, ηʃ#, #gw (10)

Consonant Cluster Total (absolute)

Narrow: 

#bl(7), #pʰl(2), #bʃ(2), #tʰʃ(2), nt#(2), #sm(2), st(2), #sw(2), #kʰw(2), #kʰʃ(2), #pl, pʰl, #fl, #dʒ, #sk, #spl, #kʰw, #kʰʃ (19)

Broad: 

bl(7), pl(4), st(3), kw(3), bʃ(2), tʃ(2), dʒ(2), nt(2), sm(2), sw(2), kʃ(2), fl, ṿ, n, s, sl, sj, sk, spl, fʃ, tʃ, ṿ, b, gw (43)

43 total consonant clusters

Supra-Segments: Whole Syllables

Whole Syllable Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllable Whole Syllable: 

#bl#, #blg#, #smił#, #fwiʃ#, #u:z#, #miːg#, #smiːl#, #ʃw#, #uːz#, #kʰwe#, #oːt#, #soːnt#, #jəb#, #waʃ#, #veʃ#, #bəʃ#, #pan#, #maːp#, #slam#, #jaːn#, #laʃ#, #aʊθ#, #pʰl#, #baʃ#, #san#, #kʰʌʃ# (30)

First Syllable Whole Syllable Stressed (all entries are word initial): 

#kʰuː(2), #w1(2), #blɛ(2), #dɛ(2), #a(2), #i, #pʰl#, #mî#, #u:, #tʃu:, #suːl, #zu:, #ʃu#, #blɪn, #fli, #spl, #swin, #win, #hɪm, #pʰlo, #blɔ, #kʰo:, #swɔ, #pʰe, #blek, #nɛ, #kʰæ, #weʃ, #ʌp, #bɬ, #kʰʒ, #pʰlæn, #bæ, #dʒæ, #skæ, #sæ, #kʰæ, #kʰæ, #kʰæ, #wæv, #tʰæn, #aɪ, #ba, #tʃæn, #sa, #sjan, #kʰa, #wa, #waf, #wan, #hau (57)

First Syllable Whole Syllable Unstressed (all entries are word initial): 

#ə(2), #a(2), #i, #hu, #in, #s1, #w1,
Second Syllable Whole Syllable Stressed:
fiʲ, niʲ#, wiᵘ,
fuʷ, pʰt, tʰn,
feʲ, seʲdʷ#, jeʲ, weʲd#,
ə, beː; veʲl#, jez#,
kʰɔ, fæʲ骖, pʰlaʲ,
ban, tʰa, jam#, ja (21)

Second Syllable Whole Syllable Unstressed:
lʲi²(2), loʰʷ²(2), mʲt²(2), bᵃ-proxy(2),
bi#, mi#, viʲ#, ti¹#, di¹#, zi¹#, ji¹#, li,
ʃi¹#, bu"ʃ#, ju"#, ju",
ʤi¹#, ʃi¹#, di¹#, tʃk#, lɛd̩#,
ʃeŋ#, boʰ#, toº#, joº#, loº,
pʰ#, bʰ, bʰ#, ma, fʰ#, tas#, tʰm#, da, ra, sʰm#, sta, fʰº#, jɑ, rʰs#, jʰm#, la, laf#, kʰ#, kʰ#,
ʃa#, va#, na#, la#, kʰ,
ŋe#, ʃɛd#,
ʃa#, na, sta#, fan# (61)

Third Syllable Whole Syllable Stressed:
mi¹, ni¹,
bæ (3)

Third Syllable Whole Syllable Unstressed:
ni¹#, ni¹, ji¹,
vŋ#, fʃs#, li, kw₁,
tʰoº#,
tʰ#, ta, ra, rʰ#, rʰs#, rʰk#, sʰm#, za, jʰ#, la#, j¹#, gʰm#,
ʃi¹#, tʃi#,
na'n#,
tʃ#, ʃa#, wap# (27)

Fourth Syllable Whole Syllable Stressed:
ɾɛ (1)

Fourth Syllable Whole Syllable Unstressed:
tʃ#, rʲi¹#, ji¹#,
ʃk#,
ə#, əʃ#, əʃ#, ɾm#, zʰm# (9)

Fifth Syllable Whole Syllable Stressed:

Fifth Syllable Whole Syllable Unstressed:
te¹ (1)
First Syllable Whole Syllable (all entries are word initial):

<table>
<thead>
<tr>
<th>Entry</th>
<th>Syllable</th>
</tr>
</thead>
<tbody>
<tr>
<td>#a(4)</td>
<td>#r(3), #i(2), #k^u^*(2), #b^l^e(2), #a(2), #d^e(2),</td>
</tr>
<tr>
<td>#p^v^l, #m^l,</td>
<td></td>
</tr>
<tr>
<td>#u^&quot;, #t^u^&quot;, #s^u^l, #z^u^&quot;, #f^u^&quot;, #h^u^&quot;,</td>
<td></td>
</tr>
<tr>
<td>#n, #b^l^n, #f^l^m, #s^1, #s^p^l^i^, #s^w^l^i^, #w^l^i^,</td>
<td></td>
</tr>
<tr>
<td>#k^e^m^,</td>
<td></td>
</tr>
<tr>
<td>#p^i^a,</td>
<td></td>
</tr>
<tr>
<td>#b^l^o^&quot;, #k^i^o^&quot;, #h^o^&quot;,</td>
<td></td>
</tr>
<tr>
<td>#p^l^a, #b^l^a, #b^a, #v^a, #d^a, #s^a,</td>
<td></td>
</tr>
<tr>
<td>#s^a, #s^w^a,</td>
<td></td>
</tr>
<tr>
<td>#e, #p^v^e, #b^l^e^k, #n^e, #k^b^e^, #w^e^,</td>
<td></td>
</tr>
<tr>
<td>#a^p, #b^l,</td>
<td></td>
</tr>
<tr>
<td>#k^b^o^,</td>
<td></td>
</tr>
<tr>
<td>#p^l^a^n, #b^a, #d^a^e, #s^k^a^e, #s^a^e, #k^b^w^, #k^b^w^a^e, #k^b^w^a^e, #w^e^v,</td>
<td></td>
</tr>
<tr>
<td>#t^a^&quot;n, #d^a^l, #h^a^l,</td>
<td></td>
</tr>
<tr>
<td>#b^a^n, #b^b^a, #b^l^a, #t^b^l^am, #s^a, #s^b^a^n, #k^b^a, #g^w^a^j, #w^a^, #w^a^f, #w^a^w, #w^b^a,</td>
<td></td>
</tr>
<tr>
<td>#a^i^, #b^a^n, #b^a, #b^l^a, #t^b^l^am, #s^a, #s^b^a^n, #k^b^a, #g^w^a^j, #w^a^, #w^a^f, #w^a^w, #w^b^a,</td>
<td></td>
</tr>
<tr>
<td>(82)</td>
<td></td>
</tr>
</tbody>
</table>

Second Syllable Whole Syllable:

<table>
<thead>
<tr>
<th>Entry</th>
<th>Syllable</th>
</tr>
</thead>
<tbody>
<tr>
<td>lo^&quot;^2, #n^f^#(2), #b^a^#(2),</td>
<td></td>
</tr>
<tr>
<td>#b^l^#, #m^l^#, #f^l^, #v^l^#, #i^l^#, #d^l^#, #l^l#, #d^i^z#, #l^l#, #l^l#, #l^l, #w^l^,</td>
<td></td>
</tr>
<tr>
<td>#s^i^l#,</td>
<td></td>
</tr>
<tr>
<td>#b^u^&quot;^f^#, #f^u^&quot;, #u^&quot;^&quot;, #j^u^&quot;,</td>
<td></td>
</tr>
<tr>
<td>p^v^1, #t^j^#, #t^f^#, #t^i^#, #s^k^#, #i^k^#, #l^d^#,</td>
<td></td>
</tr>
<tr>
<td>#f^l^#, #s^e^&quot;d^#, #j^e^#, #s^e^&quot;d^#, #w^e^d^#,</td>
<td></td>
</tr>
<tr>
<td>#b^o^&quot;, #t^o^&quot;, #j^o^&quot;, #l^o^,</td>
<td></td>
</tr>
<tr>
<td>#p^v^#, #b^h^#, #m^a, #f^i^#, #t^s^#, #m^p^#, #d^a, #r^a, #s^m^#, #s^a, #f^n^#, #j^a, #r^n^#, #j^m^#, #l^a, #l^a^f^#, #k^h^#, #k^a, #g^h^#,</td>
<td></td>
</tr>
<tr>
<td>a^, #f^a^#, #v^a#, #n^a^#, #l^a^#, #k^a,</td>
<td></td>
</tr>
<tr>
<td>#b^c^, #v^e^&quot;^j^#, #n^e^&quot;^j^#, #s^e^&quot;^j^#, #l^e^d^#,</td>
<td></td>
</tr>
<tr>
<td>#k^a,</td>
<td></td>
</tr>
<tr>
<td>#f^a^l^,</td>
<td></td>
</tr>
<tr>
<td>#p^l^a^l, #b^a^#</td>
<td></td>
</tr>
<tr>
<td>ban, #t^a, #d^a^#, #n^a, #s^t^a^#, #f^a^n^#, #j^a^m^#, #j^a^m^, #j^a (82)</td>
<td></td>
</tr>
</tbody>
</table>

Third Syllable Whole Syllable:

<table>
<thead>
<tr>
<th>Entry</th>
<th>Syllable</th>
</tr>
</thead>
<tbody>
<tr>
<td>n^i^#(2),</td>
<td></td>
</tr>
<tr>
<td>#m^l, #n^u^#^l, #j^l,</td>
<td></td>
</tr>
<tr>
<td>#v^g^#, #f^i^s^#, #l^i, #k^w^l,</td>
<td></td>
</tr>
<tr>
<td>t^o^&quot;^#,</td>
<td></td>
</tr>
<tr>
<td>t^n^#, #r^a, #r^i^#, #r^a^s^#, #r^a^k^#, #g^s^#^n^#, #z^a, #r^i^#, #l^a^s^#, #l^j^#, #j^m^#, #g^i^#,</td>
<td></td>
</tr>
<tr>
<td>#d^i^#,</td>
<td></td>
</tr>
<tr>
<td>#t^i^#,</td>
<td></td>
</tr>
<tr>
<td>b^a^,</td>
<td></td>
</tr>
<tr>
<td>n^a^#^l^,</td>
<td></td>
</tr>
<tr>
<td>t^a^f^#, #j^a^n^#, #w^a^p^# (30)</td>
<td></td>
</tr>
</tbody>
</table>

Fourth Syllable Whole Syllable:

<table>
<thead>
<tr>
<th>Entry</th>
<th>Syllable</th>
</tr>
</thead>
<tbody>
<tr>
<td>t^i^#, #r^i^#, #j^i^#,</td>
<td></td>
</tr>
<tr>
<td>#t^k^#,</td>
<td></td>
</tr>
<tr>
<td>#a^#, #a^#, #a^#, #s^m^#, #z^m^#,</td>
<td></td>
</tr>
<tr>
<td>#t^e (10)</td>
<td></td>
</tr>
</tbody>
</table>

Fifth Syllable Whole Syllable:

<table>
<thead>
<tr>
<th>Entry</th>
<th>Syllable</th>
</tr>
</thead>
<tbody>
<tr>
<td>t^e^# (1)</td>
<td></td>
</tr>
</tbody>
</table>

Whole Syllable Stressed and Unstressed Total

738

Whole Syllable Stressed:
Whole Tetrasyllables:

Supra-Segments: Whole Words

Whole Word Total per Word Length

113 total words

Whole Monosyllables:

Whole Bisyllables:

Whole Trisyllables:

Whole Tetrasyllables:
wihlowBArik [wiˈloʊˈbæˌrɪk], gwarduhMEEum [ɡwɔːd·ə·ˈmiːə], hahmuhNEEyuh [hɑː·mɑ·ˈniːə]

Whole Pentasyllables:
anahzuhNETay [ɑ·nə·zə·ˈnteɪ]

<table>
<thead>
<tr>
<th>Syllable Receiving Stress</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
</tr>
<tr>
<td>---------------------------</td>
</tr>
<tr>
<td>Monosyllabic: 30</td>
</tr>
<tr>
<td>Bisyllabic: 53</td>
</tr>
<tr>
<td>Trisyllabic: 20</td>
</tr>
<tr>
<td>Tetrasyllabic: 9</td>
</tr>
<tr>
<td>Pentasyllabic: 1</td>
</tr>
<tr>
<td>Total: 113</td>
</tr>
</tbody>
</table>
Segmental and Supra-Segmental Ranking Data Sheet

Question ID: c

Segments

Segment Total for Stressed and Unstressed Onsets and Codas

Monosyllable Onset: ʃ(#(5), t#(2), p, m, d#, dg#, n#, n, s#, s, j, t, k#, g# (19)

First Syllable Segment Stressed Onset: ʃ(8), #s(7), #m(6), l(6), #kʰ(6), #pʰ(4), #b(4), #f(4), #g(4), #d(3), #dg(3), #z(3), #tʰ(2), #j(2), #k(2), #w(2), p, f, #v, #f, #f, #l, w (69)

First Syllable Segment Unstressed Onset: #k(6), #b(5), #m(5), #j(5), #g(3), #n(2), #p, #f, #v, #dg, #j, #j, #kʰ (33)

First Syllable Segment Stressed Nucleus: #w(#(2), #w(2), #i(2), i, ɹ, #o, #ə, # (38)

First Syllable Segment Stressed Coda: n(6), ʃ(6), m(3), k(3), d(2), p, b, f, h, i, k, #v, #p, #h (12)

Second Syllable Segment Stressed Onset: tʰ(6), ʃ(6), b(4), m(2), f(2), z(2), l(2), p, d, dg, n, j, kʰ, g (31)

Second Syllable Segment Stressed Nucleus: i(5), ʃ(4), iʰ(3), a(3), uʰ(2), uʰ(2), eʰ(2), i, ɹ, #o, #ə, a (26)

Second Syllable Segment Stressed Coda: n#(2), k#(2), b, m, dʰ#, n, s#, j, l (11)

Second Syllable Segment Unstressed Onset: t(9), l(9), ʃ(8), f(6), s(6), p(5), r(5), m(4), d(4), n(4), b(3), z(3), g(3), tʰ(2), dg(2), θ(2), j(2), f(2), j(2), tf, k, h (82)

Second Syllable Segment Unstressed Nucleus: a(15), ʃ(9), a(9), lʰ#(7), iʰ(4), ə#(3), uʰ(2), oʰ(2), ə#(2), ɹ#(2), ɹ#(2), ə#(2), aʰ(2), uʰ, uʰ#, eʰ#, o, ɹ, ɹ, ə, a, aʰ (72)

Second Syllable Segment Unstressed Coda: n#(6), f#(3), ʃ#(3), j#(3), t#(2), n(2), s#(2), k#(2), v#, tʰ#, dʰ#, s#, z#, j#, l, x# (27)

Third Syllable Segment Stressed Onset: f, tʰ, n, j, kʰ (6)

Third Syllable Segment Stressed Nucleus: a(2), ɹ, eʰ, ə#, a (6)

Third Syllable Segment Stressed Coda: n, l# (2)

Third Syllable Segment Unstressed Onset: j(6), l(5), t(4), d(4), m(3), n(3), f(3), z(2), p, b, v, tʰ, dg, r, θ, s, j, z, k, g (42)

Third Syllable Segment Unstressed Nucleus: a(6), lʰ(4), a(4), i(3), oʰ(3), ə#(3), ɹ#(3), ɹ#(3), aʰ(3), iʰ#(2), ɹ#(2), ə#(2), ə (34)

Third Syllable Segment Unstressed Coda: n#(4), d#(3), s#(3), k#(3), j(2), tʰ#, t#, n, z#, j#, kʰ#, ɹ# (22)

Fourth Syllable Segment Stressed Onset: Fourth Syllable Segment Stressed Nucleus:

Fourth Syllable Segment Stressed Coda:

Fourth Syllable Segment Unstressed Onset: t(4), d, n, r, l, k, g (11)

Fourth Syllable Segment Unstressed Nucleus: lʰ#(3), ə#(3), a(2), i, eʰ#, oʰ#, ɹ#, a# (13)

Fourth Syllable Segment Unstressed Coda: d#, k# (2)

Fifth Syllable Segment Stressed Onset:

Fifth Syllable Segment Stressed Nucleus:

Fifth Syllable Segment Stressed Coda:

Fifth Syllable Segment Unstressed Onset: s (1)

Fifth Syllable Segment Unstressed Nucleus: ɹ (1)

Fifth Syllable Segment Unstressed Coda: s# (1)

Segment Total for Stressed and Unstressed Onsets and Codas

742
Consonant Cluster Total for Stressed and Unstressed Syllables and Monosyllables according to Syllable Configuration

Monosyllable Consonant Cluster Onset (all entries are word initial): #bɹ(2) (2)
Monosyllable Consonant Cluster Coda (all entries are word final): mst#, ndʃ# (2)

First Syllable Consonant Cluster Stressed Onset (all entries are word initial): #fɹ(3), #gɹ(3), #pʰl(2), #bl, #sk, #sp, #skʃ, #zɬ, #kl, #kʰw, #kʰʃ, #gl (17)

First Syllable Consonant Cluster Stressed Coda:

Second Syllable Consonant Cluster Stressed Onset: bɹ(2), tʰɹ(2), tɹ(2) (6)
Second Syllable Consonant Cluster Stressed Coda: jk# (1)

Second Syllable Consonant Cluster Unstressed Onset: pɹ, bɹ, bl, fɹ, jɹ, st (5)
Second Syllable Consonant Cluster Unstressed Coda: nt# (1)

Third Syllable Consonant Cluster Stressed Onset:
Third Syllable Consonant Cluster Stressed Coda:

Fourth Syllable Consonant Cluster Stressed Onset:
Fourth Syllable Consonant Cluster Stressed Coda:

Fifth Syllable Consonant Cluster Stressed Onset:
Fifth Syllable Consonant Cluster Stressed Coda:

Consonant Cluster Total for Onsets and Codas

Stressed Onset: #fɹ(3), #gɹ(3), #pʰl(2), bɹ(2), tʰɹ(2), #bl, tɹ, #sk, #sp, #skʃ, #zɬ, #kl, #kʰw, #kʰʃ, #gl (23)

Stressed Coda: jk# (1)

Unstressed Onset: #bɹ(3), st(2), pɹ, bɹ, bl, fɹ, jɹ, #kɹ, #kʰɹ (12)

Unstressed Coda: nd#, nt#, jd#, jt# (4)

Consonant Cluster Total for Onsets and Codas

Onset: #bɹ(5), bɹ(3), #fɹ(3), #gɹ(3), #pʰl(2), tʰɹ(2), tɹ(2), #kʰɹ(2), pɹ, #bl, bl, fɹ, #sk, #sp, #skʃ, #zɬ, #kl, #kʰw, #kʰʃ, #gl (37)

Coda: mst#, nd#, nt#, ndʃ#, jd#, jt#, jk# (7)

Consonant Cluster Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllable Consonant Cluster: #bɹ(2), mst#, ndʃ# (4)

First Syllable Consonant Cluster Stressed: #fɹ(3), #gɹ(3), #pʰl(2), #bl, #sk, #sp, #skʃ, #zɬ, #kl, #kʰw, #kʰʃ, #gl (17)
First Syllable Consonant Cluster Unstressed: #bɹ(3), #kɹ, #kʰɹ (5)

Second Syllable Consonant Cluster Stressed: bɹ(2), tʰɹ(2), tɹ, jk#, gɹ (7)
Second Syllable Consonant Cluster Unstressed: pɹ, bɹ, bl, fɹ, nt#, st (6)

Third Syllable Consonant Cluster Stressed:
Third Syllable Consonant Cluster Unstressed: tɹ, nd#, jd#, jt# (5)

Fourth Syllable Consonant Cluster Stressed:
Fourth Syllable Consonant Cluster Unstressed:

Fifth Syllable Consonant Cluster Unstressed:

Consonant Cluster Total per Syllable

First Syllable Consonant Cluster: \#b\(i\)(3), \#f\(i\)(3), \#g\(u\)(3), \#p\(h\)(2), \#k\(w\)(2), \#bl, \#sk, \#sp, \#sk\(u\), \#zl, \#kl, \#k\(w\), \#kl, \#g\(u\), \#g\(l\) (22)

Second Syllable Consonant Cluster: b\(i\)(3), t\(h\)(2), p\(i\), bl, f\(i\), t\(n\)'#, st, jk\(u\), g\(u\) (13)

Third Syllable Consonant Cluster: t\(i\), nd\(u\), st, jd\(u\), jt\(u\) (5)

Fourth Syllable Consonant Cluster:

Fifth Syllable Consonant Cluster:

Consonant Cluster Stressed and Unstressed Total

Consonant Cluster Stressed: \#f\(i\)(3), \#g\(u\)(3), \#p\(h\)(2), b\(i\)(2), t\(h\)(2), \#bl, t\(i\), \#sk, \#sp, \#sk\(u\), \#zl, \#kl, \#k\(w\), \#kl, \#g\(u\), \#g\(l\) (24)

Consonant Cluster Unstressed: \#b\(i\)(3), st\(2\), p\(i\), b\(i\), bl, f\(i\), t\(n\)'#, nd\(u\), jd\(u\), jt\(u\), \#kl, \#k\(w\), \#g\(u\), \#g\(l\) (16)

Consonant Cluster Total (absolute)

Narrow: \#b\(i\)(5), b\(i\)(3), f\(i\)(3), g\(u\)(3), p\(h\)(2), t\(h\)(2), t\(i\)(2), st\(2\), k\(w\)(2), p\(i\), \#bl, bl, mst\(u\), f\(i\), t\(n\)'#, nd\(u\), nd\(g\), \#sk, \#sp, \#sk\(u\), \#zl, \#kl, \#j\(d\)', j\(t\)', \#kl, \#k\(w\), \#g\(u\), \#g\(l\) (44)

Broad: b\(i\)(8), f\(i\)(4), t\(i\)(4), g\(u\)(4), k\(u\)(3), pl\(2\), bl\(2\), st\(2\), p\(i\), mst, nt, nd, nd\(g\), sk, sp, sk\(u\), zl, jk, j\(d\), j\(t\), kl, kw, gl (44)

44 total consonant clusters

Supra-Segments: Whole Syllables

Whole Syllable Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllable Whole Syllable:
\#f\(m\)(\#), \#j\(m\)(\#),
\#b\(m\)nd\(g\), \#f\(m\)t\(k\),
\#o\(m\)f\(\#), \#f\(m\)o\(n\)\(k\), \#b\(m\)o\(m\)st\(\#\),
\#f\(m\)p\(f\),
\#d\(m\)k\s, \#k\(m\)\(k\)\(\#\),
\#w\(m\)\(\#\),
\#p\(m\)\(a\)g\(\#\), \#sw\(m\)\(\#\), \#\(m\)\(d\)\(\#\) (14)

First Syllable Whole Syllable Stressed (all entries are word initial):
\#m\(e\)(2),
\#f\(l\), \#t\(l\)\(n\), \#t\(l\)\(h\), \#d\(l\), \#s\(p\)\(l\), \#g\(l\)\(n\),
\#m\(u\), \#d\(g\)\(u\), \#sk\(u\)\(p\),
\#b\(n\), \#m\(f\), \#d\(n\), \#d\(g\), \#s\(m\), \#z\(l\), \#k\(h\)\(t\),
\#p\(h\)\(e\), \#b\(l\), \#k\(h\)\(e\),
\#g\(u\),
\#b\(a\), \#s\(a\),
\#e\(k\), \#b\(l\), \#b\(e\), \#l\(e\), \#g\(m\)\(f\), \#g\(m\),
\#v\(n\), \#s\(n\), \#z\(n\),
\#k\(h\)\(a\),
\#\(a\), \#p\(a\)\(e\), \#p\(a\)\(e\), \#m\(a\)\(e\), \#t\(f\)\(a\)\(e\), \#s\(a\), \#s\(k\)\(a\), \#z\(l\)\(a\), \#k\(b\)\(e\), \#g\(a\),
\#f\(a\), \#k\(h\)\(a\), \#w\(a\),
\#\(a\)\(u\), \#\(a\)\(b\), \#p\(a\)\(a\), \#f\(a\), \#f\(a\)\(t\), \#f\(a\), \#d\(g\)\(a\), \#f\(a\), \#j\(a\), \#j\(a\), \#k\(h\)\(w\)\(a\), \#k\(l\)\(a\), \#w\(a\) (62)

First Syllable Whole Syllable Unstressed (all entries are word initial):
\#a\(2\), \#m\(a\)(2), \#k\(n\)(2), \#a\(i\)(2),
\#b\(a\)l,
Fifth Syllable Whole Syllable Stressed:

Fifth Syllable Whole Syllable Unstressed:

Whole Syllable Total per Syllable

Second Syllable Whole Syllable:

Third Syllable Whole Syllable:

Fourth Syllable Whole Syllable:
Whole Syllable Unstressed:

Whole Syllable Stressed and Unstressed Total

Whole Syllable Total (absolute)
<table>
<thead>
<tr>
<th>Question ID: d.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Segments</strong></td>
</tr>
<tr>
<td>Segment Total for Stressed and Unstressed Syllables and Monosyllables according to Syllable Configuration</td>
</tr>
<tr>
<td>Monosyllable Onset:</td>
</tr>
<tr>
<td>Monosyllable Nucleus:</td>
</tr>
<tr>
<td>Monosyllable Coda:</td>
</tr>
<tr>
<td>First Syllable Segment Stressed Onset:</td>
</tr>
<tr>
<td>First Syllable Segment Stressed Nucleus:</td>
</tr>
<tr>
<td>First Syllable Segment Stressed Coda:</td>
</tr>
<tr>
<td>First Syllable Segment Unstressed Onset:</td>
</tr>
<tr>
<td>First Syllable Segment Unstressed Nucleus:</td>
</tr>
<tr>
<td>First Syllable Segment Unstressed Coda:</td>
</tr>
<tr>
<td>Second Syllable Segment Stressed Onset:</td>
</tr>
<tr>
<td>Second Syllable Segment Stressed Nucleus:</td>
</tr>
<tr>
<td>Second Syllable Segment Stressed Coda:</td>
</tr>
<tr>
<td>Second Syllable Segment Unstressed Onset:</td>
</tr>
<tr>
<td>Second Syllable Segment Unstressed Nucleus:</td>
</tr>
<tr>
<td>Second Syllable Segment Unstressed Coda:</td>
</tr>
<tr>
<td>Third Syllable Segment Stressed Onset:</td>
</tr>
<tr>
<td>Third Syllable Segment Stressed Nucleus:</td>
</tr>
<tr>
<td>Third Syllable Segment Stressed Coda:</td>
</tr>
<tr>
<td>Third Syllable Segment Unstressed Onset:</td>
</tr>
<tr>
<td>Third Syllable Segment Unstressed Nucleus:</td>
</tr>
<tr>
<td>Third Syllable Segment Unstressed Coda:</td>
</tr>
<tr>
<td>Fourth Syllable Segment Stressed Onset:</td>
</tr>
<tr>
<td>Fourth Syllable Segment Stressed Coda:</td>
</tr>
<tr>
<td>Fourth Syllable Segment Unstressed Coda:</td>
</tr>
<tr>
<td>Fifth Syllable Segment Stressed Onset:</td>
</tr>
<tr>
<td>Fifth Syllable Segment Stressed Coda:</td>
</tr>
<tr>
<td>Fifth Syllable Segment Unstressed Nucleus:</td>
</tr>
<tr>
<td>Fifth Syllable Segment Unstressed Coda:</td>
</tr>
</tbody>
</table>
Stressed Onset: #s(27), #kʰ(12), w(11), J(10), #l(6), l(6), #b(4), m(4), #m(3), tʰ(3), #j(3), k(3), #g(3), #w(3), p(2), v(2), t(2), #r(2), s(2), #f(2), #p, pʰ, b, #f, #v, #tʰ, #tf, n, #z, ʃ, j, kʰ, #h (125)

Stressed Coda: n(11), t(4), ɻ(4), m(3), J(3), p(2), s(2), J#(2), f, v, dʒ#, ʃ#, tʃ, k, k# (38)

Unstressed Onset: I(18), J(14), n(9), z(9), g(7), p(6), v(6), t(6), s(6), k(6), w(6), #s(5), b(4), m(4), d(3), r(3), J(3), j(3), ɻ(2), #k(2), #pʰ, #m, f, #d, #dʒ, ɻ, J, #t, #g, #w, #h (135)

Unstressed Coda: s#(8), n#(7), d#(6), k#(3), p#(2), t#(2), dʰ#(2), n(2), s(2), f#(2), J#(2), tʃ#(2), J#(2), d, z#, J, g# (48)

Segment Total for Onsets and Codas

Onset: #s(38), J(27), l(26), w(20), #kʰ(12), k(11), p(10), n(10), m(9), z(9), v(8), t(8), s(8), #l(7), g(7), b(5), #l(5), #g(5), #w(5), #b(4), #m(4), #f(4), j(4), t(4), d(3), r(3), #f(2), #tʰ(2), #r(2), ɻ(2), #k(2), #h(2), #p, #pʰ, pʰ, f, #v, #t, #d, #tʃ, #dʒ, #n, Θ, #z, ʃ, t, #j, kʰ (288)

Coda: n(14), n#(9), s#(8), t#(6), d#(6), f#(6), J#(6), t(6), m(4), s(4), J(4), tʃ#(4), k#(4), η(4), p#(3), p(2), tʰ#(2), dʰ#(2), k(2), η#(2), m#, f, v, d, dʒ#, z#, g# (105)

Segment Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllable Segment: #s(6), t#(4), J#(3), J(3), k(3), w(3), ε(3), p(2), m(2), n#(2), #f(2), J#(2), l(2), t(2), lʰ(2), a(2), p#, m#, #f, #t, #tʰ, #n, n, #J, #t#, #g, #w, i, uʷ, e, æ, a, a, a# (62)

ε(3), lʰ(2), a(2), i, uʷ, e, æ, a, a, a, a# (15)

First Syllable Segment Stressed: #s(27), #kʰ(12), n(9), J(9), w(9), #l(6), m(5), p(4), #b(4), J(4), η(4), #m(3), #l(3), k(3), #g(3), #w(3), v(2), t(2), #r(2), s(2), #f(2), #p, #f, #v, #tʰ, #tʃ, #z, #j, #h (130)

I(15), a(14), e(6), æ(6), æ(6), oʷ(5), iʰ(4), uʷ(4), a¹(4), ε(3), #a(2), uº, #u, u, u, e, #ε, æ, #æ, æ#, æ¹, a (79)

First Syllable Segment Unstressed: #s(5), J(2), #k(2), p, #pʰ, #m, #d, d, #dʒ, n, #ŋ, s, #J, #l, k, #g, #w, w, #h (25)

I(5), a(4), æ(2), #a(2), i², U, #æ, #æ, ø, ø (19)

Second Syllable Segment Stressed: J(4), tʰ(2), n(2), s(2), J#(2), l(2), w(2), pʰ, b, m, f, v, dʒ#, J, #ʃ, ʃ, #k, k, kʰ (29)

a(5), t(3), æ(2), i², e, æ, ø, ø, æ (16)

Second Syllable Segment Unstressed: I(12), #tʰ(10), J(8), z(7), g(7), t(6), n#(6), p(5), v(5), d#(5), n(5), w(5), *η#(4), b(3), m(3), d(3), r(3), k(3), p#(2), *m#(2), tʰ#(2), dʰ#(2), ɻ(2), s(2), s#(2), t#(2), *ʃ#(2), j(2), k(2), f, t, #dʒ, #ŋ, #θ, z#, J, #ʃ, #k, g# (132)

a(15), i¹#(14), t(8), a(6), e(4), æ(4), æ(3), æ(3), oʰ#(2), æ#(2), e¹, oº, æ#, æ, æ#, æº#, æ¹ (64)

Third Syllable Segment Stressed: m, tʰ, n, l (4)

uº#, e, a¹, a (4)

Third Syllable Segment Unstressed: n(5), l(5), s(4), s#(4), J(4), k(2), η#(2), b, #m#(2), v, t#, d#, n#, z, J, #ʃ, #k, #t#, ʃ, j (39)

I(5), #k(4), lʰ(2), a(2), i:#, uº#, e¹, e¹#, a, e (19)

Fourth Syllable Segment Stressed:

Fourth Syllable Segment Unstressed: s#(2), m, #m#(2), s, z, t, j, l, k# (10)

#m#(4), t, e¹, a (7)

Fifth Syllable Segment Stressed:

Fifth Syllable Segment Unstressed:

753
Segment Total by Syllable

First Syllable Segment: #s(32), #k(12), j(11), n(10), w(10), #i(7), p(5), m(5), #b(4), #m(4), #l(4), k(4), #g(4), η(4), #w(4), s(3), l(3), v(2), t(2), #r(2), #f(2), #k(2), #h(2), #p, #p#, #f, #v, #t#, #d, #tf, #d$, η, #z, #j (155)

Second Syllable Segment: l(14), j(12), #j(10), n(7), z(7), g(7), w(6), t(6), n#(6), p(5), #d(5), b(4), m(4), η#(4), s(4), k(4), d(3), r(3), #s(3), #k(3), p#(2), #η(2), #f(2), t#(2), d#(2), δ(2), s#(2), j(2), f#(2), #j(2), j(2), p#, #t#, δ$, δ#, θ, ζ, γ, k$, g# (161)

Third Syllable Segment: n(6), l(6), s(4), s#(4), j(4), k(2), η(2), b, m, #m#, v, t#, d#, n#, z, j, j#, j, t, #j (43)

Fourth Syllable Segment: s(2), m, #m#, s, j, j, l, k# (10)

Fifth Syllable Segment:

Segment Stressed and Unstressed Total

Stressed Segment: #s(27), j(13), n(12), #k(12), w(11), m(7), #l(6), (6), p(4), #b(4), s(4), t(4), k(4), η(4), #m(3), v(3), t#(3), #f(3), #j(3), #g(3), #w(3), t(2), #r(2), #l(2), #p, #b, b, #f, f, #v, #t#, #g#, #z, j, #j, #k, k#, #h (163)

Unstressed Segment: l(18), j(15), n(11), #j(10), z(9), s(8), s#(8), n#(7), g(7), p(6), v(6), t(6), d#(6), k(6), w(6), #s(5), b(4), m(4), #m#, #d(4), #j(4), r(3), #j(3), #j(3), j(3), k(3), p#(2), t#(2), t#(2), d#(2), #η(2), #f(2), #j(2), #k(2), #η(2), #p#, #m, f, #d, #d$, δ, ζ, #z, #j, #l, #g, #g#, #w, #h (206)

Supra-Segments: Consonant Clusters

Consonant Cluster Total for Stressed and Unstressed Syllables and Monosyllables according to Syllable Configuration

Monosyllable Consonant Cluster Onset (all entries are word initial): #sw(5), #f1, #j1, #skw, #skl, #sp, #sp, #fm, #gl (10)
Monosyllable Consonant Cluster Coda (all entries are word final): mt#, nt#, lf#, lp#, kt# (5)

First Syllable Consonant Cluster Stressed Onset (all entries are word initial): #sw(5), #st(2), #sm(2), #sl(2), #khj(2), #gj(2), #pr, #t#w, #skw, #skj, #sv, #sp, #sp, #fw, #k$ (25)

First Syllable Consonant Cluster Stressed Coda: ηk (1)

654 total segments
Consonant Cluster Total per Syllable
First Syllable Consonant Cluster: #sw(5), #g\textsc{j}(3), #sl(2), #st(2), #sm(2), #skw(2), #sp(2), #k^b\textsc{j}(2), #pr, #t^w, #sk\textsc{u}, #sv, #sp\textsc{u}, #fw, #k^b, #k^b\textsc{l}, \textsc{nk} (29)
Second Syllable Consonant Cluster: \textsc{tj}(2), skw(2), t^w, nd\textsc{#}, nd\textsc{#}, \textsc{ld}, k^b\textsc{l}, \textsc{kw}, g\textsc{j} (11)

Third Syllable Consonant Cluster:

Fourth Syllable Consonant Cluster:

Fifth Syllable Consonant Cluster:

Consonant Cluster Stressed and Unstressed Total

Consonant Cluster Stressed: #sw(5), #st(2), #sm(2), #skw(2), #sp(2), #k^b\textsc{j}(2), #g\textsc{j}(2), #pr, #t^w, t^w, nd\textsc{#}, #skw, #sk\textsc{u}, #sv, #sp, #sp\textsc{u}, #fw, #k^b, #k^b\textsc{l}, k^b\textsc{l}, \textsc{nk} (31)

Consonant Cluster Unstressed: \textsc{tj}(2), nd\textsc{#}, #sp, #skw, \textsc{ld}, \textsc{kw}, #g\textsc{j}, \textsc{g} \textsc{j} (9)

Consonant Cluster Total (absolute)

Narrow: #sw(7), skw(3), #sp(3), #g\textsc{j}(3), \textsc{tj}(2), #st(2), #sm(2), #skw(2), #sil(2), #sp\textsc{u}(2), #k^b\textsc{j}(2), #pr, #t^w, #t, t^w, nd\textsc{#}, nt\textsc{#}, nd\textsc{#}, #sk\textsc{u}, #sk\textsc{l}, #sw, #fw, #f\textsc{m}, #f\textsc{p}, #f\textsc{p}, #t\textsc{d}, #k^b\textsc{j}, #k^b\textsc{l}, k^b\textsc{l}, \textsc{kt}, \textsc{kw}, #g\textsc{l}, \textsc{g}, \textsc{jk} (55)

Broad: sw(7), skw(5), tj(4), g\textsc{j}(4), sp(3), st(2), sm(2), sil(2), sp\textsc{u}(2), k\textsc{j}(2), kl(2), pr, mt, tj, tw, nd\textsc{#}, nt, nt, sk\textsc{u}, sk\textsc{l}, sv, fw, #f\textsc{m}, #f\textsc{p}, \textsc{t}, \textsc{kd}, \textsc{kt}, \textsc{kw}, \textsc{gl}, \textsc{g}, \textsc{jk} (55)

55 total consonant clusters

Supra-Segments: Whole Syllables

Whole Syllable Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllabic Whole Syllable:
#\textsc{trin}, #\textsc{frni\textsc{t}}, #\textsc{gl\textsc{li}},
#\textsc{sklu*kt},
#\textsc{nef},
#\textsc{sp\textsc{a}},
#\textsc{fist}, #\textsc{swel}, #\textsc{ef},
#\textsc{wae^mt},
#\textsc{ta\textsc{m}},
#\textsc{skwaf}, #\textsc{sp\textsc{a}}, #\textsc{swant}, #\textsc{fan} (15)

First Syllable Consonant Stressed (all entries are word initial):
#k^b\textsc{an}(3), #br(2), #so(2), #lo\textsc{w}(2), #sa\textsc{t}(2),
#fi\textsc{l}, #zi\textsc{l}, #k^b\textsc{l}, #g\textsc{ji},
#su\textsc{m},
#u, #bu\textsc{m}, #ru, #stu\textsc{m}, #ju\textsc{m}, #k^b\textsc{u}w,
#vi, #spi, #swi, #s\textsc{ni}, #svi, #stf, #sk\textsc{jm}, #s\textsc{tn}, #sk\textsc{w}, #\textsc{ji}, #k^b\textsc{t}, #k^b\textsc{t}, #k^b\textsc{jm},
#ju,
#pre, #me\textsc{l}, #se\textsc{l}, #se\textsc{nk}, #sp\textsc{ae}, #sw\textsc{e}, #k^b\textsc{e}w,
#j\textsc{b},
#z\textsc{a}, #z\textsc{a}, #s\textsc{ma}, #s\textsc{e}, #f\textsc{a}, #l\textsc{a}, #w\textsc{a}, #w\textsc{d},
#es, #t\textsc{w}w, #sw\textsc{e}, #l\textsc{en},
#s\textsc{me},
#\textsc{ae}, #s\textsc{la}, #s\textsc{wae}, #f\textsc{w}, #l\textsc{a}, #g\textsc{aes}, #g\textsc{aen}, #g\textsc{ae},
#s\textsc{la}, #h\textsc{a},
#\textsc{a}, #ba, #ma, #f\textsc{a}, #sw\textsc{am}, #s\textsc{wap}, #l\textsc{a}, #k^b\textsc{am}, #k^b\textsc{loa}, #k^b\textsc{a}, #wa (78)

First Syllable Whole Syllable Unstressed (all entries are word initial):
#sa(3),
#\textsc{ji},
#m\textsc{t}, #d\textsc{is}, #sk\textsc{w}, #l\textsc{t}, #g\textsc{ji},
#d\textsc{gu},
Second Syllable Whole Syllable Stressed:

kʰli̞j, tʰin, ɱ, ɹf, ve̞, skwə, wa-k#, jɛ#,
pʰə, ʃə, rə, hə, ɸʰɔɹ, æ, ɑ, ɑn, mɑ, kɔ (21)

Second Syllable Whole Syllable Unstressed:

pʰi̞j(4), z+̞j(4), li̞j(2), vo(2), r+̞j(2), i̞j, bi̞#, vi̞#, ti̞#, di̞#; z̞i̞#, kli̞#, wi̞#, vis#, tarp#, dzn#, rtk#, zrg#, ln#, ln#, li, gue'n#

Third Syllable Whole Syllable Stressed:

muʷ#, ste̞l, tʰə, na̞l, la (5)

Third Syllable Whole Syllable Unstressed:

nɑ#(3), s+y #(2), si̞, zl', li:#, juʷ#,
biŋ#, vi, ni̞s#, ln#, ln#, ke#,
jas#, r+̞d#, Ɂə, las#, ja, kas#,
rɛst#, naf#, la# (24)

Fourth Syllable Whole Syllable Stressed:

Fourth Syllable Whole Syllable Unstressed:

Ɂ#(2), jits#, me'k#, zə#, jas#, la# (7)

Fifth Syllable Whole Syllable Stressed:

Fifth Syllable Whole Syllable Unstressed:
Whole Tetrasyllables: vˈsa[ˌɹɑ, sp, tʃænd, poˈkɚ·ɑlбdжив, n]trin, əŋ, ba, ma, ta, tʃap, dʒaɪ, nat, nɑf, skwɔlf, ɕpia, swɑnt, sɑz, swɑm, swɑp, ʃæn, lan, lɑnd$, ka, kəm, kɫaɪt, ka, wa, waɪ (249) Segments: Whole Words

Whole Word Total per Word Length

treen [trin], shahn [ʃæn], sklootk [skluˈktɬ], nayst [neʃ], fret [ʃɛt], time [ˈtaɪm], skwahlfsh [skwɔlf], sprah [spia], wampt [waɪmt], resh [ʃɛʃ], swaht [swɑnt], gleer [ɡlɪ], swelp [swɛlp], shmeel [ʃmi], suphr [spɔɹ], (schwa raised)

Whole Monosyllables:

Whole Bisyllables:

Whole Trisyllables:

Whole Tetrasyllables:

Whole Pentasyllables:

760
## Syllable Receiving Stress

<table>
<thead>
<tr>
<th></th>
<th>None</th>
<th>First</th>
<th>Second</th>
<th>Third</th>
<th>Fourth</th>
<th>Fifth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monosyllabic:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bisyllabic:</td>
<td>71</td>
<td>0</td>
<td>65</td>
<td>6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trisyllabic:</td>
<td>20</td>
<td>0</td>
<td>12</td>
<td>7</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Tetrasyllabic:</td>
<td>8</td>
<td>0</td>
<td>1</td>
<td>3</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>Pentasyllabic:</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total:</td>
<td>114</td>
<td>0</td>
<td>78</td>
<td>16</td>
<td>5</td>
<td>0</td>
</tr>
</tbody>
</table>

Word Length Total

<table>
<thead>
<tr>
<th></th>
<th>15</th>
<th>65</th>
<th>6</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total:</td>
<td>114</td>
<td>78</td>
<td>16</td>
<td>5</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
Segmental and Supra-Segmental Ranking Data Sheet

Segment Total for Stressed and Unstressed Syllables and Monosyllables according to Syllable Configuration

Monosyllable Onset: j(4), #s(3), l(3), #k(3), #p(2), p(2), #t(2), #f, #l, #k, k, w, #h (26)
Monosyllable Nucleus: a(6), i(2), æ(2), i#, o„, a„, a# (15)
Monosyllable Coda: d#, t#, d#, d#, s#, s#, k, g# (16)

First Syllable Segment Stressed Onset: j(9), #p(7), b(7), j(6), #k(6), #m(5), #t(5), #f(4), #d(4), #s(4), i(4), #g(4), #l(3), j(3), #k(3), #w(3), k(2), w(2), v#, t#, d#, k, t, # (86)
First Syllable Segment Stressed Nucleus: a(16), t(10), u(6), æ(5), æ(4), e(3), e(3), l(3), a(3), o(2), a(2), i, l, #u„, u, #æ, æ, y, #n, a: (66)
First Syllable Segment Stressed Coda: n(6), j(6), k(6), m(5), d(2), l(2), t, r, k, g, η (32)

Second Syllable Segment Stressed Onset: j(7), t(4), l(4), b(3), p(2), b(2), v(2), t(2), d(2), j(2), k(2), w(2), p#, #f, #t, #n, #s, #z, #j, #l, #w (33)
Second Syllable Segment Stressed Nucleus: a(10), i(7), a(3), o„(2), i, o, #a, æ, e, o̞, æ, a, #a (31)
Second Syllable Segment Stressed Coda: m(2), j(2), η(2), s, t (8)

Third Syllable Segment Stressed Onset: t(10), s(8), j(7), k(7), d(6), n(6), r(5), i(5), g(5), w(4), b(3), z(3), p(2), p(2), p(2), k(2), f, d#, d#, s, l, η (21)
Third Syllable Segment Stressed Nucleus: a(11), a(10), i(9), i(6), o„(4), ø(4), æ(4), ø(4), ø(4), ø(4), ø(4), i(2), o(2), o(2), o(2), u„(4), e, #, ø, ø, e, o, #, o, #, #, η(2) (72)
Third Syllable Segment Stressed Coda: k(5), t(4), n(4), k(3), n(2), s(2), p#, f#, t#, s, θ#, j#, l#, k„, η, η (30)

Fourth Syllable Segment Stressed Onset: t#, j (2)
Fourth Syllable Segment Stressed Nucleus: ø, æ (2)
Fourth Syllable Segment Stressed Coda: n (1)

Fourth Syllable Segment Stressed Onset: t(6), n(4), l(4), f(3), d(3), z(3), r(2), p, b, t#, s, j, k (32)
Fourth Syllable Segment Stressed Nucleus: i(6), a(5), i(2), o„(2), ø(2), ø(2), ø(2), ø(2), e, i, o„, o„, ø, ø, ø, ø, æ, a, a, ø (33)
Fourth Syllable Segment Stressed Coda: n#, s#, t#, k#, m#, t„, d#, z#, j# (16)

Fifth Syllable Segment Stressed Onset: a#(2), l, ø, ø#, ø#, ø, ø, ø, ø, a# (8)
Fifth Syllable Segment Stressed Coda: d#, s# (2)
Segment Total for Stressed and Unstressed Onsets and Codas

Stressed Onset: \( \{17, 1, 8, \#h(7), \#b(7), \#u(6), \#k^h(6), \#m(5), \#t^h(5), t^h(5), \#f(4), \#d(4), \#s(4), j(4), \#g(4), b(3), \#l(3), \#k(3), \#w(3), p^h(2), d(2), k^h(2), k(2), g(2), w(2), m, f, \#v, \#f_5, d_5, \#n, r, s, z, \#3 (120) \)

Stressed Coda: \( n(12), j(9), k(8), m(5), \{3(2), n(2), j(2), \#2, \#4, \#2, k^v, \#2 \) (54)

Unstressed Onset: \( t(18), n(11), l(10), d(9), r(9), s(9), k(9), z(7), w(6), f(5), \#k^h(5), g(5), b(4), p(3), \#m(3), \#p(2), p^h(2), \#b(2), m(2), \#v(2), \#d(2), j(2), k(2), \#p^h, \#t, t_5, d_5, \#n, \#s, \#z, \#j, \#l, k^v, \#y \) (154)

Unstressed Coda: \( n^h(8), k^h(7), t^h(6), s^h(6), t^\#(3), k(3), \#3, m(2), n(2), j(2), j(2), \#2, m^h, \#f, d_5, \#s, \#3, \#2, k^v, k^2, g, \#2, \#2 (57) \)

Segment Total for Onsets and Codas

Monosyllabic Segment: \( j(6), a(6), \#s(3), l(3), \#k^h(3), \#p^h(2), p(2), \#t^h(2), d(2), k(2), k^h(2), i^h(2), \#2, p^h, m, \#f, t^\#(2), d^\#(3), s^h, j^h, \#2, \#l, k^2, g^w, w^h (52) \)

\( a(6), i^h(2), \#2, p^h, o^h, a^\#(15) \)

First Syllable Segment Stressed: \( j(15), k(8), \#p^h(7), \#b(7), n(6), \#u(6), \#k^h(6), \#m(5), m(5), \#t^h(5), \#f(4), \#d(4), \#s(4), l(4), \#g(4), \#l(3), j(3), \#k(3), \#w(3), d(2), r(2), t(2), w(2) \)

\( \#v, t, \#t^h, \#d_5, \#3, k^v, \#2, g, \#2 (118) \)

\( a(16), \#1(10), u^w(6), \#2(5), \#3(4), e^3(3), e^3(3), \#3(3), a^h(3), o^h(2), a(2), i, i^h, \#u^w, u, \#2, \#2, \#2, a, a^\# (66) \)

First Syllable Segment Unstressed: \( \#k^h(5), j(4), \#m(3), \#p(2), \#b(2), m(2), \#v(2), t(2), \#d(2), k(2), \#2, n(2), \#2, w(2), \#p^h, \#f, \#t, \#n, \#2, s, \#z, \#j, \#l, i, \#w (41) \)

\( a(10), i(7), a(3), o^w(2), i, o, \#2, \#2, \#2, \#2, a, a^\# (31) \)

Second Syllable Segment Stressed: \( j(10), n(6), t^h(4), l(4), b(3), p^h(2), d(2), n^h(2), s(2), j(2), k^h(2), k(2), g(2), m, f, f^h, d^\#(3), d_5, z, t, j, \#2 (53) \)

\( a(7), e^h(3), e^3(3), \#3(3), t(2), o^w(2), i^h, i^\#(2), \#2, \#2, \#2, a^\# (28) \)

Second Syllable Segment Unstressed: \( t(10), k(10), n(8), s(8), j(7), d(6), r(5), l(5), k^h(5), g(5), t(4), n^h(4), \#2(4), w(4), b(3), \#2, \#2, \#2, z(3), p(2), p^h(2), m(2), s^h(2), p^h, f, f^h, t^\#(2), \#s, \#2, \#2, \#2, k^h, \#2, \#2, \#2, g^w, \#2, e^h, \#2, \#2, \#2, \#2, \#2, a, a^\# (123) \)

\( a(11), a(10), i(9), i^h(6), o^w(4), \#2(4), \#2(4), i^h(2), o^w(2), \#2, o^w, e^h, a, \#2, e_2, a^\# (60) \)

Third Syllable Segment Stressed: \( t^h, n, j, f (3) \)

\( e^h, \#3 (2) \)

Third Syllable Segment Unstressed: \( t(6), n(4), n^h(4), l(4), f(3), d(3), s^h(3), z(3), t^\#(2), r(2), t^\#(2), k^h(2), p, b, m^\#(3), \#2, t^\#, \#2, d_5, \#2, \#2, \#2, \#2, \#2, s, z^\#, j, j^\#, k (53) \)

\( i(6), a(5), i^h(2), o^w(2), a^\#(2), \#2(2), e^2(2), a^h(2), u^w^2, e^h, e^h, o^w, \#2, a, a^\# (28) \)

Fourth Syllable Segment Stressed:

763
Broad: k(58), ʣ(56), t(43), n(43), s(27), l(27), d(25), m(24), p(23), b(16), f(14), g(13), w(13), t(12), z(10), r(9), ɲ(6), dʒ(5), j(5), ɲ(3), f(3), ʦ(2), r(2), ʧ, ɬ, ʃ, ʒ, ɣ, h (455)

a(48), ɪ(35), ɔ(20), l(18), ɐ(15), a(13), æ(12), u(10), e(10), ş(7), ʎ(4), ù (238)

693 total segments

Supra-Segments: Consonant Clusters

Consonant Cluster Total for Stressed and Unstressed Syllables and Monosyllables according to Syllable Configuration

Monosyllable Consonant Cluster Coda (all entries are word final): #sp, #sw, #fl, #sp#, #sk, #k#, #k (4)

First Syllable Consonant Cluster Stressed Onset (all entries are word initial): #p#, #p#, #fl, #sp#, #sk, #k#, #k (8)

First Syllable Consonant Cluster Stressed Coda: #k, #sw, #gr (39)

First Syllable Consonant Cluster Unstressed Onset (all entries are word initial): #k#, #k (3)

First Syllable Consonant Cluster Unstressed Coda: #k, #sw, #gr (39)

Second Syllable Consonant Cluster Stressed Onset: tʰ(3), f (4)

Second Syllable Consonant Cluster Stressed Coda: ndz#, ld (2)

Second Syllable Consonant Cluster Unstressed Onset: p#, b, b, d, t, kʰ (6)

Second Syllable Consonant Cluster Unstressed Coda: nt#, tsk#, ks#, kt#, nk# (6)

Third Syllable Consonant Cluster Stressed Onset:

Third Syllable Consonant Cluster Stressed Coda:

Fourth Syllable Consonant Cluster Stressed Onset:

Fourth Syllable Consonant Cluster Stressed Coda:

Fifth Syllable Consonant Cluster Stressed Onset:

Fifth Syllable Consonant Cluster Stressed Coda:

Fifth Syllable Consonant Cluster Unstressed Onset:

Fifth Syllable Consonant Cluster Unstressed Coda:

Consonant Cluster Total for Stressed and Unstressed Onsets and Codas

Stressed Onset: tʰ(3), #bl(2), #b(2), #skw(2), #kʰ(2), #pʰ(2), #pʰl, #fl, #f, #f, #t, #d, #k, #kʰ, #k (21)

Stressed Coda: ndz#, ɲ, ld (3)

Unstressed Onset: #kʰ(2), pʰ, b, b, d, t, #kʰ, kʰ (10)

Unstressed Coda: nt#, tsk#, ɲ, ks#, kt#, nk# (7)

Consonant Cluster Total for Onsets and Codas

Onset: #kʰ(4), tʰ(3), #pʰl(2), #bl(2), #b(2), #fl(2), #skw(2), #kʰ(2), #kʰw(2), #pʰ(2), #pʰl, #fl, b, b, #f, #t, #d, #k, #sp, #sp#, #sk, #t, #k, #kʰ, #k (39)

Coda: nt#, kt#, dʒ#, ɲz#, ndz#, ld#, js#, ɲ, dz#, js#, kt#, nk# (14)

Consonant Cluster Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllable Consonant Cluster: #p#, #p#, #fl, dʒ#, #sp, #sp#, #sk, #t, js#, #k, #k, #k (12)

First Syllable Consonant Cluster Stressed: #bl(2), #b(2), #skw(2), #kʰ(2), #pʰ, #pʰl, #fl, #f, #t, #d, #k, #kʰ, #k (18)

765
First Syllable Consonant Cluster Unstressed: \#k^h(2), \#k^h w (3)

Second Syllable Consonant Cluster Stressed: t^h(2), f, n, d, l (6)
Second Syllable Consonant Cluster Unstressed: nt(2), p, bl, b, d, tsk, j, k, w, ks, kt, nk (12)

Third Syllable Consonant Cluster Stressed:
Third Syllable Consonant Cluster Unstressed: t, n, z (2)

Fourth Syllable Consonant Cluster Stressed:
Fourth Syllable Consonant Cluster Unstressed:

Fifth Syllable Consonant Cluster Stressed:
Fifth Syllable Consonant Cluster Unstressed:

Consonant Cluster Total per Syllable

First Syllable Consonant Cluster: \#k^h(3), \#bl(2), \#bj(2), \#skw(2), \#k^hj(2), \#k^hw(2), \#p^l, \#pl, \#fl, \#fj, \#t, \#d, d, j, g, \#gr (21)
Second Syllable Consonant Cluster: t^h(3), nt(2), p, bl, b, d, tsk, n, d, j, l, d, j, k, w, ks, kt, nk (18)
Third Syllable Consonant Cluster: t, n, z (2)
Fourth Syllable Consonant Cluster:
Fifth Syllable Consonant Cluster:

Consonant Cluster Stressed and Unstressed Total

Consonant Cluster Stressed: t, bl, bj, skw, k^hj, k^hw, p^l, pl, fl, fj, t, d, j, g, gr, nk (24)
Consonant Cluster Unstressed: nt(2), k^h(2), p^l, bl, b, d, tsk, n, z, f, k, w, ks, kt, nk (17)

Consonant Cluster Total (absolute)

Narrow: \#k^h(4), t^h(3), \#p^l(2), \#bl(2), \#bj(2), \#fl(2), nt(2), \#skw(2), \#k^hj(2), \#k^hw(2), \#kt(2), \#p^l, p^l, p^l, p^w, bl, b, d, j, k, t, n, z, s, t, k, w, ks, ct, gr, nk (53)

Broad: t(5), k(5), bl(3), bj(3), kw(3), pl(2), fl(2), fj(2), d(2), nt(2), skw(2), kj(2), kt(2), p, d, tsk, n, z, sp, sp, sk, j, g, d, s, t, ks, gr, nk (53)

53 total consonant clusters

Supra-Segments: Whole Syllables

Whole Syllable Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllable Whole Syllable:
\#sp, #sp, #ji/djd#, #kji#,
\#p^l#g#,
\#f#lak#, \#skæt\#n,
\#t^a\#, \#l#j#n,
\#p^wad#, \#t^aud\#, \#splat#, \#k^ham#, \#k^was#, \#k^rap#, \#ha# (15)

First Syllable Whole Syllable Stressed (all entries are word initial):
\#k^ju(2), \#fe(2),
\#t^j, \#ji, \#gr, \#wi,
\#u"m, \#bu"n, \#fu"n, \#fu"n, \#lu"n,
\#p^t, \#p^t, \#bjk, \#t^m, \#t^m, \#t^m, \#d^m, \#l#, \#g#, \#w#, \#w#, \#se#, \#do", \#k^o",
\#a", \#m#, \#gk", \#j#, \#w#, \#p^le#, \#me, \#dak#, \#t^a#, \#sam#, \#g# (15)
#pʰd, #mɔl,
#blæ, #dæn, #ʃæt, #kʰææ, #kʰæm,
#baɪ, #vaɪ, #jaɪ, #kaɪ, #kaɪ,
#a, #pʰa, #pʰɑ, #pʰɑk, #bɑɪ, #bɑɪ, #blaɪ, #maɪ, #man, #dɑɡ, #skwaːn, #skwa, #ʃɑk, #ʃɑn, #laɪ, #kʰɑɪ, #kʰɑɪ, #gaɪ (68)

First Syllable Whole Syllable Unstressed (all entries are word initial):
#baɪ(2),
#pi,
#di, #dɪs, #sɪŋ, #zɪm, #kʰi, #kʰwɪ,
#foʊ, #tʊ, #to,
#a, #pa, #ma, #va, #nɑ, #ʃɑ, #laɪ, #kʰɛŋ, #kʰʃɑ, #pʰɑ,
#mɛt, #kʰweɪ, #tæ,
#vaɪ,
#a, #ma, #kaɪ, #swam (31)

Second Syllable Whole Syllable Stressed:
pʰɪ#, #mɪʃ#,
luʃ#,
sɪn, lɪ,
jeɪn#, jeŋk, leɪ,
ʃoʊ, kʰ:o:d#, gloʊ#,
ɛ, beld#, fɛ, tʰɛl#,
ban,
pʰunɪʃ#, bæs, tʰʃæ, dæk,
naʃ#,
tʰʃaɪ, tʰʃɑ, dan, jən, jaɪ, kʰan#, gai (28)

Second Syllable Whole Syllable Unstressed:
#ziʃ(2), #koʊʃ(2), #tʃɛŋ(2), #ʃɪʃ(2), #dɑʃ(2),
#bliʃ#, #blɪʃ#, #dɪʃ#, #ɾɪʃ#, #lɪʃ,
uɾ#,
#bɪʃ#, #mɪtʃ#, #tɪntʃ#, #nɪk#, #ðɪnʃ#, #sɪn#, #lɪk, #kɪŋ#,
#jeɪn#,
#fʊʃ#, #nʊ#, #zʊʃ#, #ʃɑʊ#, #ɡoʊʃ#, #ɡoʃ#,
#pʰaʃ, maɪ, #fɾm#, #tʃ, #tʃa, #tʃæt, #dʰŋʃ#, #nɑ, #nɑθ#, #rɪŋ#, #ɾɑɪ, #ɾak#, #stɾɪŋ#, #sʰŋʃ#, #sːŋʃ#, #sə, #ɡa#, #ɡə, #ɡɾŋʃ#, #wɑtʰ#, #tʰː#, #nɑːʃ#, #ɾɑʃ, #ʃtɑʃ#, #kɑʃ,
#lɪk#,
#dɜʃ#, #kɔɾ#, #ɡəʃ#,
pʰəʃ#, pʰəp#, #nɑ, #sɑntʃ#, #sæf#, #sɑn#, #lɑktʃ#, #kʰwɑtʃ#, #kɑkʃ#, #wɑŋkʃ# (71)

Third Syllable Whole Syllable Stressed:
tʰɔ,
ʃæn (2)

Third Syllable Whole Syllable Unstressed:
#zoʊʃ(2),
#dɪ, #ziʃ#,
#nʊʃ#,
#tɪk#, #tʃs#, #ɾɪk#, #sɪk#, #ʃɪn#, #ltʰ#, #kɪn#,
#eɪ, #tɛl#,
#fʊɾ#, #pʰaʃ#, #tʃaʃ, #tʃæt, #dʰŋʃ#, #dɑʃ#, #nɑ, #ɾɪŋ#, #lɑs#, #lɑdʃ#, #kɑʃ,
#nɛs#, #nɛʃ#,

767
Fourth Syllable Whole Syllable Stressed:

Fourth Syllable Whole Syllable Unstressed:

Fifth Syllable Whole Syllable Stressed:

Fifth Syllable Whole Syllable Unstressed:

Whole Syllable Total per Syllable

First Syllable Whole Syllable (all entries are word initial):

Second Syllable Whole Syllable:

Third Syllable Whole Syllable:

768
Supra-Segments: Whole Words

Whole Word Total per Word Length

Whole Monosyllables:

tard [tʰaːd̪], kreek [kʰiːk], reejd [ɛiʔd̪], hah [ha], ploag [pʰlo̞ʊ̞ɡ], skat [skæt], karse [kʰəs], flak [faːk], krahp [kʰap], splākt [spλakt], spree [spɹi], tie [tʰaː], kahn [kʰam], loush [laːʃ], pwahd [pʰwɒd]

Whole Bisyllables:

seenguy [sɛŋ̚ɡəj̚],

VOWSnuhn [ˈwɔːd̪-sɛŋ̚], BYint [ˈbæl̚-tɪmt], RAHKstur [ˈjɑk̚-ʃtə], KRAHniul [ˈkʰaː-ɾiː], KAHRaik [ˈkaː-ɾiː], GREEgo [ˈɡriː-yo], RAHNtur [ˈjɑn̚-tə], FLOOpahp [ˈfluː-pʰap], GHIhMlce [ˈɡɪm̚-bliː], BLAthin [ˈblæ-ðin], FYouNur [ˈfluː-ɾn̚], MOLnuhr [ˈmɔl̚-nə], ZHERnus [ˈʃæk̚-nɪk̚], VYbirs [ˈvaːl̚-bɪrs], SKWAHruhl [ˈskwɑː-ɾjə], LOOzec [ˈlʊ-ɾiː], MURdik [ˈmaː-ɾak] (first schwa raised and fronted), TIMbre [ˈtʰim̚-bɹiː], DREKsuhn [ˈdɾeːk-ʃən], RAHRRee [ˈkʰaː-ɾiː], BRAHKeeng [ˈbɾaː-ɾiː], WUDwahnk [ˈwʊd̪-ɾoːŋ], SAYSum [ˈsɛl̚-sɛm], BLAHRee [ˈbluː-ɾiː], GUNdoor [ˈɡɑn̚-dɑː], KAYvo [ˈkaː-ɾo], TINasnt [ˈtʰin̚-ɾiːnt], PIKraɪn [ˈpiːk-ɾeɪn̚], PRAHIkle [ˈpʰraɪk-ɪk], JIHghuh [ˈdʒɪ-ɡɑː], URDum [ˈɾe-ɾiːm], FRAYzec [ˈfɹɛi̯-ɾiː], POYoʊn [ˈpʰəl̚-ɾeɪ], KAMtuhn [ˈkʰaːm-ɾiː], FRAYgo [ˈfɹeɪ̯-ɾoʊ], TILsin [ˈtʰiːɾ-ʃn], PAHRRoe [ˈpʰuː-ɾo], LIHmɪts [ˈliː-ɾɪzɪt], RATSOF [ˈɾæt-ɾɪf], PLEKstul [ˈpʰleɪk-stɹ], BOONGkoo 770
[bu*n*], SUMpahr [sa*m* · pa*], CHEEkahks [tʃi* · ka*ks], DOElahkt [də* · la*kt], KOHwuhlt [kʰo* · waw*], MAHNkwaht [man* · kʰaw*], GAHRfoe [ga* · fo*], RURrul [ɾu* · ru*], REEghuhm [ɾi* · ɡu*], KRAkoc [k³æ* · ko*], BRIKtun [bɾi* · tʰu*],

buHZAYN [bə · ze*n*], melGLOW [mɛ* · ˈɡlo*], mukKAHN [mə · ˈkæn*], kaPORNGE [ka* · ˈpɔr*ndʒ], kwairMEER [kʰwe* · ˈmi*], purLOOF [pʰə · ˈlu*fr], ahPEE [ə · ˈpi*], taKODE [tæ · ˈkʰəd*], toeTAIR [to · ˈtʰər*], luHBELD [lu · ˈbeld*], kihNYE [kt · ˈna*]

Whole Trisyllables:

SKWAHNduhrs [skwa*n* · da* · ndz], KYOUptime [kʰju* · pa* · ta*th], WEEnofone [wi* · ˈnɔ* · fo*], KYOUTyuhlus [kʰju* · tʃa* · la*], MAHdreeait [ma* · dʒɪ* · at], LAHkuhnoi [la · kə · næ*], TRIHuhrbte [tʰi* · ɾa* · ˈba*θ], BAHRuhteene [ˈbɑ* · tʰə · nɪ · zi*], DANdurfl [ˈdæn · da* · ˈfl], DARGnahndul [ˈdaːɡ · na · ˈrɪ], TUGHuhrugh [tʰə · ˈɡɑ* · ˈladʒ], RYnhkin [ˈjɑ* · ˈnæ · kɪn], PAHmuHduhns [pʰə · mə · dʒɪ*], OOMliktuhn [u* · mɪk · tʰ], AHPruhzoek [ˈɑ* · pʰə · ˈzo*], MEHZolit [ˈme · zo* · ɪt*]

peeYAHtsah [pi · ˈjɑ* · ˈtɑ*], kwihLASYhin [kʰwɪ · le* · ˈʃɪn], kruhDAHNgzo [kʰə · ˈdæn · ˈzo*], zimFREHtik [zi* · ˈfɛ * · rɪk], vuhRAHNtis [va · ˈʃæn · ˈtᵊs], mahROWnuh [ma · ˈʃɑ* · ˈtɑ], vySINtya[va* · ˈʃtn · ˈte*], ruhBUNduh [ˈjɑ* · ˈbɑn · da], uhRANKnuo [ə · ˈʃe* · ˈŋk · nu*], toeLIHfun [ˈtʰe · ˈlɪθ · ˈfʊn], nuhDAKsik [na · ˈdeɪk · ˈsɪk], wahmbASLik [ˈwɔm · ˈbæs · tɪk]

Whole Tetrasyllables:

PHDhluhlayt [pʰɪ* · ˈræ* · e*l · ˈræ*],

disTRAnufly [dɪs · ˈtʃæ · na · ˈfa*], buhTRAHPuhrs [bə · ˈtʃə · ˈpɑ* · ˈlɪs], fowEHruhkuh [fo* · ˈɛ * · ˈtʃə · ˈka*], kunGAHReeuh [kʰæn · ˈɡau · dɪl · ˈə],

krihleCTOYdul [kʰʒi* · li* · ˈtʃə · ˈrɪd*],

Whole Pentsyllables:

diuhRANjuhnayt [di · ˈʃæ · ˈlæn · ˈdʒə · ˈnet*]

<table>
<thead>
<tr>
<th>Word Length Total</th>
<th>Syllable</th>
<th>Receiving</th>
<th>Stress</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>None</td>
<td>First</td>
<td>Second</td>
</tr>
<tr>
<td>Monosyllabic:</td>
<td>15</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bisyllabic:</td>
<td>63</td>
<td>1</td>
<td>51</td>
</tr>
<tr>
<td>Trisyllabic:</td>
<td>28</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Tetrasyllabic:</td>
<td>7</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Pentsyllabic:</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total:</td>
<td>114</td>
<td>1</td>
<td>68</td>
</tr>
</tbody>
</table>

771
Segments

Segment Total for Stressed and Unstressed Syllables and Monosyllables according to Syllable Configuration

Monosyllable Onset: j(6), #kʰ(5), #s(4), #b(3), t(2), #d(2), #f(2), l(2), k(2), w(2), #pʰ, #m, m, #f, #tf, #dʒ, #l, #j, #h (40)
Monosyllable Nucleus: a(7), æ(6), i(2), æ(2), #uʷ#, o, o#, o”#, æ#, #e, æ, a”, a# (27)
Monosyllable Coda: t#(4), n(4), s#(4), k#(3), d#(2), n#(2), z#(2), j(2), k(2), f#, v#, f#, t#, h#, g#, η (32)
Stressed Onset: #s(17), j(9), t(7), k(7), l(6), m(5), #kʰ(5), #f(4), #n(4), kʰ(4), #pʰ(3), tʰ(3), #j(3), #g(3), p(2), #z(2), s(2), #j(2), #w(2), w(2), pʰ, f, #tʰ, #d, tj, dɔ, n, r, θ, z, ɣ (98)

Stressed Coda: n(13), j(5), s(3), k(3), p(2), z(2), b, m, f:#, t, t#, d#, k# (35)

Unstressed Onset: l(15), t(12), s(9), f(8), n(8), k(7), j(6), d(5), p(4), v(4), f(4), j(4), m(3), r(3), j(3), #k(3), g(3), #b(2), b(2), #f(2), dɛ(2), #s(2), #p, #m, #t, dʒ, n, θ, z, ɣ, l, #g, #x, w, #h (122)

Unstressed Coda: s#(7), n(5), n#(5), k#(4), z#(3), j#(3), t#(2), dʰ#(2), tʰ(2), tʰ#(2), p#, m, f#, v#, d#, s, f#, k, g#, η# (45)

Segment Total for Onsets and Codas

Onset: l(23), t(21), #s(21), j(21), k(16), s(11), #kʰ(10), m(9), f(9), n(9), #f(7), p(6), #b(5), d(5), #m(5), j(5), w(5), #pʰ(4), v(4), j(4), #j(4), kʰ(4), #g(4), g(4), tʰ(3), #d(3), dʒ(3), r(3), #j(3), #k(3), #w(3), b(2), #m(2), #dʒ(2), #z(2), θ(2), #s(2), z(2), #f(2), #h(2), #p, pʰ, #t, #tʰ, tj, r, ɣ, l, t, #x, w (260)

Coda: n(22), s#(11), k#(8), t#(7), n#(7), j(7), k(6), z#(5), d#(4), s(4), j#(3), t(3), #t(3), p(2), m(2), f#(2), v#(2), dʰ#(2), z(2), f#(2), g#(2), p#, b, f:#, t, η, η# (112)

Segment Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllabic Segment: j(8), #kʰ(5), t#(4), n(4), #s(4), s#(4), k#(4), b(3), k#(3), t(2), #d(2), d#(2), n#(2), z#(2), #f(2), l(2), w(2), #pʰ, #m, m, #f, f#, v#, #tʃ, #ʃ, #l, t, #j, g#, η, #h (72)

a(7), æ(6), i(2), e(2), #u"#, o, o#, o"#, aː#, aːᵊ, #e, å, a, a"#, a# (27)

First Syllable Segment Stressed: #s(17), k(10), n(8), j(8), t(7), #kʰ(5), p(4), #f(4), #n(4), l(4), #pʰ(3), #j(3), #g(3), z(2), #j(2), #w(2), b, m, #tʰ, #d, r, s, z, j, w (95)

æ(11), a(10), i(5), u"(5), e(4), e(3), #a(3), i(2), o"(2), o(2), #æ(2), #a(2), #i, u, #u"#, u, #e, â, a, â (59)

First Syllable Segment Unstressed: #k(3), #b(2), m(2), #f(2), n(2), #s(2), #p, #m, #t, #dʒ, #n, s, l, k, #g, #x, #w, #h (25)

tu"(5), i(5), a(4), #a(2), #a, o"₅, o, â, å, ê (25)

Second Syllable Segment Stressed: j(6), n(5), s(4), kʰ(4), tʰ(3), z(2), l(2), pʰ, f, f:#, t, t#, dʃ, dʒ, θ, j, k#, g, w (44)

a(9), u"(#₃), i(2), i, e, o, â, å, a, a#, a" (22)

Second Syllable Segment Unstressed: t(8), l(8), s(7), f(6), n(6), k(6), p(4), #η#(4), k#(4), v(3), d(3), n#(3), #η(3), r(3), l(3), t#(2), dʰ#(2), dʒ(2), z#(2), j#(2), tʰ(2), p#, #v, #d#, #η#, θ, s, z, #ʃ, #ʃ, j, g, g#, w (94)

a(10), i(8), æ(4), i(3), #i(3), e(3), o"#(3), o(3), u"(2), u(2), o"(2), æ(2), #u, #u"#, e, o#, â, å, ê, c, a#, a#, a" (52)

Third Syllable Segment Stressed: n(1)

i(1)

Third Syllable Segment Unstressed: n(5), l(5), t(4), j(4), s#(3), b(2), m(2), f(2), d(2), n#(2), s(2), tʰ#(2), j(2), h(2), f#, v, #η#, z#, ɣ, j#, #ʃ, k, η# (48)

æ(6), o"#(4), t(3), æ(2), e(2), a(2), i, i#, u"#, e#, o"₅, â, Å, a#, a" (27)

Fourth Syllable Segment Stressed:

Fourth Syllable Segment Unstressed: s#(3), g(2), #η, #, l, t (9)

l#(2), æ(2), 1, æ# (6)

Fifth Syllable Segment Stressed:

Fifth Syllable Segment Unstressed:
Segment Stressed and Unstressed Total

Stressed Segment: #s(17), n(14), j(14), k(10), t(8), m(6), l(6), s(5), #k̩(5), p(4), #f(4), n(4), k̩(4), #p̩(3), t̩(3), z(3), j(3), #g(3), #z(2), #j(2), #w(2), w(2), p̩, b, f, f:, #t, #d, d, tf, dʒ, r, θ, k#, g (140)

a(19), æ(11), i(7), e(5), i(4), u*m(3), o*m(3), ε(3), #a(3), #ɔ(2), #æ(2), #a̩(2), #i̩, u, #u, u, #e, æ, #ε, æ, λ, ɬ, a, a, a#, a̩ (82)

Unstressed Segment: l(15), n(13), t(12), s(10), f(8), k(8), s#(7), j(6), d(5), n#(5), p(4), m(4), ɳ#(4), v(4), j(4), k#(4), ɳ(3), ɳ#(3), r(3), z#(3), #j(3), l(3), j(3), #k(3), g(3), #b(2), b(2), #f(2), t#(2), d#(2), d̩#(2), #s(2), t#(2), Ɂ#(2), h(2), #p, p#, #m, f#, v#, #t, d#, #dʒ, #n, θ, z, j#, z, #g, #η#, #x, #w, w, w (176)

a(22), z(12), a(8), u*m(7), o*m#(7), i#(6), æ(6), #i(5), e#(4), o*(4), æ(4), ɬ#(4), i(2), u*m(2), u(2), #a(2), æ#(2), e(2), ɔ(2), a#(2), u, #u, e, ɬ, æ, ε, æ, a, a, a# (110)

Segment Total (absolute)

Narrow: n(31), j(28), #s(23), l(23), t(22), k(22), s(15), m(11), s#(11), #k̩(10), f(9), p(8), k#(8), #f(7), t#(7), n#(7), b(5), d(5), #n(5), z(5), j(5), w(5), #p#(4), ɳ#(4), v(4), d#(4), z(4), j(4), #e(4), t(4), k̩(4), g(4), b(3), t̩(3), #d(3), d̩#(3), ɳ(3), #ŋ#(3), r(3), #i#(3), t#(3), #j#(3), #k(3), #w(3), #m(2), #f#(2), v#(2), d#(2), #s(2), θ(2), #z(2), #j(2), t#(2), #f#(2), #g#(2), #h(2), #p, p#, f#, t#, #t, #t, t, r, z, l, η, #x (388)

a(34), s(22), æ(17), i(16), u*m(12), i#(11), o*(8), o*(7), æ(7), i#(6), e#(6), ε(6), u*m(5), #i(5), e#(4), æ(4), æ(3), #i#(3), a#(3), #a(3), u(2), #u*m(2), u(2), o#(2), #a(2), e#(2), ɬ(2), #æ(2), #a#(2), #a#(2), #i#(2), u, #u, #e, o, #a, ɬ, a, a, a, a# (219)

Broad: n(49), s(49), k(47), j(35), t(34), l(24), f(19), m(17), p(15), d(14), z(11), g(10), l(9), b(8), j(8), j(8), w(8), v(6), d̩#(5), h(4), r(3), #f#(2), θ(2), η(2), r, z, x (388)

a(40), a(28), u(21), t(21), æ(19), i(18), o(18), e(11), æ(10), ε(10), a(10), ɬ(5), θ(3), w(2), u(2) (219)

607 total segments
Supra-Segments: Consonant Clusters

Consonant Cluster Total for Stressed and Unstressed Syllables and Monosyllables according to Syllable Configuration

Monosyllabic Consonant Cluster Onset (all entries are word initial): #st(2), #bl, #bj, #fj, #skj, #sk, #fmj, #fw, #kh, #khj, #khw (12)

Monosyllabic Consonant Cluster Coda (all entries are word final): nt#, ks#(2), nd#, nz#, jt#, jf#, tf#, ηk# (10)

First Syllable Consonant Cluster Stressed Onset (all entries are word initial): #sk(5), #st(5), #fl(2), #pʰj, #sp, #stu, #spl, #skw, #gr, #kh, #khl, #khʃ (21)

First Syllable Consonant Cluster Stressed Coda:

First Syllable Consonant Cluster Unstressed Onset (all entries are word initial): #sm, #kl (2)

First Syllable Consonant Cluster Unstressed Coda: ks (1)

Second Syllable Consonant Cluster Stressed Onset: pʰj, tʰj, kʰw, gl (4)

Second Syllable Consonant Cluster Stressed Coda: nt#, sk# (2)

Second Syllable Consonant Cluster Unstressed Onset: fl, sk, gj (3)

Second Syllable Consonant Cluster Unstressed Coda: nd#, nt#, ηs# (3)

Third Syllable Consonant Cluster Stressed Onset:

Third Syllable Consonant Cluster Stressed Coda:

Third Syllable Consonant Cluster Unstressed Onset: st(2), bj, fj (4)

Third Syllable Consonant Cluster Unstressed Coda: ns# (1)

Fourth Syllable Consonant Cluster Stressed Onset:

Fourth Syllable Consonant Cluster Stressed Coda:

Fourth Syllable Consonant Cluster Unstressed Onset:

Fourth Syllable Consonant Cluster Unstressed Coda:

Fifth Syllable Consonant Cluster Stressed Onset:

Fifth Syllable Consonant Cluster Stressed Coda:

Fifth Syllable Consonant Cluster Unstressed Onset:

Fifth Syllable Consonant Cluster Unstressed Coda:

Consonant Cluster Total for Stressed and Unstressed Onsets and Codas

Stressed Onset: #sk(5), #st(5), #fl(2), #pʰj, pʰj, tʰj, #sp, #stu, #spl, #skw, #gr, #kh, #khl, #khʃ, kʰw, gl (25)

Stressed Coda: nt#, sk# (2)

Unstressed Onset: st(2), bj, fj, fl, sk, #sm, #kl, gj (9)

Unstressed Coda: ηs#(2), nd#, nt#, ks (5)

Consonant Cluster Total for Onsets and Codas

Onset: #st(7), #sk(6), #fl(2), st(2), #kʰʃ(2), #kʰl(2), #pʰj, pʰj, #bl, #bj, #fj, fj, fl, tʰj, sk, #sp, #sm, #stu, #spl, #skw, #skj, #fmj, #fw, #gr, #kl, #kʰ, kʰw, gl, gj (46)

Coda: nt#(4), nd#(2), ns#(2), ks#(2), nz#, sk#, jt#, jf#, tf#, ks, ηk# (17)

Consonant Cluster Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllabic Consonant Cluster: nt#(2), #st(2), ks#(2), #bl, #bj, #fj, nd#, nz#, #skj, #sk, #fmj, #fw, #j#, #f#, #kl, #kh, #khw, ηk# (22)

First Syllable Consonant Cluster Stressed: #sk(5), #st(5), #fl(2), #pʰj, #sp, #stu, #spl, #skw, #gr, #kh, #khl, #khʃ (21)

First Syllable Consonant Cluster Unstressed: #sm, #kl, ks (3)

Second Syllable Consonant Cluster Stressed: pʰj, tʰj, nt#, sk#, kʰw, gl (6)

Second Syllable Consonant Cluster Unstressed: fl, nd#, nt#, ηs#, sk, gj (6)

Third Syllable Consonant Cluster Stressed:

Third Syllable Consonant Cluster Unstressed: st(2), bj, fj, ns# (5)
Fourth Syllable Consonant Cluster Stressed:
Fourth Syllable Consonant Cluster Unstressed:
Fifth Syllable Consonant Cluster Stressed:
Fifth Syllable Consonant Cluster Unstressed:

Consonant Cluster Total per Syllable

First Syllable Consonant Cluster: #sk(5), #st(5), #fl(2), #pʰ, #sp, #sm, #st, #spl, #skw, #gr, #kʰ, #kl, #kʰj, #sm, #st, #sp, #spl, #skw, #gr, #kʰ, #kl, #kʰj, #sm, #st (24)

Second Syllable Consonant Cluster: nt #(2), pʰ, fl, tʰ, nd#, ηs#, sk, sk#, kʰw, gl, g (12)

Third Syllable Consonant Cluster: st(2), bj, fj, ns# (5)

Fourth Syllable Consonant Cluster:

Consonant Cluster Stressed and Unstressed Total

Consonant Cluster Stressed: #sk(5), #st(5), #fl(2), #pʰ, #sp, #sm, #st, #spl, #skw, #gr, #kʰ, #kl, #kʰj, #sm, #st, #sp, #spl, #skw, #gr, #kʰ, #kl, #kʰj, kʰw, gl (27)

Consonant Cluster Unstressed: st(2), bj, fl, fj, nd#, ηs#, ns#, sk, #sm, #kl, ks, gj (14)

Consonant Cluster Total (absolute)

Narrow: #st(7), #sk(6), nt #(4), #fl(2), nd #(2), st(2), ks #(2), #kʰ(2), #kʰ(2), #pʰ, #bl, #bu, bj, fl, #fj, tʰ, η s#, ns#, nz#, sk, sk#, #sp, #sm, #st, #spl, #skw, #skj, #fju, #fjw, #j#, #ff, #ks, #kl, #kʰj, #kʰw, kʰw, gl, gj, #gr, η k# (63)

Broad: sk(8), st(7), nt(4), fl(3), ks(3), kl(2), pʃ(2), bj(2), fj(2), nd(2), ns(2), st(2), ks(2), kw(2), g(2), bl, bj, nz, sp, sm, st, spl, skw, skj, #jm, #f, #j, #f, kj, gl, η k (63)

63 total consonant clusters

Supra-Segments: Whole Syllables

Whole Syllable Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllable Whole Syllable:
#ski/nt#, #kʰi/s#, #u#, #don#, #sto#, #ho#, #ja#, #eks#, #dev#, #dzε#, #fʌk#, #blænt#, #bænz#, #mæλ#, #skæd#, #kʰæg#, #klaŋk#, #ban#, #faa’s#, #pʰand#, #stɔt#, #fwaaks#, #fjuak#, #ia#, #laʃ#, #kʰaut#, #kʰwat# (27)

First Syllable Whole Syllable Stressed (all entries are word initial):
#fl(2), #a(2), #a(2), #l, #sl, #wli, #kʰek, #u#, #stu#, #sku#, #ju#, #ju^n, #kʰju#, #grun, #pʰt, #skl, #spl, #e#, #ne, #ste#, #se#, #ge#, #flo#, #so#, #sko#, #wɔ#, #es, #tʰen, #ske, #kʰep, #ap, #pʰ, #jɔn, #æe, #æn, #flæ, #næe, #næk, #stat, #skær, #zæ, #jæn, #jæk, #kʰæm, #gæp, #a, #pʰa, #dan, #naz, #sta, #span, #skwa, #stj, #zau, #kʰai, #kʰu (60)
First Syllable Whole Syllable Unstressed (all entries are word initial):
#i(2), #a(2),
#ni(2),
#u", #fu", #dgu", #gu", #xu", #hu",
#in, #im, #fiks, #kle,
#ko",
#ba, #ta, #sa, #ka,
#ba,
#e, #smo,
#pa, #ma, #wan (26)

Second Syllable Whole Syllable Stressed:
ma(2), ma(#2),
sti(1),
t"u", dgu", ju",
t"jsk", k"tn,
fe"zd,#,
zo",
man,
Θo(1),
tʃæ, jæŋ, lænt#,
p"ja, t"a#, ja"f:,
sa, k"an, k"as, k"wa, gla (25)

Second Syllable Whole Syllable Unstressed:
s*ŋ#(3), tʃk(#2), ra(#2),
vi(1), ski(#, vi(1),
ku,
vu"m#, ju"#, lu"#,
fi, tip#, dʃint#, nšk#, lšn#, kʃf#,
ʃu#, ʃu#,
fe#, le'g#, le#, gle#,
po", fo", do#, no"z#, jo", lo"#,
p"#, pa#, p"an, flad', fa, nat#, r"ŋ#, sak#, sa, z-en, ja, l-ns#, ja, k-ŋ#, ka,
va, dav#, dʃa#, nə#, Θænd#, sa,
țe#,
ʃɔ#,
ta(1),
ta:#, ta#, tan#, dan#, kad# (61)

Third Syllable Whole Syllable Stressed:
ni(1)

Third Syllable Whole Syllable Unstressed:
no"#(2),
li(#, li,
ju#,
vŋ#, nš#, lšn#,
te#, le!, he!,
bjø#", sto"n#, jo"#,
b#,λms#, f#, fša, da#, sta, z#, rŋ#, lšs#, ja,
nøz#,
me(#, de#,
la#, ka#,
t"ɔ#, haf# (31)
Fourth Syllable Whole Syllable Stressed:

Fourth Syllable Whole Syllable Unstressed:

tl#, 
fts#, 
ə#, əs#, gəs#, g°n# (6)

Fifth Syllable Whole Syllable Stressed:

Fifth Syllable Whole Syllable Unstressed:

Whole Syllable Total per Syllable

First Syllable Whole Syllable (all entries are word initial):

s°m°(3), tsk°(2), ma(2) ma(2), 
vi°, skli°, vi°, ku, 
vu°m°, tu°#, du°#, f°t#, j°u°, lu°, 
fr, trp°, ti°sk°, d°sint°, ntk°, l°n°, k°l#, 
fru°, juf°, 
fe°, fe°z°d°, le°g°, le°g°, gle°g°, 
op°, fo°, do°, no°z°, zo°, jo°, lo°, 
p°p°, pa°, p°an°, flad°, fa°, nat°, r°n°, ra°(2), sak°, sa°, z°n°, ja°, l°n°, ka°, 
va°, da°°, d°j°n°, na°, Θ°nd°, sa°, 
tez°, 
man°, 
f°j°, Θ°j°, 
tf∞, æ°n°, laent°, 
p°j°a°, ta°, t°a°, 
la°°, ta°°, tan°, dan°, ja°n°, sa°, k°an°, k°as°, k°wa°, kad°, gla° (86)

Second Syllable Whole Syllable:

Third Syllable Whole Syllable:

Fourth Syllable Whole Syllable:

778
Whole Tetrasyllables:
SOpunhaygun ['so운·pʰən·heŋ·gŋ], KYOUlahayus ['kʰu운·rə·leŋ·as],
tuhKHANyuhlee [tʰə·knən·ja·li], hoodie [ku운·mən·stə·tl], gooSAHfrugus [gu운·sə·fə·gəs], mahZOEleuh [mə·zə운·liŋ·ə],
infhNEEshis [ın·fə·niŋ·ʃəs]

<table>
<thead>
<tr>
<th>Word Length Total</th>
<th>Syllable</th>
<th>Receiving</th>
<th>Stress</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monosyllabic: 27</td>
<td>None</td>
<td>0</td>
<td>45</td>
</tr>
<tr>
<td>Bisyllabic: 54</td>
<td>First</td>
<td>0</td>
<td>12</td>
</tr>
<tr>
<td>Trisyllabic: 25</td>
<td>Second</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>Tetrasyllabic: 7</td>
<td>Third</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Pentasyllabic: 0</td>
<td>Fourth</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total: 113</td>
<td>Fifth</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
Segmental and Supra-Segmental Ranking Data Sheet

### Segments

Segment Total for Stressed and Unstressed Syllables and Monosyllables according to Syllable Configuration

<table>
<thead>
<tr>
<th>Monosyllable Onset</th>
<th>#s(4), #l(4), #f(3), #d(3), #m(2), #f(2), #w(2), #v, #t#, #l#, #n, #l, #k#k, k (30)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monosyllable Nucleus</td>
<td>a(5), e(2), a(2), e(2), o(2), õ(2), i, u#w, t#, o#, o, æ, æ, a# (22)</td>
</tr>
<tr>
<td>Monosyllable Coda</td>
<td>t#(6), k#(5), s(4), l(3), l(2), t#(2), g#(2), n(2), p#, m#, n#, ß#, h# (33)</td>
</tr>
</tbody>
</table>

First Syllable Segment Stressed Onset: #l(13), #k#(8), #s(7), #s(6), #d(5), #g(4), #w(4), #h(4), p(3), #f(3), #b(2), #t#(2), #p#, b, #m, #f, #v, r, #z, l, #k, k (73)

First Syllable Segment Stressed Nucleus: a(18), x(10), k(4), u#w(3), õ(3), æ(3), ï(3), o#w(2), a#(2), u#, #t, æ, æ, #æ, a, #a (58)

First Syllable Segment Stressed Coda: n(5), s(5), l(5), ß(3), b, v, r, ß, z, t, g (28)

First Syllable Segment Unstressed Onset: #m(5), #l(5), #s(4), #l(4), #k(3), #f(2), #t(2), #d(2), #g(2), p, #p#, #d#, #r, #k#, #h (35)

First Syllable Segment Unstressed Nucleus: a(14), l(3), i#(2), u#w(2), e#(2), a#(2), a#(2), #u#, #t, æ, æ, a, #a (34)

First Syllable Segment Unstressed Coda: l(2), b, m, t, k, ß (7)

Second Syllable Segment Stressed Onset: l(5), b(4), n(4), t#(3), d(3), v(2), k#(2), t, s, j, h (33)

Second Syllable Segment Stressed Nucleus: a(7), a#(6), u#w(3), o#w(3), t(2), õ(2), æ(2), i, e# (28)

Second Syllable Segment Stressed Coda: n(3), s#(2), b#, f, t#, n#, ß#, z#, l#, k, k# (14)

Second Syllable Segment Unstressed Onset: t#(9), t(9), n(6), s(6), l(6), d(5), m(4), k(4), p(3), b(3), r(3), g(3), f(2), v(2), l(2), p#, d#, z, j (71)

Second Syllable Segment Unstressed Nucleus: a(13), x(8), i#(6), õ#(5), a#(5), o#w#(3), ï#(2), õ#(2), æ#(2), æ#(2), æ#(2), i#, u#, æ, e#, ø#, ß, æ, a#, a# (64)

Second Syllable Segment Unstressed Coda: d#(3), s#(3), n#(2), l#(2), p#, t#, t#, d#, s, j#, ß#, n#, ß# (20)

Third Syllable Segment Stressed Onset: f, t#, l, k# (5)

Third Syllable Segment Stressed Nucleus: i#, æ, a (3)

Third Syllable Segment Stressed Coda: k (1)

Third Syllable Segment Unstressed Onset: t(5), l(5), k(5), d(4), z(4), s(3), v(2), n(2), r(2), l(2), m, f, d#, s, j (39)

Third Syllable Segment Unstressed Nucleus: a(7), l(6), õ#(4), u#w(3), õ(3), i#(3), õ#(2), æ#(2), æ#(2), æ#(2), i#, i#, e#, #æ#, æ#, æ, æ, a# (38)

Third Syllable Segment Unstressed Coda: k#(4), s#(3), t#(2), s(2), l#(2), p#, n#, ß#, g#, ß#, n# (18)

Fourth Syllable Segment Stressed Onset: Fourth Syllable Segment Stressed Nucleus: Fourth Syllable Segment Stressed Coda:

Fourth Syllable Segment Unstressed Onset: k(2), m, v, r, s, l (7)

Fourth Syllable Segment Unstressed Nucleus: a(2), æ#(2), õ#(2), i#, u#w#, õ##, æ# (10)

Fourth Syllable Segment Unstressed Coda: d# (1)

Fifth Syllable Segment Stressed Onset: Fifth Syllable Segment Stressed Nucleus: Fifth Syllable Segment Stressed Coda:

Fifth Syllable Segment Unstressed Onset: Fifth Syllable Segment Unstressed Nucleus: Fifth Syllable Segment Unstressed Coda:

Segment Total for Stressed and Unstressed Onsets and Codas

782
Fifth Syllable Segment Unstressed:

Segment Total by Syllable

First Syllable Segment: \(a(20), a(14), \iota(13), u^*(5), l^4(4), \lambda(4), \epsilon(3), \lambda(3), a^1(3), a^1(3), l^1(2), o^*(2), a^2(2), a^2(2), a^2(2), \) 
\#u^w, u, \#o, \#o, \#o (92)

Second Syllable Segment: \(n(15), \iota(14), l(11), t(10), d(8), s(8), b(7), \#t\#(5), k(5), m(4), v(4), s\#(4), p(3), f(3), t^4(3), d\#(3), r(3), j(3), g(3), \#m\#(2), t\#(2), d\#(2), n\#(2), \#n(2), j(2), t\#(2), \#t(2), k^2(2), p^*, \#p, b^*, \#b, \#t, \#m, \#m, \#o, \Theta, s\#, z, z\#, f\#, t\#, j\#, k\#, \#t, h (118)

Third Syllable Segment: \(u(6), k(6), t(5), s(5), d(4), z(4), \#t\#(4), k\#(4), s\#(3), l(3), f(2), v(2), t\#(2), n(2), r(2), t\#(2), p^#, m, \#m\#, t^\#, d\#, n\#, \#n, j, k^\#, g^\#, \#h (105)

Fourth Syllable Segment: \#t\#(2), k(2), m, v, d\#, r, s, l (10)

Segment Stressed and Unstressed Total

Stressed Segment: \(a(24), n(12), \#k^h(8), \#z(7), l(7), b(6), \#s(6), s(6), \#d(5), t^4(4), \#g(4), \#w(4), \#h(4), p(3), m(3), v(3), t(3), d(3), \#f(3), k^h(3), k(3), \eta(3), \#b(2), f(2), t^4(2), d\#(2), r(2), \#p^*, b^*, \#m, \#f, \#v, \#t, \#n, \theta, s\#, z, z\#, f\#, t\#, j\#, k\#, g, h (121)

Unstressed Segment: \(a(20), t(16), s(13), k(12), \#t\#(11), n(10), d(9), l(9), m(7), r(6), s\#(6), \#m(5), v(5), z(5), \#z(5), p(4), b(4), d\#(4), \#s(4), t\#(4), k\#(4), \#m\#(3), f(3), t\#(3), n\#(3), \#n(3), j(3), \#k(3), g(3), p\#(2), f\#(2), d\#(2), d\#(2), \#n(2), f\#(2), j\#(2), j\#(2), \#j(2), g\#(2), \eta(2), \#p^*, p^*, t\#, \#d\#, d\#\#, \#r, \#f, \#r, \#k^\#, g^\#, \#n, \#h (255)

Segment Total (absolute)

Narrow: \(l(51), n(23), s(23), t(21), l(17), k(16), \#s(14), \#x(13), d(12), \#t\#(11), b(10), m(10), t\#(10), \#d(10), \#k^h(10), k\#(10), p(8), \#m(8), v(8), s\#(7), \#f(6), d\#(6), r(6), z(6), t\#(6), \#g(6), \eta(6), f(5), n\#(5), \#f(5), \#h(5), t^4(4), \#t(4), j(4), \#k(4), g(4), \#w(4), p^*(3), \#m\#(3), \#t^h(3), \#n(3), j(3), k^h(3), \#p^b(2), \#b(2), \#v(2), d\#(2), \#n(2), r(2), j\#(2), \#j(2), \#g(2), \#n(2), w(2), p^*, b^*, \#m, \#t, \#f, \#d\#, d\#\#, \#n, \#r, \#t, \#o, \#z, z\#, f\#, j\#, g^\#, h, h (439)

Broad: \(l(66), s(44), k(44), t(39), n(34), d(28), l(23), m(22), l(18), p(14), b(13), g(13), f(11), v(10), j(9), z(8), \eta(8), h(7), r(6), w(6), d\#(4), j(4), r(3), \Theta(2), \#f (439)

675 total segments

Supra-Segments: Consonant Clusters

Consonant Cluster Total for Stressed and Unstressed Syllables and Monosyllables according to Syllable Configuration

784
Monosyllabic Consonant Cluster Onset (all entries are word initial): #st(2), #kʰj(2), #fl, #dʒ, #sw, #skw, #ʃj (9)
Monosyllabic Consonant Cluster Coda (all entries are word final): st#(2), jst#(2), ʃk#(2), nt#, ʃk#, lpanic#, ʃm# (10)

First Syllable Consonant Cluster Stressed Onset (all entries are word initial): #kʰj(5), #spʃ(2), #gʃ(2) #pʰj, #bl, #vr, #tʰw, #dʒ, #sp, #st, #stʃ, #skʃ, #ʃb (19)
First Syllable Consonant Cluster Stressed Coda:

First Syllable Consonant Cluster Unstressed Onset (all entries are word initial): #st(2), #dʒ, #sp, #kʰj (5)
First Syllable Consonant Cluster Unstressed Coda:

Second Syllable Consonant Cluster Stressed Onset: st(2), pʃ, bj, bl, kʰj, kʰl (7)
Second Syllable Consonant Cluster Stressed Coda: nz#, nd# (2)
Second Syllable Consonant Cluster Unstressed Onset: bj, fʃ, tʃ, dʒ, st (5)
Second Syllable Consonant Cluster Unstressed Coda: nd#, st# (2)

Third Syllable Consonant Cluster Stressed Onset: fl, tʰj, kj (3)
Third Syllable Consonant Cluster Stressed Coda:

Third Syllable Consonant Cluster Unstressed Onset: st (1)
Third Syllable Consonant Cluster Unstressed Coda: st#(2) (2)

Fourth Syllable Consonant Cluster Stressed Onset:
Fourth Syllable Consonant Cluster Stressed Coda:
Fourth Syllable Consonant Cluster Unstressed Onset:
Fourth Syllable Consonant Cluster Unstressed Coda:

Fifth Syllable Consonant Cluster Stressed Onset:
Fifth Syllable Consonant Cluster Stressed Coda:
Fifth Syllable Consonant Cluster Unstressed Onset:
Fifth Syllable Consonant Cluster Unstressed Coda:

Consonant Cluster Total for Stressed and Unstressed Onsets and Codas

Stressed Onset: #kʰj(5), #spʃ(2), st(2), #gʃ(2), #pʰj, pʃ, bj, bl, #bl, fl, #vr, #tʰw, tʰj, #dʒ, #sp, #st, #stʃ, #skʃ, #ʃb, kʰj, kʰl (29)

Stressed Coda: nz#, nd# (2)

Unstressed Onset: #st(2), st(2), bj, fʃ, tʃ, dʒ, #dʒ, #sp, #kʰj (11)

Unstressed Coda: st#(3), nd# (4)

Consonant Cluster Total for Onsets and Codas

Onset: #kʰj(7), #st(5), st(4), #dʒ(3), bj(2), #sp(2), #spʃ(2), #gʃ(2), #pʰj, pʃ, bj, bl, #bl, fl, fʃ, #vr, #tʰw, tʰj, tʃ, dʒ, #stʃ, #skʃ, #sw, #skw, #ʃb, #fʃ, kʰj, kj, kʰl, #kʰj (49)

Coda: st#(5), nd#(2), jst#(2), ʃk#(2), nt#, nz#, ʃk#, lpanic#, ʃm# (16)

Consonant Cluster Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllabic Consonant Cluster: #st(2), st#(2), jst#(2), #kʰj(2), ʃk#(2), #fl, #dʒ, nt#, #sw, #skw, #ʃj, ʃk#, lpanic#, ʃm# (19)

First Syllable Consonant Cluster Stressed: #kʰj(5), #spʃ(2), #gʃ(2), #pʰj, #bl, #vr, #tʰw, #dʒ, #sp, #st, #stʃ, #skʃ, #ʃb (19)
First Syllable Consonant Cluster Unstressed: #st(2), #dʒ, #sp, #kʰj (5)

Second Syllable Consonant Cluster Stressed: st(2), pʃ, bj, bl, nz#, nd#, kʰj, kʰl (9)
Second Syllable Consonant Cluster Unstressed: bj, fʃ, tʃ, dʒ, nd#, st, st# (7)

Third Syllable Consonant Cluster Stressed: fl, tʰj, kj (3)
Third Syllable Consonant Cluster Unstressed: fl, tʰj, kj (3)

Fourth Syllable Consonant Cluster Stressed:
Fourth Syllable Consonant Cluster Unstressed:

Fifth Syllable Consonant Cluster Stressed:
Fifth Syllable Consonant Cluster Unstressed:

Consonant Cluster Total per Syllable

First Syllable Consonant Cluster: #k[bj(5), #st(3), #dj(2), #sp(2), #sp(2), #g[2(2), #p'j, #bl, #v[r, #t'w, #st, #skj, #fb, #k[8j (24)

Second Syllable Consonant Cluster: st(3), bj(2), nd#(2), pj, bl, fj, dj, nz#, st#, k[8j, k[8l (16)

Third Syllable Consonant Cluster: st#(2), fl, t'st, st, kj (6)

Fourth Syllable Consonant Cluster:

Fifth Syllable Consonant Cluster:

Consonant Cluster Stressed and Unstressed Total

Consonant Cluster Stressed: #k[bj(5), #sp(2), st(2), #g[2(2), #p'j, pj, #bl, bj, fl, #v[r, #t'w, t'st, dj, nz#, nd#, #sp, #st, #skj, #fb, k[8j, kj, k[8l (31)

Consonant Cluster Unstressed: st#(3), #st(2), st(2), bj, fj, ti, #ds, dj, nd#, #sp, #k[8j (15)

Consonant Cluster Total (absolute)

Narrow: #k[bj(7), #st(5), st#(5), st(4), #dj(3), bj(2), nd#(2), #sp(2), #sp(2), #st#(2), #g[2(2), #k[8#(2), #p'j, pj, #bl, bj, fl, fj, #v[r, #t'w, t'st, ti, dj, nz#, nt#, #st, #skj, #skw, #sw, #fb, #fj, #k, #pΘ, #lm#, #k[8], kj, k[8l, #k[8j (65)

Broad: st(14), kj(9), dj(4), pj(2), bj(2), fl(2), ti(2), nd(2), sp(2), sp(2), st#(2), g[2(2), fj, vr, tw, nz, nt, st, skj, skw, sw, fb, fj, jk, lpΘ, lm, kj (65)

65 total consonant clusters

Supra-Segments: Whole Syllables

Whole Syllable Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllable Whole Syllable:
#fj#st(2),
#t'ln#, #k[bw"g#, #mk#, #me[nk#, #ve#, #tfe't#, 
#jefm#, #da-k#, #fæst#, 
#skw#, #fæg#, 
#swst#, #lpΘ#, 
#dænt#, #fla#, 
#maik#, #djap#, #stah#, #k[8jænk# (22)

First Syllable Whole Syllable Stressed (all entries are word initial):
#ja(4), #a(3), #k[bzts(2),
#stl¹, #k"j[1, #h[l'm, 
#vrun, #k"u"n, #wu", #hu", 
#l¹, #t'win, #t'h[1, #dη, #sp1, #fj, #k"j[1, #win, #h[t, 
#spue¹, 
#jo¹, #ho", 
#fæ", 
#de, #dev, #ze, 
#djη, #dms, #næs, #næ, 
#u, #spæs, #æn, #k[8jæ, 
#fa¹, #sku¹, #kar, 

786
First Syllable Whole Syllable Unstressed (all entries are word initial):

#ja(3), #je(2), #a(2), #sta(2), #ka(2),
#mi, #fi,
#u, #pju, #ju"m,
#i, #fr, #dib, #sp,
#ma, #ma#, #da, #da, #sa, #ka, #ga,
#ma, #ka,
#ra, #ha,
#ak, #ma, #ga (34)

Second Syllable Whole Syllable Stressed:

ja(2),
fi,
ju"d, jib, ni,
ste,
blo", jo",
t"ek, nes,
b,
dae, jen, kaek,
ba#, va"nz, va"nd, da, la, ha#,
t#, dan, na, jan, laf, k"la (30)

Second Syllable Whole Syllable Unstressed:

na(2), r"#, s(2), ja(2),
pi#, ps#, bi#, si#, si#, zi#, ki#
ju#, lu#,
ms#, f#s, vis#, nt, n#, ns#, l#, l#,
up#
to#, sto", lo#,
be, ma#, ma#, v#t, ta, da, t#m, da, d#m, d#m, rd#, st#m, #n#, l#, l#, k#, g#, k#,
#a#, d#d#, na, g#,
#d#,
p"a#, fa#, ja#, ka#
ma#, ta#, lad# (62)

Third Syllable Whole Syllable Stressed:

#j, #a,
ka,
flak (3)

Third Syllable Whole Syllable Unstressed:

k#(2), las#(2),
d#, ri#, zi#, z#i#
nu", #u"p#, #u#,
ms#, vs#, tg#, d#st#, #r#, #i#, vu#, te#, je#, ke#
da, da#, n#m#, sa, sta, s#m#, z#t, za#, jas#, jast#, a#, fa#,
da, kaek,
da#, st#
tai (38)

Fourth Syllable Whole Syllable Stressed:
Fourth Syllable Whole Syllable Unstressed:
síª, kuº#,
oº#,
a#, ma#, rad#, la#, ɬ#, kː#,
va# (10)

Fifth Syllable Whole Syllable Stressed:

Fifth Syllable Whole Syllable Unstressed:

Whole Syllable Total per Syllable

First Syllable Whole Syllable (all entries are word initial):
#a(4), #a(3), #a(3), #(1), #sp(2), #kʰts(2), #a(2), #st(2), #k(2), #g(2),
#ni, #fi, #si, #kʰni, #hi,h,
#u", #p"u", #vrun, #mu"m, #kʰu"n, #wu", #hu",
#fr#, #t"n, #t"n, #i, #d#b, #fi, #kʰt, #win, #hi,
#sp#, #p", #hº,
#ma, #ma, #d#, #s#, #kʰa, #ga,#
#ma, #ja,#
#de, #dev, #e,#
#d#, #das, #s, #w#, #
#s, #k,#
#e, #spi, #s#, #æ, #k³æ,
#fa, #ra, #sk#, #kar, #h,
#ag, #ak, #ma, #p"aj, #blaz, #ma, #st#, #f#b, #v#, #k, #kʰam, #g#, #ga, #ga (92)

Second Syllable Whole Syllable:
#n(2), #a(2), #t(2), #a(2), #a(2),
p#i, #pi#, #b#, #s#, #l#, #f#, #k#, #
b#j", #bju"n#, #ju"d#, #u"#,
m#, #v#, #v#, #s#, #n#, #n#, #n#, #n#, #n,
#p#, #e#, #s#
#a, #æ, #æ, #k³æ,
p#a", #b#, #v#, #ã#, #v#, #nd#, #d#, #a, #a#, #a, #a#, #a,
#ma#, #t#, #t#, #d, #n, #n, #l, #af, #l#, #k³la (92)

Third Syllable Whole Syllable:
#k#(3), #s#(2),
t#i, #d#, #r#, #l#, #z#, #l#, #
#nu", #j#p#, #j#u,#
#mk#, #v#, #t#, #g#, #t#, #s#, #k#, #v#, #v#, #v,#
#ve#, #t#, #e#, #e#, #e#, #e,
t#a, #d#, #n#, #s#, #sta, #s#, #z#, #z#, #z#, #s#, #s#, #s, #s, #s,#
#a#, #a#, #a, #a, #a,
#k#, #k#, #k#, #k,
#d#, #d#, #d, #d, #d, #d, #d, #d, #d, #d, #d, #d,
#fl#, #ta# (41)

Fourth Syllable Whole Syllable:
slº,
kuº,
Whole Tetrasyllables:

DEVruhkaytud  ['dɛv·ja·ke̞l·rad], HOOsahnnoovur  ['hu·sa·nu·va̞],
kuhROWsuμuh [kə·'jo·sa·mə], prooNIHstuhkoo [pə'nu·nt·stə·ku̞], roomTEKtuhkul [ru·m·t'ek·tə·kʊ], ruhDAzreo  [ja·dæ·zi·o̞],
garBORrayul [ɡə·bə·je̞·ɬ],
mahnuhKALuh [ma·nə·'kə·la], ahkseeFLAHKsee [ək·si·flək·si], inisTREEuh [ɪ·nts·ti·ə]
APPENDIX F

COMPLETE SEGMENTAL AND SUPRA-SEGMENTAL FREQUENCY DATA SHEETS
### Segments

Segment Total for Stressed and Unstressed Syllables and Monosyllables according to Syllable Configuration

<table>
<thead>
<tr>
<th>Monosyllable Onset (46):</th>
</tr>
</thead>
<tbody>
<tr>
<td>ɹ(9), 19.56%</td>
</tr>
<tr>
<td>#s(5), #g(5), 10.86%</td>
</tr>
<tr>
<td>l(4), 8.69%</td>
</tr>
<tr>
<td>#f(3), #d(3), 6.52%</td>
</tr>
<tr>
<td>#pʰ(2), k(2) 4.34%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Monosyllable Nucleus (26):</th>
</tr>
</thead>
<tbody>
<tr>
<td>ʌ(8), 30.76%</td>
</tr>
<tr>
<td>α(5), 19.23%</td>
</tr>
<tr>
<td>ε(3), 11.53%</td>
</tr>
<tr>
<td>i(2), uʷ(2), æ(2), æ(2) 7.69%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Monosyllable Coda (29):</th>
</tr>
</thead>
<tbody>
<tr>
<td>tʃ#(4), 13.79%</td>
</tr>
<tr>
<td>p#, k#(3), 10.34%</td>
</tr>
<tr>
<td>t#(2), d#, ts#, z#, j#(2) 6.89%</td>
</tr>
</tbody>
</table>

**First Syllable Segment Stressed Onset (81):**

| #g(11), 13.58% |  
| ɹ(8), #w(8), 9.87% |  
| #s(6), 7.40% |  
| l(5), #kʰ(5), 6.17% |  
| #n(4), #l(4), k(4), 4.93% |  
| #b(3), #f(3), #d(3), #f(3), 3.70% |  
| #pʰ(2), #tʰ(2) 2.46% |  

**First Syllable Segment Stressed Nucleus (72):**

| α(14), 19.44% |  
| æ(11), 15.27% |  
| ɪ(9), 12.50% |  
| a(6), 8.33% |  
| i(5), 6.94% |  
| e(4), 5.55% |  
| uʷ(3), 4.16% |  
| #uʷ(2), oʰ(2), æ(2), ɔ(2), a(2), #a(2) 2.77% |  

**First Syllable Segment Stressed Coda (34):**

| k(9), 26.47% |  
| m(5), 14.70% |  
| n(3), s(3), t(3), 8.82% |  
| p(2), s(2), t(2), #(2) 5.88% |  

**First Syllable Segment Unstressed Onset (13):**

| #s(3) 23.07% |  

**First Syllable Segment Unstressed Nucleus (16):**

| α(6), 37.50% |  
| uʷ(3), #e(3) 18.75% |  

**First Syllable Segment Unstressed Coda (6):**

| n(2), k(2) 33.33% |  

**Second Syllable Segment Stressed Onset (17):**

| s(3), 17.64% |  

---

**Question ID:** S. the wad of hair removed when cleaning a hairbrush
b(2), t(2), w(2) 11.76%

**Second Syllable Segment Stressed Nucleus (14):**
æ(3), a(3) 21.42%
ʌ(2) 14.28%

**Second Syllable Segment Stressed Coda (6):**
ɹ(2) 33.33%

Second Syllable Segment Unstressed Onset (82):
s(11), 13.41%
b(7), ɹ(7), 8.53%
t(6), d(6), 7.31%
l(5), g(5), 6.09%
f(4), k(4), w(4), 4.87%
p(3), m(3), Θ(3), z(3), f(3), 3.65%
n(2), r(2) 2.43%

Second Syllable Segment Unstressed Nucleus (74):
æ(16), 21.62%
æ(#)(10), a(10), 13.51%
t(9), 12.16%
ɹ(#)(6), 8.10%
æ(#)(4), 5.40%
æ(#)(3), 4.05%
o"#(2), ə#(2), æ(2) 2.70%

Second Syllable Segment Unstressed Coda (24):
n#(4), 16.66%
b#(2), f#(2), s#(2), j#(2) 8.33%

**Third Syllable Segment Stressed Onset:**
**Third Syllable Segment Stressed Nucleus:**
**Third Syllable Segment Stressed Coda:**

Third Syllable Segment Unstressed Onset (36):
l(8), 22.22%
ɹ(5), 13.88%
s(4), 11.11%
f(#)(3), k(3), 8.33%
t(2) 5.55%

Third Syllable Segment Unstressed Nucleus (29):
æ(#)(4), a(4), 13.79%
t(3), æ(3), 10.34%
ɹ(#)(2), u"(2), u"#(2), ə#(2) 6.89%

Third Syllable Segment Unstressed Coda (16):
s#(3), 18.75%
n#(2), z#(2) 12.50%

**Fourth Syllable Segment Stressed Onset:**
**Fourth Syllable Segment Stressed Nucleus:**
**Fourth Syllable Segment Stressed Coda:**

Fourth Syllable Segment Unstressed Onset:
Fourth Syllable Segment Unstressed Nucleus:
Fourth Syllable Segment Unstressed Coda:

**Fifth Syllable Segment Stressed Onset:**
**Fifth Syllable Segment Stressed Nucleus:**
**Fifth Syllable Segment Stressed Coda:**

Fifth Syllable Segment Unstressed Onset:
Fifth Syllable Segment Unstressed Nucleus:
Fifth Syllable Segment Unstressed Coda:
Segment Total for Stressed and Unstressed Onsets and Codas

**Stressed Onset (101):**
- #g(11), 10.89%
- #s(8), #w(8), 7.92%
- #s(6), l(6), 5.94%
- #kʰ(5), 4.95%
- #n(4), s(4), #l(4), k(4), 3.96%
- #b(3), b(3), #f(3), t(3), #d(3), #f(3), 2.97%
- p(2), #pʰ(2), m(2), #tʰ(2), w(2) 1.98%

**Stressed Coda (40):**
- k(9), 22.50%
- m(5), 12.50%
- #s(4), #l(4), #k(4), 10.00%
- n(3), s(3), #l(3), #n(3), 7.50%
- p(2) 5.00%

**Unstressed Onset (134):**
- s(15), 11.19%
- t(14), l(14), 10.44%
- b(8), t(8), #k(8), 5.97%
- d(7), f(7), 5.22%
- f(5), g(5), 3.73%
- p(4), m(4), z(4), w(4), 2.98%
- n(3), #s(3), #l(3), #g(3), 2.23%
- r(2), j(2), h(2) 1.49%

**Unstressed Coda (48):**
- n#(6), s#(6), 12.5%
- n(4), 8.33%
- f#(3), z#(3), 6.25%
- b#(2), t#(2), #s#(2), #l#(2), k#(2) 4.16%

Segment Total for Onsets and Codas

**Onset (281):**
- #s(31), 11.03%
- l(24), 8.54%
- s(19), 6.76%
- #g(17), 6.04%
- #s(14), k(14), 4.98%
- b(11), t(11), 3.91%
- d(8), #w(8), 2.84%
- p(7), m(7), f(7), l(7), 2.49%
- #d(6), #kʰ(6), w(6), 2.13%
- #b(5), f(5), #n(5), #l(5), z(5), #f(5), #l(5), g(5), 1.77%
- #pʰ(4), #kʰ(4), n(4), 1.42%
- j(3), 1.06%
- r(2), #j(2), #h(2), h(2) .71%

**Coda (117):**
- k(12), 10.25%
- n(7), #s(7), 5.98%
- m(6), #s(6), 5.12%
- t(5), z#(5), #s(5), 4.27%
- p#(4), f#(4), t#(4), #f(4), #l(4), #n(4), 3.41%
- b(3), d(3), s(3), 2.56%
- p(2), ts#(2), d#s(2), g(2), g#(2) 1.70%

795
Monosyllable Segment (75):
\( \mathcal{A}(9) \), 12.00%
#s(5), #g(5), 6.66%
t\#(4), l(4), 5.33%
p\#(3), #f(3), d(3), k(3), k\#(3), 4.00%
#p\#(2), t\#(2), d\#(2), ts\#(2), z\#(2), f\#(2), 2.66%

(26):
\( \lambda(8) \), 30.76%
a(5), 19.23%
\( \varepsilon(3) \), 11.53%
i\#(2), u"(2), \alpha(2), \alpha\#(2), 7.69%

First Syllable Segment Stressed (115):
k(13), 11.30%
#g(11), 9.56%
\( \mathcal{A}(10) \), 8.69%
#w(8), 6.95%
m(6), #s(6), 5.21%
l(5), #k\#(5), 4.34%
#n(4), #l(4), 3.47%
p(3), #b(3), #f(3), d(3), n(3), s(3), #f(3), l(3), 2.60%
#p\#(2), t\#(2), n\#(2), 1.73%

(72):
a(14), 19.44%
\( \alpha\#(11) \), 15.27%
\( \mathcal{A}(9) \), 12.50%
\( \lambda(6) \), 8.33%
i\#(5), 6.94%
\( \varepsilon(4) \), 5.55%
\( \Upsilon(3) \), 4.16%
#u"(2), o"(2), \alpha(2), \alpha\#(2), 2.77%

First Syllable Segment Unstressed (19):
#s(3), k(3), 15.78%
n(2), 10.52%

(16):
a(6), 37.5%
\( \Upsilon(3) \), #\( \varepsilon(3) \), 18.75%

Second Syllable Segment Stressed (23):
s(3), 13.04%
b(2), t(2), l(2), w(2), 8.69%

(14):
\( \alpha\#(3) \), a(3), 21.42%
\( \lambda(2) \), 14.28%

Second Syllable Segment Unstressed (122):
s(11), 9.01%
#\#(10), 8.19%
\( \lambda(8) \), 6.55%
b(7), 5.73%
t(6), d(6), 4.91%
l(5), g(5), 4.09%
f(4), n\#(4), k(4), w(4), 3.27%
p(3), m(3), n(3), \Theta(3), z(3), f(3), #\#(3), 2.45%
b#(2), f#(2), *η#(2), r(2), s#(2), μ#(2) 1.63%

(58):
α(16), 27.58%
α(10), 17.24%
τ(9), 15.51%
i#(6), 10.34%
ə(#4), 6.89%
o#(2), α(2) 3.44%

Third Syllable Segment Stressed:
Third Syllable Segment Unstressed (56):
l(8), 14.28%
j(5), 8.92%
s(4), 7.14%
s#(3), j#(3), k(3), 5.35%
m(2), t(2), n(2), n#(2), z#(2), ə#(2) 3.57%

(25):
ə#(4), α(4), 16.00%
t(3), α(3), 12.00%
i#(2), u*(2), u#(2) 8.00%

Fourth Syllable Segment Stressed:
Fourth Syllable Segment Unstressed:
Fifth Syllable Segment Stressed:
Fifth Syllable Segment Unstressed:

First Syllable Segment (134):
k(16), 11.94%
#g(12), 8.95%
j(11), 8.20%
#s(9), 6.71%
#w(8), 5.97%
m(6), 4.47%
n(5), #l(5), l(5), #k(5), 3.73%
#b(4), #f(4), #n(4), #f(4), 2.98%
p(3), #t(3), #d(3), s(3), h(3), ə(3), 2.23%
#p*(2), g(2), #j(2), #h(2) 1.49%

(72):
α(14), 19.44%
α#(11), 15.275%
t(9), 12.50%
λ(6), 8.33%
i#(5), 6.94%
ε(4), 5.55%
u*(3), 4.16%
#u*(2), o*(2), #ε(2), α*(2), η*(2), α#(2) 2.77%

Second Syllable Segment (145):
s(14), 9.65%
l(10), ə#(10), 6.89%
b(9), 6.20%
t(8), 5.51%
d(7), 4.82%
l(6), w(6), 4.13%
n#(5), g(5), 3.44%
p(4), m(4), f(4), Θ(4), z(4), k(4), 2.75%
n(3), f(3), #(3), η(3), 2.06%
b#(2), f#(2), η#(2), r(2), s#(2), k#(2) 1.37%

(72):
a(16), 22.22%
a(13), 18.05%
t(9), 12.50%
i#(6), 8.33%
æ #(4), æ(4), 5.55%
æ(3), 4.16%
o"(2), n(2) 4.16%

Third syllable Segment (59):
l(8), 13.55%
s(5), t(5), 8.47%
t(3), s#(3), f(3), k(3), 5.08%
b(2), m(2), n(2), n#(2), z#(2), η#(2) 3.38%

(27):
a#(4), a(4), 14.81%
 u"(3), t(3), a(3), 11.11%
i(2)#, u"(2), æ(2) 7.40%

Fourth Syllable Segment:

Fifth Syllable Segment:

Segment Stressed and Unstressed Total

Stressed Segment (140):
k(13), 9.28%
j(12), 8.57%
#g(11), 7.85%
#w(8), 5.71%
m(7), s(7), 5.00%
#s(6), l(6), 4.28%
#n(5), #kʰ(5), 3.57%
p(4), #b(4), #l(4), 2.85%
b(3), #f(3), t(3), #d(3), n(3), #f(3), t(3), η(3), 2.14%
#pʰ(2), #tʰ(2), w(2) 1.42%

(88):
a(17), 19.31%
æ(15), 17.04%
t(9), 10.22%
æ(8), 9.09%
i(5), t(5), 5.68%
u"(4), 4.54%
æ(3), 3.40%
#u"(2), o"(2), æ(2), a'(2), #a(2) 2.27%

Unstressed Segment (202):
s(15), t(15), 7.42%
l(14), 6.93%
#(12), 5.94%
k(10), 4.95%
b(8), t(8), 3.96%
d(7), n(7), f(7), 3.46%
#(6), s#(6), g(6), 2.97%
m(5), f(5), 2.47%
\begin{verbatim}
p(4), z(4), w(4), 1.98%
b#(3), f#(3), *η#(3), Θ(3), #s(3), z#(3), τ(3), 1.48%
t#(2), *η(2), r(2), f#(2), µ#(2), j(2), k#(2), h(2), .99%

(103):
a(26), 25.24%
a(15), 14.56%
t(12), 11.65%
i#(8), 7.76%
u#(6), 5.82%
o#(4), a#(4), a-#(4), 3.88%
a(3), #ε(3), æ(3), 2.91%
i(2), u*(2), o*(2), a#(2) 1.94%

Segment Total (absolute)

Narrow (411):
µ#(36), 8.75%
k(26), 6.32%
l(24), 5.83%
s(22), 5.35%
#g(17), 4.13%
#s(14), 3.40%
m(13), 3.16%
b(12), t#(12), 2.91%
t(11), n(11), 2.67%
p(9), 2.18%
d(8), f(8), w#(8), 1.94%
#f(7), s#(7), g(7), 1.70%
#d(6), #n(6), #h(6), w(6), 1.45%
#b(5), #f(5), t#(5), Ø(5), z(5), z#(5), #f(5), #l#(5), k#(5), 1.21%
p#(4), #p#(4), b#(4), f#(4), #t#(4), j#(4), #(4), h(4), #h(4), .97%
d#(3), *η#(3), µ#(3), #j(3), j(3), .72%
v(2), t#(2), d$#(2), *η(2), r(2), #j(2), k#(2), g#(2), h(2), h(2) .48%

(216):
a(37), 17.12%
a(26), 12.03%
t(21), 9.72%
æ(20), 9.25%
λ(16), 7.40%
i(9), 4.16%
i#(8), u*(8), ε(8), 3.70%
u*#(7), 3.24%
a(6), 2.77%
o*#(4), o*#(4), a#(4), 1.85%
#ε(3), æ(3), a(3), 1.38%
*u*(2), #t(2), æ(2), a#(2), #a(2) .92%

Broad (411):
s(43), 10.46%
µ(39), k(39), 9.48%
n(28), 6.81%
g(27), 6.56%
l(25), 6.08%
b(22), 5.35%
p(20), t(20), h(20), 4.86%
d(17), f(17), 4.13%
f(16), 3.89%
\end{verbatim}
m(14), w(14), 3.40%
z(11), 2.67%
t(6), 2.77%
θ(5), j(5), η(5), 1.21%
d(4), h(4), .97%
v(3), .72%
ʦ(2), r(2) .48%

(216):
a(41), 18.98%
a(30), 13.88%
a(24), 11.11%
i(23), 10.64%
i(19), 8.79%
u(18), 8.33%
ʌ(17), 7.87%
ɛ(11), 5.09%
ɚ(10), 4.62%
o(8), 3.70%
a(7), 3.24%
ɔ(5) 2.31%

627 total segments

Supra-Segments: Consonant Clusters
Consonant Cluster Total for Stressed and Unstressed Syllables and Monosyllables according to Syllable Configuration

Monosyllable Consonant Cluster Onset (all entries are word initial) (19):
#gl(3), 15.78%
#dx(2), #sk(2) 10.52%

Monosyllable Consonant Cluster Coda (all entries are word final):

First Syllable Consonant Cluster Stressed Onset (all entries are word initial) (18):
#sk(4), 22.22%
#gl(3), #s(3), 16.66%
#k³(2) 11.11%

First Syllable Consonant Cluster Stressed Coda:

First Syllable Consonant Cluster Unstressed Onset (all entries are word initial):
First Syllable Consonant Cluster Unstressed Coda:

Second Syllable Consonant Cluster Stressed Onset:
Second Syllable Consonant Cluster Stressed Coda:

Second Syllable Consonant Cluster Unstressed Onset (6):
st(2) 33.33%

Second Syllable Consonant Cluster Unstressed Coda:

Third Syllable Consonant Cluster Stressed Onset:
Third Syllable Consonant Cluster Stressed Coda:
Third Syllable Consonant Cluster Unstressed Onset:
Third Syllable Consonant Cluster Unstressed Coda:

Fourth Syllable Consonant Cluster Stressed Onset:
Fourth Syllable Consonant Cluster Stressed Coda:
Fourth Syllable Consonant Cluster Unstressed Onset:
Fourth Syllable Consonant Cluster Unstressed Coda:

Fifth Syllable Consonant Cluster Stressed Onset:
Fifth Syllable Consonant Cluster Stressed Coda:
Fifth Syllable Consonant Cluster Unstressed Onset:
Fifth Syllable Consonant Cluster Unstressed Coda:
Consonant Cluster Total for Stressed and Unstressed Onsets and Codas

**Stressed Onset (24):**
- #sk(4), 16.66%
- #g(3), #gl(3), 12.50%
- st(2), #k(2) 8.33%

**Stressed Coda:**

Unstressed Onset (11):
- st(3) 27.27%

Unstressed Coda:

Onset (54):
- #sk(6), #gl(6), 11.11%
- st(5), 9.25%
- #g(4), 7.40%
- #k(3), 5.55%
- #f(2), #t(2), #d(2), sp(2) 3.70%

Coda:

**Monosyllable Consonant Cluster (25):**
- #gl(3), 12.00%
- #d(2), #sk(2) 8.00%

**First Syllable Consonant Cluster Stressed (20):**
- #sk(4), 20.00%
- #g(3), #gl(3), 15.00%
- #k(2) 10.00%

First Syllable Consonant Cluster Unstressed:

**Second Syllable Consonant Cluster Stressed:**

Second Syllable Consonant Cluster Unstressed (8):
- st(2) 25.00%

**Third Syllable Consonant Cluster Stressed:**

Third Syllable Consonant Cluster Unstressed:

**Fourth Syllable Consonant Cluster Stressed:**

Fourth Syllable Consonant Cluster Unstressed:

**Fifth Syllable Consonant Cluster Stressed:**

Fifth Syllable Consonant Cluster Unstressed:

Consonant Cluster Stressed and Unstressed Total
Consonant Cluster Stressed (27):
#sk(4), 14.81%
#gl(3), #g(3), 11.11%
st(2), #kʰ(2) 7.40%

Consonant Cluster Unstressed (16):
st(3) 18.75%

Narrow (68):
#sk(6), #gl(6), 8.82%
st(5), 7.35%
#g(4), 5.88%
#kʰ(3), 4.41%
#f(2), #tʰ(2), #d(2), sp(2) 2.94%

Broad (68):
sk(7), 10.29%
gl(6), 8.82%
st(5), g(5), 7.35%
k(4), 5.88%
p(2), f(2), t(2), d(2), sp(2), fm(2), nk(2) 2.94%

68 total consonant clusters

Supra-Segments: Whole Syllables

Whole Syllable Total for Stressed and Unstressed Syllables and Monosyllables

First Syllable Whole Syllable Stressed (all entries are word initial):
First Syllable Whole Syllable Unstressed (all entries are word initial):

Second Syllable Whole Syllable Stressed (14):
bæ(2) 14.28%

Second Syllable Whole Syllable Unstressed (74):
b#(3), g(3), 4.05%
k#(2), s#(2), z#(2) 2.70%

Third Syllable Whole Syllable Stressed:
Third Syllable Whole Syllable Unstressed (29):
l#(2) 6.89%

Fourth Syllable Whole Syllable Stressed:
Fourth Syllable Whole Syllable Unstressed:

Fifth Syllable Whole Syllable Stressed:
Fifth Syllable Whole Syllable Unstressed:

Whole Syllable Total per Syllable

First Syllable Whole Syllable (all entries are word initial) (88):
#lu(2), #gu(2) 2.27%

Second Syllable Whole Syllable (88):
b#(3), g(3), 3.40%
k#(2), s#(2), z#(2), bæ(2), 2.27%

Third Syllable Whole Syllable (31):
l#(2) 6.45%

Fourth Syllable Whole Syllable:
Fifth Syllable Whole Syllable:

Whole Syllable Stressed and Unstressed Total

Whole Syllable Stressed (87):
\( \text{bæ}(2) \) 2.29%

Whole Syllable Unstressed (124):
\( \text{bæ}(2) \) 2.29%
\( \text{ʃu}^\#(2), \text{ko}^\#(2), \text{sə}(2), \text{zə}^\#(2), \text{lə}^\#(2) \) 1.61%

Whole Syllable Total (absolute)

Narrow (237):
\( \text{bæ}(2), \text{ʃu}^\#(2), \text{ko}^\#(2), \text{sə}(2), \text{zə}^\#(2), \text{lə}^\#(2) \) .84%

Broad (237):
\( \text{bæ}(2), \text{ʃu}^\#(2), \text{ko}^\#(2), \text{sə}(2), \text{zə}^\#(2), \text{lə}^\#(2) \) .84%

237 total whole syllables

Supra-Segments: Whole Words

<table>
<thead>
<tr>
<th>Word Length Total</th>
<th>Syllable</th>
<th>Receiving</th>
<th>Stress</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>None</td>
<td>First</td>
<td>Second</td>
</tr>
<tr>
<td>Monosyllabic: 22.80%</td>
<td>0</td>
<td>94.73%/75.00%</td>
<td>5.26%/23.07%</td>
</tr>
<tr>
<td>Bisyllabic: 50.00%</td>
<td>0</td>
<td>94.73%/75.00%</td>
<td>5.26%/23.07%</td>
</tr>
<tr>
<td>Trisyllabic: 24.56%</td>
<td>3.57%/100%</td>
<td>64.28%/25.00%</td>
<td>28.57%/61.53%</td>
</tr>
<tr>
<td>Tetrasyllabic: 1.75%</td>
<td>0</td>
<td>0</td>
<td>100%/15.38%</td>
</tr>
<tr>
<td>Pentasyllabic: .87%</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Stressed Syllable Total:</td>
<td>82.75%</td>
<td>14.94%</td>
<td>2.29%</td>
</tr>
</tbody>
</table>

Table Key: The “Word Length Total” column figure represents the percentage of words that is of that word length. For the cells inside the “Syllable Receiving Stress” columns, the amount on top indicates what percentage of a particular word length was stressed on that syllable. The number on the bottom indicates, for all the words that received stress on a particular syllable, what percentage of these words were of a particular word length. The “Stressed Syllable Total” row indicates what percentage of words was stressed on a particular syllable. Note that monosyllables were not analyzed as receiving stress and the “None” cell in the “Stressed Syllable Total” row is inapplicable.

For all 114 whole words there are no repeated words.
Segmental and Supra-Segmental Frequency Data Sheet

Question ID: T. the grease that accumulates on top of a hot pizza

### Segments

Segment Total for Stressed and Unstressed Syllables and Monosyllables according to Syllable Configuration

<table>
<thead>
<tr>
<th>Monosyllable Onset (54):</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>#s(1,4), l(1,4),</td>
<td>25.92%</td>
</tr>
<tr>
<td>#l(3), 5.55%</td>
<td></td>
</tr>
<tr>
<td>#pʰ(2), p(2), #b(2), m(2), j(2), #g(2)</td>
<td>3.70%</td>
</tr>
</tbody>
</table>

Monosyllable Nucleus (32):

<table>
<thead>
<tr>
<th>Monosyllable Coda (40):</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>t(6), 18.75%</td>
<td></td>
</tr>
<tr>
<td>æ(4), 12.50%</td>
<td></td>
</tr>
<tr>
<td>iʾ(3), eʾ(3), 9.37%</td>
<td></td>
</tr>
<tr>
<td>t(2), n(2), a(2) 6.25%</td>
<td></td>
</tr>
</tbody>
</table>

Monosyllable Coda: k#(7), 17.5%

Monosyllable Coda: f#(4), 10.00%

Monosyllable Coda: m(2), m(2), f#(2), s(2), s#(2), j(2), g#(2) 5.00%

First Syllable Segment Stressed Onset (89):

<table>
<thead>
<tr>
<th>Monosyllable Onset (54):</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>#s(1,7), 19.10%</td>
<td></td>
</tr>
<tr>
<td>s(8), #g(8), 8.98%</td>
<td></td>
</tr>
<tr>
<td>l(7), 7.86%</td>
<td></td>
</tr>
<tr>
<td>#kʰ(6), 6.74%</td>
<td></td>
</tr>
<tr>
<td>#pʰ(5), 5.61%</td>
<td></td>
</tr>
<tr>
<td>#n(4), 4.49%</td>
<td></td>
</tr>
<tr>
<td>#b(3), #d(3), k(3), w(3), #h(3), 3.37%</td>
<td></td>
</tr>
<tr>
<td>p(2), #f(2), #j(2), #l(2), j(2), #w(2) 2.24%</td>
<td></td>
</tr>
</tbody>
</table>

First Syllable Segment Stressed Nucleus (67):

<table>
<thead>
<tr>
<th>Monosyllable Onset (54):</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>t(11), 16.41%</td>
<td></td>
</tr>
<tr>
<td>uʾ(8), æ(8), a(8), 11.94%</td>
<td></td>
</tr>
<tr>
<td>n(5), 7.46%</td>
<td></td>
</tr>
<tr>
<td>iʾ(4), 5.97%</td>
<td></td>
</tr>
<tr>
<td>eʾ(3), ε(3), aʾ(3), 4.47%</td>
<td></td>
</tr>
<tr>
<td>uʾ(2) 2.98%</td>
<td></td>
</tr>
</tbody>
</table>

First Syllable Segment Stressed Coda (21):

<table>
<thead>
<tr>
<th>Monosyllable Onset (54):</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>t(6), 28.57%</td>
<td></td>
</tr>
<tr>
<td>m(3), n(3), k(3), 14.28%</td>
<td></td>
</tr>
<tr>
<td>s(2), j(2) 9.52%</td>
<td></td>
</tr>
</tbody>
</table>

First Syllable Segment Unstressed Onset (15):

<table>
<thead>
<tr>
<th>Monosyllable Onset (54):</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>#s(3), 20.00%</td>
<td></td>
</tr>
<tr>
<td>#d(2), j(2) 13.33%</td>
<td></td>
</tr>
</tbody>
</table>

First Syllable Segment Unstressed Nucleus (13):

<table>
<thead>
<tr>
<th>Monosyllable Onset (54):</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>a(6), 46.15%</td>
<td></td>
</tr>
<tr>
<td>æ(2), a(2) 15.38%</td>
<td></td>
</tr>
</tbody>
</table>

First Syllable Segment Unstressed Nucleus (4):

<table>
<thead>
<tr>
<th>Monosyllable Onset (54):</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>s(2), j(2) 50.00%</td>
<td></td>
</tr>
</tbody>
</table>

Second Syllable Segment Stressed Onset (12):

<table>
<thead>
<tr>
<th>Monosyllable Onset (54):</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>l(4), 33.33%</td>
<td></td>
</tr>
<tr>
<td>d(2), n(2) 16.66%</td>
<td></td>
</tr>
</tbody>
</table>

Second Syllable Segment Stressed Nucleus (11):
Second Syllable Segment Stressed Coda:

Second Syllable Segment Unstressed Onset (77):
f(7), l(7), 9.09%
t(6), s(6), j(6), g(6), 7.79%
d(5), k(5), 6.49%
ɾ(4), w(4), 5.19%
m(3), r(3), j(3), 3.89%
p(2), b(2), d(2), θ(2) 2.59%

Second Syllable Segment Unstressed Nucleus (70):
ə(#11), 15.71%
a(10), 14.28%
i(7), 10.00%
u"(#5), 7.14%
u"(#4), r(4), 5.71%
a=(#)3, 4.28%
i"(#2), e(2), o"(#2), o#2, 2.85%

Second Syllable Segment Unstressed Coda (19):
s#(5), 26.31%
d(3), 15.78%
f(2), n#(2), t(2), k#(2) 10.52%

Third Syllable Segment Stressed Onset (4):
j(2) 50.00%

Third Syllable Segment Stressed Nucleus (4):
a(3) 75.00%

Third Syllable Segment Stressed Coda:

Third Syllable Segment Unstressed Onset (24):
f(4), 16.66%
t(3), l(3), g(3), 12.50%
s(2), j(2), k(2) 8.33%

Third Syllable Segment Unstressed Nucleus (21):
t(4), a(4), 19.04%
i(2) 9.52%

Third Syllable Segment Unstressed Coda (13):
s#(4), 30.76%
k#(2) 15.38%

Fourth Syllable Segment Stressed Onset:

Fourth Syllable Segment Stressed Nucleus:

Fourth Syllable Segment Stressed Coda:

Fourth Syllable Segment Unstressed Onset:

Fourth Syllable Segment Unstressed Nucleus (6):
o"(#2) 33.33%

Fourth Syllable Segment Unstressed Coda:

Fifth Syllable Segment Stressed Onset:

Fifth Syllable Segment Stressed Nucleus:

Fifth Syllable Segment Stressed Coda:
Segment Total for Stressed and Unstressed Onsets and Codas

**Stressed Onset (105):**
- #s(17), 16.19%
- l(11), 10.47%
- j(10), 9.52%
- #g(8), 7.61%
- #kʰ(6), 6.66%
- #pʰ(5), 5.71%
- #n(4), n(4), 3.80%
- #b(3), #d(3), k(3), w(3), #h(3), 2.85%
- p(2), m(2), #f(2), d(2), #l(2), j(2), kʰ(2), #w(2) 1.90%

**Stressed Coda (27):**
- f(6), 22.22%
- k(4), 14.81%
- m(3), n(3), s(3), 11.11%
- t(2), j(2) 7.40%

**Unstressed Onset (122):**
- f(12), 9.83%
- j(11), l(11), 9.01%
- t(9), g(9), 7.37%
- s(8), 6.55%
- k(7), 5.73%
- dɡ(5), n(5), j(5), w(5), 4.09%
- b(4), m(4), r(4), 3.27%
- d(3), #s(3), 2.45%
- p(2), #dɡ(2), 0(2) 1.63%

**Unstressed Coda (32):**
- s(5), 15.62%
- d(4), k(4), 12.50%
- n(3), l(3), 9.37%
- t(2), s(2), j(2) 6.25%

Segment Total for Onsets and Codas

Onset (281):
- l(36), 12.81%
- #s(34), 12.09%
- j(23), 8.18%
- f(12), 4.27%
- k(11), #ɡ(11), 3.91%
- t(9), n(9), s(9), g(9), w(9), 3.20%
- m(8), #kʰ(8), 2.84%
- #pʰ(7), j(7), 2.49%
- p(6), 2.13%
- b(5), b(5), d(5), dɡ(5), #n(5), #l(5), 1.77%
- r(4), 1.42%
- m(3), #f(3), #d(3), #j(3), #h(3), 1.06%
- #ɡ(2), #dɡ(2), 0(2), j(2), kʰ(2), #w(2) .71%

Coda (99):
- k(#1), 11.11%
- s(7), s(#7), 7.07%
- m(6), j(6), l(6), 6.06%
- k(5), 5.05%
- f(4), t(#4), d(#4), n(4), z(4), j(#4), l(#4), 4.04%
<table>
<thead>
<tr>
<th>Segment Total for Stressed and Unstressed Syllables and Monosyllables</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Monosyllable Segment (89):</strong></td>
</tr>
<tr>
<td>#s(14), t(14), 15.73%</td>
</tr>
<tr>
<td>k(#7), 7.86%</td>
</tr>
<tr>
<td>m(4), f(#4), j(4), 4.49%</td>
</tr>
<tr>
<td>p(3), t(#3), z(#3), #l(3), 3.37%</td>
</tr>
<tr>
<td>#pʰ(2), #b(2), m(#2), f(2), s(2), s(#2), g(#2), g(2) 2.24%</td>
</tr>
<tr>
<td>(32):</td>
</tr>
<tr>
<td>t(6), 18.75%</td>
</tr>
<tr>
<td>æ(4), 12.50%</td>
</tr>
<tr>
<td>i(3), e(3), 9.37%</td>
</tr>
<tr>
<td>s(2), a(2), o(2) 6.25%</td>
</tr>
<tr>
<td><strong>First Syllable Segment Stressed (110):</strong></td>
</tr>
<tr>
<td>#s(17), 15.45%</td>
</tr>
<tr>
<td>s(10), 9.09%</td>
</tr>
<tr>
<td>#g(8), 7.27%</td>
</tr>
<tr>
<td>l(7), 6.365%</td>
</tr>
<tr>
<td>f(6), k(6), kʰ(6), 5.45%</td>
</tr>
<tr>
<td>#pʰ(5), 4.54%</td>
</tr>
<tr>
<td>m(4), n(4), n(4), 3.63%</td>
</tr>
<tr>
<td>#b(3), #d(3), w(3), #h(3), 2.72%</td>
</tr>
<tr>
<td>p(2), #f(2), t(2), s(2), #u(2), #l(2), j(2), #w(2) 1.81%</td>
</tr>
<tr>
<td>(67):</td>
</tr>
<tr>
<td>t(11), 16.41%</td>
</tr>
<tr>
<td>u*(8), æ(8), a(8), 11.94%</td>
</tr>
<tr>
<td>a(5), 7.46%</td>
</tr>
<tr>
<td>i(4), 5.97%</td>
</tr>
<tr>
<td>e(3), æ(3), a'(3), 4.47%</td>
</tr>
<tr>
<td>u*(2) 2.98%</td>
</tr>
<tr>
<td><strong>First Syllable Segment Unstressed (19):</strong></td>
</tr>
<tr>
<td>s(4), 21.05%</td>
</tr>
<tr>
<td>#s(3), 15.78%</td>
</tr>
<tr>
<td>m(2), #g(2) 10.52%</td>
</tr>
<tr>
<td>(13):</td>
</tr>
<tr>
<td>a(6), 46.15%</td>
</tr>
<tr>
<td>æ(2), a(2) 15.38%</td>
</tr>
<tr>
<td><strong>Second Syllable Segment Stressed (16):</strong></td>
</tr>
<tr>
<td>l(4), 25.00%</td>
</tr>
<tr>
<td>d(2), n(2), s(2) 12.50%</td>
</tr>
<tr>
<td>(11):</td>
</tr>
<tr>
<td>e(2) 18.18%</td>
</tr>
<tr>
<td><strong>Second Syllable Segment Unstressed (111):</strong></td>
</tr>
<tr>
<td>*t(#11), 9.90%</td>
</tr>
<tr>
<td>f(7), l(7), 6.30%</td>
</tr>
<tr>
<td>t(6), s(6), s(6), g(6), 5.40%</td>
</tr>
<tr>
<td>d(5), s(#5), k(5), 4.50%</td>
</tr>
<tr>
<td>n(4), w(4), 3.60%</td>
</tr>
<tr>
<td>m(3), d(#3), r(3), j(3), 2.70%</td>
</tr>
<tr>
<td>p(2), b(2), #f(2), d(2), n(#2), *η(2), #θ(2), t(#2), k(#2) 1.80%</td>
</tr>
</tbody>
</table>
(55):
ə(10), 18.18%
a(8), 14.54%
i(7), 12.72%
u*(5), 9.09%
u*#(4), t(4), 7.27%
a#(3), 5.45%
i#(2), e(2), o*(2), o*(2) 3.63%

Third Syllable Segment Stressed (6):
ų(2) 33.33%

(4):
a(3) 75.00%

Third Syllable Segment Unstressed (38):
f(4), s#(4), 10.52%
t(3), s(3), l(3), g(3), k(3), 7.89%
ų(2), j(2), k #(2) 5.26%

(20):
t(4), a(4), 20.00%
i(2) 10.00%

Fourth Syllable Segment Stressed:

Fourth Syllable Segment Unstressed:

(5):
o*#(2) 40.00%

Fifth Syllable Segment Stressed:

Fifth Syllable Segment Unstressed:

Segment Total by Syllable

First Syllable Segment (129):
#s(20), 15.50%
ų(14), 10.85%
#g(9), 6.97%
l(7), #k h(7), 5.42%
m(6), l(6), k(6), 4.65%
#p*(5), 3.87%
#n(4), n(4), 3.10%
#b(3), #f(3), #d(3), s(3), #l(3), w(3), #h(3), 2.32%
p(2), #m(2), t(2), #f(2), #d(2), #l(2), j(2), #w(2) 1.55%

(80):
t(11), 13.75%
æ(10), a(10), 12.50%
u*(8), 10.00%
a(6), 7.50%
i(5), n(5), 6.25%
ε(4), 5.00%
e(3), a(3), 3.75%
#u*(2), u*(2) 2.50%

Second Syllable Segment (127):
l(11), #l(11), 8.66%
s(8), 6.29%
f(7), 5.51%
t(6), n(6), ą(6), g(6), 4.72%
Third Syllable Segment (44):
f(4), s#(4), j(4), k(4), 9.09%
t(3), s(3), l(3), g(3), 6.81%
n(2), #j(2), k(2) 4.54%

Fourth Syllable Segment:

(5):
o*(2)# 40.00%

Fifth Syllable Segment:

Segment Stressed and Unstressed Total

Stressed Segment (132):
#s(17), 12.87%
ɔ(12), 9.09%
l(11), 8.33%
#g(8), 6.06%
n(7), k(7), 5.30%
t(6), #₃(6), 4.54%
#p(5), m(5), 3.78%
#n(4), s(4), 3.03%
#b(3), t(3), #d(3), w(3), #h(3), 2.27%
p(2), #l(2), d(2), #ṭ(2), #u(2), #l(2), j(2), kʰ(2), #w(2) 1.51%

(82):
a(12), 14.63%
t(11), 13.41%
u*(9), 10.97%
æ(8), 9.75%
ɔ(6), 7.31%
e(5), 6.90%
l(4), ð(4), a(4), 4.87%
u*(3), 3.65%
o*(2) 2.43%

Unstressed Segment (172):
ɔ(13), 7.55%
f(12), #h(12), 6.97%
l(11), 6.39%
s(10), 5.81%
### Narrow (397):

- t(9), s#(9), g(9), 5.23%
- k(8), 4.65%
- m(5), d#(5), n(5), w(5), 2.90%
- b(4), d#(4), r(4), k#(4), 2.32%
- d(3), n#(3), #s(3), l#(3), 1.74%
- p(2), *m#(2), f#(2), #d(2), *η#(2), Θ(2), j(2) 1.16%

(93):
- a(20), 21.50%
- a(11), 11.82%
- i'(10), 10.75%
- t(8), 8.60%
- u"(6), 6.45%
- u"#(5), o"#(5), 5.37%
- i'#(4), æ(4), 4.30%
- e(3), a(3), 3.22%
- o*(2), a*(2), ε(2), a*(2) 2.15%

### Segment Total (absolute)

<table>
<thead>
<tr>
<th>Character</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>t</td>
<td>9</td>
<td>2.28%</td>
</tr>
<tr>
<td>s</td>
<td>9</td>
<td>2.28%</td>
</tr>
<tr>
<td>g</td>
<td>9</td>
<td>2.28%</td>
</tr>
<tr>
<td>k</td>
<td>8</td>
<td>2.01%</td>
</tr>
<tr>
<td>m</td>
<td>5</td>
<td>1.27%</td>
</tr>
<tr>
<td>d#</td>
<td>4</td>
<td>1.00%</td>
</tr>
<tr>
<td>n#</td>
<td>3</td>
<td>0.76%</td>
</tr>
<tr>
<td>h</td>
<td>2</td>
<td>0.50%</td>
</tr>
<tr>
<td>p</td>
<td>2</td>
<td>0.50%</td>
</tr>
<tr>
<td>l#</td>
<td>2</td>
<td>0.50%</td>
</tr>
<tr>
<td>j</td>
<td>2</td>
<td>0.50%</td>
</tr>
<tr>
<td>t#</td>
<td>2</td>
<td>0.50%</td>
</tr>
<tr>
<td>d</td>
<td>2</td>
<td>0.50%</td>
</tr>
<tr>
<td>n#</td>
<td>2</td>
<td>0.50%</td>
</tr>
<tr>
<td>h</td>
<td>2</td>
<td>0.50%</td>
</tr>
</tbody>
</table>

### Broad (397):

<table>
<thead>
<tr>
<th>Character</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>s</td>
<td>62</td>
<td>15.61%</td>
</tr>
<tr>
<td>l</td>
<td>42</td>
<td>10.57%</td>
</tr>
<tr>
<td>k</td>
<td>39</td>
<td>9.82%</td>
</tr>
<tr>
<td>t</td>
<td>34</td>
<td>8.56%</td>
</tr>
<tr>
<td>n</td>
<td>23</td>
<td>5.79%</td>
</tr>
<tr>
<td>g</td>
<td>22</td>
<td>5.54%</td>
</tr>
</tbody>
</table>

810
m(21), 5.28%
f(19), 4.78%
t(18), 4.53%
p(17), 4.28%
d(12), 3.02%
b(11), w(11), 2.77%
ʤ(7), z(7), 1.76%
f(6), 1.51%
j(5), 1.25%
tf(4), r(4), h(4), 1.00%
Θ(2), ŋ(2) .50%

(207):
u(28), 13.52%
α(27), 13.04%
t(26), 12.56%
ι(24), 11.59%
ə(22), 10.62%
æ(18), 8.69%
e(12), 5.79%
o(11), a(11), 5.31%
ɛ(9), 4.34%
ʌ(8), 3.86%
ɚ(7) 3.38%

604 total segments

**Supra-Segments: Consonant Clusters**

Consonant Cluster Total for Stressed and Unstressed Syllables and Monosyllables according to Syllable Configuration

Monosyllable Consonant Cluster Onset (all entries are word initial) (19):
#sl(8), 42.10%
#bl(2), #spl(2) 10.52%

Monosyllable Consonant Cluster Coda (all entries are word final) (8):
st#(2) 25.00%

**First Syllable Consonant Cluster Stressed Onset (all entries are word initial) (25):**
#pʰl(2), #fl(2), #sp(2), #dɹ(2), #kʰɹ(2), #gɹ(2) 8.00%

**First Syllable Consonant Cluster Stressed Coda:**

First Syllable Consonant Cluster Unstressed Onset (all entries are word initial):
First Syllable Consonant Cluster Unstressed Coda:

**Second Syllable Consonant Cluster Stressed Onset:**

Second Syllable Consonant Cluster Stressed Coda:

Second Syllable Consonant Cluster Unstressed Onset (8):
st(2) 25.00%

Second Syllable Consonant Cluster Unstressed Coda:

**Third Syllable Consonant Cluster Stressed Onset:**

Third Syllable Consonant Cluster Stressed Coda:
Third Syllable Consonant Cluster Unstressed Onset (5):
st(2) 40.00%

Third Syllable Consonant Cluster Unstressed Coda:

**Fourth Syllable Consonant Cluster Stressed Onset:**

Fourth Syllable Consonant Cluster Stressed Coda:
Fourth Syllable Consonant Cluster Unstressed Onset:
Fourth Syllable Consonant Cluster Unstressed Coda:
Fifth Syllable Consonant Cluster Stressed Onset:

Fifth Syllable Consonant Cluster Stressed Coda:

Fifth Syllable Consonant Cluster Unstressed Onset:

Fifth Syllable Consonant Cluster Unstressed Coda:

Consonant Cluster Total for Stressed and Unstressed Onsets and Codas

Stressed Onset (26):

\#pʰ(l(2), #fl(2), #dɹ(2), #sp(2), #kʰu(2), #gɹ(2) 7.69%

Stressed Coda:

Unstressed Onset (17):

st(4), 23.52%

gl(2) 11.76%

Unstressed Coda:

Consonant Cluster Total for Onsets and Codas

Onset (62):

\#sl(9), 14.51%

st(4), 6.45%

\#bl(3), \#sm(3), \#kʰu(3), \#gɹ(3), 4.83%

\#pʰ(l(2), #fl(2), #dɹ(2), #sp(2), #sk(2), #spl(2), gl(2) 3.22%

Coda (11):

st#(3) 27.27%

Consonant Cluster Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllable Consonant Cluster (27):

\#sl(8), 29.62%

\#bl(2), st#(2), \#spl(2) 7.40%

First Syllable Consonant Cluster Stressed (26):

\#pʰ(l(2), #fl(2), #dɹ(2), #sp(2), #kʰu(2), #gɹ(2) 7.69%

First Syllable Consonant Cluster Unstressed:

Second Syllable Consonant Cluster Stressed:

Second Syllable Consonant Cluster Unstressed (8):

st(2) 25.00%

Third Syllable Consonant Cluster Stressed:

Third Syllable Consonant Cluster Unstressed (7):

st(2) 28.57%

Fourth Syllable Consonant Cluster Stressed:

Fourth Syllable Consonant Cluster Unstressed:

Fifth Syllable Consonant Cluster Stressed:

Fifth Syllable Consonant Cluster Unstressed:

Consonant Cluster Total per Syllable

First Syllable Consonant Cluster (29):

\#kʰu(3), \#gɹ(3), 10.34%

\#pʰ(l(2), #fl(2), #dɹ(2), #sp(2), \#sm(2) 6.89%

Second Syllable Consonant Cluster (9):

st(2) 22.22%

Third Syllable Consonant Cluster (7):

st(2) 28.57%

Fourth Syllable Consonant Cluster:
Fifth Syllable Consonant Cluster:

**Consonant Cluster Stressed (27):**
#pʰ(2), #fl(2), #dɻ(2), #sp(2), #kʰɻ(2), #gμ(2) 7.40%

Consonant Cluster Unstressed (19):
st(4), 21.05%
gμ(2), gl(2) 10.52%

**Consonant Cluster Total (absolute)**

Narrow (73):
#sl(9), 12.32%
st(4), 5.47%
#bl(3), st#(3), #sm(3), #kʰμ(3), #gμ(3), 4.10%
#pʰɻ(2), #fl(2), #dɻ(2), #sp(2), #spl(2), #sk(2), #skɻ(2), gμ(2), gl(2) 2.73%

Broad (73):
sl(9), 12.32%
st(8), 10.95%
gμ(5), 6.84%
bl(3), sm(3), kμ(3), gl(3), 4.10%
pl(2), fl(2), dɻ(2), sp(2), spl(2), sk(2), skɻ(2), k(2), ks(2) 2.73%

73 total consonant clusters

**Supra-Segments: Whole Syllables**

Whole Syllable Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllable Whole Syllable:

**First Syllable Whole Syllable Stressed (all entries are word initial) (67):**
#sæ(2) 2.98%

First Syllable Whole Syllable Unstressed (all entries are word initial) (15):
#sə(2) 13.33%

**Second Syllable Whole Syllable Stressed:**
Second Syllable Whole Syllable Unstressed (71):
ɾə#(2), la(2), #ə(2), fə#(2) 2.81%

**Third Syllable Whole Syllable Stressed:**
Third Syllable Whole Syllable Unstressed:

**Fourth Syllable Whole Syllable Stressed:**
Fourth Syllable Whole Syllable Unstressed:

**Fifth Syllable Whole Syllable Stressed:**
Fifth Syllable Whole Syllable Unstressed:

**Whole Syllable Total per Syllable**

First Syllable Whole Syllable (all entries are word initial) (82):
#uʷ(2), #sə(2), #sæ(2) 2.43%

Second Syllable Whole Syllable (82):
ɾə#(2), la(2), #ə(2), fə#(2) 2.43%

Third Syllable Whole Syllable:

Fourth Syllable Whole Syllable:

Fifth Syllable Whole Syllable:
Whole Syllable Stressed and Unstressed Total

Whole Syllable Stressed (82):
#sæ(2) 2.43%

Whole Syllable Unstressed (113):
ni(2), fʃ#(2), rʒ#(2), #sæ(2), la(2), ɾ#(2), kʃ#(2), fa#(2) 1.76%

Whole Syllable Total (absolute)

Narrow (227):
ni(2), #u"(2), fʃ#(2), rʒ#(2), #sæ(2), la(2), ɾ#(2), kʃ#(2), fa#(2), #sæ(2) .88%

Broad (227):
u(3), la(3), 1.32%
dʒ(2), ni(2), gɹ#(2), ɹʃ(2), sə(2) ba(2), rʒ(2), sa(2), la(2), ɾ#(2), kʃ#(2), fa#(2), skɹʌm(2), sæ(2), la(2), na(2) .88%

227 total whole syllables

Supra-Segments: Whole Words

<table>
<thead>
<tr>
<th>Word Length Total</th>
<th>Syllable</th>
<th>Receiving</th>
<th>Stress</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>None</td>
<td>First</td>
<td>Second</td>
</tr>
<tr>
<td>Monosyllabic: 28.07%</td>
<td>0</td>
<td>92.98%</td>
<td>7.01%</td>
</tr>
<tr>
<td>Bisyllabic: 50.00%</td>
<td>0</td>
<td>68.42%</td>
<td>26.31%</td>
</tr>
<tr>
<td>Trisyllabic: 16.66%</td>
<td>0</td>
<td>16.66%</td>
<td>33.33%</td>
</tr>
<tr>
<td>Tetrasyllabic: 5.26%</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Pentasyllabic: 0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Stressed Syllable Total:</td>
<td>81.70%</td>
<td>13.41%</td>
<td>4.87%</td>
</tr>
</tbody>
</table>

Table Key: The “Word Length Total” column figure represents the percentage of words that is of that word length. For the cells inside the “Syllable Receiving Stress” columns, the amount on top indicates what percentage of a particular word length was stressed on that syllable. The number on the bottom indicates, for all the words that received stress on a particular syllable, what percentage of these words were of a particular word length. The “Stressed Syllable Total” row indicates what percentage of words was stressed on a particular syllable. Note that monosyllables were not analyzed as receiving stress and the “None” cell in the “Stressed Syllable Total” row is inapplicable.

For all 114 whole words there are no repeated words.
Segmental and Supra-Segmental Frequency Data Sheet

Question ID: U. an unexpected cool breeze on a sultry day

**Segments**

Segment Total for Stressed and Unstressed Syllables and Monosyllables according to Syllable Configuration

### Monosyllable Onset (42):
- #s(6), l(6), 14.28%
- w(5), 11.90%
- #b(4), #f(4), 9.52%
- s(3), 7.14%
- #z(2), k(2), #w(2), 4.76%

### Monosyllable Nucleus (27):
- uʷ(6), t(6), 22.22%
- i(3), 11.11%
- #uʷ(2), o*(2), a(2), α(2), 7.40%

### Monosyllable Coda (29):
- f(8), 27.58%
- s(4), 13.79%
- m(3), t(3), 10.34%
- p(2), m(2), f(2), v(2), 6.89%

### First Syllable Segment Stressed Onset (71):
- #w(12), 16.90%
- #s(10), 14.08%
- #l(7), 9.85%
- #kʰ(6), 8.45%
- s(5), 7.04%
- #f(4), l(4), 5.63%
- #v(3), #tʰ(3), #g(3), 4.22%
- #pʰ(2), 2.81%

### First Syllable Segment Stressed Nucleus (63):
- uʷ(11), 17.46%
- t(9), α(9), 14.28%
- i(8), 12.69%
- a(5), 7.93%
- e(4), 6.34%
- α(3), 4.76%
- u(2), e(2), a(2), 3.17%

### First Syllable Segment Stressed Coda (17):
- n(3), s(3), 17.64%
- p(2), m(2), f(2), s(2), k(2), 11.76%

### First Syllable Segment Unstressed Onset (25):
- #k(3), #h(3), 12.00%
- #b(2), #m(2), #f(2), l(2), #kʰ(2), 8.00%

### First Syllable Segment Unstressed Nucleus (25):
- a(7), 28.00%
- a(4), 16.00%
- o*(2), e(2), 8.00%

### First Syllable Segment Unstressed Coda:

### Second Syllable Segment Stressed Onset (20):
- l(4), 20.00%
- tʰ(3), 15.00%
Second Syllable Segment Stressed Nucleus (20):
\(a(4), 20.00\%\)
\(ae(3), 15.00\%\)
\(i(2), a^*(2), t(2), \epsilon(2), \epsilon(2) 10.00\%\)

Second Syllable Segment Stressed Coda (8):
\(n(3) 37.50\%\)

Second Syllable Segment Unstressed Onset (69):
\(t(9), 13.04\%\)
\(l(6), 8.69\%\)
\(v(5), z(5), 7.24\%\)
\(r(4), 5.79\%\)
\(p(3), m(3), f(3), n(3), s(3), k(3), 4.34\%\)
\(b(2), tf(2), g(2), w(2) 2.89\%\)

Second Syllable Segment Unstressed Nucleus (67):
\(i^l(8), i(8), 11.94\%\)
\(a(7), 10.44\%\)
\(l^i(5), \eta#(5), 7.46\%\)
\(a#(4), a(4), \eta#(4), 5.97\%\)
\(\epsilon(3), \epsilon(3), 4.47\%\)
\(u^a(2), a#(2), \epsilon(2), a^l(2), a(2) 2.98\%\)

Second Syllable Segment Unstressed Coda (17):
\(n#(5), 29.41\%\)
\(f(3), 17.64\%\)
\(\mu(2), k#(2) 11.76\%\)

Third Syllable Segment Stressed Onset:
Third Syllable Segment Stressed Nucleus:
Third Syllable Segment Stressed Coda:

Third Syllable Segment Unstressed Onset (31):
\(l(8), 25.80\%\)
\(p^l(3), f(3), s(3), l(3), 9.67\%\)
\(w(2) 6.45\%\)

Third Syllable Segment Unstressed Nucleus (28):
\(l^l(4), l^l(4), l(4), 14.28\%\)
\(a#(3), \epsilon(3), 10.71\%\)
\(a(2), a#(2), a#(2) 7.14\%\)

Third Syllable Segment Unstressed Coda (12):
\(f#(2), \mu#(2) 16.66\%\)

Fourth Syllable Segment Stressed Onset:
Fourth Syllable Segment Stressed Nucleus:
Fourth Syllable Segment Stressed Coda:

Fourth Syllable Segment Unstressed Onset:

Fourth Syllable Segment Unstressed Nucleus (6):
\(a(3) 50.00\%\)

Fourth Syllable Segment Unstressed Coda (4):
\(s(2) 50.00\%\)

Fifth Syllable Segment Stressed Onset:
Fifth Syllable Segment Stressed Nucleus:
Fifth Syllable Segment Stressed Coda:
Fifth Syllable Segment Unstressed Onset:
Fifth Syllable Segment Unstressed Nucleus:
Fifth Syllable Segment Unstressed Coda:
### Segment Total for Stressed and Unstressed Onsets and Codas

**Stressed Onset (93):**

- #w(12), 12.90%
- #s(10), 10.75%
- l(9), 9.67%
- #l(7), 7.52%
- #kʰ(6), 6.45%
- j(5), 5.37%
- #f(4), 4.30%
- #v(3), #tʰ(3), d(3), n(3), #g(3), 3.22%
- #pʰ(2), f(2), j(2), w(2) 2.15%

**Stressed Coda (27):**

- s(4), 14.81%
- n(3), n(#) (3), t(3), 11.11%
- p(2), m(2), f(2), s(#) (2) 7.40%

**Unstressed Onset (133):**

- j(15), 11.27%
- l(11), 8.27%
- t(10), 7.51%
- f(6), v(6), r(6), (6), z(6), 4.51%
- m(5), n(5), k(5), w(5), 3.75%
- p(3), pʰ(3), j(3), #k(3), #h(3), 2.25%
- #b(2), b(2), #m(2), #f(2), tʰ(2), j#(2), Ω(2), z(2), j(2), #kʰ(2), g(2), h(2) 1.50%

**Unstressed Coda (37):**

- n#(6), 16.21%
- f#(5), 13.51%
- j#(4), n#(4), 10.81%
- s#(3), k#(3), 8.10%
- z#(2), j#(2) 5.40%

**Segment Total for Onsets and Codas**

- l(26), 9.73%
- j(23), 8.61%
- #s(16), 5.99%
- #w(15), 5.61%
- w(12), 4.49%
- t(11), 4.11%
- #f(10), 3.74%
- f(8), n(8), #l(8), #kʰ(8), 2.99%
- v(7), z(7), k(7), 2.62%
- #b(6), m(6), r(6), s(6), 2.24%
- p(5), #tʰ(5), tʰ(5), 1.87%
- #m(4), d(4), f(4), j(4), #h(4), 1.49%
- #pʰ(3), pʰ(3), #v(3), #j(3), #k(3), #g(3), g(3), 1.12%
- b(2), #t(2), j#(2), Ω(2), #z(2), z(2), h(2) .74%

**Coda (93):**

- f#(13), 13.97%
- n#(9), s#(9), 9.67%
- m(5), s(5), j(5), 5.37%
- n(4), j#(4), h(4), f#(4), n#(4), 4.30%
- p#(3), m#(3), k#(3), 3.22%
- p(2), f(2), f#(2), w#(2), t#(2), d#(2), z#(2), k#(2) 2.15%
Monosyllable Segment (71):

<table>
<thead>
<tr>
<th>Segment</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>f #(8)</td>
<td></td>
<td>11.26%</td>
</tr>
<tr>
<td>s(6), l (6)</td>
<td></td>
<td>8.45%</td>
</tr>
<tr>
<td>w(5)</td>
<td></td>
<td>7.04%</td>
</tr>
<tr>
<td>#b(4), #f(4), s#(4)</td>
<td></td>
<td>5.63%</td>
</tr>
<tr>
<td>m#(3), #l(3), f#(3), k(3)</td>
<td></td>
<td>4.22%</td>
</tr>
<tr>
<td>p#(2), m(2), f#(2), v#(2), #z(2), #w(2)</td>
<td></td>
<td>2.81%</td>
</tr>
</tbody>
</table>

(27):

<table>
<thead>
<tr>
<th>Segment</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>u&quot;(6), t(6)</td>
<td></td>
<td>22.22%</td>
</tr>
<tr>
<td>i&quot;(3)</td>
<td></td>
<td>11.11%</td>
</tr>
<tr>
<td>u&quot;(2), o&quot;(2), a&quot;(2)</td>
<td></td>
<td>7.40%</td>
</tr>
</tbody>
</table>

First Syllable Segment Stressed (88):

<table>
<thead>
<tr>
<th>Segment</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>#w(12)</td>
<td></td>
<td>13.63%</td>
</tr>
<tr>
<td>#s(10)</td>
<td></td>
<td>11.36%</td>
</tr>
<tr>
<td>j(7), #l(7)</td>
<td></td>
<td>7.95%</td>
</tr>
<tr>
<td>#kʰ(6)</td>
<td></td>
<td>6.81%</td>
</tr>
<tr>
<td>#f(4), n(4), l(4)</td>
<td></td>
<td>4.54%</td>
</tr>
<tr>
<td>p(3), #v(3), #tʰ(3), s(3), #g(3)</td>
<td></td>
<td>3.40%</td>
</tr>
<tr>
<td>#pʰ(2), m(2), f(2), l(2)</td>
<td></td>
<td>2.27%</td>
</tr>
</tbody>
</table>

(63):

<table>
<thead>
<tr>
<th>Segment</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>u&quot;(11)</td>
<td></td>
<td>17.46%</td>
</tr>
<tr>
<td>t(9), æ(9)</td>
<td></td>
<td>14.28%</td>
</tr>
<tr>
<td>i&quot;(8)</td>
<td></td>
<td>12.69%</td>
</tr>
<tr>
<td>θ(5)</td>
<td></td>
<td>7.93%</td>
</tr>
<tr>
<td>e&quot;(4)</td>
<td></td>
<td>6.34%</td>
</tr>
<tr>
<td>æ(3)</td>
<td></td>
<td>4.76%</td>
</tr>
<tr>
<td>u(2), ε(2), a&quot;(2)</td>
<td></td>
<td>3.17%</td>
</tr>
</tbody>
</table>

First Syllable Segment Unstressed (29):

<table>
<thead>
<tr>
<th>Segment</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>#k(3), #h(3)</td>
<td></td>
<td>10.34%</td>
</tr>
<tr>
<td>#b(2), #m(2), #f(2), j(2), l(2), #kʰ(2)</td>
<td></td>
<td>6.89%</td>
</tr>
</tbody>
</table>

(24):

<table>
<thead>
<tr>
<th>Segment</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>a(7)</td>
<td></td>
<td>29.16%</td>
</tr>
<tr>
<td>a(4)</td>
<td></td>
<td>16.66%</td>
</tr>
<tr>
<td>o&quot;(2), ε(2)</td>
<td></td>
<td>8.33%</td>
</tr>
</tbody>
</table>

Second Syllable Segment Stressed (28):

<table>
<thead>
<tr>
<th>Segment</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>l(4)</td>
<td></td>
<td>14.28%</td>
</tr>
<tr>
<td>tʰ(3), n#(3)</td>
<td></td>
<td>10.71%</td>
</tr>
<tr>
<td>f(2), d(2), n(2), j(2)</td>
<td></td>
<td>7.14%</td>
</tr>
</tbody>
</table>

(20):

<table>
<thead>
<tr>
<th>Segment</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>a(4)</td>
<td></td>
<td>20.00%</td>
</tr>
<tr>
<td>æ(3)</td>
<td></td>
<td>15.00%</td>
</tr>
<tr>
<td>i&quot;(2), u&quot;(2), t(2), ε(2), œ(2)</td>
<td></td>
<td>10.00%</td>
</tr>
</tbody>
</table>

Second Syllable Segment Unstressed (99):

<table>
<thead>
<tr>
<th>Segment</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>t(9)</td>
<td></td>
<td>9.09%</td>
</tr>
<tr>
<td>j(6), l(6)</td>
<td></td>
<td>6.06%</td>
</tr>
<tr>
<td>v(5), n#(5), *η(5), z(5)</td>
<td></td>
<td>5.05%</td>
</tr>
<tr>
<td>r(4), s(4), ñ(4), #ñ(4)</td>
<td></td>
<td>4.04%</td>
</tr>
<tr>
<td>p(3), m(3), f(3), n(3), *n(3), f#(3), k(3)</td>
<td></td>
<td>3.03%</td>
</tr>
<tr>
<td>b(2), t#(2), g(2), j#(2), k#(2), g(2), w(2)</td>
<td></td>
<td>2.02%</td>
</tr>
</tbody>
</table>

(54):
First Syllable Segment (117):
#w(13), 11.11%
#s(10), 8.54%
ʃ(9), 7.69%
#l(8), #kʰ(8), 6.83%
#f(6), l(6), 5.12%
#n(5), 4.27%
#tʰ(4), #h(4), 3.41%
p(3), #m(3), m(3), #v(3), s(3), #k(3), g(3), 2.56%
#pʰ(2), #b(2), f(2), #j(2), t(2), w(2) 1.70%

(87):
u*(12), 13.79%
i(9), ι(9), æ(9), α(9), 10.34%
a(7), 8.04%
e(4), 4.59%
λ(3), 3.44%
#s(2), u(2), o*(2), ε(2), ε(2), γ(2), a(2), #a(2) 2.29%

Second Syllable Segment (127):
l(10), 7.87%
t(9), 7.08%
#n(8), 6.29%
ʃ(7), 5.51%
v(6), z(6), 4.72%
f(5), n(5), *η#(5), 3.93%
m(4), tʰ(4), r(4), s(4), #h(4), k(4), 3.14%
p(3), d(3), *η(3), f(3), #j(3), g(3), w(3), 2.36%
b(2), tf(2), z(2), j#(2), k#(2) 1.57%

Segment Total by Syllable

Third Syllable Segment Stressed:

Third Syllable Segment Unstressed (43):
ʃ(9), 20.93%
pʰ(3), f(3), s(3), l(3), 6.97%
f(2), j#(2), w(2) 4.65%

(28):
i(#4), i#, 14.28%
ə#(3), ə(3), 10.71%
a(2), ə#(2), a#(2) 7.14%

Fourth Syllable Segment Stressed:

Fourth Syllable Segment Unstressed (9):
s#(2) 22.22%

(6):
a(3) 50.00%

Fifth Syllable Segment Stressed:

Fifth Syllable Segment Unstressed:
(74):
a(11), 14.86%
t(10), 13.51%
i#(8), 10.81%
i(7), 9.45%
æ(5), 6.75%
æ#(4), æ(4), 5.40%
æ(3), 4.05%
u"#(2), u"(2), æ#(2), ë(2), œ(2), æ(2), æ#(2), æ(2) 2.70%

Third syllable Segment (47):
æ(9), 19.14%
s(4), l(4), 8.51%
p(3), f(3), 6.38%
s#(2), j#(2), œ#(2), w(2) 4.25%

(32):
i#(5), t(5), 15.62%
i(4), 12.50%
æ#(3), ç(3), 9.37%
a(2), æ#(2), æ(2) 6.25%

Fourth Syllable Segment (9):
s#(2) 22.22%

(6):
a(3) 50.00%

Fifth Syllable Segment:

<table>
<thead>
<tr>
<th>Segment Stressed and Unstressed Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stressed Segment (120):</td>
</tr>
<tr>
<td>#w(12), 10.00%</td>
</tr>
<tr>
<td>#s(10), 8.33%</td>
</tr>
<tr>
<td>l(8), 6.66%</td>
</tr>
<tr>
<td>æ(8), 5.83%</td>
</tr>
<tr>
<td>n(6), #k(#(6), 5.00%</td>
</tr>
<tr>
<td>#f(4), f(4), s(4), 3.33%</td>
</tr>
<tr>
<td>p(3), m(3), #v(3), #t(#(3), t(#(3), d(3), n#(4), h#(#(3), #g(4), 2.50%</td>
</tr>
<tr>
<td>#p(#(2), s#(2), z(2), j(2), w(2) 1.66%</td>
</tr>
</tbody>
</table>

(87):
u"(#(3), 14.94%
æ(#(12), æ(12), 13.79%
i(#(10), 11.49%
a(#(9), 10.34%
æ(#(5), æ(5), 5.74%
æ(#(3), æ(#(3), 3.44%
œ(#(2) 2.29%

Unstressed Segment (184):
æ(#(17), 9.23%
l(#(11), 5.97%
t(#(10), 5.43%
s(#(7), 3.80%
m(6), f(6), v(6), n(6), n#(6), r(6), x(6), 3.26%
*µ#(5), f#(#(5), k(#(5), w(#(5), 2.71%
æ#(#(4), ñ#(#(4), ñ#(#(4), 2.17%
p(3), p*(3), *η(3), s#(3), j(3), #k(3), k#(3), #h(3), 1.63%  
#p(2), b(2), #b(2), #m(2), #f(2), tʰ(2), tf(2), Θ(2), z#(2), ỹ(2), f(2), #kʰ(2), g(2), h(2) 1.08%  

(114):  
a(16), 14.03%  
t(14), 12.28%  
i'#(13), 11.40%  
a(11), 9.64%  
i'(10), 8.77%  
æ(7), 6.14%  
æ(4), æ#(4), æ(4), a#(4), 3.50%  
a¹#(3), a'(3), 2.63%  
u"#(2), u*(2), o*(2), e(2), æ(2) 1.75%  

Segment Total (absolute)  
Narrow (375):  
ʃ(28), 7.46%  
l(26), 6.93%  
#s(16), 4.26%  
#w(15), 4.00%  
f#(13), 3.46%  
n(12), w(12), 3.20%  
m(11), t(11), s(11), 2.93%  
#f(10), f(10), 2.66%  
n(9), s#(9), k(9), 2.40%  
z(8), #l(8), #kʰ(8), 2.13%  
p(7), v(7), 1.86%  
#b(6), r(6), 1.60%  
#tʰ(5), tʰ(5), -η#(5), 1.33%  
#m(4), d(4), j(4), 1.06%  
p#(3), p*(3), m#(3), #v(3), *η(3), #u(3), #k(3), k#(3), #g(3), g(3), .80%  
#p(2), b(2), #f(2), v#(2), tʰ(2), #r(2), d#(2), tf(2), Θ(2), #z(2), z#(2), g(2), h(2) .53%  

(228):  
t(32), 14.03%  
i'(23), 10.08%  
a(22), 9.64%  
u"(21), 9.21%  
a(16), 7.01%  
i'#(14), æ(14), 6.14%  
ε(8), a¹(8), 3.50%  
æ(7), æ(7), 3.07%  
e¹(6), 2.63%  
o*(5), 2.19%  
æ(4), æ#(4), a#(4), 1.75%  
u"#(3), u(3), æ(3), a¹#(3), 1.31%  
#u*(2), #t(2), o*(2), #a(2) .87%  

Broad (375):  
s(36), 9.60%  
ʃ(35), 9.33%  
l(34), 9.06%  
n(29), 7.73%  
w(28), 7.46%  
t(26), 6.93%  
f(23), k(23), 6.13%  
m(19), 5.06%  
p(18), 4.80%  

821
\(f(17), \ 4.53\% \\
h(13), \ 3.46\% \\
v(12), z(12), \ 3.20\% \\
b(8), \ 2.13\% \\
d(6), r(6), q(6), h(6), \ 1.60\% \\
j(5), \ 1.33\% \\
\eta(4), \ 1.06\% \\
tj(3), \ .80\% \\
\Theta(2), \ z(2) \ .53\% \\

(228): \\
i(38), \ 16.66\% \\
t(34), \ 14.91\% \\
u(28), o(28), \ 12.28\% \\
a(24), \ 10.52\% \\
a(15), \ 6.57\% \\
\ae(14), \ 6.14\% \\
o(11), \ 4.82\% \\
e(9), \ 3.94\% \\
\ae(8), \ 3.50\% \\
\nu(7), \ 3.07\% \\
e(6), \ 2.63\% \\
u(3), \ \lambda(3) \ 1.31\% \\

603 total segments

**Supra-Segments: Consonant Clusters**

Consonant Cluster Total for Stressed and Unstressed Syllables and Monosyllables according to Syllable Configuration

Monosyllable Consonant Cluster Onset (all entries are word initial) (16):

#fl(3), #sw(3), 18.75\%

#sk(2) 12.50\%

Monosyllable Consonant Cluster Coda (all entries are word final):

**First Syllable Consonant Cluster Stressed Onset (all entries are word initial):**

First Syllable Consonant Cluster Stressed Coda:

First Syllable Consonant Cluster Unstressed Onset (all entries are word initial) (4):

#bl(2) 50.00\%

First Syllable Consonant Cluster Unstressed Coda:

Second Syllable Consonant Cluster Stressed Onset:

Second Syllable Consonant Cluster Stressed Coda:

Second Syllable Consonant Cluster Unstressed Onset (4):

\(t(2) \ 50.00\%

Second Syllable Consonant Cluster Unstressed Coda:

**Third Syllable Consonant Cluster Stressed Onset:**

Third Syllable Consonant Cluster Stressed Coda:

Third Syllable Consonant Cluster Unstressed Onset (3):

\(p^3u(2) \ 66.66\%

Third Syllable Consonant Cluster Unstressed Coda:

**Fourth Syllable Consonant Cluster Stressed Onset:**

Fourth Syllable Consonant Cluster Stressed Coda:

Fourth Syllable Consonant Cluster Unstressed Onset:

Fourth Syllable Consonant Cluster Unstressed Coda:

**Fifth Syllable Consonant Cluster Stressed Onset:**
**Fifth Syllable Consonant Cluster Stressed Coda:**

Fifth Syllable Consonant Cluster Unstressed Onset:
Fifth Syllable Consonant Cluster Unstressed Coda:

Consonant Cluster Total for Stressed and Unstressed Onsets and Codas

**Stressed Onset:**

**Stressed Coda:**

Unstressed Onset (10):
pʰ(2), #bl(2), tɹ(2) 20.00%

Unstressed Coda:

Consonant Cluster Total for Onsets and Codas

Onset (39):
#fl(4), #sw(4), 10.25%
#bl(3), 7.69%
pʰ(2), #fɹ(2), tɹ(2), #sk(2) 5.12%

Coda:

Consonant Cluster Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllable Consonant Cluster (20):
#fl(3), #sw(3), 15.00%
#sk(2) 10.00%

**First Syllable Consonant Cluster Stressed:**

First Syllable Consonant Cluster Unstressed (4):
#bl(2) 50.00%

**Second Syllable Consonant Cluster Stressed:**

Second Syllable Consonant Cluster Unstressed (6):
tɹ(2) 33.33%

**Third Syllable Consonant Cluster Stressed:**

Third Syllable Consonant Cluster Unstressed (4):
pʰ(2) 50.00%

**Fourth Syllable Consonant Cluster Stressed:**

Fourth Syllable Consonant Cluster Unstressed:

**Fifth Syllable Consonant Cluster Stressed:**

Fifth Syllable Consonant Cluster Unstressed:

Consonant Cluster Total per Syllable

First Syllable Consonant Cluster (15):
#bl(2) 13.33%

Second Syllable Consonant Cluster (8):
tɹ(2) 25.00%

Third Syllable Consonant Cluster (4):
pʰ(2) 50.00%

Fourth Syllable Consonant Cluster:

Fifth Syllable Consonant Cluster:

Consonant Cluster Stressed and Unstressed Total

**Consonant Cluster Stressed:**

823
Consonant Cluster Unstressed (15):
pʰ(2), #bl(2), tɾ(2) 13.33%

Consonant Cluster Total (absolute)

Narrow (48):
#fl(4), #sw(4), 8.33%
#bl(3), 6.25%
pʰ(2), #f(2), tɾ(2), #sk(2) 4.16%

Broad (48):
fl(4), sw(4), 8.33%
pʰ(3), bl(3), tɾ(3), kl(3), 6.25%
f(2), sk(2) 4.16%

48 total consonant clusters

Supra-Segments: Whole Syllables

Whole Syllable Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllable Whole Syllable:

First Syllable Whole Syllable Stressed (all entries are word initial) (62):
#wuʿ(4), 6.45%
#w(3), 4.83%
#sl(2), #wa(2) 3.22%

First Syllable Whole Syllable Unstressed (all entries are word initial) (25):
#ka(4) 16.00%

Second Syllable Whole Syllable Stressed:

Second Syllable Whole Syllable Unstressed (66):
ziɿ(2), pʰ(2), tɾ(2) 3.03%

Third Syllable Whole Syllable Stressed:

Third Syllable Whole Syllable Unstressed (28):
pʰɨ(2) 7.14%

Fourth Syllable Whole Syllable Stressed:

Fourth Syllable Whole Syllable Unstressed (6):
əs(2) 33.33%

Fifth Syllable Whole Syllable Stressed:

Fifth Syllable Whole Syllable Unstressed:

Whole Syllable Total per Syllable

First Syllable Whole Syllable (all entries are word initial) (87):
#wuʿ(4), #ka(4), 4.59%
#w(3), #wa(3), 3.44%
#sl(2), #te(2) 2.29%

Second Syllable Whole Syllable (87):
ziɿ(2), tɾ(2) 2.29%

Third Syllable Whole Syllable (32):
pʰɨɿ(2) 6.25%

Fourth Syllable Whole Syllable (6):
əs(2) 33.33%
Fifth Syllable Whole Syllable:

Whole Syllable Stressed (87):
#wu"(4), 4.59%
#wt(3), 3.44%
#si'(2), #wa(2) 2.29%

Whole Syllable Unstressed (127):
#ka(4), 3.14%
p*jl#(2), vi'(2), zl#(2), ji'(2), as#(2), p+j#(2), t*η#(2), ha#(2) 1.57%

Whole Syllable Total (absolute)
Narrow (241):
#wu"(4), #ka(4), 1.65%
#si'(3), #wt(3), #wa(3), 1.24%
p*jl#(2), vi'(2), zl#(2), ji'(2), le'(2), as#(2), p+j#(2), t*η#(2), #fe(2), ha#(2) .82%

Broad (241):
#i(4), #wu(4), #wa(4), 1.65%
#vi(3), si(3), le(3), wt(3), 1.24%
p+j(2), zl(2), li(2), o(2), as(2), p+j(2), na(2), la(2), sə(#2), #me(2), #mæ(2), a(2) ma(2), la(2), hol(2) .82%

241 total whole syllables

Supra-Segments: Whole Words

<table>
<thead>
<tr>
<th>Word Length Total</th>
<th>Syllable Receiving Stress</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>First</td>
<td>Second</td>
<td>Third</td>
<td>Fourth</td>
</tr>
</tbody>
</table>

Table Key: The “Word Length Total” column figure represents the percentage of words that is of that word length. For the cells inside the “Syllable Receiving Stress” columns, the amount on top indicates what percentage of a particular word length was stressed on that syllable. The number on the bottom indicates, for all the words that received stress on a particular syllable, what percentage of these words were of a particular word length. The “Stressed Syllable Total” row indicates what percentage of words was stressed on a particular syllable. Note that monosyllables were not analyzed as receiving stress and the “None” cell in the “Stressed Syllable Total” row is inapplicable.

For all 114 whole words there are no repeated words.

825
Segmental and Supra-Segmental Frequency Data Sheet

Question ID: V. the feeling experienced by a death-row inmate after being pardoned or exonerated

Segments

Segment Total for Stressed and Unstressed Syllables and Monosyllables according to Syllable Configuration

Monosyllable Onset (18):
- #w(5), 27.77%
- #f(2), #g(2) 11.11%

Monosyllable Nucleus (17):
- i³(3), α(3), 17.64%
- τ(2) 11.76%

Monosyllable Coda (25):
- m#(3), t#(3), 12.00%
- f#(2), s#(2), h#(2) 8.00%

First Syllable Segment Stressed Onset (68):
- #v(7), 10.29%
- l(6), #g(6), 8.82%
- #w(4), 5.88%
- #p³(3), p(3), b(3), m(3), #f(3), #t³(3), #s(3), #j(3), #k³(3), 4.41%
- #v(2), #d(2), #n(2), #z(2), #u(2), #l(2), #h(2) 2.94%

First Syllable Segment Stressed Nucleus (63):
- τ(14), 22.22%
- æ(11), 17.46%
- α(10), 15.87%
- #a(7), 11.11%
- i³(6), 9.52%
- a"³(3), 4.76%
- ε(2), #æ(2) 3.17%

First Syllable Segment Stressed Coda (25):
- n(8), 32.00%
- t(4), k(4), 16.00%
- m(2), s(2), #l(2) 8.00%

First Syllable Segment Unstressed Onset (26):
- #f(3), #k(3), 11.53%
- #p³(2), #d(2), #ds(2), #j(2), l(2) 7.69%

First Syllable Segment Unstressed Nucleus (34):
- a(6), 17.64%
- æ(5), 14.70%
- t(3), #e(3), 8.82%
- i³(2), æ(2), #α(2) 5.88%

First Syllable Segment Unstressed Coda (12):
- k(4), 33.33%
- m(2), s(2) 16.66%

Second Syllable Segment Stressed Onset (38):
- s(6), 15.78%
- t(4), l(4), 10.52%
- b(3), n(3), 7.89%
- p³(2), z(2), #j(2), #k³(2), g(2) 5.26%

Second Syllable Segment Stressed Nucleus (28):
- æ(8), 28.57%
- ε(5), 17.85%
u*(3), i(3), 10.71%
ɔ(2) 7.14%

**Second Syllable Segment Stressed Coda (18):**
n#(2), n(2), j(2), f(2), l#(2) 11.11%

Second Syllable Segment Unstressed Onset (77):
s(13), 16.88%
f(7), t(7), l(7), 9.09%
b(6), 7.79%
n(5), l(5), 6.49%
w(4), 5.19%
m(3), d(3), k(3), g(3), 3.89%
p(2), r(2), z(2) 2.59%

Second Syllable Segment Unstressed Nucleus (69):
a(13), 18.84%
ɔ(#(9), 13.04%
i(#(7), 7.79%
+η(5), 7.24%
+η(4), 5.79%
+i(3), 4.34%
i(2), o*(#(2), a(#(2) 2.89%

Second Syllable Segment Unstressed Coda (22):
d#(5), 22.72%
s#(4), 18.18%
n#(3), 13.63%
t#(2), n(2), j#(2) 9.09%

**Third Syllable Segment Stressed Onset (7):**
f(2) 28.57%

**Third Syllable Segment Stressed Nucleus (6):**
i(2) 33.33%

**Third Syllable Segment Stressed Coda:**

Third Syllable Segment Unstressed Onset (41):
t(8), 19.51%
ɔ(6), 14.63%
m(4), s(4), 9.75%
n(3), g(3), 7.31%
b(2), f(2) 4.87%

Third Syllable Segment Unstressed Nucleus (40):
t(8), 20.00%
a(5), 12.50%
+η(4), 10.00%
i(#(2), e*(#(2), j#(2) 5.00%

Third Syllable Segment Unstressed Coda (18):
s#(4), 22.22%
t#(3), 16.66%
k#(2) 11.11%

**Fourth Syllable Segment Stressed Onset:**

**Fourth Syllable Segment Stressed Nucleus (2):**
e(#(2) 100%

**Fourth Syllable Segment Stressed Coda:**
Fourth Syllable Segment Unstressed Onset (9):
m(2), f(2), ñ(2) 22.22%

Fourth Syllable Segment Unstressed Nucleus (10):
a(3), 30.00%
a(2) 20.00%

Fourth Syllable Segment Unstressed Coda (7):
s#(3) 42.85%

Fifth Syllable Segment Stressed Onset:

Fifth Syllable Segment Stressed Nucleus:

Fifth Syllable Segment Stressed Coda:

Fifth Syllable Segment Unstressed Onset (2):
ʃ(2) 100%

Fifth Syllable Segment Unstressed Nucleus (2):
ən#(2) 100%

Fifth Syllable Segment Unstressed Coda:

Segment Total for Stressed and Unstressed Onsets and Codas

Stressed Onset (114):
l(12), 10.52%
l(10), 8.77%
#g(6), s(6), 5.26%
n(5), 4.38%
p(4), t(4), #w(4), 3.50%
#pʰ(3), b(3), #b(3), #m(3), #f(3), f(3), #tʰ(3), #s(3), #j(3), kʰ(3), kʰ(3), 2.63%
pʰ(2), #v(2), #d(2), #n(2), #z(2), #s(2), #l(2), j(2), g(2), w(2), #h(2) 1.75%

Stressed Coda (45):
n(10), 22.22%
l(6), 13.33%
k(5), 11.11%
f(4), 8.88%
m(3), #h(3), 6.66%
#n#(2), s(2), ñ(2) 4.44%

Unstressed Onset (155):
s(17), 10.96%
t(16), 10.32%
l(14), 9.03%
l(11), 7.09%
m(9), 5.80%
b(8), f(8), n(8), 5.16%
j(7), g(7), 4.51%
w(5), 3.22%
d(4), 2.58%
p(3), #f(3), #k(3), k(3), 1.93%
#pʰ(2), #d(2), #g(2), d(2), r(2), θ(2), z(2), #j(2), j(2) 1.29%

Unstressed Coda (59):
s#(17), 18.64%
t#(7), 11.86%
d#(6), 10.16%
n#(5), k(5), 8.47%
n(3), 5.08%
m(2), n(2), s(2), f#(2), ñ(2), k#(2) 3.38%

Segment Total for Onsets and Codas
Onset (287):
\( \mu(26), 9.05\% \)
\( s(23), l(23), 8.01\% \)
\( t(20), 6.96\% \)
\( n(13), 4.52\% \)
\( b(11), f(11), 3.83\% \)
\( m(10), #w(10), 3.48\% \)
\( g(9), 3.13\% \)
\( #f(8), #g(8), 2.78\% \)
\( p(7), j(7), w(7), 2.43\% \)
\( #p^h(5), d(5), 1.74\% \)
\( #b(4), #m(4), #t^h(4), #d(4), #s(4), #z(4), z(4), #\mu(4), #j(4), j(4), #k^h(4), 1.39\% \)
\( #v(3), #d(3), #k(3), k(3), k^h(3), #h(3), 1.04\% \)
\( p^h(2), d(2), #n(2), r(2), #l(2), #f(2), #l(2), .69\% \)

Coda (129):
\( s#(14), 10.85\% \)
\( n(12), 9.30\% \)
\( t#(11), k(11), 8.52\% \)
\( l(9), 6.97\% \)
\( n#(7), 5.42\% \)
\( m(6), d#(6), l(6), 4.65\% \)
\( j(5), j(5), 3.87\% \)
\( s(4), 3.10\% \)
\( m#(3), f#(3), n(3), f#(3), k#(3), 2.32\% \)
\( p(2), f(2), z#(2), h#(2), 1.55\% \)

Segment Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllable Segment (43):
\( #w(5), 11.62\% \)
\( m#(3), t#(3), l(3), 6.97\% \)
\( #f(2), f#(2), s#(2), l(2), #l(2), #g(2), h#(2), 4.65\% \)

\( (17): \)
\( i^i(3), a(3), 17.64\% \)
\( t(2), 11.76\% \)

First Syllable Segment Stressed (93):
\( \mu(9), 9.67\% \)
\( n(8), 8.60\% \)
\( l(6), #g(6), 6.45\% \)
\( l(4), k(4), #w(4), 4.30\% \)
\( #p^h(3), p(3), #b(3), #m(3), m(3), #f(3), #t^h(3), #s(3), #j(3), #k^h(3), 3.22\% \)
\( #v(2), #d(2), #n(2), s(2), #z(2), #\mu(2), #l(2), #h(2), 2.15\% \)

\( (63): \)
\( i^i(14), 22.22\% \)
\( æ(11), 17.46\% \)
\( a(10), 15.87\% \)
\( #a(7), 11.11\% \)
\( i^i(6), 9.52\% \)
\( a^*(3), 4.76\% \)
\( æ(2), #(æ(2), 3.17\% \)

First Syllable Segment Unstressed (38):
\( k(4), 10.52\% \)
\( #f(3), #k(3), 7.89\% \)
\( #p^h(2), m(2), #d(2), #s(2), #\mu(2), s(2), 5.26\% \)

829
(34):
æ(6), 17.64%
æe(5), 14.70%
r(3), #e(3), 8.82%
i'(2), æ(2), #a(2) 5.88%

Second Syllable Segment Stressed (56):
s(6), 10.71%
n(5), 8.92%
t(4), l(4), 7.14%
b(3), z(3), 5.35%
p^r(2), n#(2), j(2), l(2), t#(2), j(2), k#(2), g(2) 3.57%

(28):
æ(8), 28.57%
t(5), 17.85%
u*(3), t(3), 10.71%
ɔ(2) 7.14%

Second Syllable Segment Unstressed (113):
s(13), 11.50%
f(7), t(7), n(7), l(7), 6.19%
b(6), j(6), 5.30%
d#(5), *η(5), 4.42%
*η(4), s#(4), w(4), 3.53%
p(3), m(3), d(3), n#(3), *η(3), k(3), g(3), 2.65%
t#(2), r(2), z(2), f#(2) 1.76%

(55):
æ(13), 23.63%
t(9), 16.36%
i'#(7), æ(7), 12.72%
a(5), 9.09%
e(3), 5.45%
i'(2), o#(2), a#(2) 3.63%

Third Syllable Segment Stressed (9):
f(2) 22.22%

(6):
i'(2) 33.33%

Third Syllable Segment Unstressed (66):
t(8), 12.12%
j(6), 9.09%
m(4), n(4), *η(4), s(4), s#(4), 6.06%
t#(3), f(3), g(3), 4.54%
b(2), *η(2), k#(2) 3.03%

(33):
t(8), 24.24%
a(5), 15.15%
i'(2), e#(2) 6.06%

Fourth Syllable Segment Stressed:
(2):
e(2) 100%

Fourth Syllable Segment Unstressed (16):
s#(3) 18.75%
m(2), t#(2), f(2), u(2) 12.50%

(10):
ə(3), 30.00%
a(2) 20.00%

Fifth Syllable Segment Stressed:

Fifth Syllable Segment Unstressed (4):
*η#(2), f(2) 50.00%

Segment Total by Syllable

First Syllable Segment (131):
ɹ(11), 8.39%
n(9), 6.87%
l(8), k(8), 6.10%
#f(6), #g(6), 4.58%
#p(5), m(5), h(5), #w(5), 3.81%
#m(4), #d(4), #s(4), s(4), #u(4), #k(4), 3.05%
p(3), #b(3), #v(3), #t(3), #z(3), #j(3), #k(3), 2.29%
#d(2), #n(2), #l(2), #h(2) 1.52%

Second Syllable Segment (169):
s(19), 11.24%
n(12), 7.10%
t(11), l(11), 6.50%
b(9), 5.32%
f(8), #u(8), 4.73%
d#(5), n#(5), *η#(5), s#(5), z(5), g(5), 2.95%
p(4), m(4), d(4), *η(4), k(4), w(4), 2.36%
t#/3(3), f(3), #f(3), j(3), 1.77%
p(2), r(2), f#/2(2), h(2), t#/2(2), k#/2(2) 1.18%

Third syllable Segment (75):
t(8), 10.66%
ɹ(7), 9.33%
n(5), 6.66%
m(4), *η#(4), s(4), s#(4), f(4), 5.33%
f(3), t#/3(3), g(3), 4.00%
b(2), l(2), *#(2), k#(2), w(2) 2.66%

(39):
t(8), 20.51%
a(5), 12.82%
i(4), 10.25%
u*(2), e#(2), a(2) 5.12%

Fourth Syllable Segment (19):
s#(3), 15.78%
m(2), t#(2), n(2), f(2), z(2), l(2) 10.52%

(11):
a(3), 27.27%
e(2) a(2) 18.18%

Fifth Syllable Segment (4):
*η#(2), f(2) 50.00%

Stressed Segment (158):
n(15), 9.49%
š(12), l(12), 7.59%
s(8), 5.06%
f(6), #g(6), 3.79%
k(5), 3.16%
p(4), m(4), f(4), t(4), f(4), #w(4), 2.53%
#p#(3), b(3), #b(3), #m(3), #f(3), #t*(3), #s(3), z(3), #j(3), #k#(3), k#(3), 1.89%
p*(2), #v(2), #d(2), #n(2), n#(2), #z(2), #j(2), #l(2), j(2), g(2), w(2), #h(2) 1.26%

(99):
æ(19), 19.19%
t(17), 17.17%
a(11), 11.11%
i(9), 9.09%
e(7), #a(7), 7.07%
u*(5), 5.05%
e(4), 4.04%
a*(3), 3.03%
ø(2), o*(2), ø(2), ø(2), #æ(2) 2.02%

Unstressed Segment (238):
s(19), 7.98%
t(16), š(16), 6.72%
n(13), 5.46%
*η#(12), 5.04%
m(11), s#(11), l(11), 4.62%
b(8), f(8), j(8), k(8), g(8), 3.36%
t#(7), 2.94%
d#(6), 2.52%
#n(5), *η(5), w(5), 2.10%
p(4), d(4), 1.68%
#f(3), 1.36%
#η(3), 1.26%
#p#(2), #d(2), d#(2), #d#(2), r(2), Θ(2), z(2), f#(2), #j(2), j(2), k#(2) .84%

(130):
æ(27), 20.76%
t(21), 16.15%

Segment Stressed and Unstressed Total
Segment Total (absolute)

Narrow (439):

s(31), 7.06%
n(28), 6.37%
s(27), 6.15%
l(23), 5.23%
t(20), 4.55%
m(16), 3.64%
s(14), k(14), 3.18%
f(13), 2.96%
b(12), n(12), j(12), 2.73%
t(11), 2.50%
g(10), w(10), 2.27%
p(9), t(9), 2.05%
#f(8), #g(8), 1.82%
#n(7), w(7), 1.59%
d(6), 1.36%
#p(5), d(5), n(5), z(5), 1.13%
#b(4), m(4), #t(4), #d(4), #s(4), #z(4), #j(4), j(4), #j(4), #k(4), .91%
m(3), #f(3), v(3), #dz(3), l(3), t(3), l(3), k(3), k(3), #h(3), .68%
p(2), t(2), d(2), n(2), r(2), Θ(2), z(2), #f(2), #i(2), h(2), .45%

(246):

T(40), 16.26%
a(27), 10.97%
æ(24), 9.75%
a(19), 7.72%
i(18), 7.31%
e(12), 4.87%
a(10), 4.06%
i(9), u(9), #a(9), 3.65%
ær(5), 2.03%
e(4), #e(4), æ(4), a"(4), a'(4), a#(4), 1.62%
u(3), o"#(3), o"(3), æ(3), 1.21%
u"(3), e"(2), æ(2), #a(2), 1.81%

Broad (439):

n(54), 12.30%
s(45), 10.25%
t(38), 8.65%
s(35), 7.97%
k(28), 6.37%
l(25), 5.69%
m(24), f(24), 5.46%
t(19), g(19), 4.32%
p(17), d(17), j(17), w(17), 3.87%
b(16), 3.64%
z(11), 2.50%
 Supra-Segments: Consonant Clusters

Consonant Cluster Total for Stressed and Unstressed Syllables and Monosyllables according to Syllable Configuration

Monosyllable Consonant Cluster Onset (all entries are word initial) (3):
#g(3) 100%

Monosyllable Consonant Cluster Coda (all entries are word final):

First Syllable Consonant Cluster Stressed Onset (all entries are word initial) (13):
#g(2) 15.38%

First Syllable Consonant Cluster Stressed Coda:

First Syllable Consonant Cluster Unstressed Onset (all entries are word initial):
First Syllable Consonant Cluster Unstressed Coda:

Second Syllable Consonant Cluster Stressed Onset (9):
st(2) 22.22%

Second Syllable Consonant Cluster Stressed Coda:

Second Syllable Consonant Cluster Unstressed Onset (7):
st(2) 28.57%

Second Syllable Consonant Cluster Unstressed Coda:

Third Syllable Consonant Cluster Stressed Onset:
Third Syllable Consonant Cluster Stressed Coda:

Third Syllable Consonant Cluster Unstressed Onset (4):
st(3) 75.00%

Third Syllable Consonant Cluster Unstressed Coda:

Fourth Syllable Consonant Cluster Stressed Onset:
Fourth Syllable Consonant Cluster Stressed Coda:

Fourth Syllable Consonant Cluster Unstressed Onset:
Fourth Syllable Consonant Cluster Unstressed Coda:

Fifth Syllable Consonant Cluster Stressed Onset:
Fifth Syllable Consonant Cluster Stressed Coda:
Fifth Syllable Consonant Cluster Unstressed Onset:
Fifth Syllable Consonant Cluster Unstressed Coda:

Consonant Cluster Total for Stressed and Unstressed Onsets and Codas
**Stressed Onset (24):**
fl(2), st(2), #g(2) 8.33%

**Stressed Coda:**

Unstressed Onset (15):
st(5) 33.33%

Unstressed Coda (8):
nt(3) 37.50%

---

Consonant Cluster Total for Onsets and Codas

Onset (42):
st(7), 16.66%
#g(5), 11.90%
fl(3), 7.14%
#f(2), #fl(2), #vl(2), sn(2) 4.76%

Coda (18):
nt(3), 16.66%
ft(2), ks(2) 11.11%

---

Consonant Cluster Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllable Consonant Cluster (12):
#g(3) 25.00%

**First Syllable Consonant Cluster Stressed (13):**
#g(2) 15.38%

First Syllable Consonant Cluster Unstressed:

**Second Syllable Consonant Cluster Stressed (10):**
st(2) 20.00%

Second Syllable Consonant Cluster Unstressed (10):
st(2) 20.00%

**Third Syllable Consonant Cluster Stressed:**

Third Syllable Consonant Cluster Unstressed (7):
st(3) 42.85%

**Fourth Syllable Consonant Cluster Stressed:**
Fourth Syllable Consonant Cluster Unstressed:

**Fifth Syllable Consonant Cluster Stressed:**
Fifth Syllable Consonant Cluster Unstressed:

---

Consonant Cluster Total per Syllable

First Syllable Consonant Cluster (18):
#f(2), #fl(2), #vl(2), #g(2) 11.11%

Second Syllable Consonant Cluster (20):
fl(2), st(2), sn(2), st(2) 10.00%

Third Syllable Consonant Cluster (9):
st(3) 33.33%

Fourth Syllable Consonant Cluster:

Fifth Syllable Consonant Cluster:

---

Consonant Cluster Stressed and Unstressed Total

**Consonant Cluster Stressed (25):**
fl(2), st(2), #g(2) 8.00%
Consonant Cluster Unstressed (23):
\( \text{st}(5), 21.73\% \)
\( \text{nt#}(2) 8.69\% \)

Consonant Cluster Total (absolute)

Narrow (60):
\( \text{st}(7), 11.66\% \)
\( \#g\mu(5), 8.33\% \)
\( \text{fl}(3), 5.00\% \)
\( \#fu(2), \#fl(2), \#vl(2), \text{nt#}(2), \text{sn}(2), \text{jt#}(2), \text{ks#}(2) 3.33\% \)

Broad (60):
\( \text{st}(7), 11.66\% \)
\( g\mu(6), 10.00\% \)
\( \text{fl}(5), 8.33\% \)
\( \text{nt}(3), \text{ks}(3), k\mu(3), 5.00\% \)
\( f\mu(2), v\mu(2), s\mu(2), \text{sn}(2), \text{jt}(2) 3.33\% \)

60 total consonant clusters

Supra-Segments: Whole Syllables

Whole Syllable Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllable Whole Syllable:

First Syllable Whole Syllable Stressed (all entries are word initial) (61):
\( \#a(3), 4.91\% \)
\( \#d\text{rn}(2), \#\text{æ}(2), \#a\text{t}(2) 3.27\% \)

First Syllable Whole Syllable Unstressed (all entries are word initial) (36):
\( \#\text{s}(2), \#e\text{k}(2) 5.55\% \)

Second Syllable Whole Syllable Stressed:

Second Syllable Whole Syllable Unstressed (69):
\( \text{l}(\text{t}(2), \text{d}(\alpha)(2), n\alpha(2), s\text{æ}(\text{t}(2), \text{f}(\alpha)(2) 2.89\% \)

Third Syllable Whole Syllable Stressed:

Third Syllable Whole Syllable Unstressed:

Fourth Syllable Whole Syllable Stressed:

Fourth Syllable Whole Syllable Unstressed:

Fifth Syllable Whole Syllable Stressed:

Fifth Syllable Whole Syllable Unstressed (2):
\( f\text{æ}(\text{t}(2) 100\% \)

Whole Syllable Total per Syllable

First Syllable Whole Syllable (all entries are word initial) (97):
\( \#s\text{æ}(3), \#e\text{k}(3), \#æ(3), \#a(3), \#a\text{t}(3) 3.09\% \)
\( \#d\text{rn}(2), \#f\text{æ}(2), \#a(2) 2.06\% \)

Second Syllable Whole Syllable (97):
\( \text{l}(\text{t}(2), \text{d}(\alpha)(2), n\alpha(2), s\text{æ}(\text{t}(2), \text{f}(\alpha)(2) 2.89\% \)

Third Syllable Whole Syllable:

Fourth Syllable Whole Syllable:

Fifth Syllable Whole Syllable (2):
\( f\text{æ}(\text{t}(2) 100\% \)

836
Whole Syllable Stressed and Unstressed Total

Whole Syllable Stressed (97):

#α(3), 3.09%
#δίν(2), #æ(2), #αθ(2) 2.06%

Whole Syllable Unstressed (157):

fη#(4), 2.54%
mιnt#(3), 1.91%
mιl(2), #μιl(2), #ιl(#(2), pa(2), da(2), na(2), s-η#(2), fασ#(2) fa(2), #εκ(2), τα#(2) 1.27%

Whole Syllable Total (absolute)

Narrow (270):

fη#(4), #α(4), 1.48%
#μι(3), mιnt#(3), #εκ(3), #æ(3), #αθ(3), 1.11%
mιl(2), #ιl(#(2), IIl#(2), #δίν(2), pa(2), da(2), na(2), s-η#(2), fασ#(2) fa(2), #ɛκ(2), #αθ(2), τα#(2) .74%

Broad (270):

μι(5), 1.85%
lι(4), fπη(4), α(4), 1.48%
mι(3), mιnt(3), pa(3), na(3), fα(3), εκ(3), æ(3), αθ(3), 1.11%
kμιl(2), δίν(2), wuʃ(2), e(2), o(2), b-ηl(2), da(2), dʒa(2), s-ηl(2), zα(2), fασ(2) ja(2), kα(2), s-α(2), flæ(2), kæ(2), a(2), τα(2), na(2), ga(2) .74%

270 total whole syllables

Supra-Segments: Whole Words

<table>
<thead>
<tr>
<th>Word Length Total</th>
<th>Syllable</th>
<th>Receiving Stress</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>None</td>
<td>First</td>
</tr>
<tr>
<td>Monosyllabic: 14.91%</td>
<td>0</td>
<td>80.76%</td>
</tr>
<tr>
<td>Bisyllabic: 45.61%</td>
<td>0</td>
<td>68.85%</td>
</tr>
<tr>
<td>Trisyllabic: 28.94%</td>
<td>0</td>
<td>54.54%</td>
</tr>
<tr>
<td>Tetrasyllabic: 6.94%</td>
<td>0</td>
<td>10.00%</td>
</tr>
<tr>
<td>Penta syllabic: 1.75%</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Stressed Syllable Total: 62.88% 28.86% 6.18% 2.06% 0

Table Key: The “Word Length Total” column figure represents the percentage of words that is of that word length. For the cells inside the “Syllable Receiving Stress” columns, the amount on top indicates what percentage of a particular word length was stressed on that syllable. The number on the bottom indicates, for all the words that received stress on a particular syllable, what percentage of these words were of a particular word length. The “Stressed Syllable Total” row indicates what percentage of words was stressed on a particular syllable. Note that monosyllables were not analyzed as receiving stress and the “None” cell in the “Stressed Syllable Total” row is inapplicable.

For all 114 whole words there are no repeated words
Segmental and Supra-Segmental Frequency Data Sheet

Question ID: W. a feeling of extreme disappointment

**Segments**

Segment Total for Stressed and Unstressed Syllables and Monosyllables according to Syllable Configuration

<table>
<thead>
<tr>
<th>Monosyllable Onset (29):</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>#b(4), #r(4)</td>
<td>13.79%</td>
</tr>
<tr>
<td>#f(3), #l(3)</td>
<td>10.34%</td>
</tr>
<tr>
<td>#z(2), #l(2), #k(2), #g(2)</td>
<td>6.89%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Monosyllable Nucleus (20):</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>0(3), #a(3)</td>
<td>15.00%</td>
</tr>
<tr>
<td>#r(2), #a(2)</td>
<td>10.00%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Monosyllable Coda (31):</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>#d(4)</td>
<td>12.90%</td>
</tr>
<tr>
<td>#r(3)</td>
<td>9.67%</td>
</tr>
<tr>
<td>#n(2), k(#2), h(#2)</td>
<td>6.45%</td>
</tr>
</tbody>
</table>

**First Syllable Segment Stressed Onset (70):**

<table>
<thead>
<tr>
<th>Segment</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>#d(10)</td>
<td>14.28%</td>
<td></td>
</tr>
<tr>
<td>#s(9)</td>
<td>12.85%</td>
<td></td>
</tr>
<tr>
<td>#b(5), #m(5), #r(5)</td>
<td>7.14%</td>
<td></td>
</tr>
<tr>
<td>#f(4), #k(4)</td>
<td>5.71%</td>
<td></td>
</tr>
<tr>
<td>#t(3), #s(3), #g(3), #w(3)</td>
<td>4.28%</td>
<td></td>
</tr>
<tr>
<td>#p(2), #f(2)</td>
<td>2.85%</td>
<td></td>
</tr>
</tbody>
</table>

**First Syllable Segment Stressed Nucleus (63):**

<table>
<thead>
<tr>
<th>Segment</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>#e(13)</td>
<td>20.63%</td>
<td></td>
</tr>
<tr>
<td>a(10)</td>
<td>15.87%</td>
<td></td>
</tr>
<tr>
<td>u(7), t(7)</td>
<td>11.11%</td>
<td></td>
</tr>
<tr>
<td>i(6)</td>
<td>9.52%</td>
<td></td>
</tr>
<tr>
<td>e(4)</td>
<td>6.34%</td>
<td></td>
</tr>
<tr>
<td>0(3), #a(3)</td>
<td>4.76%</td>
<td></td>
</tr>
<tr>
<td>#a(2), #i(2), #e(2)</td>
<td>3.17%</td>
<td></td>
</tr>
</tbody>
</table>

**First Syllable Segment Stressed Coda (26):**

<table>
<thead>
<tr>
<th>Segment</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>#m(6)</td>
<td>23.07%</td>
<td></td>
</tr>
<tr>
<td>#n(4), #r(4)</td>
<td>15.38%</td>
<td></td>
</tr>
<tr>
<td>p(2), h(2), g(2)</td>
<td>7.69%</td>
<td></td>
</tr>
</tbody>
</table>

**First Syllable Segment Unstressed Onset (17):**

<table>
<thead>
<tr>
<th>Segment</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>#d(3)</td>
<td>17.64%</td>
<td></td>
</tr>
<tr>
<td>#p(2), #m(2), #f(2), #s(2)</td>
<td>11.76%</td>
<td></td>
</tr>
</tbody>
</table>

**First Syllable Segment Unstressed Nucleus (25):**

<table>
<thead>
<tr>
<th>Segment</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>#a(6)</td>
<td>24.00%</td>
<td></td>
</tr>
<tr>
<td>#i(2), t(2), #a(2), #e(2)</td>
<td>8.00%</td>
<td></td>
</tr>
</tbody>
</table>

**First Syllable Segment Unstressed Coda (3):**

<table>
<thead>
<tr>
<th>Segment</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>#n(2)</td>
<td>66.66%</td>
<td></td>
</tr>
</tbody>
</table>

**Second Syllable Segment Stressed Onset (22):**

<table>
<thead>
<tr>
<th>Segment</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>r(5)</td>
<td>22.72%</td>
<td></td>
</tr>
<tr>
<td>l(3)</td>
<td>13.63%</td>
<td></td>
</tr>
<tr>
<td>t(2), d(2), s(2), #k(2)</td>
<td>9.09%</td>
<td></td>
</tr>
</tbody>
</table>

**Second Syllable Segment Stressed Nucleus (20):**

<table>
<thead>
<tr>
<th>Segment</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>#e(5)</td>
<td>25.00%</td>
<td></td>
</tr>
</tbody>
</table>

838
e(2), o*(2), e(2), a(2) 10.00%

Second Syllable Segment Stressed Coda (12):
d#(3), 25.00%
n(2) 16.66%

Second Syllable Segment Unstressed Onset (72):
n(9), 12.50%
t(7), k(7), 9.72%
b(6), s(6), g(6), 8.33%
d(5), j(5), l(5), 6.94%
m(3), f(3), r(3), 4.16%
p(2), z(2) 2.77%

Second Syllable Segment Unstressed Nucleus (68):
ɪ(13), 19.11%
a(10), 14.70%
a(7), 10.29%
o*(6), 8.82%
a#(5), 7.35%
iη(3), η(3), mη(3), 4.41%
i#(2), mη(2) 2.94%

Second Syllable Segment Unstressed Coda (34):
s#(7), 20.58%
n#(5), 14.70%
t#(4), 11.76%
d(2), s(2), t(2), l(2), k(2) 5.88%

Third Syllable Segment Stressed Onset:
Third Syllable Segment Stressed Nucleus:
Third Syllable Segment Stressed Coda:

Third Syllable Segment Unstressed Onset (28):
j(4), 14.28%
f(3), n(3), s(3), 10.71%
ɔ(2), k(2) 7.14%

Third Syllable Segment Unstressed Nucleus (25):
a(4), 16.00%
i#(3), o*(3), a(3), 12.00%
e(2), e#(2), a#(2) 8.00%

Third Syllable Segment Unstressed Coda:

Fourth Syllable Segment Stressed Onset:
Fourth Syllable Segment Stressed Nucleus:
Fourth Syllable Segment Stressed Coda:

Fourth Syllable Segment Unstressed Onset (9):
m(2), f(2), r(2) 22.22%

Fourth Syllable Segment Unstressed Nucleus (10):
t(3), a#(3) 30.00%

Fourth Syllable Segment Unstressed Coda (3):
n#(2) 66.66%

Fifth Syllable Segment Stressed Onset:
Fifth Syllable Segment Stressed Nucleus:
Fifth Syllable Segment Stressed Coda:
### Sixth Syllable Segment Unstressed Onset:

**Unstressed Onset (128):**
- n(13), 10.15%
- l(10), 7.81%
- s(9), k(9), 7.03%
- f(8), t(8), l(8), 6.25%
- b(7), g(7), 5.46%
- m(6), d(6), r(6), 4.68%
- #d(3), θ(3), z(3), 2.34%
- #pʰ(2), p(2), m(2), #f(2), v(2), #s(2), j(2), w(2), #h(2), 1.56%

### Sixth Syllable Segment Unstressed Nucleus:

**Unstressed Nucleus (128):**
- #d(10), #t(10), 10.30%
- #s(9), 9.27%
- #b(5), #m(5), 5.15%
- #f(4), l(4), #kʰ(4), kʰ(4), 4.12%
- #tʰ(3), tʰ(3), s(3), #x(3), #l(3), #g(3), #w(3), 3.09%
- #pʰ(2), m(2), t(2), d(2), #f(2), 2.06%

### Sixth Syllable Segment Unstressed Coda:

**Unstressed Coda (46):**
- n#(10), 21.73%
- s#(8), 17.39%
- t#(4), 8.69%
- d#(3), n(3), s(3), 6.52%
- t(2), t#(2), k(2), 4.34%

### Segment Total for Onsets and Codas

**Onset (254):**
- j(24), 9.44%
- l(15), 5.90%
- #d(14), 5.51%
- n(13), 5.11%
- #s(12), s(12), 4.72%
- #b(10), t(10), 3.93%
- #f(9), k(9), 3.54%
- b(8), m(8), f(8), d(8), 3.14%
- #m(7), #kʰ(7), g(7), 2.75%
- r(6), 2.36%
- #l(5), #g(5), 1.96%
- #pʰ(4), #tʰ(4), #j(4), kʰ(4), #w(4), 1.57%
- p(3), tʰ(3), θ(3), #z(3), z(3), #f(3), w(3), 1.18%
- v(2), #n(2), j(2), #h(2), 0.78%

**Coda (115):**
- n#(12), 10.43%
- n(11), 9.56%
<table>
<thead>
<tr>
<th>Segment</th>
<th>Total for Stressed and Unstressed Syllables and Monosyllables</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monosyllable Segment (60):</td>
<td></td>
</tr>
<tr>
<td></td>
<td>μ(7), 11.66%</td>
</tr>
<tr>
<td></td>
<td>#b(4), d#(4), 6.66%</td>
</tr>
<tr>
<td></td>
<td>#f(3), l(3), 5.00%</td>
</tr>
<tr>
<td></td>
<td>m#(2), f#(2), t#(2), n(2), #z(2), #l(2), k#(2), #kʰ(2), #g(2), h#(2) 3.33%</td>
</tr>
<tr>
<td></td>
<td>(20): o&quot;(3), λ(3), a(3), 15.00%</td>
</tr>
<tr>
<td></td>
<td>o(2), #a(2) 10.00%</td>
</tr>
<tr>
<td>First Syllable Segment Stressed (96):</td>
<td></td>
</tr>
<tr>
<td></td>
<td>#d(10), 10.41%</td>
</tr>
<tr>
<td></td>
<td>#s(9), μ(9), 9.37%</td>
</tr>
<tr>
<td></td>
<td>m(7), 7.29%</td>
</tr>
<tr>
<td></td>
<td>#b(5), #m(5), 5.20%</td>
</tr>
<tr>
<td></td>
<td>#f(4), n(4), #kʰ(4), 4.16%</td>
</tr>
<tr>
<td></td>
<td>p(3), #tʰ(3), #u(3), #l(3), #g(3), #w(3), 3.12%</td>
</tr>
<tr>
<td></td>
<td>#pʰ(2), #f(2), h(2), g(2) 2.08%</td>
</tr>
<tr>
<td></td>
<td>(63): æ(13), 20.63%</td>
</tr>
<tr>
<td></td>
<td>a(10), 15.87%</td>
</tr>
<tr>
<td></td>
<td>u&quot;(7), i(7), 11.11%</td>
</tr>
<tr>
<td></td>
<td>i(6), 9.52%</td>
</tr>
<tr>
<td></td>
<td>ε(4), 6.34%</td>
</tr>
<tr>
<td></td>
<td>o&quot;(3), æ(3), 4.76%</td>
</tr>
<tr>
<td></td>
<td>u(2), λ(2), o(2) 3.17%</td>
</tr>
<tr>
<td>First Syllable Segment Unstressed (20):</td>
<td></td>
</tr>
<tr>
<td></td>
<td>#d(3), 15.00%</td>
</tr>
<tr>
<td></td>
<td>#pʰ(2), #m(2), #f(2), n(2), #s(2), #h(2) 10.00%</td>
</tr>
<tr>
<td></td>
<td>(25): a(6), 24.00%</td>
</tr>
<tr>
<td></td>
<td>#a(3), 12.00%</td>
</tr>
<tr>
<td></td>
<td>i(2), i(2), #a(2), æ(2) 8.00%</td>
</tr>
<tr>
<td>Second Syllable Segment Stressed (34):</td>
<td></td>
</tr>
<tr>
<td></td>
<td>μ(5), 14.70%</td>
</tr>
<tr>
<td></td>
<td>d#(3), s(3), l(3), 8.82%</td>
</tr>
<tr>
<td></td>
<td>m(2), tʰ(2), d(2), n(2), kʰ(2) 5.88%</td>
</tr>
<tr>
<td></td>
<td>(20): æ(5), 25.00%</td>
</tr>
<tr>
<td></td>
<td>e(2), o&quot;(2), ε(2), a(2) 10.00%</td>
</tr>
<tr>
<td>Second Syllable Segment Unstressed (118):</td>
<td></td>
</tr>
<tr>
<td></td>
<td>n(10), 8.47%</td>
</tr>
<tr>
<td></td>
<td>k(9), 7.62%</td>
</tr>
</tbody>
</table>
s(8), 6.77%
t(7), s#(7), 5.93%
b(6), g(6), 5.08%
d(5), n#(5), l(5), 4.23%
t#(4), 3.38%
*l#(3), m(3), f(3), *#(3), r(3), z(3), *#(3), 2.54%
p(2), d#(2), *#(2), h(2), t#(2) 1.69%

(56):
t(13), 23.21%
a(10), 17.85%
a(7), 12.50%
o#(6), 10.71%
a(5), 8.92%
i#(2) 3.57%

Third Syllable Segment Stressed:

Third Syllable Segment Unstressed (34):
#(4), 11.76%
f(3), n(3), s(3), 8.82%
θ(2), k(2) 5.88%

(23):
a(4), 17.39%
i#(3), o#(3), a(3), 13.04%
e(2), e#(2), a#(2) 8.69%

Fourth Syllable Segment Stressed:

Fourth Syllable Segment Unstressed (13):
m(2), f(2), n#(2), r(2) 15.38%

(9):
t(3), a#(3) 33.33%

Fifth Syllable Segment Stressed:

Fifth Syllable Segment Unstressed:

Sixth Syllable Segment Unstressed:

Segment Total by Syllable

First Syllable Segment (116):
#d(13), 11.20%
#s(11), 9.48%
θ(9), 7.75%
#m(7), m(7), 6.03%
#b(6), #f(6), n(6), 5.17%
#k(5), 4.31%
#p(4), 3.44%
p(3), #t(3), θ(3), l(3), #g(3), #w(3), 2.58%
s(2), #f(2), l(2), l(2), g(2), #h(2) 1.72%

(88):
a(15), 17.04%
a(10), 11.36%
t(9), 10.22%
i(8), u(8), 9.09%
a(6), 6.81%
o*(4), ø(4), e(4), 4.54%
#ø(3), 3.40%
u(2), #ø(2), n(2), ø(2) 2.27%

Second Syllable Segment (152):
n(12), 7.89%
s(11), 7.23%
ʃ(10), 6.57%
k(9), 5.92%
t(8), l(8), 5.26%
b(7), d(7), #s(7), 4.60%
n#(6), g(6), 3.94%
m(5), d#(5), 3.28%
t#(4), 2.63%
*ð(3), f(3), *η(3), r(3), z(3), *ι(3), #l(3), 1.97%
p(2), tʰ(2), *η(2), #l(2), kʰ(2), w(2) 1.31%

(76):
ɪ(14), 18.42%
a(10), 13.15%
a(9), 11.84%
o*(6), æ(6), 7.89%
ø#(5), 6.57%
e(3), o*(3), 3.94%
i#(2), u*(2), ε(2), ø(2) 2.63%

Third syllable Segment (38):
s(4), #s(4), 10.52%
f(3), n(3), 7.89%
t(2), θ(2), k(2) 5.26%

(26):
i#(4), a(4), 15.38%
o*(3), ø(3), 11.53%
e(2), e#(2), #ø(2), a(2) 7.69%

Fourth Syllable Segment (13):
m(2), f(2), n#(2), r(2) 15.38%

(9):
t(3), ø(3) 33.33%

Fifth Syllable Segment:

Sixth Syllable Segment:

**Stressed Segment (135):**
ɪ(14), 10.37%
#d(10), 7.40%
m(9), #s(9), 6.66%
n(6), 4.44%
#b(5), #m(5), s(5), 3.70%
#f(4), l(4), #kʰ(4), k(4), 2.96%
p(3), tʰ(3), #tʰ(3), d#(3), d(3), #ʃ(3), #l(3), #k(3), #g(3), #w(3), 2.22%
#pʰ(2), t(2), #f(2), g(2) 1.48%

(87):
æ(18), 20.68%
a(12), 13.79%
u*(9), 10.34%
t(8), 9.19%
i(6), ε(6), 6.89%
oes(5), 5.74%
e(4), 4.59%
ær(3), 3.44%
u(2), ñ(2), å(2) 2.29%

Unstressed Segment (189):
n(16), 8.46%
s(12), 6.34%
k(11), 5.82%
n#(10), 5.29%
f(8), t(8), s#(8), l(8), 4.23%
b(7), g(7), 3.70%
m(6), d(6), r(6), u(6), 3.17%
*r(4), t(4), z(4), v(4), t#(4), #t(4), 2.11%
#d(3), d(3), *η(3), *η#(3), θ(3), 1.58%
p(2), #p(2), #m(2), #f(2), v(2), #s(2), j(2), t(2), t#(2), w(2), #h(2) 1.05%

(115):
t(20), a(20), 17.39%
a(11), 9.56%
o#(9), 7.82%
a#(7), 6.08%
i#(5), 4.34%
a#(4), a#(4), 3.47%
i(3), e#(3), e(3), æ(3), #a(3), 2.60%
u#(2), o#(2), #a(2) 1.73%

Segment Total (absolute)

Narrow (384):
j(27), 7.03%
n(24), 6.25%
s(17), 4.42%
b(16), m(16), 4.16%
l(15), 3.90%
#d(14), 3.64%
n#(12), #s(12), 3.12%
k(11), 2.86%
#b(10), t(10), d#(10), 2.60%
#f(9), f(9), d(9), s#(9), g(9), 2.34%
#j(8), 2.08%
#m(7), #k#(7), 1.82%
t#(6), r(6), 1.56%
p(5), #l(5), H(5), #g(5), 1.30%
#p(4), *η#(4), #t#(4), z(4), t#(4), k#(4), #w(4), 1.04%
#m(3), #f(3), *η(3), *η#(3), θ(3), #z(3), #j(3), k#(3), w(3), 0.78%
v(2), #n(2), z#(2), j(2), f#(2), j#(2), t#(2), η#(2), x#(2), #h(2), h#(2), 0.52%

(222):
t(29), 13.06%
a(26), 11.71%
ae(22), 9.90%
a(20), 9.00%
u#(12), 5.40%
i(10), o#(10), 4.50%
oes#(9), 4.05%
e(7), a(7), a#(7), ε(7), 3.15%
<table>
<thead>
<tr>
<th>Consonant Cluster Onset</th>
<th>Number of Stressed Syllables</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>bl(2), gɹ(2)</td>
<td>25.00%</td>
<td></td>
</tr>
<tr>
<td>Monosyllable Consonant Cluster Coda (all entries are word final):</td>
<td></td>
<td></td>
</tr>
<tr>
<td>First Syllable Consonant Cluster Stressed Coda:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>First Syllable Consonant Cluster Unstressed Coda:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Second Syllable Consonant Cluster Stressed Coda (8):</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Third Syllable Consonant Cluster Stressed Onset:
Third Syllable Consonant Cluster Stressed Coda:

Third Syllable Consonant Cluster Unstressed Onset (4):
st(2) 50.00%

Third Syllable Consonant Cluster Unstressed Coda:

Fourth Syllable Consonant Cluster Stressed Onset:
Fourth Syllable Consonant Cluster Stressed Coda:

Fourth Syllable Consonant Cluster Unstressed Onset:
Fourth Syllable Consonant Cluster Unstressed Coda:

Fifth Syllable Consonant Cluster Stressed Onset:
Fifth Syllable Consonant Cluster Stressed Coda:

Fifth Syllable Consonant Cluster Unstressed Onset:
Fifth Syllable Consonant Cluster Unstressed Coda:

Consonant Cluster Total for Stressed and Unstressed Onsets and Codas

Stressed Onset:

Stressed Coda:

Unstressed Onset (11):
st(3) 27.27%

Unstressed Coda (8):
nt#(2), st#(2) 25.00%

Consonant Cluster Total for Onsets and Codas

Onset (29):
st(4), #g\(\mu\)(4), 13.79%
#fl(3), 10.34%
#bl(2), #d\(\mu\)(2), #k\(\mu\)(2) 6.89%

Coda (17):
nt#(2), st#(2) 11.76%

Consonant Cluster Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllable Consonant Cluster (15):
#bl(2), #g\(\mu\)(2) 13.33%

First Syllable Consonant Cluster Stressed:
First Syllable Consonant Cluster Unstressed:

Second Syllable Consonant Cluster Stressed:
Second Syllable Consonant Cluster Unstressed (13):
nt#(2), st#(2) 15.38%

Third Syllable Consonant Cluster Stressed:
Third Syllable Consonant Cluster Unstressed (4):
st(2) 50.00%

Fourth Syllable Consonant Cluster Stressed:
Fourth Syllable Consonant Cluster Unstressed:

Fifth Syllable Consonant Cluster Stressed:
Fifth Syllable Consonant Cluster Unstressed:

Consonant Cluster Total per Syllable

First Syllable Consonant Cluster (9):
#fl(2), #g\(\mu\)(2) 22.22%
Second Syllable Consonant Cluster (18):
nt#(2), st#(2), st(2) 11.11%

Third Syllable Consonant Cluster (4):
st(2) 50.00%

Fourth Syllable Consonant Cluster:

Fifth Syllable Consonant Cluster:

Consonant Cluster Stressed and Unstressed Total

Consonant Cluster Total (absolute)

Narrow (46):
st(4), #g(4), 8.69%
#f(3), 6.52%
#bl(2), #d(2), nt(2), st(2), #k(2) 4.34%

Broad (46):
st(6), 13.04%
g(5), 10.86%
k(4), 8.69%
fl(3), d(3), 6.52%
bl(2), nt(2) 4.34%

46 total consonant clusters

Supra-Segments: Whole Syllables

Whole Syllable Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllable Whole Syllable:

First Syllable Whole Syllable Stressed (all entries are word initial) (65):
#di(2), #si(2), #bu(2), #de(2), #sae(2), #ma(2), #k(2) 3.07%

First Syllable Whole Syllable Unstressed (all entries are word initial) (23):
#a(2), #sa(2), #a(2) 8.69%

Second Syllable Whole Syllable Stressed:

Second Syllable Whole Syllable Unstressed (68):
no#(2), lo#(2), *n#(2), r#(2), g#(2) 2.94%

Third Syllable Whole Syllable Stressed:

Third Syllable Whole Syllable Unstressed (25):
#(2), n(2) 8.00%

Fourth Syllable Whole Syllable Stressed:

Fourth Syllable Whole Syllable Unstressed:

Fifth Syllable Whole Syllable Stressed:

Fifth Syllable Whole Syllable Unstressed:

Sixth Syllable Whole syllable Unstressed:

Whole Syllable Total per Syllable

First Syllable Whole Syllable (all entries are word initial) (88):
Second Syllable Whole Syllable (88):
no#(2), lo#(2), *m#(2), r#(2), 2.27%

Third Syllable Whole Syllable (28):
ju#(2), na(2) 7.14%

Fourth Syllable Whole Syllable:
Fifth Syllable Whole Syllable:
Sixth Syllable Whole Syllable:

Whole Syllable Stressed and Unstressed Total

Whole Syllable Stressed (89):
#di(2), #si(2), #bu*(2), #ds(2), #æ(2), #k*#(2) 2.24%

Whole Syllable Unstressed (128):
#m#(2), #a(2), #m#(2), fa(2), ra#(2), Th(2), #s(2), g#(2), ra#(2), #a(2) 1.56%

Whole Syllable Total (absolute)

Narrow (242):
#m#(2), #a(2), #m#(2), #b(2), #d#(2), le(2), lo#(2), #a(2), #m#(2), fa(2), na(3), ra#(2), Th(2), #s(2), g#(2), ra#(2), #d#(2), #s(2), #a(2), ba(2), #ma(2), #k*#(2) .82%

Broad (242):
di(3), ji(2), #m#(3), no(3), so(3), #a(3), na(3), sa(3), ka(3), k#(3), ka(3), 1.23%
fl(2), si(2), ki(2), bu(2), lu(2), ds(2), #n(2), se(2), le(2), bo(2), lo(2), #m(2), ma(2), fa(2), ra#(2), Th(2), #g#(2), ra(2), de(2), sa(2), læd(2), a(2), ba(2), ma(2) .82%

Supra-Segments: Whole Words

<table>
<thead>
<tr>
<th>Word Length Total</th>
<th>Syllable Receiving Stress</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>None</td>
</tr>
<tr>
<td>Monosyllabic: 22.12%</td>
<td>0</td>
</tr>
<tr>
<td>Bisyllabic: 53.09%</td>
<td>0</td>
</tr>
<tr>
<td>Trisyllabic: 15.92%</td>
<td>0</td>
</tr>
<tr>
<td>Tetrasyllabic: 7.07%</td>
<td>0</td>
</tr>
<tr>
<td>Pentasyllabic: .88%</td>
<td>0</td>
</tr>
<tr>
<td>Hexasyllabic: .88%</td>
<td>0</td>
</tr>
<tr>
<td>Stressed Syllable Total:</td>
<td>72.72%</td>
</tr>
</tbody>
</table>

Table Key: The “Word Length Total” column figure represents the percentage of words that is of that word length. For the cells inside the “Syllable Receiving Stress” columns, the amount on top indicates what percentage of a particular word length was stressed on that syllable. The number on the bottom indicates, for all the words that received stress on a particular syllable, what percentage of these words were of a particular word length. The “Stressed Syllable Total” row indicates what percentage of words was stressed on a particular syllable. Note that monosyllables were not analyzed as receiving stress and the “None” cell in the “Stressed Syllable Total” row is inapplicable.

For all 113 whole words there are no repeated words.
Question ID: X. the feeling of being woken in the middle of the night by a strange noise

Segments

Segmental and Supra-Segmental Frequency Data Sheet

<table>
<thead>
<tr>
<th>Monosyllable Onset (30):</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ɹ(5), 16.66%</td>
<td></td>
</tr>
<tr>
<td>l(4), 13.33%</td>
<td></td>
</tr>
<tr>
<td>#pʰ(3), #i(3), 10.00%</td>
<td></td>
</tr>
<tr>
<td>#f(2), #s(2), #j(2), #kʰ(2), #g(2), #w(2) 6.66%</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Monosyllable Nucleus (24):</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>r(4), 16.66%</td>
<td></td>
</tr>
<tr>
<td>æ(3), 12.50%</td>
<td></td>
</tr>
<tr>
<td>i(2), u&quot;(2), a&quot;(2), a³(2), #a(2) 8.33%</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Monosyllable Coda (31):</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>t#(5), 16.12%</td>
<td></td>
</tr>
<tr>
<td>k(4), k#(4), 12.90%</td>
<td></td>
</tr>
<tr>
<td>s#(3), 9.67%</td>
<td></td>
</tr>
<tr>
<td>d#(2) 6.45%</td>
<td></td>
</tr>
</tbody>
</table>

First Syllable Segment Stressed Onset (47):

| ɹ(9), 19.14%               |  |
| #s(8), 17.02%              |  |
| #b(5), 10.63%              |  |
| #f(4), l(4), k(4), #kʰ(4), #w(4), 8.51% |  |
| #tʰ(3), #h(3), 6.38%       |  |
| #v(2), t(2), #i(2), #l(2) 4.25% |  |

First Syllable Segment Stressed Nucleus (61):

| ɹ(11), 18.03%              |  |
| æ(8), 13.11%               |  |
| t(6), t(6), 9.83%          |  |
| n(5), 8.19%                |  |
| #æ(4), 6.55%               |  |
| #o(3), 4.91%               |  |
| u"(2), e(2), o"(2), #æ(2), #a³(2) 3.27% |  |

First Syllable Segment Stressed Coda (32):

| ɹ(9), 28.12%               |  |
| k(7), 21.87%               |  |
| n(5), 15.62%               |  |
| m(3), 9.37%                |  |
| s(2), #(2) 6.25%           |  |

First Syllable Segment Unstressed Onset (23):

| #s(3), l(3), 13.04%        |  |
| #m(2), #f(2), #d(2), #k(2) 8.69% |  |

First Syllable Segment Unstressed Nucleus (29):

| t(7), 24.13%               |  |
| æ(6), 20.68%               |  |
| #æ(3), #ɛ(3), 10.34%       |  |
| i(2), #(2) 6.89%           |  |

First Syllable Segment Unstressed Coda (11):

| k(4), 36.36%               |  |
| s(3), 27.27%               |  |
| #(2) 18.18%                |  |
Second Syllable Segment Stressed Onset (35):
\( \mu(9) \), 25.71%
\( s(6) \), 17.14%
\( t(4) \), 11.42%
\( l(3) \), 8.57%
\( t^h(2) \), \( k(2) \), \( k^h(2) \), \( g(2) \) 5.71%

Second Syllable Segment Stressed Nucleus (27):
\( \alpha(6) \), 22.22%
\( r(4) \), 14.81%
\( i^i(3) \), \( o(3) \), 11.11%
\( u^*(2) \), \( e^i(2) \), \( e(2) \) 7.40%

Second Syllable Segment Stressed Coda (20):
\( d^#(5) \), \( n(5) \), 25.00%
\( t^#(2) \), \( j(2) \), \( \eta(2) \) 10.00%

Second Syllable Segment Unstressed Onset (67):
\( \mu(8) \), 11.94%
\( t(7) \), 10.44%
\( g(5) \), 7.46%
\( p(4) \), \( b(4) \), \( f(4) \), \( s(4) \), \( j(4) \) 5.97%
\( d(3) \), \( n(3) \), \( r(3) \), \( j(3) \), \( k(3) \) 4.47%
\( l(2) \), \( h(2) \) 2.98%

Second Syllable Segment Unstressed Nucleus (63):
\( t(9) \), \( a(9) \), 14.28%
\( i^i(7) \), 11.11%
\( u^*(6) \), \( a(6) \), 9.52%
\( a(4) \), 6.34%
\( i^i(3) \), \( o^#(3) \), 4.76%
\( \theta(2) \), \( \eta^#(2) \), \( a^#(2) \), \( \alpha(2) \) 3.17%

Second Syllable Segment Unstressed Coda (32):
\( d^#(6) \), \( n^#(6) \), 18.75%
\( k^#(4) \), 12.50%
\( f^#(3) \), \( j^#(3) \), \( s^#(3) \), 9.37%
\( t^#(2) \) 6.25%

Third Syllable Segment Stressed Onset:

Third Syllable Segment Stressed Nucleus:

Third Syllable Segment Stressed Coda:

Third Syllable Segment Unstressed Onset (26):
\( n(4) \), \( j(4) \), 15.38%
\( t(3) \), 11.53%
\( b(2) \), \( d(2) \), \( f(2) \), \( l(2) \), \( g(2) \) 7.69%

Third Syllable Segment Unstressed Nucleus (25):
\( a(4) \), 16.00%
\( i^i(3) \), \( t(3) \), \( \eta^#(3) \), 12.00%
\( e^i(2) \) 8.00%

Third Syllable Segment Unstressed Coda (7):
\( n^#(2) \) 28.57%

Fourth Syllable Segment Stressed Onset:

Fourth Syllable Segment Stressed Nucleus:

Fourth Syllable Segment Stressed Coda:

Fourth Syllable Segment Unstressed Onset (7):
\( n(2) \) 28.57%
Fourth Syllable Segment Unstressed Nucleus (9):
\( \text{a\#(4)} \) 44.44%

Fourth Syllable Segment Unstressed Coda:

Fifth Syllable Segment Stressed Onset:
Fifth Syllable Segment Stressed Nucleus:
Fifth Syllable Segment Stressed Coda:
Fifth Syllable Segment Unstressed Onset:
Fifth Syllable Segment Unstressed Nucleus:
Fifth Syllable Segment Unstressed Coda:

Segment Total for Stressed and Unstressed Onsets and Codas

Stressed Onset (100):
\( \text{j}(18), 18.00\% \)
\( \#s(8), 8.00\% \)
l(7), 7.00%
t(6), s(6), k(6), 6.00%
\( \#b(5), 5.00\% \)
\( \#f(4), \#k^{h}(4), \#w(4), 4.00\% \)
\( \#t^{h}(3), \#h(3), 3.00\% \)
\( \#v(2), t^{h}(2), \#x(2), \#l(2), k^{h}(2), g(2) 2.00\% \)

Stressed Coda (52):
\( \text{j}(11), 21.15\% \)
n(10), 19.23%
k(8), 15.38%
d\#(5), 9.61%
m(3), s(3), \( \eta(3), 5.76\% \)
t\#(2), l(2) 3.84%

Unstressed Onset (116):
\( \text{j}(12), 10.34\% \)
t(11), 9.48%
n(9), 7.75%
l(7), g(7), 6.03%
b(6), d(6), j(6), 5.17%
p(5), r(5), s(5), 4.31%
f(4), j(4), 3.44%
\( \#s(3), k(3), 2.58\% \)
\( \#m(2), \#f(2), \#d(2), z(2), \#k(2), h(2) 1.72\% \)

Unstressed Coda (56):
\( \text{d\#}(8), n\#(8), 14.28\% \)
k\#(5), 8.92%
k(4), 7.14%
f\#(3), t\#(3), s(3), \#f(3), j\#(3), 5.35%
s\#(2), j(2), l(2) 3.57%

Segment Total for Onsets and Codas

Onset (246):
\( \text{j}(35), 14.22\% \)
t(18), l(18), 7.31%
\( \#s(13), 5.28\% \)
s(11), 4.47%
n(9), k(9), g(9), 3.65%
\( \#f(8), 3.25\% \)
b(7), d(7), 2.84%
p(6), j(6), \#j(6), \#k^{h}(6), \#w(6), 2.43%
\( \#p^{h}(5), \#b(5), f(5), r(5), \#h(5), 2.03\% \)

851
j(4), #g(4), 1.62%
#m(3), #v(3), tʰ(3), #tʰ(3), #d(3), #j(3), 1.21%
pʰ(2), m(2), #d(2), #n(2), #z(2), z(2), #j(2), #l(2), #k(2), kʰ(2), h(2) .81%

coda (139):
#k(16), 11.51%
d#(15), 10.79%
#ʒ(14), 10.07%
#n(12), 8.63%
t#(10), 7.19%
#k(9), 6.47%
n#(8), 5.75%
s(6), 4.31%
s#(5), #k(5), 3.59%
m(4), f#(4), #τ(4), 2.87%
m#(3), f#(3), #τ(3), 2.15%
tf#(2), z(2) 1.43%

segment total for stressed and unstressed syllables and monosyllables

monosyllable segment (61):
#j(6), 9.83%
t#(5), 8.19%
#l(4), #k(4), 6.55%
#pʰ(3), s#(3), #τ(3), 4.91%
#f(2), #s(2), d#(2), #τ(2), #kʰ(2), #g(2), #w(2) 3.27%

(24):
t(4), 16.66%
#æ(3), 12.50%
i(2), u"(2), a"(2), #a(2) 8.33%

first syllable segment stressed (96):
#j(18), 18.75%
#k(11), 11.45%
#s(8), 8.33%
#b(5), n(5), 5.20%
#f(4), l(4), #kʰ(4), #w(4), 4.16%
m(3), t(3), #tʰ(3), #h(3), 3.12%
#v(2), s(2), #j(2), #l(2), h(2) 2.08%

(61):
#a(11), 18.03%
#æ(8), 13.11%
t(6), #e(6), 9.83%
#s(5), 8.19%
#æ(4), 6.55%
#a(3), 4.91%
#u"(2), e"(2), o"(2), #æ(2), #a(2) 3.27%

first syllable segment unstressed (34):
#k(4), 11.76%
#s(3), s(3), l(3), 8.82%
#m(2), #f(2), #d(2), #j(2), #k(2) 5.88%

(29):
t(7), 24.13%
#æ(6), 20.68%
#a(3), #e(3), 10.34%
i(2), a(2) 6.89%

852
**Second Syllable Segment Stressed (55):**

<table>
<thead>
<tr>
<th>Segment</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>ɹ</td>
<td>11</td>
<td>20.00%</td>
</tr>
<tr>
<td>s</td>
<td>7</td>
<td>12.72%</td>
</tr>
<tr>
<td>d#</td>
<td>5</td>
<td>9.09%</td>
</tr>
<tr>
<td>t</td>
<td>4</td>
<td>7.27%</td>
</tr>
<tr>
<td>l</td>
<td>3</td>
<td>5.45%</td>
</tr>
<tr>
<td>tʰ</td>
<td>2</td>
<td>3.63%</td>
</tr>
</tbody>
</table>

**Second Syllable Segment Unstressed (112):**

<table>
<thead>
<tr>
<th>Segment</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>ɹ</td>
<td>8</td>
<td>7.14%</td>
</tr>
<tr>
<td>t</td>
<td>7</td>
<td>6.25%</td>
</tr>
<tr>
<td>d#</td>
<td>6</td>
<td>5.35%</td>
</tr>
<tr>
<td>g</td>
<td>5</td>
<td>4.46%</td>
</tr>
<tr>
<td>f#</td>
<td>3</td>
<td>2.67%</td>
</tr>
<tr>
<td>t#</td>
<td>2</td>
<td>1.78%</td>
</tr>
</tbody>
</table>

(27):

<table>
<thead>
<tr>
<th>Segment</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>æ</td>
<td>6</td>
<td>22.22%</td>
</tr>
<tr>
<td>i</td>
<td>3</td>
<td>14.81%</td>
</tr>
<tr>
<td>u*</td>
<td>2</td>
<td>7.40%</td>
</tr>
</tbody>
</table>

**Second Syllable Segment Unstressed (112):**

<table>
<thead>
<tr>
<th>Segment</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>æ</td>
<td>8</td>
<td>7.14%</td>
</tr>
<tr>
<td>t</td>
<td>7</td>
<td>6.25%</td>
</tr>
<tr>
<td>d#</td>
<td>6</td>
<td>5.35%</td>
</tr>
<tr>
<td>g</td>
<td>5</td>
<td>4.46%</td>
</tr>
<tr>
<td>p</td>
<td>4</td>
<td>3.57%</td>
</tr>
<tr>
<td>f#</td>
<td>3</td>
<td>2.67%</td>
</tr>
<tr>
<td>t</td>
<td>2</td>
<td>1.78%</td>
</tr>
</tbody>
</table>

(50):

<table>
<thead>
<tr>
<th>Segment</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>æ</td>
<td>9</td>
<td>18.00%</td>
</tr>
<tr>
<td>æ</td>
<td>6</td>
<td>12.00%</td>
</tr>
<tr>
<td>i</td>
<td>3</td>
<td>6.00%</td>
</tr>
</tbody>
</table>

**Third Syllable Segment Stressed:**

<table>
<thead>
<tr>
<th>Segment</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>n</td>
<td>4</td>
<td>10.52%</td>
</tr>
<tr>
<td>t</td>
<td>3</td>
<td>7.89%</td>
</tr>
<tr>
<td>b</td>
<td>2</td>
<td>5.26%</td>
</tr>
</tbody>
</table>

(20):

<table>
<thead>
<tr>
<th>Segment</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>æ</td>
<td>4</td>
<td>20.00%</td>
</tr>
<tr>
<td>i</td>
<td>3</td>
<td>15.00%</td>
</tr>
<tr>
<td>e</td>
<td>2</td>
<td>10.00%</td>
</tr>
</tbody>
</table>

**Fourth Syllable Segment Stressed:**

<table>
<thead>
<tr>
<th>Segment</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>n</td>
<td>2</td>
<td>15.38%</td>
</tr>
</tbody>
</table>

(9):

<table>
<thead>
<tr>
<th>Segment</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>æ</td>
<td>4</td>
<td>44.44%</td>
</tr>
</tbody>
</table>

**Fifth Syllable Segment Stressed:**

**Fifth Syllable Segment Unstressed:**

<table>
<thead>
<tr>
<th>Segment</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>ɹ</td>
<td>20</td>
<td>15.38%</td>
</tr>
<tr>
<td>k</td>
<td>15</td>
<td>11.53%</td>
</tr>
<tr>
<td>s</td>
<td>8</td>
<td>6.15%</td>
</tr>
<tr>
<td>l</td>
<td>7</td>
<td>5.38%</td>
</tr>
<tr>
<td>f</td>
<td>6</td>
<td>4.61%</td>
</tr>
</tbody>
</table>

Segment Total by Syllable
#b(5), 3.84%  
#kʰ(4), #w(4), #h(4), 3.07%  
#m(3), m(3), #v(3), t(3), #tʰ(3), #s(3), s(3), #µ(3), 2.30%  
#pʰ(2), #d(2), #n(2), s(2), #l(2), #k(2), #g(2) 1.53%  

(90):  
/ɪ(13), a(13), 14.44%  
æ(9), 10.00%  
æ(6), æ(6), 6.66%  
ɪ(5), 5.55%  
#ɛ(4), #æ(4), #a(4), 4.44%  
i(3), #a(3), 3.33%  
#i(2), u*(2), e(2), o*(2), #a(2), #a’(2) 2.22%  

Second Syllable Segment (167):  
µ(19), 11.37%  
t(11), d#(11), s(11), 6.58%  
n(8), 4.79%  
#(7), g(7), 4.19%  
n#(6), k(6), 3.59%  
p(5), b(5), f(5), l(5), 2.99%  
t#(4), d(4), f(4), k#(4), 2.39%  
f#(3), tʰ(3), r(3), f#(3), µ#(3), j(3), 1.79%  
m#(2), η#(2), η(2), kʰ(2), η(2), h(2) 1.19%  

(77):  
/ɪ(13), 16.88%  
a(9), 11.68%  
u*(8), æ(8), 10.38%  
a(7), 9.09%  
æ(6), 7.79%  
i#(3), i(3), o*(3), 3.89%  
e(2), æ-θ(2), e(2) 2.59%  

Third Syllable Segment (39):  
n(4), µ(4), 10.25%  
t(3), *n#(3), 7.69%  
b(2), d(2), n#(2), f(2), l(2), g(2) 5.12%  

(21):  
a(4), 19.04%  
i(3), t(3), 14.28%  
e(2) 9.52%  

Fourth Syllable Segment (13):  
n(2) 15.38%  

(9):  
a#(4) 44.44%  

Fifth Syllable Segment:

Segment Stressed and Unstressed Total  

Stressed Segment (152):  
µ(29), 19.07%  
k(14), 9.21%  
n(10), 6.57%  
s(9), 5.92%  
#s(8), 5.26%
<table>
<thead>
<tr>
<th>Symbol</th>
<th>Value</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>t(7), l(7)</td>
<td>4.60%</td>
<td></td>
</tr>
<tr>
<td>#b(5), d#(5)</td>
<td>3.28%</td>
<td></td>
</tr>
<tr>
<td>m(4), f(4), kʰ(4), w(4)</td>
<td>2.63%</td>
<td></td>
</tr>
<tr>
<td>#tʰ(3), h(3)</td>
<td>1.97%</td>
<td></td>
</tr>
<tr>
<td>#v(2), tʰ(2), t#(2), j(2), l(2), kʰ(2), g(2)</td>
<td>1.31%</td>
<td></td>
</tr>
<tr>
<td>æ(15)</td>
<td>16.85%</td>
<td></td>
</tr>
<tr>
<td>a(14)</td>
<td>15.73%</td>
<td></td>
</tr>
<tr>
<td>t(10)</td>
<td>11.23%</td>
<td></td>
</tr>
<tr>
<td>s(8)</td>
<td>8.98%</td>
<td></td>
</tr>
<tr>
<td>α(6)</td>
<td>6.74%</td>
<td></td>
</tr>
<tr>
<td>i(4), u&quot;(4), e'(4), #æ(4)</td>
<td>4.49%</td>
<td></td>
</tr>
<tr>
<td>o*(3), #a(3)</td>
<td>3.37%</td>
<td></td>
</tr>
<tr>
<td>#a(2), #a'(2)</td>
<td>2.24%</td>
<td></td>
</tr>
</tbody>
</table>

Unstressed Segment (197):
<table>
<thead>
<tr>
<th>Symbol</th>
<th>Value</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>æ(14)</td>
<td>7.10%</td>
<td></td>
</tr>
<tr>
<td>t(11)</td>
<td>5.58%</td>
<td></td>
</tr>
<tr>
<td>n(10)</td>
<td>5.07%</td>
<td></td>
</tr>
<tr>
<td>d#(8), n#(8), s(8), #*(8)</td>
<td>4.06%</td>
<td></td>
</tr>
<tr>
<td>l(7), k(7), g(7)</td>
<td>3.55%</td>
<td></td>
</tr>
<tr>
<td>b(6), d(6), j(6)</td>
<td>3.04%</td>
<td></td>
</tr>
<tr>
<td>p(5), #n(5), r(5), k#(5)</td>
<td>2.53%</td>
<td></td>
</tr>
<tr>
<td>f(4), j(4)</td>
<td>2.03%</td>
<td></td>
</tr>
<tr>
<td>f#(3), t#(3), s(3), z(3), #j(3), #j(3)</td>
<td>1.52%</td>
<td></td>
</tr>
<tr>
<td>#m(2), #m(2), #f(2), #d(2), s#(2), t(2), #k(2), h(2)</td>
<td>1.01%</td>
<td></td>
</tr>
</tbody>
</table>

(108):
<table>
<thead>
<tr>
<th>Symbol</th>
<th>Value</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>t(20), a(20)</td>
<td>18.51%</td>
<td></td>
</tr>
<tr>
<td>æ(7), a(7)</td>
<td>6.48%</td>
<td></td>
</tr>
<tr>
<td>u&quot;(6), æ(6)</td>
<td>5.55%</td>
<td></td>
</tr>
<tr>
<td>i(5)</td>
<td>4.62%</td>
<td></td>
</tr>
<tr>
<td>i#(4), o&quot;#(4)</td>
<td>3.70%</td>
<td></td>
</tr>
<tr>
<td>e'(3), #a(3), #e(3), e(3), æ(3)</td>
<td>2.77%</td>
<td></td>
</tr>
<tr>
<td>e#'(2), æ#(2)</td>
<td>1.85%</td>
<td></td>
</tr>
</tbody>
</table>

Segment Total (absolute)
<table>
<thead>
<tr>
<th>Symbol</th>
<th>Value</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>æ(49)</td>
<td>11.95%</td>
<td></td>
</tr>
<tr>
<td>k(25)</td>
<td>6.09%</td>
<td></td>
</tr>
<tr>
<td>n(21)</td>
<td>5.12%</td>
<td></td>
</tr>
<tr>
<td>t(19)</td>
<td>4.63%</td>
<td></td>
</tr>
<tr>
<td>l(18)</td>
<td>4.39%</td>
<td></td>
</tr>
<tr>
<td>s(17)</td>
<td>4.14%</td>
<td></td>
</tr>
<tr>
<td>d#(15)</td>
<td>3.65%</td>
<td></td>
</tr>
<tr>
<td>#s(13)</td>
<td>3.17%</td>
<td></td>
</tr>
<tr>
<td>t#(10)</td>
<td>2.43%</td>
<td></td>
</tr>
<tr>
<td>k#(9), g(9)</td>
<td>2.19%</td>
<td></td>
</tr>
<tr>
<td>#f(8), n#(8), #*(8)</td>
<td>1.95%</td>
<td></td>
</tr>
<tr>
<td>b(7), d(7)</td>
<td>1.70%</td>
<td></td>
</tr>
<tr>
<td>p(6), m(6), f(6), j(6), #a(6), #kʰ(6), #w(6)</td>
<td>1.46%</td>
<td></td>
</tr>
<tr>
<td>#pʰ(5), #b(5), #n(5), r(5), s#(5), h(5), #h(5)</td>
<td>1.21%</td>
<td></td>
</tr>
<tr>
<td>z(4), #j(4), j(4), #g(4)</td>
<td>0.97%</td>
<td></td>
</tr>
<tr>
<td>m#(3), #m(3), f#(3), #v(3), #tʰ(3), t#(3), d#(3), #j(3), #j(3)</td>
<td>0.73%</td>
<td></td>
</tr>
<tr>
<td>pʰ(2), *n#(2), t#(2), #d(2), #n(2), #r(2), #z(2), #j(2), #l(2), #k(2), kʰ(2), h(2)</td>
<td>0.48%</td>
<td></td>
</tr>
</tbody>
</table>

(221):
Supra-Segments: Consonant Clusters

Consonant Cluster Total for Stressed and Unstressed Syllables and Monosyllables according to Syllable Configuration

Monosyllable Consonant Cluster Onset (all entries are word initial):

Monosyllable Consonant Cluster Coda (all entries are word final) (7):
kt#(3) 42.85%

First Syllable Consonant Cluster Stressed Onset (all entries are word initial) (13):
First Syllable Consonant Cluster Stressed Coda:

First Syllable Consonant Cluster Unstressed Onset (all entries are word initial):
First Syllable Consonant Cluster Unstressed Coda:

Second Syllable Consonant Cluster Stressed Onset (7):
st(2) 28.57%

Second Syllable Consonant Cluster Stressed Coda (5):
nd#(2) 40.00%

Second Syllable Consonant Cluster Unstressed Onset:
Second Syllable Consonant Cluster Unstressed Coda:

Third Syllable Consonant Cluster Stressed Onset:
Third Syllable Consonant Cluster Stressed Coda:
Third Syllable Consonant Cluster Unstressed Onset:
Third Syllable Consonant Cluster Unstressed Coda:

Fourth Syllable Consonant Cluster Stressed Onset:
Fourth Syllable Consonant Cluster Stressed Coda:
Fourth Syllable Consonant Cluster Unstressed Onset:
Fourth Syllable Consonant Cluster Unstressed Coda:

Fifth Syllable Consonant Cluster Stressed Onset:
Fifth Syllable Consonant Cluster Stressed Coda:
Fifth Syllable Consonant Cluster Unstressed Onset:
Fifth Syllable Consonant Cluster Unstressed Coda:

Consonant Cluster Total for Stressed and Unstressed Onsets and Codas

Stressed Onset (20):
#kʰj(3), 15.00%
#sk(2), st(2) 10.00%

Stressed Coda (7):
nd#(2) 28.57%

Unstressed Onset:
Unstressed Coda (5):
łd#(3) 60.00%

Consonant Cluster Total for Onsets and Codas

Onset (36):
#f(3), #kʰj(3), 8.33%
#pʰ(2), #sk(2), #st(2), st(2), #g(2), #gl(2) 5.55%

Coda (19):
łd#(3), kt#(3), 15.78%
nd#(2) 10.52%

Consonant Cluster Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllable Consonant Cluster (16):
kt#(3) 18.75%

First Syllable Consonant Cluster Stressed (15):
#kʰj(3), 20.00%
#sk(2) 13.33%

First Syllable Consonant Cluster Unstressed:

Second Syllable Consonant Cluster Stressed (12):
nd#(2), st(2) 16.66%
Second Syllable Consonant Cluster Unstressed:

Third Syllable Consonant Cluster Stressed:
Third Syllable Consonant Cluster Unstressed:

Fourth Syllable Consonant Cluster Stressed:
Fourth Syllable Consonant Cluster Unstressed:

Fifth Syllable Consonant Cluster Stressed:
Fifth Syllable Consonant Cluster Unstressed:

Consonant Cluster Total per Syllable

First Syllable Consonant Cluster (20):
#kʰ(3), 15.00%
#fu(2), #sk(2) 10.00%

Second Syllable Consonant Cluster (16):
nd#(2), st(2), st(2) 12.50%

Third Syllable Consonant Cluster:

Fourth Syllable Consonant Cluster:

Fifth Syllable Consonant Cluster:

Consonant Cluster Stressed and Unstressed Total

Consonant Cluster Stressed (27):
#kʰ(3), 11.11%
nd#(2), #sk(2), st(2) 7.40%

Consonant Cluster Unstressed (12):
ld#(2) 16.66%

Consonant Cluster Total (absolute)

Narrow (55):
#fu(3), st(3), #kʰ(3), kt#(3), 5.45%
#pʰl(2), nd#(2), #sk(2), #st(2), st(2), ld#(2), #g(2), #gl(2) 3.63%

Broad (55):
st(5), kṣ(5), 9.09%
stu(4), 7.27%
ft(3), sk(3), td(3), kt(3), 5.45%
pl(2), tś(2), nd(2), kl(2), ks(2), g(2), gl(2) 3.63%

55 total consonant clusters

Supra-Segments: Whole Syllables

Whole Syllable Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllable Whole Syllable:

First Syllable Whole Syllable Stressed (all entries are word initial) (61):
#woʰ(2), #a(2), #eʰɛ(2), #æk(2), 3.27%

First Syllable Whole Syllable Unstressed (all entries are word initial) (29):
#a(3), 10.34%
#diss(2), #st(2), #ek(2), 6.89%

Second Syllable Whole Syllable Stressed (30):
tin#(2), 6.66%

Second Syllable Whole Syllable Unstressed (60):
pʰ#(2), 3.33%
<table>
<thead>
<tr>
<th>Syllable</th>
<th>Whole Syllable Stressed</th>
<th>Whole Syllable Unstressed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Third</td>
<td>22.22%</td>
<td></td>
</tr>
<tr>
<td>Fourth</td>
<td>22.22%</td>
<td></td>
</tr>
<tr>
<td>Fifth</td>
<td>22.22%</td>
<td></td>
</tr>
</tbody>
</table>

**Whole Syllable Total per Syllable**

- **First Syllable**
  - Whole Syllable (all entries are word initial) (90):
    - #ə(3), 3.33%
    - #i(2), #dɪs(2), #sɪ(2), #wʊ(2), #o(2), #ɛk(2), #tʰɛɹ(2), #æk(2), 2.22%

- **Second Syllable** (90):
  - tɪn#(2), pəɭ̩#(2), 2.22%

- **Third Syllable**:

- **Fourth Syllable** (9):
  - ə#(2), 22.22%

- **Fifth Syllable**:

**Whole Syllable Stressed (92):**
- tɪn#(2), #wʊ*(2), #ə(2), #tʰɛɹ(2), #æk(2), 2.17%

**Whole Syllable Stressed and Unstressed Total**

**Whole Syllable Total (absolute)**

- **Narrow (239):**
  - #ə(5), 2.09%
  - tɪn#(3), 1.25%
  - #i(2), ji#(2), #dɪs(2), #sɪ(2), #wʊ*(2), pəɭ̩#(2), #ə(2), də(2), #ɛk(2), #tʰɛɹ(2), #æk(2) 0.83%

- **Broad (239):**
  - ə(5), 2.09%
  - ji(4), 1.67%
  - tɪn(3), ək(3), 1.25%
  - i(2), jʊ(2), tɪ(2), dɪs(2), jɪŋ(2), stə(2), wo(2), pəɭ̩(2), nə(2), fə(2) kə(2), ə(2), də(2), ɛk(2), tɛɹ(2), a(2), ə(2), aɪ(2), bə(2) 0.83%

239 total whole syllables
### Supra-Segments: Whole Words

<table>
<thead>
<tr>
<th>Word Length Total</th>
<th>None</th>
<th>First</th>
<th>Second</th>
<th>Third</th>
<th>Fourth</th>
<th>Fifth</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Monosyllabic: 21.05%</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bisyllabic: 56.14%</td>
<td>0</td>
<td>81.25%</td>
<td>18.75%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>85.24%</td>
<td>42.85%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trisyllabic: 14.91%</td>
<td>0</td>
<td>35.29%</td>
<td>64.70%</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>9.83%</td>
<td>39.28%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tetrasyllabic: 7.89%</td>
<td>0</td>
<td>33.33%</td>
<td>55.55%</td>
<td>11.11%</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>4.91%</td>
<td>17.85%</td>
<td>100%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pentasyllabic:</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Stressed Syllable Total:</td>
<td>67.77%</td>
<td>31.11%</td>
<td>1.11%</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Table Key: The “Word Length Total” column figure represents the percentage of words that is of that word length. For the cells inside the “Syllable Receiving Stress” columns, the amount on top indicates what percentage of a particular word length was stressed on that syllable. The number on the bottom indicates, for all the words that received stress on a particular syllable, what percentage of these words were of a particular word length. The “Stressed Syllable Total” row indicates what percentage of words was stressed on a particular syllable. Note that monosyllables were not analyzed as receiving stress and the “None” cell in the “Stressed Syllable Total” row is inapplicable.

For all 114 whole words there are no repeated words.
Segmental and Supra-Segmental Frequency Data Sheet

Question ID: Y. the name of the remotest island on earth

**Segments**

Segment Total for Stressed and Unstressed Syllables and Monosyllables according to Syllable Configuration

<table>
<thead>
<tr>
<th>Monosyllable Onset (16):</th>
<th>#b(2), #s(2), l(2), #kʰ(2), #w(2) 12.50%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monosyllable Nucleus (12):</td>
<td>α(3), 25.00%</td>
</tr>
<tr>
<td></td>
<td>t(2), oʷ(2), æ(2) 16.66%</td>
</tr>
<tr>
<td>Monosyllable Coda (16):</td>
<td>n(2), k#(2) 12.50%</td>
</tr>
</tbody>
</table>

**First Syllable Segment Stressed Onset (51):**

| #s(7), #l(7) | 13.72% |
| #pʰ(5) | 9.80% |
| #kʰ(4) | 7.84% |
| #m(3), #d(3), l(3), #w(3) | 5.88% |
| #tʰ(2), #u(2), #g(2) | 3.92% |

**First Syllable Segment Stressed Nucleus (56):**

| α(9) | 16.07% |
| i(8), t(8) | 14.28% |
| æ(5) | 8.92% |
| uʷ(4), ε(4) | 7.14% |
| #α(3) | 5.35% |
| #i(2), o(2), oʷ(2), a(2) | 3.57% |

**First Syllable Segment Stressed Coda (26):**

| n(10) | 38.46% |
| s(4) | 15.38% |
| t(3) | 11.53% |
| s(2) | 7.69% |

**First Syllable Segment Unstressed Onset (36):**

| #b(6), | 16.66% |
| #s(4), #kʰ(4) | 11.11% |
| #d(3), #u(3), #k(3) | 8.33% |
| #m(2), #z(2) | 5.55% |

**First Syllable Segment Unstressed Nucleus (46):**

| α(11) | 23.91% |
| t(4), a(4), #a(4) | 8.69% |
| i(3), #a(3) | 6.52% |
| uʷ(2), oʷ(2), ε(2) | 4.34% |

**First Syllable Segment Unstressed Coda (11):**

| n(6) | 54.54% |
| s(2) | 18.18% |

**Second Syllable Segment Stressed Onset (39):**

| l(7) | 17.94% |
| s(6) | 15.38% |
| tʰ(3), n(3), s(3), z(3) | 7.69% |
| pʰ(2), b(2), d(2), w(2) | 5.12% |

**Second Syllable Segment Stressed Nucleus (36):**

| α(7) | 19.44% |
| i(6) | 16.66% |
Second Syllable Segment Stressed Coda (15):
\( n(2), \#(2), \#(2) \) 13.33%

Second Syllable Segment Unstressed Onset (73):
\( s(7), 9.58\% \)
\( f(6), d(6), l(6), 8.21\% \)
\( b(5), t(5), k(5), 6.84\% \)
\( w(4), 5.47\% \)
\( p^*(3), m(3), j(3), 4.10\% \)
\( v(2), n(2), z(2), j(2), j(2), q(2) 2.73\% \)

Second Syllable Segment Unstressed Nucleus (67):
\( a(14), 20.89\% \)
\( t(6), a(6), 8.95\% \)
\( \#(4), e(4), 5.97\% \)
\( o^*(3), \#(3), æ(3), 4.47\% \)
\( i(2), l(2), u^*(2), o\#(2), æ(2), æ(2) 2.98\% \)

Second Syllable Segment Unstressed Coda (22):
\( n\#(5), 22.72\% \)
\( n(4), 18.18\% \)
\( d\#(3), 13.63\% \)
\( s\#(2), k\#(2) 9.09\% \)

Third Syllable Segment Stressed Onset:

Third Syllable Segment Stressed Nucleus (8):
\( e(2) 25.00\% \)

Third Syllable Segment Stressed Coda:

Third Syllable Segment Unstressed Onset (45):
\( l(6), 13.33\% \)
\( t(4), n(4), w(4), 8.88\% \)
\( s(3), 6.66\% \)
\( b(2), f(2), r(2), j(2), j(2), k(2) 4.44\% \)

Third Syllable Segment Unstressed Nucleus (43):
\( o^*(6), 13.95\% \)
\( a(5), 11.62\% \)
\( å(4), a(4), 9.30\% \)
\( l(3), 6.97\% \)
\( u^*(2), e\#(2), å\#(2), å\#(2), a\#(2) 4.65\% \)

Third Syllable Segment Unstressed Coda (10):
\( d\#(3), 30.00\% \)
\( n\#(2) 20.00\% \)

Fourth Syllable Segment Stressed Onset:

Fourth Syllable Segment Stressed Nucleus:

Fourth Syllable Segment Stressed Coda:

Fourth Syllable Segment Unstressed Onset (11):
\( l(3), 27.27\% \)
\( m(2), å(2) 18.18\% \)

Fourth Syllable Segment Unstressed Nucleus (15):
\( ê(3), 20.00\% \)
1(2), o^#(2), a(2), a^(#2) 13.33%

Fourth Syllable Segment Unstressed Coda (4):
\[ n^#(2) \] 50.00%

**Fifth Syllable Segment Stressed Onset:**

**Fifth Syllable Segment Stressed Nucleus:**

**Fifth Syllable Segment Stressed Coda:**

Fifth Syllable Segment Unstressed Onset:
Fifth Syllable Segment Unstressed Nucleus:
Fifth Syllable Segment Unstressed Coda:

Segment Total for Stressed and Unstressed Onsets and Codas

<table>
<thead>
<tr>
<th></th>
<th>Stressed Onset (99)</th>
<th>Stressed Coda (41)</th>
<th>Unstressed Onset (165)</th>
<th>Unstressed Coda (50)</th>
<th>Onset (280)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>l(11), 11.11%</td>
<td>n(12), 29.26%</td>
<td>l(15), 9.09%</td>
<td>n(10), 20.00%</td>
<td>l(28), 10.00%</td>
</tr>
<tr>
<td></td>
<td>#s(7), j(7), #l(7), 7.07%</td>
<td>s(3), h(3), 7.31%</td>
<td>s(11), 6.66%</td>
<td>s(9), 18.00%</td>
<td>s(15), 5.35%</td>
</tr>
<tr>
<td></td>
<td>p^t(5), n(5), 5.05%</td>
<td>t^h(4), s(4), z(4), #k^h(4), 4.04%</td>
<td>t(9), w(9), 5.45%</td>
<td>d#(6), 12.00%</td>
<td>#s(13), 4.64%</td>
</tr>
<tr>
<td></td>
<td>m(3), #f(3), #d(3), d(3), #w(3), 3.03%</td>
<td>m(3), r(3), z(3), #j(3), #k(3), g(3), 1.81%</td>
<td>f(8), 4.84%</td>
<td>j(4), 8.00%</td>
<td>n(11), w(11), 3.92%</td>
</tr>
<tr>
<td></td>
<td>p^t(2), b(2), #t^h(2), #j(2), k(2), #g(2), w(2) 2.02%</td>
<td>#m(2), v(2), t^h(2), θ(2), #z(2), h(2) 1.21</td>
<td>b(7), d(7), k(7), 4.24%</td>
<td>s#(3), h(3), k#(3), 6.00%</td>
<td>#k^h(10), 3.57%</td>
</tr>
<tr>
<td></td>
<td>p^h(2), b(2), #t^h(2), #j(2), k(2), #g(2), w(2) 2.02%</td>
<td>p^h(3), #d(3), r(3), z(3), #j(3), #k(3), g(3), 1.81%</td>
<td>#b(6), m(6), n(6), 3.63%</td>
<td>t^#(3), z#(3), 4.00%</td>
<td>b(9), t(9), k(9), 3.21%</td>
</tr>
<tr>
<td></td>
<td>p^h(4), s(4), z(4), #k^h(4), 4.04%</td>
<td>#b(6), m(6), n(6), 3.63%</td>
<td>#s(4), j(4), j(4), #k^h(4), 2.42%</td>
<td>t^#(3), z#(3), 4.00%</td>
<td>#b(8), f(8), #l(8), 2.85%</td>
</tr>
<tr>
<td></td>
<td>m(7), z(7), 2.50%</td>
<td>p^h(6), t^h(6), #d(6), 2.14%</td>
<td>p^h(6), t^h(6), #d(6), 2.14%</td>
<td>m(7), z(7), 2.50%</td>
<td>m(7), z(7), 2.50%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>p^h(5), #m(5), #f(5), #j(5), #w(5), 1.78%</td>
<td>p^h(5), #m(5), #f(5), #j(5), #w(5), 1.78%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

863
<table>
<thead>
<tr>
<th>Segment Total for Stressed and Unstressed Syllables and Monosyllables</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Monosyllable Segment (41):</strong></td>
</tr>
<tr>
<td>#b(2), n(2), #s(2), ı(2), #kʰ(2), k#(2), #w(2), ı(2), oʷ(2), æ(2) 4.87%</td>
</tr>
<tr>
<td><strong>(12):</strong></td>
</tr>
<tr>
<td>ɑ(3), 25.00%</td>
</tr>
<tr>
<td>ı(2), oʷ(2), æ(2) 16.66%</td>
</tr>
<tr>
<td><strong>First Syllable Segment Stressed (77):</strong></td>
</tr>
<tr>
<td>n(11), 14.28%</td>
</tr>
<tr>
<td>#s(7), ı(7), 9.09%</td>
</tr>
<tr>
<td>#pʰ(5), 6.49%</td>
</tr>
<tr>
<td>ı(4), #kʰ(4), 5.19%</td>
</tr>
<tr>
<td>#m(3), #f(3), #d(3), ı(3), ı(3), #w(3), 3.89%</td>
</tr>
<tr>
<td>#tʰ(2), s(2), #ı(2), #g(2) 2.59%</td>
</tr>
<tr>
<td><strong>(56):</strong></td>
</tr>
<tr>
<td>ɑ(9), 16.07%</td>
</tr>
<tr>
<td>ı(8), ı(8), 14.28%</td>
</tr>
<tr>
<td>æ(5), 8.92%</td>
</tr>
<tr>
<td>uʷ(4), ε(4), 7.14%</td>
</tr>
<tr>
<td>#ɑ(3), 5.35%</td>
</tr>
<tr>
<td>#ı(2), 0(2), oʷ(2), aˈ(2) 3.57%</td>
</tr>
<tr>
<td><strong>First Syllable Segment Unstressed (47):</strong></td>
</tr>
<tr>
<td>#b(6), n(6), 12.76%</td>
</tr>
<tr>
<td>#s(4), #kʰ(4), 8.51%</td>
</tr>
<tr>
<td>#d(3), #ı(3), ı(3), #k(3), 6.38%</td>
</tr>
<tr>
<td>#m(2), #z(2) 4.25%</td>
</tr>
<tr>
<td><strong>(46):</strong></td>
</tr>
<tr>
<td>ɑ(11), 23.91%</td>
</tr>
<tr>
<td>ı(4), ɑ(4), #a(4), 8.69%</td>
</tr>
<tr>
<td>ı(3), #a(3), 6.52%</td>
</tr>
<tr>
<td>#uʷ(2), oʷ(2), ε(2) 4.34%</td>
</tr>
<tr>
<td><strong>Second Syllable Segment Stressed (54):</strong></td>
</tr>
<tr>
<td>ı(7), ı(7), 12.96%</td>
</tr>
<tr>
<td>n(5), s(4), z(4), 9.25%</td>
</tr>
<tr>
<td>tʰ(3), 5.55%</td>
</tr>
<tr>
<td>pʰ(2), b(2), d(2), ı#(2), ı#(2), k(2), w(2) 3.70%</td>
</tr>
<tr>
<td><strong>(36):</strong></td>
</tr>
<tr>
<td>ɑ(7), 19.44%</td>
</tr>
<tr>
<td>ı(6), 16.66%</td>
</tr>
<tr>
<td>uʷ(4), ı(4), 11.11%</td>
</tr>
</tbody>
</table>

864
æ(3), 8.33%
e(2),  ε(2)  5.55%

Second Syllable Segment Unstressed (106):
s(7), 6.60%
f(6), d(6), n(6), l(6), 5.66%
b(5), t(5), n#(5), k(5), 4.71%
*ŋ#(4), w(4), 3.77%
P(3), m(3), d#(3), ʃ(3), *ʃ#(3), 2.83%
v(2), *ŋ(2), s#(2), z(2), f(2), j(2), k#(2), g(2) 1.88%

(56):
a(14), 25.00%
t(6), a(6), 10.71%
s(4), 7.14%
o#(3), æ(3), 5.35%
i(2), i(2), u#(2), o#(2), a#(2), ø(2) 3.57%

Third Syllable Segment Stressed:
(8):
e(2)  25.00%

Third Syllable Segment Unstressed (61):
l(6), 9.83%
ʃ(5), 8.19%
t(4), n(4), w(4), 6.55%
d#(3), s(3), 4.91%
b(2), f(2), n#(2), *ŋ#(2), r(2), f(2), *ʃ#(2), j(2), k(2) 3.27%

(37):
o#(6), 16.21%
a(5), 13.51%
a#(4), a(4), 10.81%
i(3), 8.10%
u#(2), e(2), ø#(2), a#(2) 5.40%

Fourth Syllable Segment Stressed:

Fourth Syllable Segment Unstressed (15):
l(3), 20.00%
m(2), n#(2), ʃ(2) 13.33%

(15):
a#(3), 20.00%
t(2), o#(2), a(2), a#(2) 13.33%

Fifth Syllable Segment Stressed:

Fifth Syllable Segment Unstressed:

Segment Total by Syllable

First Syllable Segment (124):
 ri(7),  13.70%
#s(11), 8.87%
#l(8), #k^*(8), 6.45%
ʃ(7), 5.64%
#b(6), #d(6), 4.83%
#p^*(5), #m(5), #ʃ(5), 4.03%
#f(4), #t(4), #k(4), 3.22%
#t^*(3), #z(3), l(3), #g(3), #w(3), 2.41%
s(2), k(2), #h(2) 1.61%
(102):
α(13), 12.74%
τ(12), 11.76%
ι(11), α(11), 10.78%
#α(7), 6.86%
e(6), æ(6), 5.88%
u*(5), 4.90%
o**(4), 3.92%
υ**(3), #α(3), 2.94%
#i(2), o(2), υ(2), a'(2) 1.96%

Second Syllable Segment (160):
I(13), 8.12%
n(11), s(11), 6.87%
τ(10), 6.25%
d(8), 5.00%
b(7), k(7), 4.37%
f(6), n #(6), z(6), w(6), 3.75%
p*(5), t(5), 3.12%
m(4), t*(4), #η(4), 2.50%
v(3), d #(3), s(3), #j(3), #ς(3), #φ(3), #ε(3), 1.87%
p(2), t#(2), t*(2), #η(2), #τ(2), j(2), #k(2), 1.25%

(92):
α(14), 15.21%
α(13), 14.13%
τ(10), 10.86%
#(8), 8.69%
u*(6), e(6), æ(6), 6.52%
o**(3), 3.26%
υ**(2), e*(2), o*(2), α*(2), α(2), a*(2) 2.17%

Third Syllable Segment (69):
I(7), 10.14%
ν(6), 8.69%
n(5), 7.24%
t(4), s(4), w(4), 5.79%
d#(3), k(3), 4.34%
b(2), f(2), d(2), n#(2), #η(2), r(2), z(2), #j(2), #φ(2), j(2) 2.89%

(45):
o*(6), 13.33%
α(5), 11.11%
α#(4), α(4), 8.88%
#(3), α(3), 6.66%
u*(2), e*(2), o*(2), a*(2) 4.44%

Fourth Syllable Segment (16):
I(3), 18.75%
m(2), n(2), ν(2), 12.50%

(16):
α#(3), α(3), 18.75%
τ(2), o*(2), a*(2) 12.50%

Fifth Syllable Segment:
Stressed Segment (140):

n(17), 12.14%
\( \ddot{u} \)(12), 8.57%
l(11), 7.85%
\#s(7), s(7), l(7), 5.00%
z(6), 4.28%
\#p(5), 3.57%
t(4), d(4), \#k(4), 2.85%
k(4), b(3), \#m(3), \#f(3), \#d(3), h(3), \#w(3), 2.14%
p(2), t(2), \#t(2), \#j(2), \#\#(2), \#g(2), w(2) 1.42%

(101):
a(17), 16.83%
i(14), 13.86%
t(12), 11.88%
u(9), 8.91%
æ(8), 7.92%
e(6), 5.94%
e(5), 4.95%
o(4), 3.96%
o(3), a(3), \#a(3), 2.97%
\#i(2), \#a(2) 1.98%

Unstressed Segment (230):
n(16), 6.95%
l(15), 6.52%
\( \ddot{u} \)(14), 6.08%
s(11), 4.78%
t(9), n(#(9), w(9), 3.91%
f(8), k(8), 3.47%
b(7), m(7), d(7), 3.04%
\#b(6), d(#(6), \#n(6), 2.60%
\#t(5), 2.17%
\#s(4), \#j(4), \#k(4), 1.73%
p(3), \#d(3), \#r(3), s(#(3), z(3), \#u(3), h(3), \#k(3), k(#(3), g(3), 1.30%
\#m(2), \#n(2), \#v(2), t(2), t(#(2), \#t(2), \#n(2), \#h(2), \#z(2), h(2) .86%

(156):
a(30), 19.23%
a(16), 10.25%
t(13), 8.33%
o(11), 7.05%
\#a(10), 6.41%
i(9), 5.76%
e(7), 4.48%
e(5), æ(5), \#a(5), 3.20%
i(4), \#o(4), \#a(4), 2.56%
u(3), u(#(3), \#a(3), \#a(3), 1.92%
\#u(2), u(2), o(#(2), o(#(2), \#a(2) 1.28%

Segment Total (absolute)

Narrow (411):
n(35), 8.51%
\( \ddot{u} \)(28), l(28), 6.81%
s(18), 4.37%
\#s(13), 3.16%
d(11), w(11), 2.67%
b(10), t(10), n(#(10), z(10), \#k(10), 2.43%
680 total segments
Supra-Segments: Consonant Clusters

Consonant Cluster Total for Stressed and Unstressed Syllables and Monosyllables according to Syllable Configuration

Monosyllable Consonant Cluster Onset (all entries are word initial):
Monosyllable Consonant Cluster Coda (all entries are word final):

First Syllable Consonant Cluster Stressed Onset (all entries are word initial):
First Syllable Consonant Cluster Stressed Coda:
First Syllable Consonant Cluster Unstressed Onset (all entries are word initial):
First Syllable Consonant Cluster Unstressed Coda:

Second Syllable Consonant Cluster Stressed Onset:
Second Syllable Consonant Cluster Stressed Coda:
Second Syllable Consonant Cluster Unstressed Onset:
Second Syllable Consonant Cluster Unstressed Coda:

Third Syllable Consonant Cluster Stressed Onset:
Third Syllable Consonant Cluster Stressed Coda:
Third Syllable Consonant Cluster Unstressed Onset (4):
st(2)  50.00%
Third Syllable Consonant Cluster Unstressed Coda:

Fourth Syllable Consonant Cluster Stressed Onset:
Fourth Syllable Consonant Cluster Stressed Coda:
Fourth Syllable Consonant Cluster Unstressed Onset:
Fourth Syllable Consonant Cluster Unstressed Coda:

Fifth Syllable Consonant Cluster Stressed Onset:
Fifth Syllable Consonant Cluster Stressed Coda:
Fifth Syllable Consonant Cluster Unstressed Onset:
Fifth Syllable Consonant Cluster Unstressed Coda:

Consonant Cluster Total for Stressed and Unstressed Onsets and Codas

Stressed Onset:
Stressed Coda:

Unstressed Onset (11):
st(2)  18.18%

Unstressed Coda:

Consonant Cluster Total for Onsets and Codas

Onset (20):
st(2), #kʰl(2)  10.00%

Coda:

Consonant Cluster Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllable Consonant Cluster:

First Syllable Consonant Cluster Stressed:
First Syllable Consonant Cluster Unstressed:

Second Syllable Consonant Cluster Stressed:
Second Syllable Consonant Cluster Unstressed:

Third Syllable Consonant Cluster Stressed:
Third Syllable Consonant Cluster Unstressed (6):
st(2)  33.33%

Fourth Syllable Consonant Cluster Stressed:
Fourth Syllable Consonant Cluster Unstressed:

Fifth Syllable Consonant Cluster Stressed:
Fifth Syllable Consonant Cluster Unstressed:

Consonant Cluster Total per Syllable

First Syllable Consonant Cluster:

Second Syllable Consonant Cluster:

Third Syllable Consonant Cluster (6):
st(2) 33.33%

Fourth Syllable Consonant Cluster:

Fifth Syllable Consonant Cluster:

Consonant Cluster Stressed and Unstressed Total

Consonant Cluster Stressed:

Consonant Cluster Unstressed (17):
st(2) 11.76%

Consonant Cluster Total (absolute)

Narrow (32):
st(2), #kʰl(2) 6.25%

Broad (32):
kl(3), 9.37%
fl(2), fj(2), st(2), spl(2) 6.25%

32 total consonant clusters

Supra-Segments: Whole Syllables

Whole Syllable Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllable Whole Syllable:

First Syllable Whole Syllable Stressed (all entries are word initial) (57):
#i(2), #pʰi(2) 3.50%

First Syllable Whole Syllable Unstressed (all entries are word initial) (45):
#ø(3), 6.66%
#si(2), #uᵠ(2), #da(2), #a(2) 4.44%

Second Syllable Whole Syllable Stressed:

Second Syllable Whole Syllable Unstressed (67):
pʰə(2), da(2), s*#(2), sə(2) 2.98%

Third Syllable Whole Syllable Stressed:

Third Syllable Whole Syllable Unstressed (44):
lə#(2) 4.54%

Fourth Syllable Whole Syllable Stressed:

Fourth Syllable Whole Syllable Unstressed:

Fifth Syllable Whole Syllable Stressed:

Fifth Syllable Whole Syllable Unstressed:

Whole Syllable Total per Syllable

First Syllable Whole Syllable (all entries are word initial) (102):
#uᵠ(3), #ø(3), #a(3) 2.94%
Supra-Segments: Whole Words

<table>
<thead>
<tr>
<th>Word Length Total</th>
<th>Syllable</th>
<th>Receiving Stress</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>None</td>
<td>First</td>
</tr>
<tr>
<td>Monosyllabic: 10.52%</td>
<td>0</td>
<td>80.00%/ 20.00%</td>
</tr>
<tr>
<td>Bisyllabic: 43.85%</td>
<td>54.00%/ 25.00%</td>
<td></td>
</tr>
<tr>
<td>Trisyllabic: 32.45%</td>
<td>46.15%/ 16.66%</td>
<td></td>
</tr>
<tr>
<td>Tetrasyllabic: 11.40%</td>
<td>38.46%/ 83.33%</td>
<td></td>
</tr>
<tr>
<td>Pentasyllabic: 1.75%</td>
<td>50.00%/ 16.66%</td>
<td></td>
</tr>
<tr>
<td>Stressed Syllable Total:</td>
<td>56.56%/ 36.36%/ 6.06%/ 1.01%/ 0</td>
<td></td>
</tr>
</tbody>
</table>

Table Key: The “Word Length Total” column figure represents the percentage of words that is of that word length. For the cells inside the “Syllable Receiving Stress” columns, the amount on top indicates what percentage of a particular word length was stressed on that syllable. The number on the bottom indicates, for all the words that received stress on a particular syllable, what percentage of these words were of a particular word length. The “Stressed Syllable Total” row indicates what percentage of words was stressed on a particular syllable. Note that monosyllables were not analyzed as receiving stress and the “None” cell in the “Stressed Syllable Total” row is inapplicable.

For all 114 whole words there are no repeated words.
Segmental and Supra-Segmental Frequency Data Sheet

Question ID: Z

Segments

Segment Total for Stressed and Unstressed Syllables and Monosyllables according to Syllable Configuration

Monosyllable Onset (41):
#b(4), #s(4), #l(4), 9.75%
#f(3), #s(3), 7.31%
#pʰ(2), #v(2), t(2), w(2) 4.87%

Monosyllable Nucleus (28):
ɑ(7), 25.00%
i(3), t(3), ã(3), 10.71%
oʰ(3), α(2) 7.14%

Monosyllable Coda (36):
d#(5), 13.88%
z#(4), 11.11%
f#(3), h(3), 8.33%
m#(2), f#(2), t#(2), n(2) 5.55%

First Syllable Segment Stressed Onset (70):
#s(11), #l(11), 15.71%
#m(6), 8.57%
#s(5), #l(5), 7.14%
#b(4), w(4), 5.71%
#f(3), #v(3), 4.28%
#f(2), #v(2), #d(2), n(2), l(2), #kʰ(2) 2.85%

First Syllable Segment Stressed Nucleus (57):
ɑ(11), 19.29%
t(8), 14.03%
i(7), ã(7), 12.28%
ê(6), 10.52%
uʰ(4), e(4), 7.01%
oʰ(3), 5.26%
a(2) 3.50%

First Syllable Segment Stressed Coda (27):
n(7), ñ(7), 25.92%
z(2), h(2), k(2), g(2) 7.40%

First Syllable Segment Unstressed Onset (26):
#f(4), #s(4), #l(4), 15.38%
#d(3), l(3) 11.53%

First Syllable Segment Unstressed Nucleus (28):
ɑ(12), 42.85%
#a(3), 10.71%
i(2), uʰ(2), ã(2) 7.14%

First Syllable Segment Unstressed Coda (4):
n(3) 75.00%

Second Syllable Segment Stressed Onset (32):
\( \mu(5), \lambda(5), 15.62\% \\
\phi(3), \epsilon(3), 9.37\% \\
\rho(2), \theta(2), n(2), s(2), w(2) 6.25\% \\

Second Syllable Segment Stressed Nucleus (27):
\( e(4), \sigma(4), \alpha(4), 14.81\% \\
\tau(3), \sigma(3), 11.11\% \\
u(2), \epsilon(2) 7.40\% \\

Second Syllable Segment Stressed Coda (18):
\( n(4), 22.22\% \\
t(2), n(2), f(2) 11.11\% \\

Second Syllable Segment Unstressed Onset (59):
\( z(8), 13.55\% \\
l(7), 11.86\% \\
n(6), 10.16\% \\
d(5), s(5), 8.47\% \\
f(4), t(4), \mu(4), 6.77\% \\
k(3), 5.08\% \\
b(2), r(2), k(2) 3.38\% \\

Second Syllable Segment Unstressed Nucleus (58):
\( t(8), \alpha(8), 13.79\% \\
a(6), 10.34\% \\
\prime(5), 8.62\% \\
i(3), o(3), \eta(3), \xi(3), \alpha(3), 5.17\% \\
u(2), o(2), \eta(2), \alpha(2) 3.44\% \\

Second Syllable Segment Unstressed Coda (24):
\( n(7), 29.16\% \\
t(4), d(4), 16.66\% \\
k(3) 12.50\% \\

Third Syllable Segment Stressed Onset:
Third Syllable Segment Stressed Nucleus:
Third Syllable Segment Stressed Coda:

Third Syllable Segment Unstressed Onset (25):
\( n(5), \mu(5), 20.00\% \\
j(4), 16.00\% \\
s(3), \gamma(3), 12.00\% \\
d(2) 8.00\% \\

Third Syllable Segment Unstressed Nucleus (23):
\( a(6), 26.08\% \\
\prime(3), \alpha(3), 13.04\% \\
i(2), o(2), r(2), 8.69\% \\

Third Syllable Segment Unstressed Coda (8):
\( t(2), s(2) 25.00\% \\

Fourth Syllable Segment Stressed Onset:
Fourth Syllable Segment Stressed Nucleus:
Fourth Syllable Segment Stressed Coda:

Fourth Syllable Segment Unstressed Onset:

Fourth Syllable Segment Unstressed Nucleus (6):
\( a(2) 33.33\% \\

Fourth Syllable Segment Unstressed Coda (4):
\( d(2) 50.00\% \\

Fifth Syllable Segment Stressed Onset:
Fifth Syllable Segment Stressed Nucleus:
Fifth Syllable Segment Stressed Coda:
Fifth Syllable Segment Unstressed Onset:
Fifth Syllable Segment Unstressed Nucleus:
Fifth Syllable Segment Unstressed Coda:

Segment Total for Stressed and Unstressed Onsets and Codas

Stressed Onset (103):
#s(11), #j(11), 10.67%
#(10), 9.70%
I(8), 7.76%
#m(6), w(6), 5.82%
#I(5), 4.85%
#b(4), n(4), j(4), 3.88%
f(3), #f(3), #w(3), 2.91%
m(2), #f(2), #v(2), t(2), #d(2), s(2), #k(2) 1.94%

Stressed Coda (45):
n(11), 24.44%
j(7), 15.55%
k(3), 6.66%
t(2), n(2), s(2), z(2), f(2), l(2), g(2) 4.44%

Unstressed Onset (115):
n(12), 10.43%
j(10), I(10), 8.69%
s(8), z(8), 6.95%
d(7), 6.08%
t(6), 5.21%
f(5), j(5), 4.34%
#f(4), #s(4), #j(4), k(4), 3.47%
#d(3), r(3), z(3), 2.60%
b(2), m(2), Θ(2), k(2), w(2) 1.73%

Unstressed Coda (39):
n(8), 20.51%
t(6), 15.38%
d(5), 12.82%
s(4), 10.25%
n(3), k(3), 7.69%
t(2), d(2), s(2) 5.12%

Segment Total for Onsets and Codas

Onset (259):
j(24), 9.26%
l(22), 8.49%
#s(19), 7.33%
#j(18), 6.94%
n(16), 6.17%
t(10), s(10), w(10), 3.86%
#b(8), #m(8), #f(8), f(8), d(8), z(8), 3.08%
#d(6), #f(6), #I(6), 2.31%
j(5), j(5), 1.93%
m(4), #k(4), k(4), 1.54%
b(3), #v(3), r(3), #z(3), z(3), #k(3), #w(3), 1.15%
#p(2), p(2), v(2), t(2), #d(2), Θ(2), g(2), #h(2) .77%

Coda (120):
n(16), 13.33%
Segment Total for Stressed and Unstressed Syllables and Monosyllables

<table>
<thead>
<tr>
<th></th>
<th>Monosyllable Segment (77)</th>
<th>First Syllable Segment Stressed (97)</th>
<th>First Syllable Segment Unstressed (30)</th>
<th>Second Syllable Segment Stressed (50)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Monosyllable Segment (77):</strong></td>
<td>d#(5), r(5), 6.49%</td>
<td>#b(4), #s(4), l(4), 5.19%</td>
<td>#f(3), #f(3), l(3), 3.09%</td>
<td>p(2), #f(2), #d(2), l(2), k(2), g(2), 2.06%</td>
</tr>
<tr>
<td><strong>First Syllable Segment Stressed (97):</strong></td>
<td>j(12), 12.37%</td>
<td>#s(11), #s(11), 11.34%</td>
<td>m(6), 6.18%</td>
<td>a(1), 19.29%</td>
</tr>
<tr>
<td><strong>First Syllable Segment Unstressed (30):</strong></td>
<td>a(12), 42.85%</td>
<td>#a(3), 10.71%</td>
<td>i(7), 12.28%</td>
<td>e(6), 10.52%</td>
</tr>
<tr>
<td><strong>Second Syllable Segment Stressed (50):</strong></td>
<td>n(6), 12.00%</td>
<td>j(5), 10.00%</td>
<td>f(3), j(3), 6.00%</td>
<td>m(2), t(2), n(2), f(2), w(2) 4.00%</td>
</tr>
</tbody>
</table>

875
Second Syllable Segment Unstressed (97):
- z(8), 8.24%
- n#(7), l(7), 7.21%
- n(6), 6.18%
- d(5), *η#(5), s(5), 5.15%
- f(4), t(4), t#(4), d#(4), μ(4), 4.12%
  - *η(3), η#(3), k(3), k#(3), 3.09%
- b(2), *μ#(2), r(2), k#(2) 2.06%

(44):
- t(8), a(8), 18.18%
- a(6), 13.63%
- i#(3), o"#(3), a-#(3), 6.81%
- u"#(2), o"(2), a#(2) 4.54%

Third Syllable Segment Stressed:

Third Syllable Segment Unstressed (36):
- n(5), μ(5), 13.88%
- s(4), f(4), 11.11%
  - *η#(3), g(3), 8.33%
- t#(2), d(2), s#(2) 5.55%

(20):
- a(6), 30.00%
- a#(3), 15.00%
- i#(2), i#(2), r(2), e(2) 10.00%

Fourth Syllable Segment Stressed:

Fourth Syllable Segment Unstressed (10):
- d"#(2) 20.00%

(4):
- a(2) 50.00%

Fifth Syllable Segment Stressed:

Fifth Syllable Segment Unstressed:

Segment Total by Syllable

First Syllable Segment (127):
- #s(15), #μ(15), 11.81%
- n(12), μ(12), 9.44%
- #m(7), 5.51%
- #f(6), 4.72%
- #d(5), #l(5), l(5), w(5), 3.93%
- #b(4), 3.14%
- #v(3), #f(3), #k#(3), k(3), #w(3), 2.36%
- p(2) s(2), Z(2), #z(2), l(2), g(2) 1.57%

(81):
- a(12), a(12), 14.81%
- i#(9), a#(9), 11.11%
- r(8), 9.87%
- u"(6), ε(6), 7.40%
- e(4), o"(4), 4.93%
- #a(3), 3.70%
- #i#(2), a(2) 2.46%

Second Syllable Segment (147):
- n(12), l(12), 8.16%
<table>
<thead>
<tr>
<th>Segment</th>
<th>Stressed</th>
<th>Unstressed</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First Syllable Segment</strong></td>
<td>30.00%</td>
<td>15.00%</td>
<td>45.00%</td>
</tr>
<tr>
<td><strong>Second Syllable Segment</strong></td>
<td>18.18%</td>
<td>10.00%</td>
<td>28.18%</td>
</tr>
<tr>
<td><strong>Third Syllable Segment</strong></td>
<td>15.49%</td>
<td>12.67%</td>
<td>28.16%</td>
</tr>
<tr>
<td><strong>Fourth Syllable Segment</strong></td>
<td>18.18%</td>
<td>12.67%</td>
<td>30.85%</td>
</tr>
<tr>
<td><strong>Fifth Syllable Segment</strong></td>
<td>11.48%</td>
<td>10.13%</td>
<td>21.61%</td>
</tr>
<tr>
<td><strong>Stressed Segment (148)</strong></td>
<td>16.47%</td>
<td>12.94%</td>
<td>29.41%</td>
</tr>
<tr>
<td><strong>Unstressed Segment (174)</strong></td>
<td>8.62%</td>
<td>8.62%</td>
<td>17.24%</td>
</tr>
</tbody>
</table>
s(10), i(10), l(10), 5.74%
\textquotesingle n#(9), 5.17%
n#(8), z(8), 4.59%
d(7), 4.02%
t(6), t\#(6), 3.44%
f(5), d\#(5), f(5), 2.87%
\#f(4), \#s(4), s\#(4), \#s(4), \#o(4), k(4), 2.29%
\textquotesingle m\#(3), \#n(3), \textquotesingle r(3), z(3), \#t\#(3), k\#(3), 1.72%
b(2), m(2), t\#(2), d\#(2), \Theta(2), k\#(2), w(2) 1.14%

(97):  
a(28), 28.86%
t(10), 10.30%
a(8), 8.24%
i\#(5), i\#(5), 5.15%
o\#(4), o\#(4), 4.12%
\#d(3), \#e(3), \#e(3), \#f(3), 3.09%
u\#(2), u\#(2), e\#(2), e\#(2), a\#(2) 2.06%

Segment Total (absolute)

Narrow (399):
n(32), n(32), 8.02%
l(22), 5.51%
\#s(19), 4.76%
\#d(18), 4.51%
s(15), 3.75%
d\#(11), 2.75%
t(10), n\#(10), z(10), w(10), 2.50%
f(9), d(9), \#n\#(9), 2.25%
\#b(8), \#m(8), \#f(8), 2.00%
t\#(7), k(7), 1.75%
t\#(6), d\#(6), \#s\#(6), \#f\#(6), l(6), 1.50%
z\#(5), f(5), h\#(5), j(5), \#k\#(5), 1.25%
b(4), m(4), g(4), \#k\#(4), g(4), 1.00%
p(3), \#n\#(3), \#v\#(3), d\#\#(3), \#n\#(3), \#n\#(3), \#n\#(3), \#w(3), .75%
\#p\#(2), m\#(2), f\#(2), v(2), t\#\#(2), t\#\#(2), \#d\#(2), \Theta(2), \#e\#(2), t\#\#(2), \#h(2) .50%

(210):
a(29), 13.80%
a(28), 13.33%
t(24), 11.42%
i\#(16), a\#(16), 7.61%
o\#(13), z(13), 6.19%
e\#(11), 5.23%
u\#(8), 3.80%
i\#(5), o\#(5), 2.38%
\#e\#(3), \#a(3), \#a(3), \#a(3), \#a(3), a\#(3), 1.42%
\#i(2), u\#(2), \#i(2), a\#(2), a\#(2) .95%

Broad (399):
n(54), 13.53%
\#a(52), 13.03%
n(40), 10.02%
d(29), 7.26%
l(28), 7.01%
t(27), 6.76%
f(19), k(19), 4.76%
z(18), j(18), 4.51%
m(17), 4.26%
b(13), w(13), 3.25%
t(11), 2.75%
p(6), g(6), 1.50%
v(5), z(5), j(5), 1.25%
r(3), h(3), .75%
d(2), Θ(2) .50%

(210):
a(34), 16.19%
a(33), 15.71%
r(26), 12.38%
i(24), 11.42%
o(18), 8.57%
æ(17), 8.09%
e(14), ε(14), 6.66%
u(10), 4.76%
ə(6), a(6), 2.85%
λ(3), χ(3) 1.42%

609 total segments

Supra-Segments: Consonant Clusters

Consonant Cluster Total for Stressed and Unstressed Syllables and Monosyllables according to Syllable Configuration

Monosyllable Consonant Cluster Onset (all entries are word initial) (13): #bl(2) 15.38%

Monosyllable Consonant Cluster Coda (all entries are word final):

First Syllable Consonant Cluster Stressed Onset (all entries are word initial) (15):
#sw(3), 20.00%
#bx(2) 13.33%

First Syllable Consonant Cluster Stressed Coda:

First Syllable Consonant Cluster Unstressed Onset (all entries are word initial):
First Syllable Consonant Cluster Unstressed Coda:

Second Syllable Consonant Cluster Stressed Onset:
Second Syllable Consonant Cluster Stressed Coda:

Second Syllable Consonant Cluster Unstressed Onset (3):
bl(2) 66.66%

Third Syllable Consonant Cluster Stressed Onset:
Third Syllable Consonant Cluster Stressed Coda:
Third Syllable Consonant Cluster Unstressed Onset:
Third Syllable Consonant Cluster Unstressed Coda:

Fourth Syllable Consonant Cluster Stressed Onset:
Fourth Syllable Consonant Cluster Stressed Coda:
Fourth Syllable Consonant Cluster Unstressed Onset:
Fourth Syllable Consonant Cluster Unstressed Coda:

Fifth Syllable Consonant Cluster Stressed Onset:
Fifth Syllable Consonant Cluster Stressed Coda:
Fifth Syllable Consonant Cluster Unstressed Onset:
Fifth Syllable Consonant Cluster Unstressed Coda:

Consonant Cluster Total for Stressed and Unstressed Onsets and Codas

Stressed Onset (20):
Stressed Coda:

Unstressed Onset (9):
bl(2) 22.22%

Unstressed Coda (5):
st#(2) 40.00%

Consonant Cluster Total for Onsets and Codas

Onset (42):
#sw(4), 9.52%
#b(3), bl(3), #fl(3), 7.14%
#sp(2), #st(2), #fw(2), #k(2) 4.76%

Coda (19):
st#(3), 15.78%
nz#(2), ld#(2) 10.52%

Consonant Cluster Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllable Consonant Cluster (23):
#bl(2) 8.69%

First Syllable Consonant Cluster Stressed (18):
#sw(3), 16.66%
#b(2), #sn(2) 11.11%

First Syllable Consonant Cluster Unstressed:

Second Syllable Consonant Cluster Stressed:
Second Syllable Consonant Cluster Unstressed (7):
bl(2) 28.57%

Third Syllable Consonant Cluster Stressed:
Third Syllable Consonant Cluster Unstressed:

Fourth Syllable Consonant Cluster Stressed:
Fourth Syllable Consonant Cluster Unstressed:

Fifth Syllable Consonant Cluster Stressed:
Fifth Syllable Consonant Cluster Unstressed:

Consonant Cluster Total per Syllable

First Syllable Consonant Cluster (22):
#sw(4), 18.18%
#b(2), #fl(2), #sn(2) 9.09%

Second Syllable Consonant Cluster (13):
bl(3) 23.07%

Third Syllable Consonant Cluster:

Fourth Syllable Consonant Cluster:

Fifth Syllable Consonant Cluster:

Consonant Cluster Stressed and Unstressed Total

Consonant Cluster Stressed (24):
#sw(3), 12.50%
#b(2) 8.33%

Consonant Cluster Unstressed (14):
bl(2), st#(2) 14.28%

Consonant Cluster Total (absolute)

Narrow (61):
#sw(4), 6.55%
bl(3), #fl(3), st#(3), 4.91%
#bl(2), #bx(2), #sn(2), #sp(2), #st(2), #fw(2), #k(2) 3.27%

Broad (61):
bl(5), st(5), 8.19%
fl(4), sw(4), 6.55%
b(3), 4.91%
mj(2), fj(2), dz(2), nz(2), sn(2), sp(2), st(2), f(2), t(2), k(2) 3.27%
61 total consonant clusters

Supra-Segments: Whole Syllables

Whole Syllable Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllable Whole Syllable:

First Syllable Whole Syllable Stressed (all entries are word initial):

First Syllable Whole Syllable Unstressed (all entries are word initial) (28):
#(3), 10.71%
#da(2), #sa(2), #ja(2) 7.14%

Second Syllable Whole Syllable Stressed (27):
t(2) 7.40%

Second Syllable Whole Syllable Unstressed (58):
lo#(2), sa(2), z#(2), k#(2), jad#(2) 3.44%

Third Syllable Whole Syllable Stressed:

Third Syllable Whole Syllable Unstressed (23):
j(2) 8.69%

Fourth Syllable Whole Syllable Stressed:

Fourth Syllable Whole Syllable Unstressed:

Fifth Syllable Whole Syllable Stressed:

Fifth Syllable Whole Syllable Unstressed:

Whole Syllable Total per Syllable

First Syllable Whole Syllable (all entries are word initial) (85):
#(3), 3.52%
#i(2), #ai(2), #da(2), #sa(2), #ja(2) 2.35%

Second Syllable Whole Syllable (85):
t(2), lo#(2), sa(2), z#(2), k#(2), jad#(2) 2.35%

Third Syllable Whole Syllable (23):
j(2) 8.69%

Fourth Syllable Whole Syllable:

Fifth Syllable Whole Syllable:
Whole Syllable Stressed and Unstressed Total

**Whole Syllable Stressed (85):**

\(tʰe^{(2)} \quad 2.35\%\)

**Whole Syllable Unstressed (116):**

\(\#a^{(3)}, a\#d^{(3)} \quad 2.58\%\)

\(zi^{i}(2), i^{i}(2), lo^{i}(2), d\#a^{(2)}, sa^{(2)}, #sa^{(2)}, z\#m^{(2)}, #a^{(2)}, k\#n^{(2)} \quad 1.72\%\)

**Whole Syllable Total (absolute)**

**Narrow (229):**

\(\#a^{(3)}, a\#d^{(3)} \quad 1.31\%\)

\(zi^{i}(2), i^{i}(2), lo^{i}(2), tʰe^{(2)}, #o^{(2)}, lo^{o}(2), d\#a^{(2)}, sa^{(2)}, #sa^{(2)}, z\#m^{(2)}, #a^{(2)}, k\#n^{(2)} \quad .87\%\)

**Broad (229):**

\(\#a^{(4)}, d\#a^{(4)}, sa^{(4)} \quad 1.74\%\)

\(zi^{(3)}, te^{(3)}, a^{(3)} \#d^{(3)}, a^{(3)} \quad 1.31\%\)

\(i^{(2)}, min^{(2)}, si^{(2)}, i^{(2)}, li^{(2)}, jo^{(2)}, lo^{(2)}, ma^{(2)}, fa^{(2)}, ra^{(2)}, z\#m^{(2)}, z\#m^{(2)}, #a^{(2)}, k\#n^{(2)}, le^{(2)}, sa^{(2)} \quad .87\%\)

229 total whole syllables

**Supra-Segments: Whole Words**

<table>
<thead>
<tr>
<th>Word Length Total</th>
<th>Syllable Receiving Stress</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>None</td>
</tr>
<tr>
<td>Monosyllabic: 24.77%</td>
<td>0</td>
</tr>
<tr>
<td>Bisyllabic: 54.86%</td>
<td>0</td>
</tr>
<tr>
<td>Trisyllabic: 14.15%</td>
<td>0</td>
</tr>
<tr>
<td>Tetrasyllabic: 5.30%</td>
<td>0</td>
</tr>
<tr>
<td>Penta syllabic: .88%</td>
<td>0</td>
</tr>
</tbody>
</table>

**Stressed Syllable Total:** 67.05%/31.76%/0/1.17%/0

Table Key: The “Word Length Total” column figure represents the percentage of words that is of that word length. For the cells inside the “Syllable Receiving Stress” columns, the amount on top indicates what percentage of a particular word length was stressed on that syllable. The number on the bottom indicates, for all the words that received stress on a particular syllable, what percentage of these words were of a particular word length. The “Stressed Syllable Total” row indicates what percentage of words was stressed on a particular syllable. Note that monosyllables were not analyzed as receiving stress and the “None” cell in the “Stressed Syllable Total” row is inapplicable.

For all 113 whole words there are no repeated words.
Segmental and Supra-Segmental Frequency Data Sheet

Question ID: a.

Segments

Segment Total for Stressed and Unstressed Syllables and Monosyllables according to Syllable Configuration

<table>
<thead>
<tr>
<th>Monosyllable Onset (36):</th>
<th>#s(4), #t(4), 11.11%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>l(3), #j(3), 8.33%</td>
</tr>
<tr>
<td></td>
<td>#b(2), #tʰ(2), #d(2), #l(2), #kʰ(2), w(2) 5.55%</td>
</tr>
<tr>
<td>Monosyllable Nucleus (25):</td>
<td>t(5), 20.00%</td>
</tr>
<tr>
<td></td>
<td>a(4), 16.00%</td>
</tr>
<tr>
<td></td>
<td>n(2), aʰ(2) 8.00%</td>
</tr>
<tr>
<td>Monosyllable Coda (28):</td>
<td>t#(6), 21.42%</td>
</tr>
<tr>
<td></td>
<td>n#(5), 17.85%</td>
</tr>
<tr>
<td></td>
<td>f#(3), 10.71%</td>
</tr>
<tr>
<td></td>
<td>t#(2) 7.14%</td>
</tr>
<tr>
<td>First Syllable Segment Stressed Onset (75):</td>
<td>#s(11), 14.66%</td>
</tr>
<tr>
<td></td>
<td>#t(10), 13.33%</td>
</tr>
<tr>
<td></td>
<td>#f(7), l(7), 9.33%</td>
</tr>
<tr>
<td></td>
<td>#b(6), 8.00%</td>
</tr>
<tr>
<td></td>
<td>#l(5), 6.66%</td>
</tr>
<tr>
<td></td>
<td>#j(4), #j(4), 5.33%</td>
</tr>
<tr>
<td></td>
<td>#pʰ(3), w(3), 4.00%</td>
</tr>
<tr>
<td></td>
<td>#d(2), #f(2), #kʰ(2) 2.66%</td>
</tr>
<tr>
<td>First Syllable Segment Stressed Nucleus (57):</td>
<td>t(13), 22.80%</td>
</tr>
<tr>
<td></td>
<td>a(10), 17.54%</td>
</tr>
<tr>
<td></td>
<td>æ(8), 14.03%</td>
</tr>
<tr>
<td></td>
<td>i(7), 12.28%</td>
</tr>
<tr>
<td></td>
<td>e(6), aʰ(6), 10.52%</td>
</tr>
<tr>
<td></td>
<td>uʰ(2), eʰ(2) 3.50%</td>
</tr>
<tr>
<td>First Syllable Segment Stressed Coda (24):</td>
<td>n(8), 33.33%</td>
</tr>
<tr>
<td></td>
<td>s(4), 16.66%</td>
</tr>
<tr>
<td></td>
<td>j(3), k(3), 12.50%</td>
</tr>
<tr>
<td></td>
<td>t(2) 8.33%</td>
</tr>
<tr>
<td>First Syllable Segment Unstressed Onset (29):</td>
<td>#s(4), l(4), 13.79%</td>
</tr>
<tr>
<td></td>
<td>#f(3), #k(3), 10.34%</td>
</tr>
<tr>
<td></td>
<td>#b(2), #m(2), #t(2), #d(2), #j(2), #g(2), #w(2) 6.89%</td>
</tr>
<tr>
<td>First Syllable Segment Unstressed Nucleus (30):</td>
<td>a(6), a³(6), 20.00%</td>
</tr>
<tr>
<td>Segment Type</td>
<td>Syllables</td>
</tr>
<tr>
<td>--------------</td>
<td>-----------</td>
</tr>
<tr>
<td>First Syllable Segment Unstressed Coda (5)</td>
<td></td>
</tr>
<tr>
<td>Second Syllable Segment Stressed Onset (28)</td>
<td>l(7),</td>
</tr>
<tr>
<td></td>
<td>μ(6),</td>
</tr>
<tr>
<td></td>
<td>d(3),</td>
</tr>
<tr>
<td></td>
<td>b(2), n(2), s(2), f(2)</td>
</tr>
<tr>
<td>Second Syllable Segment Stressed Nucleus (28)</td>
<td>u*(4),</td>
</tr>
<tr>
<td></td>
<td>t(3), e#(3), a(3),</td>
</tr>
<tr>
<td></td>
<td>e(2), e(2)</td>
</tr>
<tr>
<td>Second Syllable Segment Stressed Coda (11)</td>
<td>n#(3),</td>
</tr>
<tr>
<td></td>
<td>t#:</td>
</tr>
<tr>
<td>Second Syllable Segment Unstressed Onset (61)</td>
<td>t(9),</td>
</tr>
<tr>
<td></td>
<td>s(6),</td>
</tr>
<tr>
<td></td>
<td>b(5), m(5), μ(5), l(5),</td>
</tr>
<tr>
<td></td>
<td>p(4), f(4), n(4),</td>
</tr>
<tr>
<td></td>
<td>r(3),</td>
</tr>
<tr>
<td></td>
<td>d(2), g(2)</td>
</tr>
<tr>
<td>Second Syllable Segment Unstressed Nucleus (59)</td>
<td>a(10),</td>
</tr>
<tr>
<td></td>
<td>α(7),</td>
</tr>
<tr>
<td></td>
<td>#(#(6),</td>
</tr>
<tr>
<td></td>
<td>l(4), μ#(4),</td>
</tr>
<tr>
<td></td>
<td>o*(3), a(3), a(#)</td>
</tr>
<tr>
<td></td>
<td>i(2) , u*(2), a#(2), a#(2)</td>
</tr>
<tr>
<td>Second Syllable Segment Unstressed Coda (17)</td>
<td>n(4),</td>
</tr>
<tr>
<td></td>
<td>v#(2), s(#(2), k#(2)</td>
</tr>
<tr>
<td>Third Syllable Segment Stressed Onset:</td>
<td></td>
</tr>
<tr>
<td>Third Syllable Segment Stressed Nucleus:</td>
<td></td>
</tr>
<tr>
<td>Third Syllable Segment Stressed Coda:</td>
<td></td>
</tr>
<tr>
<td>Third Syllable Segment Unstressed Onset (31)</td>
<td>n(5),</td>
</tr>
<tr>
<td></td>
<td>t(3), μ(3),</td>
</tr>
<tr>
<td></td>
<td>b(2), f(2), v(2), s(2), z(2), j(2), k(2), g(2)</td>
</tr>
<tr>
<td>Third Syllable Segment Unstressed Nucleus (31)</td>
<td>a(6),</td>
</tr>
<tr>
<td></td>
<td>ø#(5),</td>
</tr>
<tr>
<td></td>
<td>i#(2), t(2), μ#(2), ø#(2), ø#(2)</td>
</tr>
<tr>
<td>Third Syllable Segment Unstressed Coda (14):</td>
<td>n#(2), s(#(2), μ(2), t(#(2), k#(2)</td>
</tr>
<tr>
<td>Fourth Syllable Segment Stressed Onset:</td>
<td></td>
</tr>
<tr>
<td>Fourth Syllable Segment Stressed Nucleus:</td>
<td></td>
</tr>
<tr>
<td>Fourth Syllable Segment Stressed Coda:</td>
<td></td>
</tr>
<tr>
<td>Fourth Syllable Segment Unstressed Onset:</td>
<td></td>
</tr>
</tbody>
</table>
Fourth Syllable Segment Unstressed Nucleus (5):
a(2) 40.00%

Fourth Syllable Segment Unstressed Coda (4):
s#(2) 50.00%

Fifth Syllable Segment Stressed Onset:
Fifth Syllable Segment Stressed Nucleus:
Fifth Syllable Segment Stressed Coda:
Fifth Syllable Segment Unstressed Onset:
Fifth Syllable Segment Unstressed Nucleus:
Fifth Syllable Segment Unstressed Coda:

Segment Total for Stressed and Unstressed Onsets and Codas

Stressed Onset (105):
\( \eta(16), 15.23\% \\
\lambda(15), 14.28\% \\
#s(11), 10.47\% \\
#f(7), 6.66\% \\
#b(6), 5.71\% \\
#l(5), 4.76\% \\
#j(4), #j(4), w(4), 3.80\% \\
#p'(3), d(3), n(3), 2.85\% \\
b(2), #d(2), s(2), #f(2), f(2), #k'(2) 1.90\%

Stressed Coda (35):
n(9), 25.71\% \\
s(4), 11.42\% \\
n#(3), \eta(3), k(3), 8.57\% \\
t#(2), h(2) 5.71\%

Unstressed Onset (125):
t(13), 10.40\% \\
l(10), 8.00\% \\
n(9), 7.20\% \\
s(8), \eta(8), 6.40\% \\
b(7), 5.60\% \\
m(6), f(6), 4.80\% \\
p(5), 4.00\% \\
r(4), #s(4), g(4), 3.20\% \\
#f(3), v(3), z(3), j(3), #k(3), k(3), 2.40\% \\
#b(2), #m(2), #t(2), #d(2), d(2), \Theta(2), #j(2), #g(2), #w(2) 1.60\%

Unstressed Coda (40):
n#(7), 17.50\% \\
s#(6), 15.00\% \\
k#(4), h(4), 10.00\% \\
m#(2), v#(2), t#(2), n(2), \eta(2), h#(2) 5.00\%

Segment Total for Onsets and Codas

Onset (266):
\( \eta(28), l(28), 10.52\% \\
#s(19), 7.14\% \\
t(14), 5.26\% \\
n(12), 4.51\% \\
#f(11), 4.13\% \\
#b(10), s(10), 3.75\% \\
b(9), #j(9), 3.38\% \\
#l(7), w(7), 2.63\% \\
p(6), m(6), f(6), #d(6), 2.25\% 

885
<table>
<thead>
<tr>
<th>Segment Total for Stressed and Unstressed Syllables and Monosyllables</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Monosyllable Segment (63):</td>
<td></td>
</tr>
<tr>
<td>t#(6), 9.52%</td>
<td></td>
</tr>
<tr>
<td>n#(5), µ(5), 7.93%</td>
<td></td>
</tr>
<tr>
<td>#s(4), 6.34%</td>
<td></td>
</tr>
<tr>
<td>f#(3), l(3), j(3), 4.76%</td>
<td></td>
</tr>
<tr>
<td>p(2), #b(2), tʰ(2), d(2), #l(2), l#(2), kʰ(2), w(2) 3.17%</td>
<td></td>
</tr>
<tr>
<td>(25):</td>
<td></td>
</tr>
<tr>
<td>t(5), 20.00%</td>
<td></td>
</tr>
<tr>
<td>a(4), 16.00%</td>
<td></td>
</tr>
<tr>
<td>n(2), aʰ(2) 8.00%</td>
<td></td>
</tr>
<tr>
<td>First Syllable Segment Stressed (99):</td>
<td></td>
</tr>
<tr>
<td>µ(13), 13.13%</td>
<td></td>
</tr>
<tr>
<td>#s(11), 11.11%</td>
<td></td>
</tr>
<tr>
<td>n(8), l(8), 8.08%</td>
<td></td>
</tr>
<tr>
<td>#f(7), 7.07%</td>
<td></td>
</tr>
<tr>
<td>#b(6), 6.06%</td>
<td></td>
</tr>
<tr>
<td>#l(5), 5.05%</td>
<td></td>
</tr>
<tr>
<td>s(4), #µ(4), j(4), 4.04%</td>
<td></td>
</tr>
<tr>
<td>#pʰ(3), k(3), w(3), 3.03%</td>
<td></td>
</tr>
<tr>
<td>#d(2), #f(2), l(2), kʰ(2) 2.02%</td>
<td></td>
</tr>
<tr>
<td>(57):</td>
<td></td>
</tr>
<tr>
<td>t(13), 22.80%</td>
<td></td>
</tr>
<tr>
<td>a(10), 17.54%</td>
<td></td>
</tr>
<tr>
<td>å(8), 14.03%</td>
<td></td>
</tr>
<tr>
<td>i(7), 12.28%</td>
<td></td>
</tr>
<tr>
<td>æ(6), aʰ(6), 10.52%</td>
<td></td>
</tr>
<tr>
<td>uʰ(2), e(2) 3.50%</td>
<td></td>
</tr>
<tr>
<td>First Syllable Segment Unstressed (34):</td>
<td></td>
</tr>
<tr>
<td>#s(4), l(4), 11.76%</td>
<td></td>
</tr>
<tr>
<td>#f(3), l(3), k(3), 8.82%</td>
<td></td>
</tr>
<tr>
<td>#b(2), #m(2), t(2), d(2), j(2), g(2), w(2) 5.88%</td>
<td></td>
</tr>
<tr>
<td>(30):</td>
<td></td>
</tr>
<tr>
<td>a(6), ø(6), 20.00%</td>
<td></td>
</tr>
<tr>
<td>i(3), uʰ(3), #a(3), 10.00%</td>
<td></td>
</tr>
<tr>
<td>#a(2), e(2) 6.66%</td>
<td></td>
</tr>
<tr>
<td>Second Syllable Segment Stressed (39):</td>
<td></td>
</tr>
<tr>
<td>Segment Total by Syllable</td>
<td></td>
</tr>
<tr>
<td>---------------------------</td>
<td></td>
</tr>
<tr>
<td>First Syllable Segment (133):</td>
<td></td>
</tr>
<tr>
<td>#s(15), 11.11%</td>
<td></td>
</tr>
<tr>
<td>t(13), 9.62%</td>
<td></td>
</tr>
<tr>
<td>l(12), 8.88%</td>
<td></td>
</tr>
<tr>
<td>#f(10), 7.40%</td>
<td></td>
</tr>
<tr>
<td>n(9), 6.66%</td>
<td></td>
</tr>
<tr>
<td>#b(8), 5.92%</td>
<td></td>
</tr>
<tr>
<td>#j(6), 4.44%</td>
<td></td>
</tr>
<tr>
<td>#l(5), h(5), 3.70%</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Second Syllable Segment Unstressed (91):</th>
</tr>
</thead>
<tbody>
<tr>
<td>t(9), 9.89%</td>
</tr>
<tr>
<td>s(6), t#(6), 6.59%</td>
</tr>
<tr>
<td>b(5), m(5), l(5), 5.49%</td>
</tr>
<tr>
<td>p(4), f(4), n(4), -n#(4), 4.39%</td>
</tr>
<tr>
<td>r(3), 3.29%</td>
</tr>
<tr>
<td>v#(2), d(2), s(2), k#(2), g(2) 2.19%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Third Syllable Segment Stressed:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Third Syllable Segment Unstressed (50):</td>
</tr>
<tr>
<td>n(6), 12.00%</td>
</tr>
<tr>
<td>t(5), 10.00%</td>
</tr>
<tr>
<td>t(3), 6.00%</td>
</tr>
<tr>
<td>b(2), f(2), v(2), n#(2), -n#(2), s(2), s#(2), z(2), t#(2), -t#(2), j(2), k(2), k#(2), g(2) 4.00%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fourth Syllable Segment Stressed:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fourth Syllable Segment Unstressed (8):</td>
</tr>
<tr>
<td>s#(2) 25.00%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fifth Syllable Segment Stressed:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fifth Syllable Segment Unstressed:</td>
</tr>
</tbody>
</table>
#d(4), s(4), #s(4), 2.96%
#p⁹(3), #m(3), #s(3), #k(3), #g(3), w(3), #w(3), 2.22%
#f(2), #k⁹(2) 1.48%

(87):
\[ \text{t(16), 18.39%} \]
\[ \text{a(13), 14.94%} \]
\[ \text{æ(9), a(9), 10.34%} \]
\[ \text{i(8), e(8), 9.19%} \]
\[ \text{u*(6), 6.89%} \]
\[ \text{e(4), 4.59%} \]
\[ \text{e(#3), 3.44%} \]
\[ \text{o*(2) 2.29%} \]

Second Syllable Segment (130):
\[ \text{l(12), 9.23%} \]
\[ \text{s(11), 8.46%} \]
\[ \text{t(10), 7.69%} \]
\[ \text{s(8), 6.15%} \]
\[ \text{b(7), n(7), n*(7), 5.38%} \]
\[ \text{i*#(6), 4.61%} \]
\[ \text{m(5), d(5), 3.84%} \]
\[ \text{p(4), f(4), #η(4), 3.07%} \]
\[ \text{v#(3), t#(3), r(3), 2.30%} \]
\[ \text{s*(2), z(2), f(2), #s(2), j(2), k*(2), g(2), w(2) 1.53%} \]

(74):
\[ \text{a(11), 14.86%} \]
\[ \text{a(10), 13.51%} \]
\[ \text{t(7), 9.45%} \]
\[ \text{u*(6), a*(6), 8.10%} \]
\[ \text{i*#(5), 6.75%} \]
\[ \text{i*(3), e*(3), o*(3), æ(3), e(3), 4.05%} \]
\[ \text{e(#2), æ*(2), æ*(2), æ#(2) 2.70%} \]

Third syllable Segment (51):
\[ \text{n(6), 11.76%} \]
\[ \text{s(5), 9.80%} \]
\[ \text{t(3), 5.88%} \]
\[ \text{b(2), f(2), v(2), n*(2), #η(2), s(2), s*(2), z(2), l(2), t*(2), s*(2), j(2), k(2), k*(2), g(2) 3.92%} \]

(27):
\[ \text{a(6), 22.22%} \]
\[ \text{a#(5), 18.51%} \]
\[ \text{i*#(2), t(2), e(#2), æ#(2) 7.40%} \]

Fourth Syllable Segment (9):
\[ \text{s*(2) 22.22%} \]

(5):
\[ \text{a(2) 40.00%} \]

Fifth Syllable Segment:

<table>
<thead>
<tr>
<th>Stressed Segment (140):</th>
</tr>
</thead>
<tbody>
<tr>
<td>ë(19), 13.57%</td>
</tr>
<tr>
<td>l(16), 11.42%</td>
</tr>
<tr>
<td>æ(12), 8.57%</td>
</tr>
</tbody>
</table>
Unstressed Segment (184):
\( \text{t}^{(14)}, 7.60\% \)
\( \text{n}^{(11)}, 5.97\% \)
\( {l}^{(10)}, {l}^{(10)}, 5.43\% \)
\( {s}^{(8)}, {#}^{(8)}, 4.34\% \)
\( {b}^{(7)}, {n}^{(7)}, {#}^{(7)}, 3.80\% \)
\( {m}^{(6)}, {f}^{(6)}, {s}^{(6)}, 3.26\% \)
\( {p}^{(5)}, 2.71\% \)
\( {r}^{(4)}, {#}^{(4)}, {k}^{(4)}, {g}^{(4)}, 2.17\% \)
\( {#}^{(3)}, {v}^{(3)}, {z}^{(3)}, {j}^{(3)}, {k}^{(3)}, {k}^{(3)}, 1.63\% \)
\( {#}^{(2)}, {m}^{(2)}, {v}^{(2)}, {t}^{(2)}, {d}^{(2)}, {#}^{(2)}, {#}^{(2)}, {g}^{(2)}, {w}^{(2)} 1.08\% \)

Segment Total (absolute)

Narrow (387):
\( {s}^{(19)}, 8.78\% \)
\( {l}^{(29)}, 7.49\% \)
\( {n}^{(23)}, 5.94\% \)
\( {#}^{(15)}, 4.90\% \)
\( {t}^{(15)}, {n}^{(15)}, {s}^{(15)}, 3.87\% \)
\( {#}^{(11)}, 2.84\% \)
\( {#}^{(10)}, {t}^{(10)}, 2.58\% \)
\( {b}^{(9)}, {#}^{(9)}, 2.32\% \)
\( {#}^{(8)}, 2.06\% \)
\( {p}^{(7)}, {m}^{(7)}, {f}^{(7)}, {#}^{(7)}, {l}^{(7)}, {w}^{(7)}, 1.80\% \)
\( {#}^{(6)}, {s}^{(6)}, {k}^{(6)}, 1.55\% \)
\( {d}^{(5)}, {g}^{(5)}, 1.29\% \)
\( {#}^{(4)}, {r}^{(4)}, {z}^{(4)}, {a}^{(4)}, {#}^{(4)}, {j}^{(4)}, {#}^{(4)}, {k}^{(4)}, {g}^{(4)}, {w}^{(4)}, 1.03\% \)
\( {#}^{(3)}, {m}^{(3)}, {v}^{(3)}, {v}^{(3)}, {#}^{(3)}, {#}^{(3)}, {j}^{(3)}, {f}^{(3)}, {f}^{(3)}, {#}^{(3)}, {k}^{(3)}, .77\% \)
\( {#}^{(2)}, {v}^{(2)}, {#}^{(2)}, {#}^{(2)}, 1.55\% \)
\( {#}^{(2)}, {#}^{(2)}, .51\% \)
Supra-Segments: Consonant Clusters

Consonant Cluster Total for Stressed and Unstressed Syllables and Monosyllables according to Syllable Configuration

Monosyllable Consonant Cluster Onset (all entries are word initial):
Monosyllable Consonant Cluster Coda (all entries are word final):

First Syllable Consonant Cluster Stressed Onset (all entries are word initial) (16):
#b(3), #f(3), 18.75%
#b(2), #f(2), #sw(2) 12.50%

First Syllable Consonant Cluster Stressed Coda:

First Syllable Consonant Cluster Unstressed Onset (all entries are word initial):
First Syllable Consonant Cluster Unstressed Coda:

Second Syllable Consonant Cluster Stressed Onset:
Second Syllable Consonant Cluster Stressed Coda:
Second Syllable Consonant Cluster Unstressed Onset:
Second Syllable Consonant Cluster Unstressed Coda:

Third Syllable Consonant Cluster Stressed Onset:
Third Syllable Consonant Cluster Stressed Coda:
Third Syllable Consonant Cluster Unstressed Onset:
Third Syllable Consonant Cluster Unstressed Coda:

Fourth Syllable Consonant Cluster Stressed Onset:
Fourth Syllable Consonant Cluster Stressed Coda:
Fourth Syllable Consonant Cluster Unstressed Onset:
Fourth Syllable Consonant Cluster Unstressed Coda:

Fifth Syllable Consonant Cluster Stressed Onset:
Fifth Syllable Consonant Cluster Stressed Coda:
Fifth Syllable Consonant Cluster Unstressed Onset:
Fifth Syllable Consonant Cluster Unstressed Coda:

Consonant Cluster Total for Stressed and Unstressed Onsets and Codas

**Stressed Onset (19):**
#b(3), #f(3), 15.78%
#b(2), #f(2), #sw(2) 10.52%

**Stressed Coda:**

Unstressed Onset (9):
st(2) 22.22%

Unstressed Coda:

Consonant Cluster Total for Onsets and Codas

Onset (39):
#b(4), #f(4), 10.25%
#b(3), #f(3), #sw(3), 7.69%
#p(2), b(2), st(2), st(2) 5.12%

Coda (8):
nt#(2) 25.00%

Consonant Cluster Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllable Consonant Cluster:

**First Syllable Consonant Cluster Stressed (16):**
#b(3), #f(3), 18.75%
#b(2), #f(2), #sw(2) 12.50%

First Syllable Consonant Cluster Unstressed:

**Second Syllable Consonant Cluster Stressed:**
Second Syllable Consonant Cluster Unstressed:

**Third Syllable Consonant Cluster Stressed:**
Third Syllable Consonant Cluster Unstressed:

**Fourth Syllable Consonant Cluster Stressed:**
Fourth Syllable Consonant Cluster Unstressed:

**Fifth Syllable Consonant Cluster Stressed:**
Fifth Syllable Consonant Cluster Unstressed:

Consonant Cluster Total per Syllable

First Syllable Consonant Cluster (19):

891
Second Syllable Consonant Cluster (8):

<table>
<thead>
<tr>
<th>Cluster</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>#bl(2), #fl(2), #sw(2)</td>
<td>10.52%</td>
<td></td>
</tr>
</tbody>
</table>

Third Syllable Consonant Cluster:

Fourth Syllable Consonant Cluster:

Fifth Syllable Consonant Cluster:

Consonant Cluster Stressed (20):

<table>
<thead>
<tr>
<th>Cluster</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>#b(3), #f(3)</td>
<td>15.00%</td>
<td></td>
</tr>
<tr>
<td>#b(2), #fl(2), #sw(2)</td>
<td>10.00%</td>
<td></td>
</tr>
</tbody>
</table>

Consonant Cluster Unstressed (12):

<table>
<thead>
<tr>
<th>Cluster</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>st(2)</td>
<td>16.66%</td>
<td></td>
</tr>
</tbody>
</table>

Consonant Cluster Total (absolute)

Narrow (47):

<table>
<thead>
<tr>
<th>Cluster</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>#b(4), #fl(4)</td>
<td>8.51%</td>
<td></td>
</tr>
<tr>
<td>#b(3), #f(3), #sw(3)</td>
<td>6.38%</td>
<td></td>
</tr>
<tr>
<td>#p(2), b(2), st(2), st(2)</td>
<td>4.25%</td>
<td></td>
</tr>
</tbody>
</table>

Broad (47):

<table>
<thead>
<tr>
<th>Cluster</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>b(6), fl(4)</td>
<td>12.76%</td>
<td></td>
</tr>
<tr>
<td>f(3), bl(3), fi(3), sw(3), st(3)</td>
<td>6.38%</td>
<td></td>
</tr>
<tr>
<td>nt(2), st(2)</td>
<td>4.25%</td>
<td></td>
</tr>
</tbody>
</table>

47 total consonant clusters

Supra-Segments: Whole Syllables

Whole Syllable Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllable Whole Syllable:

First Syllable Whole Syllable Stressed (all entries are word initial) (57):

<table>
<thead>
<tr>
<th>Cluster</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>#b(2), #f(2), #u(2), #a(2)</td>
<td>3.50%</td>
<td></td>
</tr>
</tbody>
</table>

First Syllable Whole Syllable Unstressed (all entries are word initial) (30):

<table>
<thead>
<tr>
<th>Cluster</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>#a(2), #a(2), #u(2)</td>
<td>6.66%</td>
<td></td>
</tr>
</tbody>
</table>

Second Syllable Whole Syllable Stressed (28):

<table>
<thead>
<tr>
<th>Cluster</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>u(2), le#(2)</td>
<td>7.14%</td>
<td></td>
</tr>
</tbody>
</table>

Second Syllable Whole Syllable Unstressed (59):

<table>
<thead>
<tr>
<th>Cluster</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>a(2), ra(2), f(2)</td>
<td>3.38%</td>
<td></td>
</tr>
</tbody>
</table>

Third Syllable Whole Syllable Stressed:

Third Syllable Whole Syllable Unstressed (30):

<table>
<thead>
<tr>
<th>Cluster</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>na#(2)</td>
<td>6.66%</td>
<td></td>
</tr>
</tbody>
</table>

Fourth Syllable Whole Syllable Stressed:

Fourth Syllable Whole Syllable Unstressed:

Fifth Syllable Whole Syllable Stressed:

Fifth Syllable Whole Syllable Unstressed:

Whole Syllable Total per Syllable

First Syllable Whole Syllable (all entries are word initial) (87):
Second Syllable Whole Syllable (87):
lu*(2), le#(2), a(2), fa(2), jan#(2) 2.29%

Third Syllable Whole Syllable (31):
n#(2) 6.45%

Fourth Syllable Whole Syllable:

Fifth Syllable Whole Syllable:

<table>
<thead>
<tr>
<th>Syllable</th>
<th>Receiving Stress</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>First</td>
</tr>
<tr>
<td>Monosyllabic</td>
<td>23.00%</td>
</tr>
<tr>
<td>Bisyllabic</td>
<td>48.67%</td>
</tr>
<tr>
<td>Trisyllabic</td>
<td>23.00%</td>
</tr>
<tr>
<td>Tetrasyllabic</td>
<td>4.42%</td>
</tr>
<tr>
<td>Pentasyllabic</td>
<td>.88%</td>
</tr>
</tbody>
</table>

Stressed Syllable Total: 65.51% 32.18% 1.14% 1.14% 0

Table Key: The “Word Length Total” column figure represents the percentage of words that is of that word length. For the cells inside the “Syllable Receiving Stress” columns, the amount on top indicates what percentage of a particular word length was stressed on that syllable. The number on the bottom indicates, for all the words that received stress on a particular syllable, what percentage of these words were of a particular word length. The “Stressed Syllable Total” row indicates what percentage of words was stressed on a particular syllable. Note that monosyllables were not analyzed as receiving stress and the “None” cell in the “Stressed Syllable Total” row is inapplicable.

For all 113 whole words there are no repeated words.
Segmental and Supra-Segmental Frequency Data Sheet

### Segments

Segment Total for Stressed and Unstressed Syllables and Monosyllables according to Syllable Configuration

#### Monosyllable Onset (36):
- #s(5), 13.88%
- #b(4), 11.11%
- l(3), #kʰ(3), #w(3), 8.33%
- #m(2), m(2), #v(2), #f(2), w(2) 5.55%

#### Monosyllable Nucleus (30):
- iʲ(4), uʷ(4), a(4), 13.33%
- ə(2), ε(2), a(2) 6.66%

#### Monosyllable Coda (28):
- t#(5), 17.85%
- n#(4), 14.28%
- f#(3), 10.71%
- b#(2), z#(2), s(2), k(2) 7.14%

#### First Syllable Segment Stressed Onset (74):
- #kʰ(11), 14.86%
- #w(10), 13.51%
- l(9), 12.16%
- #b(8), #s(8), 10.81%
- ə(6), 8.10%
- #pʰ(4), 5.40%
- #tʰ(3), #d(3), w(3), 4.05%
- #h(2) 2.70%

#### First Syllable Segment Stressed Nucleus (62):
- æ(10), a(10), 16.12%
- t(9), ə(9), 14.51%
- uʷ(6), 9.67%
- e³(3), #a(3), 4.83%
- i(2), oʰ(2) 3.22%

#### First Syllable Segment Stressed Coda (22):
- n(8), 36.36%
- m(3), ə(3), 13.63%
- f(2), k(2) 9.09%

#### First Syllable Segment Unstressed Onset (19):
- #h(4), 21.05%
- #b(3), #s(3), 15.78%
- #d(2), l(2) 10.52%

#### First Syllable Segment Unstressed Nucleus (23):
- a(6), 26.08%
- #a(3), a(3), 13.04%
- #a(2), aʰ(2) 8.69%

#### First Syllable Segment Unstressed Coda (3):
- n(2) 66.66%
Second Syllable Segment Stressed Onset (19):
f(3), Ɂ(3), 15.78%
pʰ(2), b(2), w(2)  10.52%

Second Syllable Segment Stressed Nucleus (20):
i(3), e(3), a(3), 15.00%
uʷ(2), t(2)  10.00%

Second Syllable Segment Stressed Coda (10):
r(2), Ɂ(2), 20.00%

Second Syllable Segment Unstressed Onset (66):
l(11), 16.66%
ɣ(9), 13.63%
b(8), 12.12%
Ɂ(6), 9.09%
f(5), 7.57%
m(4), 6.06%
d(3), n(3), s(3), f(3), k(3),  4.54%
v(2)  3.03%

Second Syllable Segment Unstressed Nucleus (64):
a(9), 14.06%
ɪ(8), 12.50%
l(7), 10.93%
t(5), o(5), a(5), 7.81%
Ɂ(3), a(3), a(3), 4.68%
i(2), u(2), e(2),  3.12%

Second Syllable Segment Unstressed Coda (15):
d(2), n(2), s(2), f(2), k(2)  13.33%

Third Syllable Segment Stressed Onset:

Third Syllable Segment Stressed Nucleus (2):
i(2)  100%

Third Syllable Segment Stressed Coda:

Third Syllable Segment Unstressed Onset (30):
t(4), Ɂ(4), 13.33%
r(3), l(3), l(3), 10.00%
j(2)  6.66%

Third Syllable Segment Unstressed Nucleus (27):
Ɂ(6), 22.22%
t(4), 14.81%
l(3), a(3), 11.11%
l(2), Ɂ(2)  7.40%

Third Syllable Segment Unstressed Coda (11):
s(3), 27.27%
r(2), Ɂ(2)  18.18%

Fourth Syllable Segment Stressed Onset:

Fourth Syllable Segment Stressed Nucleus:

Fourth Syllable Segment Stressed Coda:

Fourth Syllable Segment Unstressed Onset (5):
Ɂ(2), 40.00%

Fourth Syllable Segment Unstressed Nucleus (9):
i(2), a(2), Ɂ(2)  22.22%

Fourth Syllable Segment Unstressed Coda (3):
Fifth Syllable Segment Stressed Onset:
Fifth Syllable Segment Stressed Nucleus:
Fifth Syllable Segment Stressed Coda:
Fifth Syllable Segment Unstressed Onset:
Fifth Syllable Segment Unstressed Nucleus:
Fifth Syllable Segment Unstressed Coda:

Segment Total for Stressed and Unstressed Onsets and Codas

Stressed Onset (96):
#kʰ(11), 1.145%
l(10), #w(10), 10.41%
ɬ(9), 9.37%
#b(8), #s(8), 8.33%
w(5), 5.20%
#pʰ(4), 4.16%
f(3), #tʰ(3), #d(3), n(3), 3.12%
pʰ(2), b(2), #h(2) 2.08%

Stressed Coda (33):
n(10), 30.30%
ɬ(5), 15.15%
m(3), 9.09%
f(2), 6.06%

Unstressed Onset (120):
ɬ(16), l(16), 13.33%
b(9), 7.50%
t(6), n(6), f(6), 5.00%
f(5), r(5), 4.16%
m(4), d(4), s(4), j(4), k(4), #h(4), 3.33%
#b(3), v(3), #s(3), j(3), 2.50%
#d(2), z(2), g(2), w(2) 16.66%

Unstressed Coda (32):
s#(17), 21.87%
n#(4), k#(4), 12.50%
ɬ#(3), 9.37%
d#(2), n(2), f#(2), #t#(2) 6.25%

Segment Total for Onsets and Codas

Onset (252):
l(29), 11.50%
ɬ(26), 10.31%
#s(16), 6.34%
#b(15), 5.95%
#kʰ(14), 5.55%
#w(13), 5.15%
b(11), 4.36%
n(9), w(9), 3.57%
f(8), 3.17%
m(7), 2.77%
t(6), #t(6), h(6), #h(6), 2.38%
#pʰ(5), r(5), s(5), k(5), 1.98%
v(4), d(4), j(4), j(4), 1.58%
#m(3), #v(3), #tʰ(3), #f(3), 1.19%
#p(2), pʰ(2), p(2), #f(2), tʰ(2), z(2), g(2) .79%
Coda (93):

\[ n(12), 12.90\% \]
\[ n\#(8), s\#(8), \#(8), 8.60\% \]
\[ \#(6), 6.45\% \]
\[ t\#(5), f\#(5), 5.37\% \]
\[ z\#(4), l(4), k\#(4), 4.305 \]
\[ m(3), \#(3), 3.22\% \]
\[ p\#(2), b\#(2), f\#(2), s(2), f(2), \#(2) 2.15\% \]

Segment Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllable Segment (64):

\[ t\#(5), s(5), 7.81\% \]
\[ b(4), n\#(4), 6.25\% \]
\[ f\#(3), l(3), \#(3), \#w(3), 4.68\% \]
\[ b\#(2), m(2), m(2), \#v(2), z\#(2), \#(2), k(2), w(2) 3.12\% \]

(30):

\[ i\#(4), a\#(4), 13.33\% \]
\[ a\#(2), e(2), a(2) 6.66\% \]

First Syllable Segment Stressed (96):

\[ \#k\#(11), 11.45\% \]
\[ l(10), 10.41\% \]
\[ l(9), l(9), 9.37\% \]
\[ b(8), l(8), s(8), 8.33\% \]
\[ p\#(4), 4.16\% \]
\[ m(3), t\#(3), d(3), w(3), 3.12\% \]
\[ p(2), f(2), l(2), k(2), \#h(2) 2.08\% \]

(62):

\[ æ(10), a(10), 16.12\% \]
\[ t(9), e(9), 14.51\% \]
\[ u\#(6), 9.67\% \]
\[ e(3), \#a(3), 4.83\% \]
\[ i\#(2), a\#(2) 3.22\% \]

First Syllable Segment Unstressed (22):

\[ \#h(11), 18.18\% \]
\[ b(3), s(3), 13.63\% \]
\[ d(2), n(2), f(2), l(2) 9.09\% \]

(23):

\[ a(6), 26.08\% \]
\[ a(3), 13.04\% \]
\[ a(2), a(2) 8.69\% \]

Second Syllable Segment Stressed (29):

\[ \#j(5), 17.24\% \]
\[ f(3), n(3), 10.34\% \]
\[ p\#(2), b(2), \#(2), w(2) 6.89\% \]

(20):

\[ i\#(3), e\#(3), a\#(3), 15.00\% \]
\[ u\#(2), i(2) 10.00\% \]

Second Syllable Segment Unstressed (95):

\[ l(11), 11.57\% \]
\[ l(9), 9.47\% \]
\[ b(8), 8.42\% \]
\[ \#(7), 7.36\% \]
\( f(6), \ 6.31\% \\
f(5), \ 5.26\% \\
m(4), \ 4.21\% \\
\ast m\#(3), \ d(3), n(3), s(3), f(3), k(3), \ 3.15\% \\
v(2), d'\#(2), n\#(2), \ast n\#(2), s\#(2), f\#(2), k\#(2) \ 2.10\% \\
\)

\((45): \)
\( a(9), \ 20.00\% \\
i'\#(8), \ 17.77\% \\
i(5), \ a'\#(5), a\#(5), \ 11.11\% \\
a\#(3), a(3), \ 6.66\% \\
i'\#(2), u'\#(2), e\#(2) \ 4.44\% \\
\)

**Third Syllable Segment Stressed:**
(2):
\( i'\#(2) \ 100\% \\
\)

**Third Syllable Segment Unstressed (47):**
\( t(4), x(4), \ 8.51\% \\
n(3), \ast n\#(3), r(3), s\#(3), l(3), \ 6.38\% \\
n\#(2), n\#(2), \#\#(2), j(2) \ 4.25\% \\
\)

\((21): \)
\( a(6), \ 28.57\% \\
t(4), \ 19.04\% \\
a(3), \ 14.28\% \\
i'\#(2) \ 9.52\% \\
\)

**Fourth Syllable Segment Stressed:**

**Fourth Syllable Segment Unstressed (10):**
\( \ast m\#(2), s\#(2), j(2) \ 20.00\% \\
\)

\((7): \)
\( i'\#(2), a(2) \ 28.57\% \\
\)

**Fifth Syllable Segment Stressed:**

**Fifth Syllable Segment Unstressed:**

\( i'\#(2), a(2) \ 28.57\% \\
\)

**Segment Total by Syllable**

**First Syllable Segment (118):**
\( \#b(11), \#s(11), j(11), l(11), \#k'\#(11), \ 9.32\% \\
n(10), \#w(10), \ 8.47\% \\
\#h(6), \ 5.08\% \\
\#d(5), \ 4.23\% \\
\#p'\#(4), w(4), \ 3.38\% \\
m(3), \#t\#(3), \ 2.54\% \\
p(2), j(2), l(2), k(2) \ 1.69\% \\
\)

\((85): \)
\( a(13), \ 15.29\% \\
t(10), \#a(10), \ 11.76\% \\
\#(9), \ 10.58\% \\
u'\#(7), \ 8.23\% \\
\#(6), \#a(6), \ 7.05\% \\
e'\#(3), \#(3), \ 3.52\% \\
\#i'\#(2), l'\#(2), \#a(2), \#(2), a'\#(2) \ 2.35\% \\
\)

**Second Syllable Segment (124):**
\( j(14), \ 11.29\% \\
l(12), \ 9.67\% \\
\)

898
b(10), 8.06%
f(8), 6.45%
‘#(7), 5.64%
n(6), #l(6), 4.83%
m(4), s(4), 3.22%
‘#m(3), v(3), d(3), ‘#(#3), J(3), k(3), 2.41%
p‘(2), n‘(2), ‘#(2), ‘l(2), z‘(2), f‘(2), j‘(2), k‘(2), w‘(2) 1.61%

(70):
a(9), 12.85%
i‘(8), 11.42%
t(7), 10.00%
a(6), 8.57%
i‘(5), e‘(5), ‘o‘(5), 7.14%
u‘(4), ‘u‘(4), 5.71%
ε(2) 2.85%

Third syllable Segment (49):
t(4), n(4), #t(4), 8.16%
‘#(3), r(3), s(3), l(3), 6.12%
#n(2), #y(2), ‘#(2), j(2) 4.08%

(23):
a(6), 26.08%
i‘(4), t(4), 17.39%
a(3) 13.04%

Fourth Syllable Segment (11):
‘#(2), ‘l(2) 18.18%

(8):
i‘(2), a(2) 25.00%

Fifth Syllable Segment:

Segment Stressed and Unstressed Total

Stressed Segment (128):
y(14), 10.93%
n(13), 10.15%
‘#k‘(11), 8.59%
l(10), ‘w(10), 7.81%
#b(8), #s(8), 6.25%
w(5), 3.90%
‘#p‘(4), m(4), 3.12%
f(3), ‘#‘(3), ‘#d(3), 2.34%
p(2), p‘(2), b(2), v(2), s(2), #f(2), ‘#(2), f‘(2), k(2), ‘#(2) 1.56%

(85):
a(13), 15.29%
t(11), t(11), 12.94%
æ(10), 11.76%
u‘(8), 9.41%
i‘(7), 8.23%
e‘(6), 7.05%
‘#a(3), 3.52%
‘o‘(2), ‘æ(2), ‘ø(2) 2.35%

Unstressed Segment (175):
y(17), 9.71%
<table>
<thead>
<tr>
<th>Letter</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>l(16)</td>
<td>9.14%</td>
<td></td>
</tr>
<tr>
<td>b(9)</td>
<td>5.14%</td>
<td></td>
</tr>
<tr>
<td>n(8)</td>
<td>4.57%</td>
<td></td>
</tr>
<tr>
<td>s(#7)</td>
<td>4.00%</td>
<td></td>
</tr>
</tbody>
</table>

- | | |
| m(#6) | 3.42% |
| f(5)  | 2.85% |
| m(4)  | 2.28% |
| b(3)  | 1.71% |
| d(2)  | 1.14% |

(97):
- a(24) 24.74%
- t(11) 11.34%
- i(#10) 10.30%
- a(9) 9.27%
- o(#6) 6.18%
- a(#5) 5.15%
- i(4) 4.12%
- u(#3) 3.09%
- e(2) 2.06%

Segment Total (absolute)

Narrow (367):
- j(34) 9.26%
- l(29) 7.90%
- n(21) 5.72%
- #s(16) 4.35%
- #b(15) 4.08%
- #k(14) 3.81%
- #w(13) 3.54%
- b(11) 2.99%
- m(10) 2.72%
- #t(#9) 2.45%
- f(8) 2.17%
- s(#8) 1.90%
- #m(#6) 1.63%
- #p(#5) 1.36%
- z(#4) 1.08%
- p(3) 0.81%
- #p(2) 0.54%

(212):
- a(26) 12.26%
- a(24) 11.32%
- t(22) 10.37%
- i(#15) 7.07%
- ε(14) 6.60%
- æ(12) 4.71%
- i(#10) 4.71%
- e(#9) 4.24%
- a(#8) 3.77%
- #a(#7) 3.30%
- o(#6) 2.83%
- o(#5) 2.35%
- o(#3) 1.41%
- i(#2) 0.94%
Consonant Cluster Total for Stressed and Unstressed Syllables and Monosyllables according to Syllable Configuration

Supra-Segments: Consonant Clusters

Consonant Cluster Total for Stressed and Unstressed Syllables and Monosyllables according to Syllable Configuration

Monosyllable Consonant Cluster Onset (all entries are word initial) (8):
#sm(2)  25.00%

Monosyllable Consonant Cluster Coda (all entries are word final) (6):
nt#(2)  33.33%

First Syllable Consonant Cluster Stressed Onset (all entries are word initial) (18):
#bl(5),  27.77%
#tɹ(5), #sw(2), #kɹ(2)  11.11%

First Syllable Consonant Cluster Stressed Coda:

Second Syllable Consonant Cluster Stressed Onset:
Second Syllable Consonant Cluster Stressed Coda:

Second Syllable Consonant Cluster Unstressed Onset (3):
st(2),  66.66%

Second Syllable Consonant Cluster Unstressed Coda:

Third Syllable Consonant Cluster Stressed Onset:
Third Syllable Consonant Cluster Stressed Coda:
Third Syllable Consonant Cluster Unstressed Onset:
Third Syllable Consonant Cluster Unstressed Coda:

Fourth Syllable Consonant Cluster Stressed Onset:
Fourth Syllable Consonant Cluster Stressed Coda:
Fourth Syllable Consonant Cluster Unstressed Onset:
Fourth Syllable Consonant Cluster Unstressed Coda:

Fifth Syllable Consonant Cluster Stressed Onset:
Fifth Syllable Consonant Cluster Stressed Coda:
Fifth Syllable Consonant Cluster Unstressed Onset:
Fifth Syllable Consonant Cluster Unstressed Coda:

Consonant Cluster Total for Stressed and Unstressed Onsets and Codas

Stressed Onset (19):
#bl(5), 26.31%
#tʰɸ(2), #sw(2), #kʰɸ(2) 10.52%

Stressed Coda:
Unstressed Onset (9):
st(2) 22.22%

Unstressed Coda:

Consonant Cluster Total for Onsets and Codas

Onset (36):
#bl(7), 19.44%
#pʰɭ(2), #b(2), #tʰɟ(2), #sm(2), st(2), #sw(2), #kʰɸ(2), #kʰw(2) 5.55%

Coda (7):
nt#(2) 28.57%

Consonant Cluster Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllable Consonant Cluster (14):
nt#(2), #sm(2) 14.28%

First Syllable Consonant Cluster Stressed (18):
#bl(5), 27.77%
#tʰɟ(2), #sw(2), #kʰɸ(2) 11.11%

First Syllable Consonant Cluster Unstressed:

Second Syllable Consonant Cluster Stressed:
Second Syllable Consonant Cluster Unstressed (4):
st(2) 50.00%

Third Syllable Consonant Cluster Stressed:
Third Syllable Consonant Cluster Unstressed:

Fourth Syllable Consonant Cluster Stressed:
Fourth Syllable Consonant Cluster Unstressed:

Fifth Syllable Consonant Cluster Stressed:
Fifth Syllable Consonant Cluster Unstressed:

Consonant Cluster Total per Syllable

First Syllable Consonant Cluster (22):
#bl(6), 27.27%
#tʰɟ(2), #sw(2), #kʰɸ(2) 9.09%

Second Syllable Consonant Cluster (5):
st(2) 40.00%

Third Syllable Consonant Cluster:
Fourth Syllable Consonant Cluster:
Fifth Syllable Consonant Cluster:

Consonant Cluster Stressed and Unstressed Total

902
Consonant Cluster Stressed (19):
#bl(5), 26.31%
#tʰ(2), #sw(2), #kʰu(2) 10.52%

Consonant Cluster Unstressed (10):
st(2) 20.00%

Consonant Cluster Total (absolute)

Narrow (43):
#bl(7), 16.27%
#pʰ(2), #b(2), #tʰ(2), #sw(2), #kʰ(2) 4.65%

Broad (43):
b(7), 16.27%
#l(4), 9.30%
st(3), kw(3), 6.97%
#u(2), ti(2), da(2), nt(2), sm(2), sw(2), k(2) 4.65%

43 total consonant clusters

Supra-Segments: Whole Syllables

Whole Syllable Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllable Whole Syllable:

First Syllable Whole Syllable Stressed (all entries are word initial) (57):
#kʰuʷ(2), #w(2), #ble(2), #œ(2) 3.50%

First Syllable Whole Syllable Unstressed (all entries are word initial) (25):
#œ(2), #œ(2) 8.00%

Second Syllable Whole Syllable Stressed:

Second Syllable Whole Syllable Unstressed (61):
li(2), lo(2), m(2), ba(2) 3.27%

Third Syllable Whole Syllable Stressed:

Third Syllable Whole Syllable Unstressed:

Fourth Syllable Whole Syllable Stressed:

Fourth Syllable Whole Syllable Unstressed:

Fifth Syllable Whole Syllable Stressed:

Fifth Syllable Whole Syllable Unstressed:

Whole Syllable Total per Syllable

First Syllable Whole Syllable (all entries are word initial) (82):
#œ(4), #w(3), #l(2), #kʰuʷ(2), #ble(2), #œ(2), #œ(2) 2.43%

Second Syllable Whole Syllable (82):
lo(2), m(2), ba(2), 2.43%

Third Syllable Whole Syllable (30):
nl(2) 6.66%

Fourth Syllable Whole Syllable:

Fifth Syllable Whole Syllable:

Whole Syllable Stressed and Unstressed Total

Whole Syllable Stressed (82):
#kʰuʷ(2), #w(2), #ble(2), #œ(2) 2.43%
Whole Syllable Unstressed (123):
li#(2), ʃtk#(2), lo"#(2), #a(2), mʝ#(2), bɚ#(2), #a(2) 1.62%

Whole Syllable Total (absolute)

Narrow (237):
#a(4), 1.68%
#wɪ(3), 1.26%
#i(2), ni(2), ni̊#(2), li#(2), #kʰu"(2), ʃtk#(2), #ble(2), lo"#(2), #a(2), mʝ#(2), bɚ#(2), #dɛ(2)  .84%

Broad (237):
a(4), 1.68%
m(3), li(3), wɪ(3), lo(3), a(3), 1.26%
i̊(2), ti(2), ni(2), ni(2), ji(2), ku(2), ʃtk(2), ble(2), to(2) as(2), bɬ(2), mɨ(2), da(2), bɚ(2), ve(2), dɛ(2), nɛ(2), bɛ(2) .84%

237 total whole syllables

Supra-Segments: Whole Words

<table>
<thead>
<tr>
<th>Word Length Total</th>
<th>None</th>
<th>First</th>
<th>Second</th>
<th>Third</th>
<th>Fourth</th>
<th>Fifth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monosyllabic: 26.54%</td>
<td>0</td>
<td>88.67%</td>
<td>11.32%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bisyllabic: 46.90%</td>
<td>0</td>
<td>50.00%</td>
<td>50.00%</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trisyllabic: 17.69%</td>
<td>0</td>
<td>11.11%</td>
<td>55.55%</td>
<td>33.33%</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Tetrasyllabic: 7.96%</td>
<td>0</td>
<td>1.72%</td>
<td>23.80%</td>
<td>100%</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Pentasyllabic: .88%</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>100%/</td>
<td>0</td>
</tr>
<tr>
<td>Stressed Syllable Total:</td>
<td>69.87%</td>
<td>25.30%</td>
<td>3.61%</td>
<td>1.20%</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

Table Key: The “Word Length Total” column figure represents the percentage of words that is of that word length. For the cells inside the “Syllable Receiving Stress” columns, the amount on top indicates what percentage of a particular word length was stressed on that syllable. The number on the bottom indicates, for all the words that received stress on a particular syllable, what percentage of these words were of a particular word length. The “Stressed Syllable Total” row indicates what percentage of words was stressed on a particular syllable. Note that monosyllables were not analyzed as receiving stress and the “None” cell in the “Stressed Syllable Total” row is inapplicable.

For all 113 whole words there are no repeated words.
Segmental and Supra-Segmental Frequency Data Sheet

Segments

Segment Total for Stressed and Unstressed Syllables and Monosyllables according to Syllable Configuration

Monosyllable Onset (19):
\( \mathfrak{s}(4), 21.05\% \)
\#p\#(2), #b(2), #f(2) 10.52%

Monosyllable Nucleus (14):
i\#(2), t(2), æ(2), a(2) 14.28%

Monosyllable Coda (19):
f\#(5), 26.31%
t\#(2) 10.52%

First Syllable Segment Stressed Onset (69):
\( \mathfrak{s}(8), 11.59\% \)
#s(7), 10.14%
#m(6), l(6), #k\#(6), 8.69%
#p\#(4), #b(4), #f(4), #g(4), 5.79%
#d(3), #g(3), #z(3), 4.34%
#t\#(2), #s(2), #k(2), k(2), #w(2) 2.89%

First Syllable Segment Stressed Nucleus (61):
a(11), 18.03%
t(9), æ(9), 14.75%
i\#(6), t(6), 9.83%
u\#(3), e(3), æ(3), a\#(3), 4.91%
a(2), #a(2) 3.27%

First Syllable Segment Stressed Coda (29):
n(6), \( \mathfrak{s}(6), 20.68\%
m(3), k(3), 10.34%
d(2) 6.89%

First Syllable Segment Unstressed Onset (33):
#k(6), 18.18%
#b(5), #m(5), \( \mathfrak{s}(5), 15.15\%
#g(3), 9.09%
#n(2) 6.06%

First Syllable Segment Unstressed Nucleus (38):
a(8), 21.05%
æ(4), a(4), 10.52%
#a(3), 7.89%
u(2), #a(2), #æ(2), æ(2) 5.26%

First Syllable Segment Unstressed Coda (12):
\( \mathfrak{s}(4), 33.33\%
m(2) 16.66%

Second Syllable Segment Stressed Onset (31):
t\#(6), \( \mathfrak{s}(6), 19.35\% \)
b(4), 12.90%
m(2), f(2), z(2), l(2) 6.45%

**Second Syllable Segment Stressed Nucleus (26):**
t(5), 19.23%
a(4), 15.38%
i(3), a(3), 11.53%
u*(2), u*(2), e(2) 7.69%

**Second Syllable Segment Stressed Coda (11):**
n(2), k(2) 18.18%

Second Syllable Segment Unstressed Onset (82):
t(9), l(9), 10.97%
i(8), 9.75%
f(6), s(6), 7.31%
p(5), r(5), 6.09%
m(4), d(4), n(4), 4.87%
b(3), z(3), g(3), 3.65%
t*(2), d(2), Θ(2), j(2), j(2) 2.43%

Second Syllable Segment Unstressed Nucleus (72):
a(15), 20.83%
t(9), a(9), 12.50%
i(#7), 9.72%
i(4), 5.55%
a-#(3), 4.16%
u*(2), o*(2), a*(2), i*(2), *η(2), *η(2), a*(2), a*(2) 2.77%

Second Syllable Segment Unstressed Coda (27):
n(6), 22.22%
f(3), s(3), 11.11%
t(2), n(2), s(2), k(2) 7.40%

**Third Syllable Segment Stressed Onset:**

**Third Syllable Segment Stressed Nucleus (6):**
a(2) 33.33%

**Third Syllable Segment Stressed Coda:**

Third Syllable Segment Unstressed Onset (42):
a(6), 14.28%
l(5), 11.90%
t(4), d(4), 9.52%
m(3), n(3), f(3), 7.14%
z(2) 4.76%

Third Syllable Segment Unstressed Nucleus (34):
a(6), 17.64%
i(4), a(4), 11.76%
t(3), o*(3), a*(3), i*(3), a*(3), 8.82%
i*(2), *η(2) 5.88%

Third Syllable Segment Unstressed Coda (22):
n(4), 18.18%
d(3), s(3), k(3), 13.63%
j(2) 9.09%

**Fourth Syllable Segment Stressed Onset:**

**Fourth Syllable Segment Stressed Nucleus:**

**Fourth Syllable Segment Stressed Coda:**

Fourth Syllable Segment Unstressed Onset (11):
t(4) 36.36%

Fourth Syllable Segment Unstressed Nucleus (13):
i #(3), a #(3), 23.07%
a(2) 15.38%

Fourth Syllable Segment Unstressed Coda:

Fifth Syllable Segment Stressed Onset:
Fifth Syllable Segment Stressed Nucleus:
Fifth Syllable Segment Stressed Coda:

Fifth Syllable Segment Unstressed Onset:
Fifth Syllable Segment Unstressed Nucleus:
Fifth Syllable Segment Unstressed Coda:

Stressed Onset (112):
j (15), 13.39%
l (8), 7.14%
t (7), #s (7), 6.25%
#m (6), #k^n (6), 5.35%
#p (4), #b (4), (4), #f (4), #g (4), 3.57%
#d (3), #d (3), #z (3), 2.67%
p (2), m (2), t (2), n (2), z (2), j (2), k (2), k (2), #w (2) 1.78%

Stressed Coda (42):
n (8), 19.04%
j (7), 16.66%
m (4), 9.52%
k (3), 7.14%
b (2), d (2), n # (2), t (2), k # (2) 4.76%

Unstressed Onset (169):
j (20), 11.83%
t (17), 10.05%
l (15), 8.87%
d (9), 5.32%
n (8), s (8), 4.73%
m (7), r (7), 4.14%
p (6), f (6), #k (6), 3.55%
#b (5), #m (5), z (5), f (5), g (5), 2.95%
b (4), 2.36%
t (3), d # (3), (3), j (3), k (3), #g (3), 1.77%
#m (2) 1.18%

Unstressed Coda (63):
n # (10), 15.87%
j (6), k # (6), 9.52%
s # (5), 7.93%
d # (4), n (4), j # (4), 6.34%
t # (3), f # (3), 4.76%
m (2), t # (2), z # (2) 3.17%

Segment Total for Stressed and Unstressed Onsets and Codas

Onset (300):
j (39), 13.00%
l (23), 7.66%
t (17), 5.66%
#b (11), #m (11), 3.66%
m (10), f (10), t (10), d (10), n (10), 3.33%

Segment Total for Onsets and Codas
p(8), b(8), s(8), #s(8), #kʰ(8), #k(8), 2.66%
#f(7), r(7), z(7), #g(7), 2.33%
#pʰ(6), g(6), 2.00%
j(5), j(5), k(5), 1.66%
#d(4), #s(4), #j(4), 1.33%
Ω(3), #z(3), #w(3), 1.00%
#v(2), #tʰ(2), #n(2), #j(2), kʰ(2), w(2) .66%

Coda (124):
ụ(14), 11.29%
ị(13), n(13), 10.48%
k#(9), 7.25%
j#(8), 6.45%
m(7), s#(7), 5.64%
t#(5), d#(5), 4.03%
ụ#(4), 3.22%
d(3), s(3), k(3), 2.41%
p(2), b(2), tʰ#(2), d#(2), z#(2), ł#(2) 1.61%

Segment Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllable Segment (38):
f#(5), j(5), 13.15%
#pʰ(2), #b(2), m(2), #f(2), t#(2) 5.26%

(14):
i⁽(2), t(2), æ(2), a(2) 14.28%

First Syllable Segment Stressed (104):
ụ(14), 13.46%
#s(7), 6.73%
#m(6), n(6), l(6), #kʰ(6), 5.76%
k(5), 4.80%
#pʰ(4), #b(4), #f(4), #g(4), 3.84%
m(3), #d(3), #s(3), #z(3), 2.88%
p(2), f(2), tʰ(2), d(2), #j(2), #k(2), #w(2) 1.92%

(61):
a(11), 18.03%
t(9), æ(9), 14.75%
ɪ⁽(6), e(6), 9.83%
u⁽(3), e⁽(3), æ(3), a⁽(3), 4.91%
ɛ⁽(2), #a(2) 3.27%

First Syllable Segment Unstressed (47):
ụ(9), 19.14%
#k(6), 12.76%
#b(5), #m(5), 10.63%
#g(3), 6.38%
m(2), ɛ⁽(2), #n(2) 4.25%

(36):
a(8), 22.22%
e(4), æ(4), 11.11%
#a(3), 8.33%
ʊ(2), #a(2), #æ(2), æ(2) 5.55%

Second Syllable Segment Stressed (42):
ụ(7), 16.66%
tʰ(6), 14.28%
<table>
<thead>
<tr>
<th>Segment Total by Syllable</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Syllable Segment (151):</td>
</tr>
<tr>
<td>ɺ(23), 15.23%</td>
</tr>
</tbody>
</table>
#m(11), 7.28%
#b(9), 5.96%
#k(8), 5.29%
n(7), #s(7), l(7), #kʰ(7), #g(7), 4.63%
m(5), #f(5), k(5), 3.31%
#pʰ(4), #d(4), 2.64%
#d(3), d(3), #z(3), #s(3), 1.98%
p(2), f(2), #v(2), #n(2), *η(2), s(2), #w(2) 1.32%

(97):
a(15), 15.46%
æ(11), 11.34%
r(10), ε(10), 10.30%
a(8), 8.24%
i(7), 7.21%
#a(5), 5.15%
u*(4), e(4), 4.12%
ær(3), æ(3), #æ(3), a'(3), 3.09%
u(2), o*(2), #a(2) 2.06%

Second Syllable Segment (157):
ʃ(15), 9.55%
l(11), 7.00%
t(9), 5.73%
b(8), f(8), tʰ(8), n#(8), n(8), 5.09%
m(7), 4.45%
p(6), s(6), 3.82%
d(5), r(5), z(5), 3.18%
k#(4), g(4), 2.54%
dʒ(3), s(3), f#(3), j(3), 1.91%
*η(2), ʃ(2), d(2), #v(2), #n(2), Θ(2), f(2), ʃ(2) 1.27%

(92):
a(15), 16.30%
a(12), 13.04%
r(10), 10.86%
i#(7), t(7), 7.60%
e(5), æ(5), 5.43%
u*(4), 4.34%
u*(3), o*(3), æ(3), æ(3), 3.26%
e(2), æ(2) 2.17%

Third Syllable Segment (77):
ʃ(9), 11.68%
n(6), 7.79%
l(5), 6.49%
t(4), d(4), n#(4), 5.19%
m(3), d#(3), s(3), f(3), ʃ(3), k#(3), 3.89%
tʰ(2), *η(2), z(2), j(2) 2.59%

(35):
a(8), 22.85%
i(4), a(4), 11.42%
t(3), o*(3), #a(3), a'(3), 8.57%
i#(2) 5.71%

Fourth Syllable Segment (14):
t(4) 28.57%
Fifth Syllable Segment:

<table>
<thead>
<tr>
<th>Stressed Segment (154):</th>
<th>Segment Stressed and Unstressed Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>μ(22) 14.28%</td>
<td>μ(22) 14.28%</td>
</tr>
<tr>
<td>n(10) 6.49%</td>
<td>n(10) 6.49%</td>
</tr>
<tr>
<td>l(8) 5.19%</td>
<td>l(8) 5.19%</td>
</tr>
<tr>
<td>tʰ(7), #s(7) 4.54%</td>
<td>tʰ(7), #s(7) 4.54%</td>
</tr>
<tr>
<td>b(6), #m(6), m(6), kʰ(6) 3.89%</td>
<td>b(6), #m(6), m(6), kʰ(6) 3.89%</td>
</tr>
<tr>
<td>f(5), k(5) 3.24%</td>
<td>f(5), k(5) 3.24%</td>
</tr>
<tr>
<td>#pʰ(4), #b(4), #l(4), #g(4) 2.59%</td>
<td>#pʰ(4), #b(4), #l(4), #g(4) 2.59%</td>
</tr>
<tr>
<td>p(3), d(3), #d(3), #z(3) 1.94%</td>
<td>p(3), d(3), #d(3), #z(3) 1.94%</td>
</tr>
<tr>
<td>#tʰ(2), n#(2), z(2), #μ(2), k(2), k#(2), #w(2) 1.29%</td>
<td>#tʰ(2), n#(2), z(2), #μ(2), k(2), k#(2), #w(2) 1.29%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Unstressed Segment (248):</th>
</tr>
</thead>
<tbody>
<tr>
<td>u*(5), e*(5) 5.37%</td>
</tr>
<tr>
<td>a*(4) 4.30%</td>
</tr>
<tr>
<td>α(3), α(3) 3.22%</td>
</tr>
<tr>
<td>u=(2), o*(2), #a(2) 2.15%</td>
</tr>
</tbody>
</table>

Segment Total (absolute)

Narrow (425):
(265): a(37), 13.96%
a(29), 10.94%
t(27), 10.18%
i(20), 7.54%
æ(19), 7.16%
e(17), 6.41%
i(12), 4.52%
a(9), 3.39%
*ü(8), a(8), 3.01%
e(6), o(6), a(6), 2.26%
o(5), a(5), 1.88%
*ü(3), a(3), æ(3), æ(3), 1.13%
a(2), e(2), a(2), æ(2), æ(2), .75%

Broad (425):
ø(61), 14.35%
n(45), 10.58%
t(37), 8.70%
k(36), 8.47%
m(30), 7.05%
s(27), 6.35%
l(25), 5.88%
d(24), 5.64%
b(21), 4.94%
f(18), 4.23%
p(17), 4.00%
g(16), 3.76%
z(13), f(13), 3.05%
t(11), 2.58%
d(9), 2.11%
r(7), 1.64%
j(6), 1.41%
w(5), 1.17%
v(4), .94%
θ(3), .70%
t(2), æ(2), æ(2), .47%

(265):
a(44), 16.60%
æ(39), 14.71%
<table>
<thead>
<tr>
<th>Consonant Cluster</th>
<th>Onset (all entries are word initial)</th>
<th>Coda (all entries are word final)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monosyllable</td>
<td>#bɹ(2) 100%</td>
<td></td>
</tr>
<tr>
<td>First Syllable</td>
<td>#fɪ(3), #gɪ(3), 17.64%</td>
<td>First Syllable</td>
</tr>
<tr>
<td>Consonant Cluster</td>
<td>#pʰ(2) 11.76%</td>
<td>Second Syllable</td>
</tr>
<tr>
<td>Stressed Onset</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>#bɹ(2), tʰ(2) 33.33%</td>
<td>Unstressed Onset</td>
</tr>
<tr>
<td></td>
<td>#bɹ(3) 60.00%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>#bɹ(3), st(2) 16.66%</td>
<td>Second Syllable Unstressed Coda</td>
</tr>
<tr>
<td></td>
<td>#bɹ(3), tʰ(2) 33.33%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>#bɹ(2), tʰ(2) 33.33%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>#bɹ(3) 25.00%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>st(2) 16.66%</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Unstressed Coda</td>
</tr>
</tbody>
</table>

**Consonant Cluster Total for Stressed and Unstressed Onsets and Codas**
Onset (37):
- #bɹ(5), 13.51%
- bɭ(3), #fɭ(3), #gɭ(3), 8.10%
- #pʰɭ(2), tʰɭ(2), tɭ(2), st(2), #kʰɭ(2) 5.40%

Coda:

Consonant Cluster Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllable Consonant Cluster (4):
- #bɹ(2) 50.00%

First Syllable Consonant Cluster Stressed (17):
- #fɭ(3), #gɭ(3), 17.64%
- #pʰɭ(2) 11.76%

First Syllable Consonant Cluster Unstressed (5):
- #bɹ(3) 60.00%

Second Syllable Consonant Cluster Stressed (7):
- bɭ(2), tʰɭ(2) 28.57%

Second Syllable Consonant Cluster Unstressed:

Third Syllable Consonant Cluster Stressed:

Third Syllable Consonant Cluster Unstressed:

Fourth Syllable Consonant Cluster Stressed:

Fourth Syllable Consonant Cluster Unstressed:

Fifth Syllable Consonant Cluster Stressed:

Fifth Syllable Consonant Cluster Unstressed:

Consonant Cluster Total per Syllable

First Syllable Consonant Cluster (22):
- #bɹ(3), #fɭ(3), #gɭ(3), 13.63%
- #pʰɭ(2), #kʰɭ(2) 9.09%

Second Syllable Consonant Cluster (13):
- bɭ(3), 23.07%
- tʰɭ(2) 15.38%

Third Syllable Consonant Cluster:

Fourth Syllable Consonant Cluster:

Fifth Syllable Consonant Cluster:

Consonant Cluster Stressed and Unstressed Total

Consonant Cluster Stressed (24):
- #fɭ(3), #gɭ(3), 12.50%
- #pʰɭ(2), bɭ(2), tʰɭ(2) 8.33%

Consonant Cluster Unstressed (16):
- #bɹ(3), 18.75%
- st(2) 12.50%

Consonant Cluster Total (absolute)

Narrow (44):
- #bɭ(5), 11.36%
- bɭ(3), #fɭ(3), #gɭ(3), 6.81%
- #pʰɭ(2), tʰɭ(2), tɭ(2), st(2), #kʰɭ(2) 4.54%

Broad (44):
- bɭ(8), 18.18%
Supra-Segments: Whole Syllables

Whole Syllable Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllable Whole Syllable:

First Syllable Whole Syllable Stressed (all entries are word initial) (62):
#mt(2) 3.22%

First Syllable Whole Syllable Unstressed (all entries are word initial) (37):
#a(2), #ma(2), #k*#(2), #u(2) 5.40%

Second Syllable Whole Syllable Stressed:

Second Syllable Whole Syllable Unstressed (71):
pi#(2), zi#(2), ra(2), fa(2), ta#(2) 2.81%

Third Syllable Whole Syllable Stressed:

Third Syllable Whole Syllable Unstressed (39):
ʃs#(2), lo#(2) 5.12%

Fourth Syllable Whole Syllable Stressed:

Fourth Syllable Whole Syllable Unstressed (13):
ti#(2) 15.38%

Fifth Syllable Whole Syllable Stressed:

Fifth Syllable Whole Syllable Unstressed:

Whole Syllable Total per Syllable

First Syllable Whole Syllable (all entries are word initial) (99):
#a(3) 3.03%
#a(2), #ma(2), #k*#(2), #b(2), #u(2) 2.02%

Second Syllable Whole Syllable (99):
pi#(2), zi#(2), ra(2), fa(2), ta#(2) 2.02%

Third Syllable Whole Syllable (47):
ʃs#(2), lo#(2) 4.25%

Fourth Syllable Whole Syllable (13):
ti#(2) 15.38%

Fifth Syllable Whole Syllable:

Whole Syllable Stressed and Unstressed Total

Whole Syllable Stressed (98):
#mt(2) 2.04%

Whole Syllable Unstressed (161):
pi#(2), ti#(2), ni#(2), zi#(2), li#(2), ʃs#(2), lo#(2), #a(2), pa(2), #ma(2), dʒa(2), ra(2), la#(2), la(2), #k*#(2), fa(2), ta#(2), #u(2) 1.24%

Whole Syllable Total (absolute)

Narrow (273):

915
#a(2), 1.09%
p[i(2), t[i(2), n[i(2), z[i(2), j1s(2), j[e(2), lo(n(2), #a(2), pa(2), #ma(2), dʒa(2), ra(2), la(2), #kV(2), #b(2), fa(2), tə(2), #m(2), #æ(2), fa(2), #f(2) .73%

Broad (273):
li(4), a(4), ma(4), la(4), 1.46%
ti(3), ni(3), zi(3), pa(3), dʒa(3), bʌ(3), tə(3), mt(3), a(3), fa(3), 1.09%
p[i(2), b[i(2), d[i(2), r[i(2), mt(3), j1s(2), j[e(2), to(2), lo(2), go(2), fa(2), ra(2), sa(2), ka(2), kV(2), fa(2), æ(2), fa(2), na(2) .73%

273 total whole syllables

<table>
<thead>
<tr>
<th>Supra-Segments: Whole Words</th>
</tr>
</thead>
<tbody>
<tr>
<td>Syllable Receiving Stress</td>
</tr>
<tr>
<td>Word Length Total</td>
</tr>
<tr>
<td>Monosyllabic: 12.38%</td>
</tr>
<tr>
<td>Bisyllabic: 46.01%</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Trisyllabic: 30.08%</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Tetrasyllabic: 10.61%</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Pentasyllabic: .88%</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Stressed Syllable Total:</td>
</tr>
</tbody>
</table>

Table Key: The “Word Length Total” column figure represents the percentage of words that is of that word length. For the cells inside the “Syllable Receiving Stress” columns, the amount on top indicates what percentage of a particular word length was stressed on that syllable. The number on the bottom indicates, for all the words that received stress on a particular syllable, what percentage of these words were of a particular word length. The “Stressed Syllable Total” row indicates what percentage of words was stressed on a particular syllable. Note that monosyllables were not analyzed as receiving stress and the “None” cell in the “Stressed Syllable Total” row is inapplicable.

For all 113 whole words there are no repeated words.
Segmental and Supra-Segmental Frequency Data Sheet

Question ID: d.

**Segments**

Segment Total for Stressed and Unstressed Syllables and Monosyllables according to Syllable Configuration

<table>
<thead>
<tr>
<th>Monosyllable Onset (28):</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>#s(6), 21.42%</td>
<td></td>
</tr>
<tr>
<td>j(3), w(3), 10.71%</td>
<td></td>
</tr>
<tr>
<td>p(2), #f(2), l(2), k(2)</td>
<td>7.14%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Monosyllable Nucleus (15):</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>e(3), 20.00%</td>
<td></td>
</tr>
<tr>
<td>i(2), a(2) 13.33%</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Monosyllable Coda (19):</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>t#(4), 21.05%</td>
<td></td>
</tr>
<tr>
<td>f#(3), 15.78%</td>
<td></td>
</tr>
<tr>
<td>n#(2), j#(2), t(2)</td>
<td>10.52%</td>
</tr>
</tbody>
</table>

**First Syllable Segment Stressed Onset (101):**

<table>
<thead>
<tr>
<th>#s(27), 26.73%</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>#kʰ(12), 11.88%</td>
<td></td>
</tr>
<tr>
<td>w(9), 8.91%</td>
<td></td>
</tr>
<tr>
<td>j(6), #i(6), 5.94%</td>
<td></td>
</tr>
<tr>
<td>#b(4), 3.96%</td>
<td></td>
</tr>
<tr>
<td>#m(3), #t(3), l(3), #g(3), #w(3), 2.97%</td>
<td></td>
</tr>
<tr>
<td>p(2), m(2), t(2), #r(2), #f(2), k(2)</td>
<td>1.98%</td>
</tr>
</tbody>
</table>

**First Syllable Segment Stressed Nucleus (79):**

<table>
<thead>
<tr>
<th>ɪ(15), 18.98%</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>a(14), 17.72%</td>
<td></td>
</tr>
<tr>
<td>e(6), æ(6), æ(6), 7.59%</td>
<td></td>
</tr>
<tr>
<td>o*(5), 6.32%</td>
<td></td>
</tr>
<tr>
<td>i(4), u*(4), a(4), 5.06%</td>
<td></td>
</tr>
<tr>
<td>ε(3), 3.79%</td>
<td></td>
</tr>
<tr>
<td>#a(2) 2.53%</td>
<td></td>
</tr>
</tbody>
</table>

**First Syllable Segment Stressed Coda (29):**

| n(9), 31.03%  |  |
| l(4), η(4), 13.79% |  |
| m(3), j(3), 10.34% |  |
| p(2), s(2) 6.89% |  |

**First Syllable Segment Unstressed Onset (20):**

<table>
<thead>
<tr>
<th>#s(5), 25.00%</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>#k(2) 10.00%</td>
<td></td>
</tr>
</tbody>
</table>

**First Syllable Segment Unstressed Nucleus (20):**

| ɪ(5), 25.00%  |  |
| a(4), 20.00%  |  |
| æ(2), #a(2) 10.00% |  |

**First Syllable Segment Unstressed Coda:**

**Second Syllable Segment Stressed Onset (20):**
\( \mu(4), 20.00\% \\
\theta^*(2), s(2), l(2), w(2) \ 10.00\% \\

**Second Syllable Segment Stressed Nucleus (16):**  
\( \alpha(5), 31.25\% \\
\iota(3), 18.75\% \\
\alpha(2) \ 12.50\% \\

**Second Syllable Segment Stressed Coda (9):**  
\( n(2), \iota(2) \ 22.22\% \\

Second Syllable Segment Unstressed Onset (84):  
\( l(12), 14.28\% \\
\u (8), 9.52\% \\
\zeta(7), \eta(7), 8.33\% \\
\theta(6), 7.14\% \\
\rho(5), \nu(5), \omega(5), 5.95\% \\
\eta(4), 4.76\% \\
b(3), m(3), d(3), r(3), k(3), 3.57\% \\
d(2), s(2), j(2) \ 2.38\% \\

Second Syllable Segment Unstressed Nucleus (137):  
\( \text{a}(15), 10.94\% \\
\iota(14), 10.21\% \\
\iota(10), 7.29\% \\
\theta(8), 5.83\% \\
\alpha(6), 4.37\% \\
\text{a}(4), \varepsilon(4), 2.91\% \\
\alpha(3), \alpha(3), 2.18\% \\
o"(2), \iota(2), \eta(2), \alpha(2) \ 1.45\% \\

Second Syllable Segment Unstressed Coda (29):  
\( n(6), 20.68\% \\
d(5), 17.24\% \\
p(2), \theta(2), \eta(2), s(2), l(2), k(2) \ 6.89\% \\

**Third Syllable Segment Stressed Onset:**  

**Third Syllable Segment Stressed Nucleus:**  

**Third Syllable Segment Stressed Coda:**  

Third Syllable Segment Unstressed Onset (25):  
\( n(5), l(5), 20.00\% \\
\mu(4), 16.00\% \\
s(3), 12.00\% \\
k(2) \ 8.00\% \\

Third Syllable Segment Unstressed Nucleus (21):  
\( \iota(5), 23.80\% \\
\alpha(4), 19.04\% \\
\iota(2), \alpha(2) \ 9.52\% \\

Third Syllable Segment Unstressed Coda (12):  
\( s(4), 33.33\% \\
\eta(2) \ 16.66\% \\

**Fourth Syllable Segment Stressed Onset:**  

**Fourth Syllable Segment Stressed Nucleus:**  

**Fourth Syllable Segment Stressed Coda:**  

Fourth Syllable Segment Unstressed Onset:  

Fourth Syllable Segment Unstressed Nucleus (8):  
\( \alpha(4) \ 50.00\% 

918
Fourth Syllable Segment Unstressed Coda (3):
s#(2) 66.66%

Fifth Syllable Segment Stressed Onset:
Fifth Syllable Segment Stressed Nucleus:
Fifth Syllable Segment Stressed Coda:
Fifth Syllable Segment Unstressed Onset:
Fifth Syllable Segment Unstressed Nucleus:
Fifth Syllable Segment Unstressed Coda:

Segment Total for Stressed and Unstressed Onsets and Codas

Stressed Onset (125):
#s(27), 21.60%
#kʰ(12), 9.60%
w(11), 8.80%
ʃ(10), 8.00%
#l(6), l(6), 4.80%
#b(4), m(4), 3.20%
#m(3), tʰ(3), #v(3), k(3), #g(3), #w(3), 2.40%
p(2), v(2), t(2), #r(2), s(2), #ʃ(2) 1.60%

Stressed Coda (38):
n(11), 28.94%
ʃ(4), v(4), 10.52%
m(3), ʃ(3), 7.89%
p(2), s(2), #ʃ(2) 5.26%

Unstressed Onset (135):
l(18), 13.33%
ʃ(14), 10.37%
n(9), z(9), 6.66%
g(7), 5.18%
p(6), v(6), t(6), s(6), k(6), w(6), 4.44%
#s(5), 3.70%
b(4), m(4), 2.96%
d(3), r(3), f(3), j(3), 2.22%
δ(2), #k(2) 1.48%

Unstressed Coda (48):
s#(8), 16.66%
n#(7), 14.58%
d#(6), 12.50%
k#(3), 6.25%
p#(2), t#(2), tʰ#(2), d#(2), n(2), s(2), f#(2), s#(2), #r(2), ʃ#(2), ɹ#(2), ł#(2), ą#(2) 4.16%

Segment Total for Onsets and Codas

Onset (288):
#s(38), 13.19%
ʃ(27), 9.37%
l(26), 9.02%
w(20), 6.94%
#kʰ(12), 4.16%
k(11), 3.81%
p(10), n(10), 3.47%
m(9), z(9), 3.12%
v(8), t(8), s(8), 2.77%
#l(7), g(7), 2.43%
b(5), #ʃ(5), #g(5), #w(5), 1.73%
#b(4), #m(4), #ʃ(4), #f(4), j(4), #d(4), 1.38%
tʰ(3), d(3), r(3), 1.04%
#f(2), #tʰ(2), #r(2), δ(2), #k(2), #h(2) .69%

Coda (105):
n(14), 13.33%
n#(9), 8.57%
s#(8), 7.61%
t#(6), d#(6), f#(6), j#(6), h(6), 5.71%
m(4), s(4), ι(4), l#(4), k#(4), η(4), 3.80%
p#(3), 2.85%
p(2), t'#(2), d'#(2), k(2), η#(2) 1.90%

Monosyllable Segment (62):
#s(6), 9.67%
t#(4), 6.45%
f#(3), ι(3), k(3), w(3), ε(3), 4.83%
p(2), m(2), n#(2), #l(2), l(2), i(2), a(2) 3.22%

(15):
ε(3), 20.00%
i(2), a(2) 13.33%

First Syllable Segment Stressed (130):
#s(27), 20.76%
#kʰ(12), 9.23%
n(9), ι(9), w(9), 6.92%
#l(6), 4.61%
m(5), 3.84%
p(4), #b(4), h(4), η(4), 3.07%
#m(3), #l(3), k(3), g(3), #w(3), 2.30%
v(2), t(2), #r(2), s(2), #f(2) 1.53%

(79):
t(15), 18.98%
a(14), 17.72%
e(6), æ(6), æ(6), 7.59%
o(5), 6.32%
i(4), u(4), a(4), 5.06%
t(3), 3.79%
#æ(2) 2.53%

First Syllable Segment Unstressed (25):
#s(5), 20.00%
ι(2), k(2) 8.00%

(19):
t(5), 26.31%
a(4), 21.05%
æ(2), #a(2) 10.52%

Second Syllable Segment Stressed (29):
ι(4), 13.79%
tʰ(2), n(2), s(2), j#(2), l(2), w(2) 6.89%

(16):
a(5), 31.25%
t(3), 18.75%
æ(2) 12.50%
Second Syllable Segment Unstressed (132):
1(12), 9.09%
*1(#)(10), 7.57%
ν(8), 6.06%
2(7), ν(7), 5.30%
t(6), n(#)(6), 4.54%
p(5), v(5), d(#)(5), n(5), w(5), 3.78%
*ν(#)(4), 3.03%
b(3), m(3), d(3), r(3), k(3), 22.72%
p(#)(2), *ν(#)(2), τ*(#)(2), d*(#)(2), ɔ(2), s(#)(2), t(#)(2), +j(#)(2), j(#)(2), k(#)(2) 1.51%

(64):
a(15), 23.43%
i*(#)(14), 21.87%
t(8), 12.50%
a(6), 9.37%
e(4), 6.25%
*ɔ(#)(3), a(3), 4.68%
o*#(#)(2), *ɔ#(#)(2) 3.12%

Third Syllable Segment Stressed:

Third Syllable Segment Unstressed (39):
n(5), l(5), 12.82%
s(4), #(#)(4), 10.25%
k(2), ν(#)(2) 5.12%

(19):
t(5), 26.31%
*ω(#)(4), 21.05%
i*(#)(2), a(2) 10.52%

Fourth Syllable Segment Stressed:

Fourth Syllable Segment Unstressed (10):
s(#)(2) 20.00%

(7):
*ω(#)(4) 57.14%

Fifth Syllable Segment Stressed:

Fifth Syllable Segment Unstressed:

Segment Total by Syllable

First Syllable Segment (155):
#(32), 20.64%
#κ*(#)(12), 7.74%
ν(11), 7.09%
n(10), w(10), 6.45%
#l(7), 4.51%
p(5), m(5), 3.22%
#b(4), #m(4), #ν(4), l(4), k(4), #g(4), ɳ(4), #w(4), 2.58%
s(3), l(3), 1.93%
v(2), t(2), #r(#)(2), #j(#)(2), #k(2), #h(2) 1.29%

(98):
t(20), 20.40%
a(15), 15.30%
*ω(8), 8.16%
*e*(6), æ(6), 6.12%
Second Syllable Segment (161):

- i(5), o*(5), 5.10%
- u*(4), a(4), a*(4), 4.08%
- e(3), #a(3), 3.06%
- u(2), #a(2), o(2), #ae(2) 2.04%

Third syllable Segment (43):

- n(6), l(6), 13.95%
- s(4), #s(4), u(4), 9.30%
- k(2), #k(2) 4.65%

Fourth Syllable Segment (10):

- s*(2) 20.00%

Fifth Syllable Segment:

<table>
<thead>
<tr>
<th>Stressed Segment (163):</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>#s(27), 16.56%</td>
<td></td>
</tr>
<tr>
<td>u(13), 7.97%</td>
<td></td>
</tr>
<tr>
<td>n(12), #k(12), 7.36%</td>
<td></td>
</tr>
<tr>
<td>w(11), 6.74%</td>
<td></td>
</tr>
<tr>
<td>m(7), 4.29%</td>
<td></td>
</tr>
<tr>
<td>#l(6), l(6), 3.68%</td>
<td></td>
</tr>
<tr>
<td>p(4), #b(4), s(4), l(4), k(4), #j(4), 2.45%</td>
<td></td>
</tr>
<tr>
<td>#m(3), v(3), t*(3), #f(3), #j(3), #g(3), #w(3), 1.84%</td>
<td></td>
</tr>
<tr>
<td>t(2), #r(2), #j(2) 1.22%</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Unstressed Segment (99):</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>a(20), 20.20%</td>
<td></td>
</tr>
<tr>
<td>t(18), 18.18%</td>
<td></td>
</tr>
<tr>
<td>a(8), 8.08%</td>
<td></td>
</tr>
<tr>
<td>e(7), ae(7), 7.07%</td>
<td></td>
</tr>
</tbody>
</table>
Unstressed Segment (206):

<table>
<thead>
<tr>
<th>Segment</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>l(18)</td>
<td>8.73%</td>
<td></td>
</tr>
<tr>
<td>j(15)</td>
<td>7.28%</td>
<td></td>
</tr>
<tr>
<td>n(11)</td>
<td>5.33%</td>
<td></td>
</tr>
<tr>
<td>⟷(10)</td>
<td>4.85%</td>
<td></td>
</tr>
<tr>
<td>z(9)</td>
<td>4.36%</td>
<td></td>
</tr>
<tr>
<td>s(8)</td>
<td>3.88%</td>
<td></td>
</tr>
<tr>
<td>n(#)</td>
<td>3.39%</td>
<td></td>
</tr>
<tr>
<td>p(6), v(6), t(6), d(#), k(6), w(6)</td>
<td>2.91%</td>
<td></td>
</tr>
<tr>
<td>#s(5)</td>
<td>2.42%</td>
<td></td>
</tr>
<tr>
<td>b(4), m(4), ⟷(4), d(4), ⟷(4)</td>
<td>1.94%</td>
<td></td>
</tr>
<tr>
<td>r(3), f(3), ⟷(3), j(3), k(3)</td>
<td>1.45%</td>
<td></td>
</tr>
<tr>
<td>p(#), t#(2), t'(#), d'(#), ⟷(2), #d(2), j(#), t(#), #(#), k(2), #(#)</td>
<td>.97%</td>
<td></td>
</tr>
</tbody>
</table>

(Segment Total (absolute))

<table>
<thead>
<tr>
<th>Segment</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>a(21)</td>
<td>19.26%</td>
<td></td>
</tr>
<tr>
<td>t(19)</td>
<td>17.43%</td>
<td></td>
</tr>
<tr>
<td>⟷(#)(14)</td>
<td>12.84%</td>
<td></td>
</tr>
<tr>
<td>a(#)(9), a(9)</td>
<td>8.25%</td>
<td></td>
</tr>
<tr>
<td>a(5), e(5)</td>
<td>4.58%</td>
<td></td>
</tr>
<tr>
<td>i(#)(3), e#(3), a(3)</td>
<td>2.75%</td>
<td></td>
</tr>
<tr>
<td>o#(2), a#(2), #a(2)</td>
<td>1.83%</td>
<td></td>
</tr>
</tbody>
</table>

Narrow (431):

<table>
<thead>
<tr>
<th>Segment</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>#s(38)</td>
<td>8.81%</td>
<td></td>
</tr>
<tr>
<td>j(31)</td>
<td>7.19%</td>
<td></td>
</tr>
<tr>
<td>l(26)</td>
<td>6.03%</td>
<td></td>
</tr>
<tr>
<td>n(24)</td>
<td>5.56%</td>
<td></td>
</tr>
<tr>
<td>w(20)</td>
<td>4.64%</td>
<td></td>
</tr>
<tr>
<td>m(13), k(13)</td>
<td>3.01%</td>
<td></td>
</tr>
<tr>
<td>p(12), s(12), #k#(12)</td>
<td>2.78%</td>
<td></td>
</tr>
<tr>
<td>⟷(#)(10)</td>
<td>2.32%</td>
<td></td>
</tr>
<tr>
<td>v(9), n#(9), z(9)</td>
<td>2.08%</td>
<td></td>
</tr>
<tr>
<td>t(8), s#(8)</td>
<td>1.85%</td>
<td></td>
</tr>
<tr>
<td>#l(7), h(7), g(7)</td>
<td>1.62%</td>
<td></td>
</tr>
<tr>
<td>t#(6), d#(6), j#(6)</td>
<td>1.39%</td>
<td></td>
</tr>
<tr>
<td>b(5), f(5), j#(5), #u(5), g#(5), #w(5)</td>
<td>1.16%</td>
<td></td>
</tr>
<tr>
<td>#b(4), #m(4), #η(4), d(4), #η(4), f(4), j#(4), j(4), #k(4), η(4)</td>
<td>.92%</td>
<td></td>
</tr>
<tr>
<td>p#(3), t#(3), r(3), #η(3)</td>
<td>.69%</td>
<td></td>
</tr>
<tr>
<td>#f(2), f(2), t#(#2), t'(#2), d'(#2), #η(2), #r(2), #d(2), #k(2), #η(2), #h(2)</td>
<td>.46%</td>
<td></td>
</tr>
</tbody>
</table>

(223):

<table>
<thead>
<tr>
<th>Segment</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>t(37)</td>
<td>16.59%</td>
<td></td>
</tr>
<tr>
<td>a(31)</td>
<td>13.90%</td>
<td></td>
</tr>
<tr>
<td>a(21)</td>
<td>9.41%</td>
<td></td>
</tr>
<tr>
<td>⟷(#)(14), a(14)</td>
<td>6.27%</td>
<td></td>
</tr>
<tr>
<td>e(13)</td>
<td>5.82%</td>
<td></td>
</tr>
<tr>
<td>e#(11)</td>
<td>4.93%</td>
<td></td>
</tr>
<tr>
<td>⟷(#)(10)</td>
<td>4.48%</td>
<td></td>
</tr>
<tr>
<td>a#(9)</td>
<td>4.03%</td>
<td></td>
</tr>
<tr>
<td>æ(8)</td>
<td>3.58%</td>
<td></td>
</tr>
<tr>
<td>a#(7)</td>
<td>3.13%</td>
<td></td>
</tr>
<tr>
<td>o#(6)</td>
<td>2.69%</td>
<td></td>
</tr>
</tbody>
</table>
\(\text{u}^*(5), 2.24\% \\
\gamma (3), a(3), \#a(3), 1.34\% \\
\text{u}^*\#(2), u(2), o^*\#(2), \#\text{a}(2), \#, \#\text{e}(2), \#, \#\text{e}(2), 0.89\% \\

\text{Broad (431):} \\
\text{s}(58), 13.45\% \\
\text{t}(42), 9.74\% \\
\text{n}(40), 9.28\% \\
\text{l}(33), 7.65\% \\
\text{k}(32), 7.42\% \\
\text{w}(25), 5.80\% \\
\text{t}(24), 5.56\% \\
\text{m}(22), 5.10\% \\
p(18), 4.17\% \\
\text{f}(14), 3.24\% \\
d(13), \text{g}(13), 3.01\% \\
z(11), 2.55\% \\
v(10), 2.32\% \\
b(9), 2.08\% \\
\eta(6), 1.39\% \\
j(5), 1.16\% \\
f(4), 0.92\% \\
dg(3), r(3), 0.69\% \\
r(2), \text{d}(2), \text{h}(2). 0.46\% \\

(223): \\
\text{t}(37), 16.59\% \\
a(35), 15.69\% \\
a(31), 13.90\% \\
i(26), 11.65\% \\
\#\text{a}(18), 8.07\% \\
\text{t}(14), 6.27\% \\
e(13), a(13), 5.82\% \\
\text{a}(12), 5.38\% \\
u(9), 4.03\% \\
o(8), 3.58\% \\
\#(4), 1.79\% \\
u(2), 0.89\% \\

654 total segments

**Supra-Segments: Consonant Clusters**

Consonant Cluster Total for Stressed and Unstressed Syllables and Monosyllables according to Syllable Configuration

Monosyllable Consonant Cluster Onset (all entries are word initial) (10):
\#sw(2)  20.00\%

Monosyllable Consonant Cluster Coda (all entries are word final):

First Syllable Consonant Cluster Stressed Onset (all entries are word initial) (25):
#sw(5), 20.00\% \\
#st(2), #sm(2), #sl(2), #k^\text{b}(2), #g(2)  8.00\%

First Syllable Consonant Cluster Stressed Coda:

First Syllable Consonant Cluster Unstressed Onset (all entries are word initial):
First Syllable Consonant Cluster Unstressed Coda:

Second Syllable Consonant Cluster Stressed Onset (4):
skw(2)  50.00\%

Second Syllable Consonant Cluster Stressed Coda:
Second Syllable Consonant Cluster Unstressed Onset (4):
tɹ(2) 50.00%

Second Syllable Consonant Cluster Unstressed Coda:

Third Syllable Consonant Cluster Stressed Onset:
Third Syllable Consonant Cluster Stressed Coda:
Third Syllable Consonant Cluster Unstressed Onset:
Third Syllable Consonant Cluster Unstressed Coda:

Fourth Syllable Consonant Cluster Stressed Onset:
Fourth Syllable Consonant Cluster Stressed Coda:
Fourth Syllable Consonant Cluster Unstressed Onset:
Fourth Syllable Consonant Cluster Unstressed Coda:

Fifth Syllable Consonant Cluster Stressed Onset:
Fifth Syllable Consonant Cluster Stressed Coda:
Fifth Syllable Consonant Cluster Unstressed Onset:
Fifth Syllable Consonant Cluster Unstressed Coda:

Consonant Cluster Total for Stressed and Unstressed Onsets and Codas

Stressed Onset (29):
#sw(5), 17.24%
#st(2), #sm(2), skw(2), #sl(2), #kʰ(2), #gɹ(2) 6.89%

Stressed Coda:

Unstressed Onset (7):
tɹ(2) 28.57%

Unstressed Coda:

Consonant Cluster Total for Onsets and Codas

Onset (46):
#sw(7), 15.21%
#skw(3), #sp(3), #gɹ(3), 6.52%
tɹ(2), #st(2), #sm(2), skw(2), #sl(2), #sp(2), #kʰ(2) 4.34%

Coda:

Consonant Cluster Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllable Consonant Cluster (15):
#sw(2) 13.33%

First Syllable Consonant Cluster Stressed (26):
#sw(5), 19.23%
#st(2), #sm(2), #sl(2), #kʰ(2), #gɹ(2) 7.69%

First Syllable Consonant Cluster Unstressed:

Second Syllable Consonant Cluster Stressed (5):
skw(2) 40.00%

Second Syllable Consonant Cluster Unstressed (6):
tɹ(2) 33.33%

Third Syllable Consonant Cluster Stressed:
Third Syllable Consonant Cluster Unstressed:

Fourth Syllable Consonant Cluster Stressed:
Fourth Syllable Consonant Cluster Unstressed:

Fifth Syllable Consonant Cluster Stressed:
Fifth Syllable Consonant Cluster Unstressed:

Consonant Cluster Total per Syllable

925
First Syllable Consonant Cluster (29):
#sw(5), 17.24%
#g(3), 10.34%
#sl(2), #st(2), #sm(2), #skw(2), #sp(2), #kʰ(2) 6.89%

Second Syllable Consonant Cluster (11):
t(2), skw(2) 18.18%

Third Syllable Consonant Cluster:

Fourth Syllable Consonant Cluster:

Fifth Syllable Consonant Cluster:

Consonant Cluster Stressed and Unstressed Total

Consonant Cluster Stressed (31):
#sw(5), 16.12%
#st(2), #sm(2), skw(2), #sl(2), #kʰ(2) 6.45%

Consonant Cluster Unstressed (9):
t(2) 22.22%

Consonant Cluster Total (absolute)

Narrow (55):
#sw(7), 12.72%
skw(3), #sp(3), #g(3), 5.45%
t(2), #st(2), #sm(2), skw(2), #sl(2), #kʰ(2) 3.63%

Broad (55):
sw(7), 12.72%
skw(5), 9.09%
t(4), g(4), 7.27%
sp(3), 5.45%
#st(2), #sm(2), #sl(2), #sp(2), #k(2), kl(2) 3.63%

55 total consonant clusters

Supra-Segments: Whole Syllables

Whole Syllable Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllable Whole Syllable:

First Syllable Whole Syllable Stressed (all entries are word initial) (78):
#kʰan(3), #br(2), #so(2), #loʷ(2), #saʲ(2) 2.56%

First Syllable Whole Syllable Unstressed (all entries are word initial) (21):
#sa(3) 14.28%

Second Syllable Whole Syllable Stressed:

Second Syllable Whole Syllable Unstressed (83):
pi³(4), z³h(4), li³(2), va(2), r+h(2) 2.40%

Third Syllable Whole Syllable Stressed:

Third Syllable Whole Syllable Unstressed (24):
n(3), 12.50%
s+m(2) 8.33%

Fourth Syllable Whole Syllable Stressed:

Fourth Syllable Whole Syllable Unstressed (7):
ə(2) 28.57%
## Fifth Syllable Whole Syllable Stressed:
Fifth Syllable Whole Syllable Unstressed:

### Whole Syllable Total per Syllable

<table>
<thead>
<tr>
<th>Syllable</th>
<th>Total Entries</th>
<th>Whole Syllable Stressed</th>
<th>Whole Syllable Unstressed</th>
</tr>
</thead>
<tbody>
<tr>
<td>First</td>
<td>99</td>
<td>3.03%</td>
<td>2.02%</td>
</tr>
<tr>
<td>Second</td>
<td>99</td>
<td>2.02%</td>
<td></td>
</tr>
<tr>
<td>Third</td>
<td>29</td>
<td>10.34%</td>
<td></td>
</tr>
<tr>
<td>Fourth</td>
<td>7</td>
<td>28.57%</td>
<td></td>
</tr>
</tbody>
</table>

### Whole Syllable Stressed and Unstressed Total

<table>
<thead>
<tr>
<th>Syllable</th>
<th>Total Entries</th>
<th>Whole Syllable Stressed</th>
<th>Whole Syllable Unstressed</th>
</tr>
</thead>
<tbody>
<tr>
<td>First</td>
<td>99</td>
<td>3.03%</td>
<td>2.02%</td>
</tr>
<tr>
<td>Second</td>
<td>99</td>
<td>2.02%</td>
<td></td>
</tr>
<tr>
<td>Third</td>
<td>29</td>
<td>10.34%</td>
<td></td>
</tr>
<tr>
<td>Fourth</td>
<td>7</td>
<td>28.57%</td>
<td></td>
</tr>
</tbody>
</table>

### Whole Syllable Total (absolute)

<table>
<thead>
<tr>
<th>Syllable</th>
<th>Total Entries</th>
<th>Whole Syllable Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Narrow</td>
<td>249</td>
<td>1.60%</td>
</tr>
<tr>
<td>Broad</td>
<td>249</td>
<td>1.60%</td>
</tr>
</tbody>
</table>
### Supra-Segments: Whole Words

<table>
<thead>
<tr>
<th>Word Length Total</th>
<th>Syllable Receiving Stress</th>
<th>None</th>
<th>First</th>
<th>Second</th>
<th>Third</th>
<th>Fourth</th>
<th>Fifth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monosyllabic: 13.15%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bisyllabic: 62.28%</td>
<td></td>
<td>0</td>
<td>91.54%/83.33%</td>
<td>8.45%/37.50%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trisyllabic: 17.54%</td>
<td></td>
<td>0</td>
<td>60.00%/15.38%</td>
<td>35.00%/43.75%</td>
<td>5.00%/20.00%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tetrasyllabic: 7.01%</td>
<td></td>
<td>0</td>
<td>12.50%/1.28%</td>
<td>37.50%/18.75%</td>
<td>50.00%/80.00%</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Pentasyllabic: 0</td>
<td></td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Stressed Syllable Total:</td>
<td></td>
<td>78.78%</td>
<td>16.16%</td>
<td>5.05%</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

Table Key: The “Word Length Total” column figure represents the percentage of words that is of that word length. For the cells inside the “Syllable Receiving Stress” columns, the amount on top indicates what percentage of a particular word length was stressed on that syllable. The number on the bottom indicates, for all the words that received stress on a particular syllable, what percentage of these words were of a particular word length. The “Stressed Syllable Total” row indicates what percentage of words was stressed on a particular syllable. Note that monosyllables were not analyzed as receiving stress and the “None” cell in the “Stressed Syllable Total” row is inapplicable.

For 114 whole words there are no repeated words.
Segmental and Supra-Segmental Frequency Data Sheet

Question ID: e.

Segments

Segment Total for Stressed and Unstressed Syllables and Monosyllables according to Syllable Configuration

Monosyllable Onset (26):
\( \ddot{u}(4), 15.38\% \\
\#s(3), \acute{l}(3), \#k^h(3), 11.53\% \\
\#p^h(2), \acute{p}(2), \#t^h(2) \ 7.69\% \\

Monosyllable Nucleus (15):
\( \ddot{a}(6), 40.00\% \\
\acute{i}(2), \ddot{a}(2) \ 13.33\% \\

Monosyllable Coda (16):
\( d\#, \dddot{u}(2), k\#(2) \ 12.50\% \\

First Syllable Segment Stressed Onset (86):
\( \ddot{u}(9), 10.46\% \\
\#p^h(7), \#b(7) \ 8.13\% \\
\#\dddot{u}(6), \#k^h(6) \ 6.97\% \\
\#m(5), \#t^h(5) \ 5.81\% \\
\#f(4), \#d(4), \#s(4), \#l(4), \#g(4) \ 4.65\% \\
\#l(3), \#j(3), \#k(3), \#w(3) \ 3.48\% \\
k(2), \#w(2) \ 2.32\% \\

First Syllable Segment Stressed Nucleus (66):
\( \ddot{a}(16), 24.24\% \\
\ddot{t}(10) \ 15.15\% \\
\ddot{a}(6) \ 9.09\% \\
\ddot{a}(5) \ 7.57\% \\
\dddot{a}(4) \ 6.06\% \\
\dddot{e}(3), \varepsilon(3), \ddot{a}(3) \ 4.54\% \\
\dddot{o}(2) \ 3.03\% \\

First Syllable Segment Stressed Coda (32):
\( r(6), \ddot{u}(6), k(6) \ 18.75\% \\
m(5) \ 15.62\% \\
d(2), \dddot{t}(2) \ 6.25\% \\

First Syllable Segment Unstressed Onset (33):
\( \#k^h(5), 15.15\% \\
\#m(3) \ 9.09\% \\
\#p(2), \#b(2), \#v(2), \dddot{t}(2), \#d(2), \#(2), \#k(2), \#w(2) \ 6.06\% \\

First Syllable Segment Unstressed Nucleus (31):
\( \ddot{a}(10) \ 32.25\% \\
\ddot{t}(7) \ 22.58\% \\
\ddot{a}(3) \ 9.67\% \\
\ddot{o}(2) \ 6.45\% \\

First Syllable Segment Unstressed Coda (8):
\( m(2), \ddot{u}(2), \ddot{r}(2) \ 25.00\% \\

Second Syllable Segment Stressed Onset (32):
Second Syllable Segment Stressed Nucleus (28):
\( a(7), 25.00\% \\
\( e(3), \epsilon(3), \alpha(3), 10.71\% \\
\( r(2), o^*(2) \ 7.14\% \\

Second Syllable Segment Stressed Coda (21):
\( n(5), 23.80\% \\
\( s(3), 14.28\% \\
\( n#(2), s#(2), k(2) \ 9.52\% \\

Second Syllable Segment Unstressed Onset (81):
\( t(10), 12.34\% \\
\( s(8), 9.87\% \\
\( t(7), k(7), 8.64\% \\
\( d(6), n(6), 7.40\% \\
\( r(5), l(5), g(5), 6.17\% \\
\( w(4), 4.93\% \\
\( b(3), z(3), 3.70\% \\
\( p(2), p^*(2), m(2) \ 2.46\% \\

Second Syllable Segment Unstressed Nucleus (72):
\( a(11), 15.27\% \\
\( a(10), 13.88\% \\
\( r(9), 12.50\% \\
\( i^#(6), 8.33\% \\
\( o^#(4), o^*(4), a(4), 5.55\% \\
\( i^#(3), o^#(3), a^*(3), 4.16\% \\
\( i^*(2), o^*(2) \ 2.77\% \\

Second Syllable Segment Unstressed Coda (30):
\( k#(5), 16.66\% \\
\( t#(4), n#(4), 13.33\% \\
\( k(3), 10.00\% \\
\( n(2), s#(2) \ 6.66\% \\

Third Syllable Segment Stressed Onset:
Third Syllable Segment Stressed Nucleus:
Third Syllable Segment Stressed Coda:

Third Syllable Segment Unstressed Onset (32):
\( t(6), 18.75\% \\
\( n(4), l(4), 12.50\% \\
\( f(3), d(3), z(3), 9.37\% \\
\( r(2) \ 6.25\% \\

Third Syllable Segment Unstressed Nucleus (33):
\( t(6), 18.18\% \\
\( a(5), 15.15\% \\
\( i^*(2), o^*(2), a#(2), o^#(2), \epsilon(2), a^*(2) \ 6.06\% \\

Third Syllable Segment Unstressed Coda (16):
\( n#(4), 25.00\% \\
\( s#(3), 18.75\% \\
\( t#(2), k#(2) \ 12.50\% \\

Fourth Syllable Segment Stressed Onset:
Fourth Syllable Segment Stressed Nucleus:
Fourth Syllable Segment Stressed Coda:
Fourth Syllable Segment Unstressed Onset (7):
\( r(2) \) 28.57%

Fourth Syllable Segment Unstressed Nucleus (8):
\( \#a(2) \) 25.00%

Fourth Syllable Segment Unstressed Coda:

Fifth Syllable Segment Stressed Onset:
Fifth Syllable Segment Stressed Nucleus:
Fifth Syllable Segment Stressed Coda:
Fifth Syllable Segment Unstressed Onset:
Fifth Syllable Segment Unstressed Nucleus:
Fifth Syllable Segment Unstressed Coda:

### Segment Total for Stressed and Unstressed Onsets and Codas

**Stressed Onset (120):**
- \( \iota(17) \), 14.16%
- \( l(8) \), 6.66%
- \#p(7), \#b(7), 5.83%
- \#\iota(6), \#k(6), 5.00%
- \#m(5), \#t^*(5), t^*(5), 4.16%
- \#f(4), \#d(4), \#s(4), j(4), #g(4), 3.33%
- b(3), #l(3), #k(3), #w(3), 2.50%
- p(2), d(2), k(2), g(2), w(2) 1.66%

**Stressed Coda (54):**
- n(12), 22.22%
- \( \iota(9) \), 16.66%
- k(8), 14.81%
- m(5), 9.25%
- t(3), 5.55%
- d(2), n#(2), \( \iota(2) \), \( \eta(2) \) 3.70%

**Unstressed Onset (154):**
- t(18), 11.68%
- n(11), 7.14%
- \( \iota(10) \), l(10), 6.49%
- d(9), r(9), s(9), k(9), 5.84%
- z(7), 4.54%
- w(6), 3.89%
- f(5), \#k(5), g(5), 3.24%
- b(4), 2.59%
- p(3), #m(3), 1.94%
- \#p(2), p(2), \#b(2), m(2), #v(2), #d(2), j(2), #k(2) 1.29%

**Unstressed Coda (57):**
- n#(8), 14.03%
- k#(7), 12.28%
- t#(6), s#(6), 10.54%
- t^#(3), k(3), \( \eta(3) \), 5.26%
- m(2), n(2), \( \iota(2) \), \( \eta(2) \) 3.50%

### Segment Total for Onsets and Codas

**Onset (300):**
- \( \iota(31) \), 10.33%
- l(21), 7.00%
- t(18), 6.00%
- #k(14), 4.66%
- n(12), k(12), 4.00%
d(11), 3.66%
#pʰ(10), s(10), 3.33%
#b(9), r(9), w(9), 3.00%
#m(8), #s(8), z(8), #ŋ(8), 2.66%
b(7), #tʰ(7), g(7), 2.33%
#f(6), f(6), #d(6), #k(6), 2.00%
p(5), tʰ(5), #l(5), j(5), 1.66%
pʰ(4), #g(4), #v(4), 1.33%
m(3), #v(3), kʰ(3), 1.00%
#p(2), j(2)  .66%

Coda (127):
n(14), 11.02%
j(13), 10.23%
k(12), 9.44%
n#(10), 7.87%
k#(9), 7.08%
m(7), t#(7), s#(7), 5.51%
η(5), 3.93%
tʰ#(4), d#(4), j#(4), h(4), 3.14%
p#(2), m#(2), f#(2), d(2), tʰ#(2), d#g(2), s(2)  1.57%

Segment Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllable Segment (52):
j(6), 11.53%
#s(3), l(3), #kʰ(3), 5.76%
#pʰ(2), p(2), #tʰ(2), d#(2), k(2), k#(2), i(2), æ(2)  3.84%

(15):
ɑ(6), 40.00%
i(2), æ(2) 13.33%

First Syllable Segment Stressed (118):
j(15), 12.71%
k(8), 6.77%
#pʰ(7), #b(7), 5.93%
n(6), #j(6), #kʰ(6), 5.08%
#m(5), m(5), #tʰ(5), 4.23%
#f(4), #d(4), #s(4), l(4), #g(4), 3.38%
#l(3), j(3), #k(3), #w(3), 2.54%
d(2), r(2), t(2), w(2)  1.69%

(66):
ɑ(16), 24.24%
j(10), 15.15%
u⁽⁶⁾(6), 9.09%
æ(5), 7.57%
æ(4), 6.06%
e(3), 4.54%
o⁽⁶⁾, a(2) 3.03%

First Syllable Segment Unstressed (41):
#kʰ(5), 12.19%
j(4), 9.75%
#m(3), 7.31%
#p(2), #b(2), m(2), #v(2), t(2), #d(2), #k(2), η(2), w(2)  4.87%

(31):
a(10), 32.25%
Second Syllable Segment Stressed (53):

- $\mathbf{i}(10)$, 18.86%
- n(6), 11.32%
- t$^h$(4), l(4), 7.54%
- b(3),  5.66%
- p$^h$(2), d(2), n#(2), s(2), $\mathbf{u}$#(2), k$^h$(2), k(2), g(2)  3.77%

(28):
- a(7), 25.00%
- e(3), æ(3), αæ(3), 10.71%
- t(2), o$^o$(2)  7.14%

Second Syllable Segment Unstressed (123):

- t(10), k(10), 8.13%
- n(8), s(8), 6.50%
- $\mathbf{i}$(7), 5.69%
- d(6), 4.87%
- r(5), l(5), k#(5), g(5), 4.06%
- t#(4), n#(4), $\mathbf{u}$#(4), w(4), 3.25%
- b(3), m#(3), η#(3), z(3), 2.43%
- p(2), p$^h$(2), m(2), s#(2)  1.62%

(60):
- a(11), 18.33%
- a(10), 16.66%
- t(9), 15.00%
- i#(6), 10.00%
- o$^o$(4), η(4), 6.66%
- o#(3), 5.00%
- i(2), o#(2), o$^o$(2)  3.33%

Third Syllable Segment Stressed:

Third Syllable Segment Unstressed (53):

- t(6), 11.32%
- n(4), n#(4), l(4), 7.54%
- f(3), d(3), s#(3), z(3), 5.66%
- t#(2), r(2), $\mathbf{u}$#(2), k#(2)  3.77%

(28):
- t(6), 21.42%
- a(5), 17.85%
- i(2), o$^o$(2), o#(2), s(2), a(2)  7.14%

Fourth Syllable Segment Stressed:

Fourth Syllable Segment Unstressed (10):

- r(2) 20.00%

(7):
- a#(2) 28.57%

Fifth Syllable Segment Stressed:

Fifth Syllable Segment Unstressed:
First Syllable Segment (159):

\( \mathcal{S}(19) \), 11.94%  
\#k^*(11), 6.91%  
\#b(9), 5.66%  
\#p^*(8), \#m(8), k(8), 5.03%  
\#m(7), \#l(7), 4.40%  
\#d(6), n(6), 3.77%  
\#f(5), \#t^*(5), \#s(5), \#k(5), 3.14%  
\#l(4), l(4), \#g(4), \#w(4), w(4) 2.51%  
\#v(3), t(3), f(3), j(3), \#(3), 1.88%  
\#p(2), d(2), r(2) 1.25%

(97):

\( \mathcal{A}(19) \), 19.58%  
\( \mathcal{I}(17) \), 17.52%  
\( \mathcal{A}(10) \), 10.30%  
\( \mathcal{U}^*(6) \), \( \mathcal{A}(6) \), 6.18%  
\( \mathcal{A}^*(5) \), 5.15%  
\( \mathcal{O}^*(4) \), \( \mathcal{A}(4) \), 4.12%  
\( \mathcal{E}^*(3) \), \( \mathcal{A}(3) \), 3.09%  
\( \mathcal{I}(2), \mathcal{A}(2) \), \#(2) 2.06%

Second Syllable Segment (176):

\( \mathcal{S}(17) \), 9.65%  
\( \mathcal{N}(14) \), 7.95%  
\( \mathcal{K}(12) \), 6.81%  
\( \mathcal{T}(10) \), \( \mathcal{S}(10) \), 5.68%  
\( \mathcal{L}(9) \), 5.11%  
\( \mathcal{D}(8) \), 4.54%  
\( \mathcal{G}(7) \), 3.97%  
\( \mathcal{B}(6) \), 3.40%  
\( \mathcal{R}(5), \mathcal{K}^#(5) \), 2.84%  
\( \mathcal{P}^*(4), \mathcal{T}^*(4), \mathcal{Z}(4), \mathcal{J}^*(4), \mathcal{W}(4) \), 2.27%  
\( \mathcal{M}(3), \mathcal{R}^#(3), \mathcal{J}^#(3), \mathcal{S}^#(3), k^*(3) \), 1.70%  
\( \mathcal{P}(2), \mathcal{F}(2), \mathcal{F}^#(2), \mathcal{S}^#(2), j(2), \eta(2) \) 1.13%

(88):

\( \mathcal{A}(17) \), 19.31%  
\( \mathcal{T}(11), \mathcal{A}(11) \), 12.50%  
\( \mathcal{I}^#(7) \), 7.95%  
\( \mathcal{O}^#(5) \), 5.68%  
\( \mathcal{E}^*(4) \), \( \mathcal{O}^*(4) \), \( \mathcal{A}(4) \), \( \mathcal{E}(4) \), 4.54%  
\( \mathcal{I}^*(3) \), \( \mathcal{A}^*(3) \), \( \mathcal{A}(3) \), 3.40%  
\( \mathcal{O}^#(2) \), \( \mathcal{A}(2) \), \( \mathcal{A}^*(2) \) 2.27%

Third Syllable Segment (56):

\( \mathcal{T}(6) \), 10.71%  
\( \mathcal{N}(5) \), 8.92%  
\( \mathcal{N}^#(4), \mathcal{L}(4) \), 7.14%  
\( \mathcal{F}(3), \mathcal{D}(3), \mathcal{S}^#(3), \mathcal{Z}(3) \), 5.35%  
\( \mathcal{T}^#(2) \), \( \mathcal{R}(2), \mathcal{J}(2), \mathcal{J}^#(2), \mathcal{K}^#(2) \) 3.57%

(30):

\( \mathcal{T}(6) \), 20.00%  
\( \mathcal{A}(5) \), 16.66%  
\( \mathcal{I}^*(2), \mathcal{O}^#(2) \), \( \mathcal{A}(2) \), \( \mathcal{E}(2) \), \( \mathcal{A}(2) \) 6.66%

Fourth Syllable Segment (10):

\( \mathcal{R}(2) \) 20.00%
(7):
ə#(2) 28.57%

Fifth Syllable Segment:

Segment Stressed and Unstressed Total

Stressed Segment (174):
ɹ(26),  14.94%
n(13),  7.47%
k(10),  5.74%
l(8),  4.59%
#pʰ(7), #b(7),  4.02%
m(6), #x(6), #kʰ(6),  3.44%
#m(5), #tʰ(5), tʰ(5),  2.87%
#f(4), #d(4), d(4), #s(4), j(4), #g(4),  2.29%
b(3), #l(3), h(3), #k(3), g(3), #w(3),  1.72%
pʰ(2), n#(2), r(2), s(2), j#(2), kʰ(2), η(2), w(2)  1.14%

(96):
ɑ(23),  23.95%
t(12),  12.50%
æ(9),  9.37%
u*(7),  7.29%
e(6), ε(6),  6.25%
o*(4), a(4), Λ(4),  4.16%
a(3),  3.12%
i(2), η(2), η(2), a(2)  2.08%

Unstressed Segment (229):
t(18),  7.86%
n(13),  5.67%
ɹ(12), k(12),  5.24%
s(10), l(10),  4.36%
d(9), r(9),  3.93%
n#(8),  3.49%
z(7), h(7), k(7),  3.05%
t(6), s(6), w(6),  2.62%
f(5), kʰ(5), g(5),  2.18%
b(4), m(4), #m(4), #n(4), #n(4),  1.74%
p(3), #m(3), η(3),  1.31%
#p(2), pʰ(2), b(2), #v(2), tʰ(2), #d(2), s(2), #n(2), #t(2), j#(2), k(2)  .87%

(127):
a(27),  21.25%
t(23),  18.11%
a(14),  11.02%
#(6), o*(6), Λ(6),  4.72%
o*(5), a(5),  3.93%
i(4), a(4), Λ(4), ε(4),  3.14%
e(3), a(3),  2.36%
u*#(2), o#(2), v(2), a#(2)  1.57%

Segment Total (absolute)

Narrow (455):
ɹ(44),  9.67%
n(26),  5.71%
k(24),  5.27%
l(21),  4.61%
t(19), 4.17%
#kʰ(14), 3.07%
d(13), 2.85%
s(12), 2.63%
#pʰ(10), m(10), # n#(10), 2.19%
b(9), r(9), kʰ(9), w(9), 1.97%
#m(8), #s(8), z(8), #t(8), g(8), 1.75%
b(7), #tʰ(7), tʰ(7), sʰ(7), ηʰ(7), 1.53%
#f(6), f(6), #d(6), #k(6), 1.31%
p(5), tʰ(5), #l(5), j(5), 1.09%
pʰ(4), #m(4), d(4), #n(4), j(4), #g(4), #w(4), .87%
#v(3), kʰ(3), .65%
#p(2), pʰ(2), mʰ(2), fʰ(2), tʰ(2), tʰ(2), dʰ(2), dʰ(2), #n(2), r(2), f(2), .43%

(238):
ɑ(43), 20.16%
t(35), 14.70%
a(27), 11.34%
æʰ(20), 5.04%
oʰ(15), 4.20%
ε(9), 3.78%
ɪ(8), 3.36%
uʰ(7), oʰ(7), 2.94%
a(6), 2.52%
aʰ(5), 2.10%
aʰ(4), η(4), aʰ(4), 1.68%
γ(3), 1.26%
i(2), uʰ(2), oʰ(2), eʰ(2), a(2), #a(2), aʰ(2), .84%

Broad (455):
k(58), 12.74%
t(56), 12.30%
t(43), n(43), 9.45%
s(27), l(27), 5.93%
d(25), 5.49%
m(24), 5.27%
p(23), 5.05%
b(16), 3.51%
f(14), 3.07%
g(13), w(13), 2.85%
φ(12), 2.63%
z(10), 2.19%
r(9), 1.97%
η(6), 1.31%
dɡ(5), j(5), 1.09%
v(3), f(3), .65%
t(3), r(2), .43%

(238):
ɑ(48), 20.16%
t(35), 14.70%
a(33), 13.86%
o(20), 8.40%
i(18), 7.56%
ɛ(15), 6.30%
a(13), 5.46%
i(12), æ(12), 5.04%
u(10), e(10), 4.20%
Supra-Segments: Consonant Clusters

Consonant Cluster Total for Stressed and Unstressed Syllables and Monosyllables according to Syllable Configuration

Monosyllable Consonant Cluster Onset (all entries are word initial):
Monosyllable Consonant Cluster Coda (all entries are word final):

First Syllable Consonant Cluster Stressed Onset (all entries are word initial) (17):
#bl(2), #bɹ(2), #skw(2), #kʰj(2)  11.76%

First Syllable Consonant Cluster Stressed Coda:

First Syllable Consonant Cluster Unstressed Onset (all entries are word initial) (3):
#kʰ(2)  66.66%

First Syllable Consonant Cluster Unstressed Coda:

Second Syllable Consonant Cluster Stressed Onset (4):
tʰɹ(3)  75.00%

Second Syllable Consonant Cluster Stressed Coda:

Second Syllable Consonant Cluster Unstressed Onset:
Second Syllable Consonant Cluster Unstressed Coda (6):
nt#(2) 33.33%

Third Syllable Consonant Cluster Stressed Onset:
Third Syllable Consonant Cluster Stressed Coda:
Third Syllable Consonant Cluster Unstressed Onset:
Third Syllable Consonant Cluster Unstressed Coda:

Fourth Syllable Consonant Cluster Stressed Onset:
Fourth Syllable Consonant Cluster Stressed Coda:
Fourth Syllable Consonant Cluster Unstressed Onset:
Fourth Syllable Consonant Cluster Unstressed Coda:

Fifth Syllable Consonant Cluster Stressed Onset:
Fifth Syllable Consonant Cluster Stressed Coda:
Fifth Syllable Consonant Cluster Unstressed Onset:
Fifth Syllable Consonant Cluster Unstressed Coda:

Consonant Cluster Total for Stressed and Unstressed Onsets and Codas

Stressed Onset (21):
tʰɹ(3),  14.28%
#bl(2), #bɹ(2), #skw(2), #kʰj(2)  9.52%

Stressed Coda:

Unstressed Onset (10):
#kʰ(2)  20.00%

Unstressed Coda (7):
nt#(2) 28.57%

Consonant Cluster Total for Onsets and Codas

Onset (39):
#kʰ(4), 10.25%
tʰɹ(3), 7.69%
#pʰ(2), #bl(2), #bɹ(2), #fl(2), #skw(2), #kʰj(2), #kʰw(2)  5.12%

Coda (14):
Consonant Cluster Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllable Consonant Cluster:

**First Syllable Consonant Cluster Stressed (18):**
#bl(2), #bj(2), #skw(2), #kʰj(2) 11.11%

First Syllable Consonant Cluster Unstressed (3):
#kʰj(2) 66.66%

**Second Syllable Consonant Cluster Stressed (6):**
tʰj(3) 50.00%

Second Syllable Consonant Cluster Unstressed (12):
nt#(2) 16.66%

**Third Syllable Consonant Cluster Stressed:**

Third Syllable Consonant Cluster Unstressed:

**Fourth Syllable Consonant Cluster Stressed:**

Fourth Syllable Consonant Cluster Unstressed:

**Fifth Syllable Consonant Cluster Stressed:**

Fifth Syllable Consonant Cluster Unstressed:

Consonant Cluster Total per Syllable

First Syllable Consonant Cluster (21):
#kʰj(3), 14.28%
#bl(2), #bj(2), #skw(2), #kʰj(2), #kʰw(2) 9.52%

Second Syllable Consonant Cluster (18):
tʰj(3), 16.66%
nt#(2) 11.11%

Third Syllable Consonant Cluster:

Fourth Syllable Consonant Cluster:

Fifth Syllable Consonant Cluster:

Consonant Cluster Stressed and Unstressed Total

Consonant Cluster Stressed (24):
tʰj(3), 12.50%
#bl(2), #bj(2), #skw(2), #kʰj(2) 8.33%

Consonant Cluster Unstressed (17):
nt#(2), #kʰj(2) 11.76%

Consonant Cluster Total (absolute)

Narrow (53):
#kʰj(4), 7.54%
tʰj(3), 5.66%
#pʰ(2), #bl(2), #bj(2), #fl(2), nt#(2), #skw(2), #kʰj(2), #kʰw(2), kt#(2) 3.77%

Broad (53):
tʰ(5), kʰ(5), 9.43%
bl(3), bj(3), kw(3), 5.66%
pʰ(2), pl(2), fʰ(2), fj(2), dʰ(2), nt(2), skw(2), kj(2), kt(2) 3.77%

53 total consonant clusters

**Supra-Segments: Whole Syllables**
Whole Syllable Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllable Whole Syllable:

First Syllable Whole Syllable Stressed (all entries are word initial) (68):
#kʰjuʷ(2), #fɾeʲ(2)  2.94%

First Syllable Whole Syllable Unstressed (all entries are word initial) (31):
#bə(2)  6.45%

Second Syllable Whole Syllable Stressed:

Second Syllable Whole Syllable Unstressed (71):
zi²(2), koʷ²(2), tʰn²(2), sʰ(2), də(2)  2.81%

Third Syllable Whole Syllable Stressed:

Third Syllable Whole Syllable Unstressed (33):
zo²(2)  6.06%

Fourth Syllable Whole Syllable Stressed:

Fourth Syllable Whole Syllable Unstressed:

Fifth Syllable Whole Syllable Stressed:

Fifth Syllable Whole Syllable Unstressed:

Whole Syllable Stressed and Unstressed Total

Whole Syllable Stressed (98):
#kʰju²(2), #fɾeʲ²(2)  2.04%

Whole Syllable Unstressed (144):
tʰn³(3), sʰ(3), 2.08%
zi²(2), zo²(2), ko²(2), pa²(2), #ba(2), tʰ(2), na²(2), sʰ²(2), də(2), kə(2)  1.38%

Whole Syllable Total (absolute)

Narrow (258):
tʰn³(3), sʰ(3), 1.16%
zi²(2), #kʰju²(2), #fɾeʲ²(2), zo²(2), ko²(2), pa²(2), #ba(2), tʰ(2), na²(2), sʰ²(2), də(2), kə(2), #va²(2), #a²(2), #ma²(2) .77%

Broad (258):
tʰn(4), sʰ(4), 1.55%
zo(3), kə(3), pə(3), 1.16%
pə(2), di(2), zi(2), kju(2), sʰn(2), li(2), fɾe(2), fo(2), to(2), a(2) ba(2), ma(2), ta(2), sʰ(2), ga(2), də(2), rə(2), kə(2), va(2), a(2), pə(2), ma(2), tə(2), kə(2), ga(2) .77%

258 total whole syllables
### Supra-Segments: Whole Words

<table>
<thead>
<tr>
<th>Word Length Total</th>
<th>Syllable</th>
<th>Receiving Stress</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>None</td>
<td>First</td>
</tr>
<tr>
<td>Monosyllabic: 13.15%</td>
<td>1.58%/100%</td>
<td>80.95%/75.00%</td>
</tr>
<tr>
<td>Bisyllabic: 55.26%</td>
<td>0</td>
<td>57.14%/23.52%</td>
</tr>
<tr>
<td>Trisyllabic: 24.56%</td>
<td>0</td>
<td>14.28%/1.47%</td>
</tr>
<tr>
<td>Tetrasyllabic: 6.14%</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Pentasyllabic: 0.87%</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Stressed Syllable Total:</td>
<td>69.38%</td>
<td>28.57%</td>
</tr>
</tbody>
</table>

Table Key: The “Word Length Total” column figure represents the percentage of words that is of that word length. For the cells inside the “Syllable Receiving Stress” columns, the amount on top indicates what percentage of a particular word length was stressed on that syllable. The number on the bottom indicates, for all the words that received stress on a particular syllable, what percentage of these words were of a particular word length. The “Stressed Syllable Total” row indicates what percentage of words was stressed on a particular syllable. Note that monosyllables were not analyzed as receiving stress and the “None” cell in the “Stressed Syllable Total” row is inapplicable.

For all 114 whole words there are no repeated words.
Segmental and Supra-Segmental Frequency Data Sheet

Question ID: f

Segments

Segment Total for Stressed and Unstressed Syllables and Monosyllables according to Syllable Configuration

Monosyllable Onset (40):
- ɹ(6), 15.00%
- #kʰ(5), 12.50%
- #s(4), 10.00%
- #b(3), 7.50%
- t(2), #d(2), #f(2), l(2), k(2), w(2) 5.00%

Monosyllable Nucleus (27):
- a(7), 25.92%
- æ(6), 22.22%
- i(2), ε(2) 7.40%

Monosyllable Coda (32):
- t#, n(4), s#(4), 12.50%
- k#, 9.37%
- d#, n#, z#, ɹ#, #o(2), #k(2) 6.25%

First Syllable Segment Stressed Onset (74):
- #s(17), 22.97%
- k(7), 9.45%
- t(6), 8.10%
- ɹ(5), #kʰ(5), 6.75%
- #f(4), #n(4), l(4), 5.40%
- #pʰ(3), #n(3), #g(3), 4.05%
- p(2), #z(2), #j(2), #w(2) 2.70%

First Syllable Segment Stressed Nucleus (59):
- æ(11), 18.64%
- a(10), 16.94%
- i(5), u*(5), 8.47%
- e(4), 6.77%
- e(3), #a(3), 5.08%
- t(2), o*(2), #s(2), #æ(2), #a(2) 3.38%

First Syllable Segment Stressed Coda (21):
- n(8), 38.09%
- ɹ(3), k(3), 14.28%
- p(2) 9.52%

First Syllable Segment Unstressed Onset (20):
- #k(3), 15.00%
- #b(2), #f(2), #s(2) 10.00%

First Syllable Segment Unstressed Nucleus (25):
- u*(5), #t(5), 20.00%
- a(4), 16.00%
- a(3), 12.00%
- #a(2) 8.00%
First Syllable Segment Unstressed Coda (5):
n(2)  40.00%

Second Syllable Segment Stressed Onset (30):
m(5),  16.66%
j(4), kʰ(4),  13.33%
tʰ(3),  10.00%
s(2), l(2) 6.66%

Second Syllable Segment Stressed Nucleus (22):
a(9),  40.90%
u*#(3),  13.63%
t(2)  9.09%

Second Syllable Segment Stressed Coda (14):
n(5),  35.71%
s(2), j(2) 14.28%

Second Syllable Segment Unstressed Onset (73):
t(8), l(8),  10.95%
s(7),  9.58%
f(6), k(6),  8.21%
p(4), n(4),  5.47%
v(3), d(3), r(3), j(3),  4.10%
dj(2), j(2)  2.73%

Second Syllable Segment Unstressed Nucleus (52):
a(10),  19.23%
t(8), 15.38%
+m#(4),  a(4),  7.69%
l#(3), e#(3), o*#(3), +n(3), a(3),  5.76%
u*#(2), u(2), o*#(2), a#(2)  3.84%

Second Syllable Segment Unstressed Coda (25):
k#(4),  16.00%
n#(3),  12.00%
t#(2), d#(2), n(2), z#(2), j#(2), k(2)  8.00%

Third Syllable Segment Stressed Onset:
Third Syllable Segment Stressed Nucleus:
Third Syllable Segment Stressed Coda:

Third Syllable Segment Unstressed Onset (34):
l(5),  14.70%
t(4), n(4), j(4),  11.76%
b(2), m(2), f(2), d(2), s(2), j(2), h(2)  5.88%

Third Syllable Segment Unstressed Nucleus (29):
a(6),  20.68%
o*#(4),  13.79%
t(3), 10.34%
a#(2), e(2), a(2)  6.89%

Third Syllable Segment Unstressed Coda (12):
s#(3),  25.00%
n#(2), k#(2)  16.66%

Fourth Syllable Segment Stressed Onset:
Fourth Syllable Segment Stressed Nucleus:
Fourth Syllable Segment Stressed Coda:

Fourth Syllable Segment Unstressed Onset (5):
g(2)  40.00%
Fourth Syllable Segment Unstressed Nucleus (7):
i^2(2), a(2)  28.57%

Fourth Syllable Segment Unstressed Coda (3):
s^3(3)  100%

Fifth Syllable Segment Stressed Onset:
Fifth Syllable Segment Stressed Nucleus:
Fifth Syllable Segment Stressed Coda:
Fifth Syllable Segment Unstressed Onset:
Fifth Syllable Segment Unstressed Nucleus:
Fifth Syllable Segment Unstressed Coda:

Segment Total for Stressed and Unstressed Onsets and Codas

<table>
<thead>
<tr>
<th>Onset (98)</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>#s(17)</td>
<td>17.34%</td>
</tr>
<tr>
<td>j(9)</td>
<td>9.18%</td>
</tr>
<tr>
<td>t(7), k(7)</td>
<td>7.14%</td>
</tr>
<tr>
<td>l(6)</td>
<td>6.12%</td>
</tr>
<tr>
<td>m(5), #k^4(5)</td>
<td>5.10%</td>
</tr>
<tr>
<td>#f(4), #n(4), k^4(4)</td>
<td>4.08%</td>
</tr>
<tr>
<td>#p^4(3), t^4(3), #s(3), #g(3)</td>
<td>3.06%</td>
</tr>
<tr>
<td>p(2), #z(2), s(2), #j(2), j(2), #w(2), w(2)</td>
<td>2.04%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Coda (35)</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>n(13)</td>
<td>37.14%</td>
</tr>
<tr>
<td>j(5)</td>
<td>14.28%</td>
</tr>
<tr>
<td>s(3), k(3)</td>
<td>8.57%</td>
</tr>
<tr>
<td>p(2), z(2)</td>
<td>5.71%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Onset (122)</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>l(15)</td>
<td>12.29%</td>
</tr>
<tr>
<td>t(12)</td>
<td>9.83%</td>
</tr>
<tr>
<td>s(9)</td>
<td>7.37%</td>
</tr>
<tr>
<td>f(8), n(8)</td>
<td>6.55%</td>
</tr>
<tr>
<td>k(7)</td>
<td>5.73%</td>
</tr>
<tr>
<td>s(6)</td>
<td>4.91%</td>
</tr>
<tr>
<td>d(5)</td>
<td>4.09%</td>
</tr>
<tr>
<td>p(4), v(4), j(4)</td>
<td>3.27%</td>
</tr>
<tr>
<td>m(3), r(3), j(3), #k(3), g(3)</td>
<td>2.45%</td>
</tr>
<tr>
<td>#b(2), b(2), #f(2), d(2), #s(2)</td>
<td>1.63%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Coda (45)</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>s^3(7)</td>
<td>15.55%</td>
</tr>
<tr>
<td>n(5), n^3(5)</td>
<td>11.11%</td>
</tr>
<tr>
<td>k^4(4)</td>
<td>8.88%</td>
</tr>
<tr>
<td>z^3(3), j^3(3)</td>
<td>6.66%</td>
</tr>
<tr>
<td>t^3(2), d^3(2), k(2), #s(2)</td>
<td>4.44%</td>
</tr>
</tbody>
</table>

Segment Total for Onsets and Codas

<table>
<thead>
<tr>
<th>Onset (260)</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>l(23)</td>
<td>8.84%</td>
</tr>
<tr>
<td>t(21), #s(21), j(21)</td>
<td>8.07%</td>
</tr>
<tr>
<td>k(16)</td>
<td>6.15%</td>
</tr>
<tr>
<td>s(11)</td>
<td>4.23%</td>
</tr>
<tr>
<td>#k^4(10)</td>
<td>3.84%</td>
</tr>
<tr>
<td>m(9), f(9), n(9), #f(9)</td>
<td>3.46%</td>
</tr>
<tr>
<td>#f(7)</td>
<td>2.69%</td>
</tr>
<tr>
<td>p(6)</td>
<td>2.30%</td>
</tr>
<tr>
<td>Segment Total for Stressed and Unstressed Syllables and Monosyllables</td>
<td></td>
</tr>
<tr>
<td>---------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Monosyllable Segment (72):</td>
<td></td>
</tr>
<tr>
<td>s(8), 11.11%</td>
<td></td>
</tr>
<tr>
<td>#kʰ(5), 6.94%</td>
<td></td>
</tr>
<tr>
<td>t(4), n(4), s(4), k(4), 5.55%</td>
<td></td>
</tr>
<tr>
<td>#b(3), k(3), 4.16%</td>
<td></td>
</tr>
<tr>
<td>t(2), d(2), z(2), z(2), 2.77%</td>
<td></td>
</tr>
<tr>
<td>(27):</td>
<td></td>
</tr>
<tr>
<td>æ(6), 22.22%</td>
<td></td>
</tr>
<tr>
<td>i(2), e(2) 7.40%</td>
<td></td>
</tr>
<tr>
<td>First Syllable Segment Stressed (95):</td>
<td></td>
</tr>
<tr>
<td>s(17), 17.89%</td>
<td></td>
</tr>
<tr>
<td>k(10), 10.52%</td>
<td></td>
</tr>
<tr>
<td>n(8), j(8), 8.42%</td>
<td></td>
</tr>
<tr>
<td>t(7), 7.36%</td>
<td></td>
</tr>
<tr>
<td>#kʰ(5), 5.26%</td>
<td></td>
</tr>
<tr>
<td>p(4), #f(4), n(4), l(4), 4.21%</td>
<td></td>
</tr>
<tr>
<td>#p(3), #a(3), g(3), 3.15%</td>
<td></td>
</tr>
<tr>
<td>#z(2), #j(2), #w(2) 2.10%</td>
<td></td>
</tr>
<tr>
<td>(59):</td>
<td></td>
</tr>
<tr>
<td>æ(11), 18.64%</td>
<td></td>
</tr>
<tr>
<td>a(10), 16.94%</td>
<td></td>
</tr>
<tr>
<td>i(5), u(5), 8.47%</td>
<td></td>
</tr>
<tr>
<td>e(4), 6.77%</td>
<td></td>
</tr>
<tr>
<td>æ(3), #a(3), 5.08%</td>
<td></td>
</tr>
<tr>
<td>a(2), #a(2), æ(2), #æ(2) 3.38%</td>
<td></td>
</tr>
<tr>
<td>First Syllable Segment Unstressed (25):</td>
<td></td>
</tr>
<tr>
<td>#k(3), 12.00%</td>
<td></td>
</tr>
<tr>
<td>#b(2), m(2), #f(2), n(2), 8.00%</td>
<td></td>
</tr>
<tr>
<td>(25):</td>
<td></td>
</tr>
<tr>
<td>u(5), #a(5), 20.00%</td>
<td></td>
</tr>
<tr>
<td>a(4), 16.00%</td>
<td></td>
</tr>
<tr>
<td>a(3), 12.00%</td>
<td></td>
</tr>
<tr>
<td>#a(2) 8.00%</td>
<td></td>
</tr>
<tr>
<td>Second Syllable Segment Stressed (44):</td>
<td></td>
</tr>
<tr>
<td>j(6), 13.63%</td>
<td></td>
</tr>
</tbody>
</table>
m(5), n(5), 11.36%
s(4), kʰ(4), 9.09%
tʰ(3), 6.81%
z(2), l(2) 4.54%

{22}:
a(9), 40.90%
uʰ#(3), 13.63%
r(2) 9.09%

Second Syllable Segment Unstressed (94):
t(8), l(8), 8.51%
s(7), 7.44%
f(6), n(6), k(6), 6.38%
p(4), m(4), k#(4), 4.25%
v(3), d(3), n(3), t(3), f(3), 3.19%
t#(2), d#(2), z(2), m(2), j#(2), l(2) 2.12%

{52}:
a(10), 19.23%
t(8), 15.38%
ə(4), 7.69%
iʰ#(3), eʰ#(3), oʰ#(3), 0(3), 5.76%
uʰ(2), u(2), oʰ(2), əʰ(2) 3.84%

Third Syllable Segment Stressed:

Third Syllable Segment Unstressed (48):
n(5), l(5), 10.41%
t(4), j(4), 8.33%
s#(3), 6.25%
日凌晨(2), m(2), d(2), n(2), z(2), l(2), j(2), h(2) 4.16%

{27}:
a(6), 22.22%
oʰ(4), 14.81%
r(3), 11.11%
əʰ(2), εʰ(2), a(2) 7.40%

Fourth Syllable Segment Stressed:

Fourth Syllable Segment Unstressed (9):
s#(3), 33.33%
g(2) 22.22%

{6}:
iʰ(2), a(2) 33.33%

Fifth Syllable Segment Stressed:

Fifth Syllable Segment Unstressed:

Segment Total by Syllable

First Syllable Segment (120):
#s(19), 15.83%
k(11), 9.16%
n(10), 8.33%
j(8), 6.66%
t(7), 5.83%
#f(6), 5.00%
#m(5), l(5), kʰ(5), 4.16%
p(4), #g(4), 3.33%
(84):
\( \text{a}(13), \ 15.47\% \)
\( \text{æ}(11), \ 13.09\% \)
\( u^*(10), \ 11.90\% \)
\( i^i(6), \ 7.14\% \)
\( #i(5), \ 5.95\% \)
\( e^i(4), \ 4.76\% \)
\( o^*(3), \ 3.57\% \)
\( #u^*(2), \ 2.50\% \)
\( t(2), \ 1.66\% \)

Second Syllable Segment (138):
\( n(11), \ 7.97\% \)
\( l(10), \ 7.24\% \)
\( t(9), \ 6.52\% \)
\( s(8), \ 5.79\% \)
\( f(7), \ 5.07\% \)
\( k(6), \ 4.34\% \)
\( m(5), \ 3.62\% \)
\( p(4), \ 2.89\% \)
\( v(3), \ t^i(3), \ #i(3), \ d(3), \ z(3), \ f(3), \ 2.17\% \)
\( d^i(2), \ d^i(2), \ #i(2), \ #i(2), \ f(2), \ g(2), \ w(2), \ 1.44\% \)

(74):
\( \text{a}(12), \ 16.21\% \)
\( t(10), \ 13.51\% \)
\( #u^*(4), \ 5.40\% \)
\( i^#(3), \ c^#(3), \ o^*(3), \ 4.05\% \)
\( u^*(2), \ u(2), \ c(2), \ a^#(2), \ a^#(2), \ 2.70\% \)

Third Syllable Segment (49):
\( n(6), \ 12.24\% \)
\( l(5), \ 10.20\% \)
\( t(4), \ s(4), \ 8.16\% \)
\( s^i(3), \ 6.12\% \)
\( b(2), \ m(2), \ f(2), \ d(2), \ n(2), \ s(2), \ f(2), \ j(2), \ h(2), \ 4.08\% \)

(28):
\( \text{a}(6), \ 21.42\% \)
\( o^*(4), \ 14.28\% \)
\( t(3), \ 10.71\% \)
\( i^i(2), \ a^#(2), \ e(2), \ 7.14\% \)

Fourth Syllable Segment (9):
\( s^i(3), \ 33.33\% \)
\( g(2), \ 22.22\% \)

(6):
\( i^#(2), \ a(2), \ 33.33\% \)

Fifth Syllable Segment:

#### Stressed Segment (140):
\( #s(17), \ 12.14\% \)
\( n(14), \ 10.00\% \)
\( k(10), \ 7.14\% \)
\( t(8), \ 5.71\% \)
m(6), l(6), 4.28%
s(5), #kʰ(5), 3.57%
p(4), #f(4), #n(4), kʰ(4), 2.85%
#pʰ(3), tʰ(3), z(3), #r(3), #g(3), 2.14%
#z(2), #j(2), #w(2), w(2) 1.42%

(82):
a(19), 23.17%
æ(11), 13.41%
i(7), 8.53%
u*(5), e(5), 6.09%
ø(4), 4.87%
u*#(3), o*(3), ø(3), #a(3), 3.65%
ɔ(2), #æ(2), #a(2) 2.43%

Unstressed Segment (176):
l(15), 8.52%
n(13), 7.38%
t(12), 6.81%
s(10), 5.68%
f(8), k(8), 4.54%
s#(7), 3.97%
ɔ(6), 3.40%
d(5), n#(5), 2.80%
p(4), m(4), #η#(4), v(4), f(4), k#(4), 2.27%
#η(3), #η#(3), r(3), z#(3), #t(3), #j(3), #k(3), g(3), 1.70%
#b(2), b(2), #f(2), t#(2), d#(2), d(2), #s(2), #t(2), #(#2), h(2) 1.13%

(110):
a(22), 20.00%
t(12), 10.90%
a(8), 7.27%
u*(7), o*(7), 6.36%
i#(6), ø(6), 5.45%
#i(5), 4.54%
e(4), o*(4), ø(4), 3.63%
i#(2), u*(2), u(2), #a(2), #a(2), ø(2), ø(2), #a(2) 1.81%

Segment Total (absolute)

Narrow (388):
n(31), 7.98%
ɔ(28), 7.21%
#s(23), l#(23), 5.92%
t(22), k#(22), 5.67%
s(15), 3.86%
m(11), s#(11), 2.83%
#kʰ(10), 2.57%
f(9), 2.31%
p(8), k#(8), 2.06%
#f(7), t#(7), n#(7), 1.80%
#b(5), d(5), #n(5), z#(5), #t(5), w(5), 1.28%
#pʰ(4), #η#(4), v(4), d#(4), z(4), f(4), #k#(4), kʰ(4), #g(4), 1.03%
b(3), tʰ(3), #d(3), d(3), #r(3), #η#(3), r(3), #j(3), #j(3), #k(3), #w(3), .77%
#m(2), f#(2), v#(2), d#(2), #g(2), #g(2), #k(2), h(2), h(2) .51%

(219):
a(34), 15.52%
a(22), 10.04%
æ(17), 7.76%
t(16), 7.30%
u*(12), 5.47%
i¹(11), 5.02%
o*#(8), 3.65%
o*(7), ø(7), 3.19%
i¹#(6), e(6), ε(6), 2.73%
u*(5), #t(5), 2.28%
e¹#(4), a#(4), γ(4), 1.82%
œ#(3), œ(3), œ¹#(3), œ(3), 1.36%
u(2), #u¹(2), u(2), a#(2), ε¹(2), λ(2), #æ(2), #a¹(2), a*²(2), a#(2) .91%

Broad (388):
n(49), s(49), 12.62%
k(47), 12.11%
ου(35), 9.02%
t(34), 8.76%
l(24), 6.18%
f(19), 4.89%
m(17), 4.38%
p(15), 3.86%
d(14), 3.60%
z(11), 2.83%
g(10), 2.57%
ɪ(9), 2.31%
b(8), j(8), w(8), 2.06%
v(6), 1.54%
d(5), 1.28%
h(4), 1.03%
r(3), .77%
t(2), ð(2), τ(2) .51%

(219):
a(40), 18.26%
a(28), 12.78%
u(21), τ(21), 9.58%
æ(19), 8.67%
i(18), o(18), 8.21%
e(11), 5.02%
œ(10), ε(10), a(10), 4.56%
γ(5), 2.28%
λ(3), 1.36%
u(2), u(2) .91%

607 total segments

Supra-Segments: Consonant Clusters

Consonant Cluster Total for Stressed and Unstressed Syllables and Monosyllables according to Syllable Configuration

Monosyllable Consonant Cluster Onset (all entries are word initial) (12):
#st(2) 16.66%

Monosyllable Consonant Cluster Coda (all entries are word final) (10):
nt#(2), ks#(2) 20.00%

First Syllable Consonant Cluster Stressed Onset (all entries are word initial) (21):
#sk(5), #st(5), 23.80%
#fl(2) 9.52%
First Syllable Consonant Cluster Stressed Coda:

First Syllable Consonant Cluster Unstressed Onset (all entries are word initial):
First Syllable Consonant Cluster Unstressed Coda:

Second Syllable Consonant Cluster Stressed Onset:
Second Syllable Consonant Cluster Stressed Coda:
Second Syllable Consonant Cluster Unstressed Onset:
Second Syllable Consonant Cluster Unstressed Coda:

Third Syllable Consonant Cluster Stressed Onset:
Third Syllable Consonant Cluster Stressed Coda:
Third Syllable Consonant Cluster Unstressed Onset:
Third Syllable Consonant Cluster Unstressed Coda:

Fourth Syllable Consonant Cluster Stressed Onset:
Fourth Syllable Consonant Cluster Stressed Coda:
Fourth Syllable Consonant Cluster Unstressed Onset:
Fourth Syllable Consonant Cluster Unstressed Coda:

Fifth Syllable Consonant Cluster Stressed Onset:
Fifth Syllable Consonant Cluster Stressed Coda:
Fifth Syllable Consonant Cluster Unstressed Onset:
Fifth Syllable Consonant Cluster Unstressed Coda:

Consonant Cluster Total for Stressed and Unstressed Onsets and Codas

Stressed Onset (25):
#sk(5), #st(5), 20.00%
#fl(2)  8.00%

Stressed Coda:

Unstressed Onset (9):
st(2) 22.22%

Unstressed Coda (5):
ns#(2) 40.00%

Consonant Cluster Total for Onsets and Codas

Onset (46):
#st(7), 15.21%
#sk(6), 13.04%
#fl(2), st(2), #kʰj(2), #kʰl(2) 4.34%

Coda (17):
nt#(4), 23.52%
nd#(2), ns#(2), ks#(2) 11.76%

Consonant Cluster Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllable Consonant Cluster (22):
nt#(2), #st(2), ks#(2) 9.09%

First Syllable Consonant Cluster Stressed (21):
#sk(5), #st(5), 23.80%
#fl(2) 9.52%

First Syllable Consonant Cluster Unstressed:

Second Syllable Consonant Cluster Stressed:
Second Syllable Consonant Cluster Unstressed:

Third Syllable Consonant Cluster Stressed:
Third Syllable Consonant Cluster Unstressed (5):
st(2) 40.00%

**Fourth Syllable Consonant Cluster Stressed:**
Fourth Syllable Consonant Cluster Unstressed:

**Fifth Syllable Consonant Cluster Stressed:**
Fifth Syllable Consonant Cluster Unstressed:

Consonant Cluster Total per Syllable

First Syllable Consonant Cluster (24):
#sk(5), #st(5), 20.83%
#fl(2) 8.33%

Second Syllable Consonant Cluster (12):
nt#(2) 16.66%

Third Syllable Consonant Cluster (5):
st(2) 40.00%

Fourth Syllable Consonant Cluster:

Fifth Syllable Consonant Cluster:

Consonant Cluster Stressed and Unstressed Total

**Consonant Cluster Stressed (27):**
#sk(5), #st(5), 18.51%
#fl(2) 7.40%

Consonant Cluster Unstressed (14):
st(2) 14.28%

Consonant Cluster Total (absolute)

Narrow (63):
#st(7), 11.11%
#sk(6), 9.52%
nt#(4), 6.34%
#fl(2), nd#(2), st(2), ks#(2), #kʰj(2), #kʰl(2) 3.17%

Broad (63):
st(9), 14.28%
sk(8), 12.69%
nt(4), 6.34%
fl(3), ks(3), kl(3), 4.76%
pj(2), b(2), f(2), nd(2), ns(2), ku(2), kw(2), g(2) 3.17%

63 total consonant clusters

**Supra-Segments: Whole Syllables**

Whole Syllable Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllable Whole Syllable:

**First Syllable Whole Syllable Stressed (all entries are word initial) (60):**
#fl(2), #a(2), #o(2) 3.33%

First Syllable Whole Syllable Unstressed (all entries are word initial) (26):
#i(2), #a(2) 7.69%

**Second Syllable Whole Syllable Stressed (25):**
ma(2), ma(2) 8.00%

Second Syllable Whole Syllable Unstressed (61):
s\*m\#(3), t\#k\#(2), r\#(2) 3.27%

Third Syllable Whole Syllable Stressed:
Third Syllable Whole Syllable Unstressed (31):
no\"#(2) 6.45%

Fourth Syllable Whole Syllable Stressed:
Fourth Syllable Whole Syllable Unstressed:

Fifth Syllable Whole Syllable Stressed:
Fifth Syllable Whole Syllable Unstressed:

Whole Syllable Total per Syllable

First Syllable Whole Syllable (all entries are word initial) (86):
#fi\#(2), #u\"#(2), #t\#(2), #a\#(2), #a\#(2), #a\#(2) 2.32%

Second Syllable Whole Syllable (86):
s\*m\#(3), 3.48%
t\#k\#(2), m\#a\#(2) 2.32%

Third Syllable Whole Syllable (32):
no\"#(2) 6.25%

Fourth Syllable Whole Syllable:

Fifth Syllable Whole Syllable:

Whole Syllable Stressed and Unstressed Total

Whole Syllable Stressed (86):
#fi\#(2), #a\#(2), #a\#(2), m\#a\#(2) 2.32%

Whole Syllable Unstressed (124):
s\*m\#(3), 2.41%
#t\#(2), t\#k\#(2), l\#n\#(2), no\"#(2), #o\#(2), r\#(2), j\#a\#(2) 1.61%

Whole Syllable Total (absolute)

Narrow (238):
s\*m\#(3), 1.26%
#fi\#(2), #u\"#(2), #t\#(2), t\#k\#(2), l\#n\#(2), no\"#(2), #o\#(2), #a\#(2), r\#(2), j\#a\#(2), #a\#(2), #a\#(2), m\#a\#(2) .84%

Broad (238):
u(3), o(3), s\*m(3), m\#a(3), 1.26%
fi(2), ni(2), li(2), wi(2), d\#u(2), j\#u(2), t(2), t\#k(2), l\#n(2), le(2), no(2), jo(2), fa(2), ra(2), sa(2), ja(2), ka(2), a(2), ta(2), a(2), m\#a(2), ta(2),
d\#a(2) .84%

238 total whole syllables
<table>
<thead>
<tr>
<th>Supra-Segments: Whole Words</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Word Length Total</strong></td>
</tr>
<tr>
<td><strong>Monosyllabic: 23.89%</strong></td>
</tr>
<tr>
<td>Bisyllabic: 47.78%</td>
</tr>
<tr>
<td>First: 83.33%</td>
</tr>
<tr>
<td>Second: 16.66%</td>
</tr>
<tr>
<td>Third: 76.27%</td>
</tr>
<tr>
<td>Fourth: 34.61%</td>
</tr>
<tr>
<td>Trisyllabic: 22.12%</td>
</tr>
<tr>
<td>First: 48.00%</td>
</tr>
<tr>
<td>Second: 52.00%</td>
</tr>
<tr>
<td>Third: 20.33%</td>
</tr>
<tr>
<td>Fourth: 50.00%</td>
</tr>
<tr>
<td>Tetrasyllabic: 6.19%</td>
</tr>
<tr>
<td>First: 28.57%</td>
</tr>
<tr>
<td>Second: 57.14%</td>
</tr>
<tr>
<td>Third: 14.28%</td>
</tr>
<tr>
<td>Fourth: 3.38%</td>
</tr>
<tr>
<td>Pentasyllabic: 0</td>
</tr>
<tr>
<td>Stressed Syllable Total:</td>
</tr>
<tr>
<td>68.60%</td>
</tr>
<tr>
<td>30.23%</td>
</tr>
<tr>
<td>1.16%</td>
</tr>
</tbody>
</table>

Table Key: The “Word Length Total” column figure represents the percentage of words that is of that word length. For the cells inside the “Syllable Receiving Stress” columns, the amount on top indicates what percentage of a particular word length was stressed on that syllable. The number on the bottom indicates, for all the words that received stress on a particular syllable, what percentage of these words were of a particular word length. The “Stressed Syllable Total” row indicates what percentage of words was stressed on a particular syllable. Note that monosyllables were not analyzed as receiving stress and the “None” cell in the “Stressed Syllable Total” row is inapplicable.

For all 114 whole words there are no repeated words.
Segmental and Supra-Segmental Frequency Data Sheet

Question ID: g

Segments

Segment Total for Stressed and Unstressed Syllables and Monosyllables according to Syllable Configuration

Monosyllable Onset (30):
- #s(4), #u(4), 13.33%
- #f(3), #d(3), 10.00%
- #m(2), t(2), #p(2), w(2) 6.66%

Monosyllable Nucleus (22):
- a(5), 22.72%
- e(2), e(2), e(2), o(2) 9.09%

Monosyllable Coda (33):
- t(5), 18.18%
- k(5), 15.15%
- s(4), 12.12%
- u(3), 9.09%
- t(2), t(#2), g(#2), #n(2) 6.06%

First Syllable Segment Stressed Onset (73):
- #s(13), 17.80%
- #k(#8), 10.95%
- #h(7), 9.58%
- #s(6), 8.21%
- #d(5), 6.84%
- #g(4), #w(4), #h(4), 5.47%
- p(3), #f(3), 4.10%
- #b(2), #t(#2), t(2) 2.73%

First Syllable Segment Stressed Nucleus (58):
- a(18), 31.03%
- i(10), 17.24%
- a(4), 6.89%
- u(#3), e(#3), #a(#3), 5.17%
- i(#2), o(#2), a(#2) 3.44%

First Syllable Segment Stressed Coda (28):
- n(5), s(5), u(5), 17.85%
- m(3), n(3) 10.71%

First Syllable Segment Unstressed Onset (35):
- #m(5), #u(5), 15.28%
- #s(4), u(4), 11.42%
- #k(3), 8.57%
- #f(2), t(2), #d(2), #g(2) 5.71%

First Syllable Segment Unstressed Nucleus (34):
- a(14), 41.17%
- t(3), 8.82%
- i(#2), u(#2), e(#2), #a(#2), a(#2) 5.88%
### First Syllable Segment Unstressed Coda (7):
\[\mu(2) \quad 28.57\%\]

### Second Syllable Segment Stressed Onset (33):
\[\mu(5), \lambda(5), \quad 15.15\%\]
\[b(4), n(4), \quad 12.12\%\]
\[t(3), d(3), \quad 9.09\%\]
\[v(2), k(2), \quad 6.06\%\]

### Second Syllable Segment Stressed Nucleus (28):
\[\alpha(7), \quad 25.00\%\]
\[a^{\prime}(6), \quad 21.42\%\]
\[u^{*}(3), \quad 10.71\%\]
\[\tau(2), \quad 7.14\%\]

### Second Syllable Segment Stressed Coda (14):
\[\eta(3), \quad 21.42\%\]
\[d(2) \quad 14.28\%\]

### Second Syllable Segment Unstressed Onset (71):
\[t(9), \quad 12.67\%\]
\[n(6), s(6), l(6), \quad 8.45\%\]
\[d(5), \quad 7.04\%\]
\[m(4), k(4), \quad 5.63\%\]
\[p(3), b(3), r(3), g(3), \quad 4.22\%\]
\[f(2), v(2), j(2), \quad 2.81\%\]

### Second Syllable Segment Unstressed Nucleus (64):
\[\alpha(13), \quad 20.31\%\]
\[t(8), \quad 12.50\%\]
\[i^{\prime}(6), \quad 9.37\%\]
\[i^{\prime\#}(5), \quad 7.81\%\]
\[\alpha^{\prime}(3), \quad 4.68\%\]
\[\eta(2), \quad 3.12\%\]

### Second Syllable Segment Unstressed Coda (20):
\[d(3), s(3), \quad 15.00\%\]
\[n(2), n^{\#}(2), \quad 10.00\%\]

### Third Syllable Segment Stressed Onset:

### Third Syllable Segment Stressed Nucleus:

### Third Syllable Segment Stressed Coda:

### Third Syllable Segment Unstressed Onset (39):
\[t(5), \mu(5), k(5), \quad 12.82\%\]
\[d(4), z(4), \quad 10.25\%\]
\[s(3), \quad 7.69\%\]
\[v(2), n(2), r(2), l(2), \quad 5.12\%\]

### Third Syllable Segment Unstressed Nucleus (38):
\[\alpha(7), \quad 18.42\%\]
\[t(6), \quad 15.78\%\]
\[i^{\prime}(4), \quad 10.52\%\]
\[u^{*}(3), e(3), \quad 7.89\%\]
\[i^{\prime\#}(2), \quad 5.26\%\]

### Third Syllable Segment Unstressed Coda (18):
\[k^{\#}(4), \quad 22.22\%\]
\[s^{\#}(3), \quad 16.66\%\]
\[t^{\#}(2), s(2), \quad 11.11\%\]

### Fourth Syllable Segment Stressed Onset:

### Fourth Syllable Segment Stressed Nucleus:

954
**Fourth Syllable Segment Stressed Coda:**

- **Fourth Syllable Segment Unstressed Onset (7):**
  - k(2) 28.57%

- **Fourth Syllable Segment Unstressed Nucleus (10):**
  - a(2), a#[2), t#(2) 20.00%

- **Fourth Syllable Segment Unstressed Coda (1):**
  - d# 100%

**Fifth Syllable Segment Stressed Onset:**

**Fifth Syllable Segment Stressed Nucleus:**

**Fifth Syllable Segment Stressed Coda:**

**Fifth Syllable Segment Unstressed Onset:**

**Fifth Syllable Segment Unstressed Nucleus:**

- **Fifth Syllable Segment Unstressed Coda:**
  - Segment Total for Stressed and Unstressed Onsets and Codas

<table>
<thead>
<tr>
<th>Stressed Onset (111):</th>
</tr>
</thead>
<tbody>
<tr>
<td>ɹ(19), 17.11%</td>
</tr>
<tr>
<td>#kʰ(8), 7.20%</td>
</tr>
<tr>
<td>#j(7), l(7), 6.30%</td>
</tr>
<tr>
<td>#s(6), 5.40%</td>
</tr>
<tr>
<td>b(5), #d(5), 4.50%</td>
</tr>
<tr>
<td>tʰ(4), n(4), #g(4), #w(4), #h(4), 3.60%</td>
</tr>
<tr>
<td>p(3), t(3), d(3), #f(3), kʰ(3), 2.70%</td>
</tr>
<tr>
<td>#b(2), v(2), #tʰ(2), 1.80%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Stressed Coda (42):</th>
</tr>
</thead>
<tbody>
<tr>
<td>n(8), 19.04%</td>
</tr>
<tr>
<td>s(5), j(5), 11.90%</td>
</tr>
<tr>
<td>m(3), η(3), 7.14%</td>
</tr>
<tr>
<td>d#(2), k(2) 4.76%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Unstressed Onset (152):</th>
</tr>
</thead>
<tbody>
<tr>
<td>ɹ(18), 11.84%</td>
</tr>
<tr>
<td>t(16), 10.52%</td>
</tr>
<tr>
<td>k(11), 7.23%</td>
</tr>
<tr>
<td>s(10), 6.57%</td>
</tr>
<tr>
<td>d(9), l(9), 5.92%</td>
</tr>
<tr>
<td>n(8), 5.26%</td>
</tr>
<tr>
<td>m(6), r(6), 3.94%</td>
</tr>
<tr>
<td>#m(5), v(5), z(5), #j(5), 3.28%</td>
</tr>
<tr>
<td>p(4), #s(4), 2.63%</td>
</tr>
<tr>
<td>b(3), f(3), j(3), #k(3), g(3), 1.97%</td>
</tr>
<tr>
<td>#f(2), #d(2), dg(2), f(2), #g(2) 1.31%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Unstressed Coda (46):</th>
</tr>
</thead>
<tbody>
<tr>
<td>s#(6), 13.04%</td>
</tr>
<tr>
<td>d#(4), t#(4), k#(4), 8.69%</td>
</tr>
<tr>
<td>t#(3), n#(3), s(3), 6.52%</td>
</tr>
<tr>
<td>p#(2), n(2), ɹ(2), #ɻ(2), η#(2) 4.34%</td>
</tr>
</tbody>
</table>

Segment Total for Onsets and Codas

<table>
<thead>
<tr>
<th>Onset (293):</th>
</tr>
</thead>
<tbody>
<tr>
<td>ɹ(41), 13.99%</td>
</tr>
<tr>
<td>t(21), 7.16%</td>
</tr>
<tr>
<td>l(17), 5.80%</td>
</tr>
<tr>
<td>#s(14), 4.77%</td>
</tr>
<tr>
<td>#ʃ(13), k(13), 4.43%</td>
</tr>
</tbody>
</table>
Coda (121):
s(12), 9.91%
n(11), 9.09%
t#(10), t#(10), 8.26%
s#(7), 5.78%
d#(6), d#(6), 4.95%
n#(4), n#(4), 3.30%
p#(3), k#(3), 2.47%
b(2), #b(2), 1.65%

Segment Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllable Segment (63):
 u(7), 11.11%
t#(6), 9.52%
k#(5), 7.93%
#s(4), s(4), 6.34%
#f(3), #d(3), 4.76%
#m(2), #t(2), #f(2), #h(2), g#(2), η(2), w(2) 3.17%

(22):
a(5), 22.72%
e⁽2⁾(2), æ⁽2⁾(2), η(2) 9.09%

First Syllable Segment Stressed (101):
 u(18), 17.82%
#kʰ(8), 7.92%
#µ(7), 6.93%
#s(6), 5.94%
#d(5), n(5), s(5), 4.95%
#g(4), #w(4), 3.96%
p(3), m(3), #f(3), η(3), 2.97%
#b(2), b(2), tʰ(2), t(2), r(2) 1.98%

(58):
a(18), 31.03%
t(10), 17.24%
λ(4), 6.89%
u⁽3⁾(3), ε(3), æ(3), a⁽3⁾(3), 5.17%
l⁽2⁾(2), o⁽2⁾(2), α(2) 3.44%

First Syllable Segment Unstressed (42):
 u(6), 14.28%
#m(5), #u(5), 11.90%
#s(4), 9.52%
#k(3), 7.14%
#f(2), t(2), d(2), g(2) 4.76%

(34):

956
Second Syllable Segment Stressed (14):

- n(7), 50.00%
- l(5), 35.71%
- b(4), 28.57%
- tʰ(3), d(3), 21.42%
- v(2), d(#) (2), kʰ(2) 14.28%

(28):

- α(7), 25.00%
- a\( (6)\), 21.42%
- u"(3), o"(3), 10.71%
- r(2), ε(2), æ(2) 7.14%

Second Syllable Segment Unstressed (104):

- t(9), l(9), 8.65%
- n(8), 7.69%
- s(7), 6.73%
- l(6), 5.76%
- d(5), t#(5), 4.80%
- m(4), k(4), 3.84%
- p(3), b(3), d#(3), r(3), s#(3), g(3), 2.88%
- *η(2), r(2), v(2), n(2), n(2), τη(2), τη(2), τ(2), τ(2), j(2) 1.92%

(51):

- α(13), 25.49%
- r(8), 15.68%
- i#(6), 11.76%
- α(#5), 9.80%
- o#(3), 5.88%
- æ(2), æ(#2), æ(#2) 3.92%

Third Syllable Segment Stressed:

Third Syllable Segment Unstressed (99):

- t(5), s(5), l(5), k(5), 5.05%
- d(4), z(4), l#(4), k#(4), 4.04%
- s#(3), 3.03%
- v(2), t#(2), n(2), r(2), l(2), l#(2) 2.02%

(32):

- α(7), 21.87%
- r(6), 18.75%
- u"(3), e"(3), 9.37%
- i#(2), æ(2), æ#(2), æ(2) 6.25%

Fourth Syllable Segment Stressed:

Fourth Syllable Segment Unstressed (10):

- l#(2), k(2) 20.00%

(8):

- α(2), æ(#2) 25.00%

Fifth Syllable Segment Stressed:

Fifth Syllable Segment Unstressed:
First Syllable Segment (143):

<table>
<thead>
<tr>
<th>Segment</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>ɹ</td>
<td>24</td>
<td>16.78%</td>
</tr>
<tr>
<td>#s(10)</td>
<td>6.99%</td>
<td></td>
</tr>
<tr>
<td>#kʰ(9)</td>
<td>6.29%</td>
<td></td>
</tr>
<tr>
<td>#d(7)</td>
<td>4.89%</td>
<td></td>
</tr>
<tr>
<td>#m(6), #g(6)</td>
<td>4.19%</td>
<td></td>
</tr>
<tr>
<td>n(5), s(5), #h(5)</td>
<td>3.49%</td>
<td></td>
</tr>
<tr>
<td>p(4), m(4), t(4), #k(4), η(4), #w(4)</td>
<td>2.79%</td>
<td></td>
</tr>
<tr>
<td>b(3), #f(3), #f(3)</td>
<td>2.09%</td>
<td></td>
</tr>
<tr>
<td>#pʰ(2), #b(2), #tʰ(2), r(2), k(2)</td>
<td>1.39%</td>
<td></td>
</tr>
</tbody>
</table>

(92):

<table>
<thead>
<tr>
<th>Segment</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>a(20)</td>
<td>21.73%</td>
<td></td>
</tr>
<tr>
<td>a(14)</td>
<td>15.21%</td>
<td></td>
</tr>
<tr>
<td>t(13)</td>
<td>14.13%</td>
<td></td>
</tr>
<tr>
<td>uʷ(5)</td>
<td>5.43%</td>
<td></td>
</tr>
<tr>
<td>i(4), a(4)</td>
<td>4.34%</td>
<td></td>
</tr>
<tr>
<td>e(3), ε(3), æ(3), a(3)</td>
<td>3.26%</td>
<td></td>
</tr>
<tr>
<td>#t(2), oʷ(2), #a(2), a(2), a(2)</td>
<td>2.17%</td>
<td></td>
</tr>
</tbody>
</table>

Second Syllable Segment (118):

<table>
<thead>
<tr>
<th>Segment</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>n(15)</td>
<td>12.71%</td>
<td></td>
</tr>
<tr>
<td>ɹ(14)</td>
<td>11.86%</td>
<td></td>
</tr>
<tr>
<td>l(11)</td>
<td>9.32%</td>
<td></td>
</tr>
<tr>
<td>t(10)</td>
<td>8.47%</td>
<td></td>
</tr>
<tr>
<td>d(8), s(8)</td>
<td>6.77%</td>
<td></td>
</tr>
<tr>
<td>b(7)</td>
<td>5.93%</td>
<td></td>
</tr>
<tr>
<td>#ɛ(5), k(5)</td>
<td>4.23%</td>
<td></td>
</tr>
<tr>
<td>m(4), v(4), s(#4)</td>
<td>3.38%</td>
<td></td>
</tr>
<tr>
<td>p(3), f(3), tʰ(3), d(#3), r(3), g(3)</td>
<td>2.54%</td>
<td></td>
</tr>
<tr>
<td>*en(2), tʰ(2), d(#2), n(#2), *η(2), *η(#2), f(2), tʰ(#2), η(2), kʰ(2)</td>
<td>1.69%</td>
<td></td>
</tr>
</tbody>
</table>

(79):

<table>
<thead>
<tr>
<th>Segment</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>a(13)</td>
<td>16.45%</td>
<td></td>
</tr>
<tr>
<td>a(12)</td>
<td>15.18%</td>
<td></td>
</tr>
<tr>
<td>t(10)</td>
<td>12.65%</td>
<td></td>
</tr>
<tr>
<td>a(8)</td>
<td>10.12%</td>
<td></td>
</tr>
<tr>
<td>i(6)</td>
<td>7.59%</td>
<td></td>
</tr>
<tr>
<td>uʷ(4), oʷ(4)</td>
<td>5.06%</td>
<td></td>
</tr>
<tr>
<td>oʷ(3), e(3), æ(3)</td>
<td>3.79%</td>
<td></td>
</tr>
<tr>
<td>i(2), a(2), a(#)</td>
<td>2.53%</td>
<td></td>
</tr>
</tbody>
</table>

Third Syllable Segment (105):

<table>
<thead>
<tr>
<th>Segment</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>ɹ(6), k(6)</td>
<td>5.71%</td>
<td></td>
</tr>
<tr>
<td>t(5), s(5)</td>
<td>4.76%</td>
<td></td>
</tr>
<tr>
<td>d(4), z(4), *h(4), k(#)</td>
<td>3.80%</td>
<td></td>
</tr>
<tr>
<td>s(#3), l(3)</td>
<td>2.85%</td>
<td></td>
</tr>
<tr>
<td>f(2), v(2), tʰ(2), n(2), r(2), tʰ(2)</td>
<td>1.90%</td>
<td></td>
</tr>
</tbody>
</table>

(35):

<table>
<thead>
<tr>
<th>Segment</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>a(7)</td>
<td>20.00%</td>
<td></td>
</tr>
<tr>
<td>t(6)</td>
<td>17.14%</td>
<td></td>
</tr>
<tr>
<td>uʷ(3), e³(3), æ(3)</td>
<td>8.57%</td>
<td></td>
</tr>
<tr>
<td>i(2), i(#)</td>
<td>5.71%</td>
<td></td>
</tr>
<tr>
<td>a(2)</td>
<td>5.71%</td>
<td></td>
</tr>
</tbody>
</table>

Fourth Syllable Segment (10):

<table>
<thead>
<tr>
<th>Segment</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>*tʰ(2), k(2)</td>
<td>20.00%</td>
<td></td>
</tr>
</tbody>
</table>
(8):
a(2), a#(2) 25.00%

Fifth Syllable Segment:

<table>
<thead>
<tr>
<th>Segment Stressed and Unstressed Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stress Segement (121):</td>
</tr>
<tr>
<td>( \ddot{t} ) (4), g(4), #w(4), h(4), 3.30%</td>
</tr>
<tr>
<td>p(3), m(3), v(3), t(3), d(3), f(3), kʰ(3), k(3), η(3), 2.47%</td>
</tr>
<tr>
<td>#b(2), f(2), #tʰ(2), d#(2), r(2) 1.65%</td>
</tr>
<tr>
<td>Unstressed Segment (255):</td>
</tr>
<tr>
<td>( \ddot{t} ) (20), 7.84%</td>
</tr>
<tr>
<td>t(16), 6.27%</td>
</tr>
<tr>
<td>s(13), 5.09%</td>
</tr>
<tr>
<td>k(12), 4.70%</td>
</tr>
<tr>
<td>%#(11), 4.31%</td>
</tr>
<tr>
<td>n(10), 3.92%</td>
</tr>
<tr>
<td>d(9), l(9), 3.52%</td>
</tr>
<tr>
<td>m(7), 2.74%</td>
</tr>
<tr>
<td>r(6), s#(6), 2.35%</td>
</tr>
<tr>
<td>#m(5), v(5), z(5), %x(5), 1.96%</td>
</tr>
<tr>
<td>p(4), b(4), d#(4), s(4), f#(4), k#(4), 1.56%</td>
</tr>
<tr>
<td>%η(#3), f(3), t(#3), n#(3), %η(#3), j(3), %k(3), g(3), 1.17%</td>
</tr>
<tr>
<td>p#(2), #f(2), #d(2), d#(2), %η(2), j#(2), #x(2), %t(#2), %g(2), η(2) .78%</td>
</tr>
<tr>
<td>(125):</td>
</tr>
<tr>
<td>a(36), 28.80%</td>
</tr>
<tr>
<td>t(17), 13.60%</td>
</tr>
<tr>
<td>%#(9), 7.20%</td>
</tr>
<tr>
<td>a(8), 6.40%</td>
</tr>
<tr>
<td>u&quot;(6), 4.80%</td>
</tr>
<tr>
<td>e(5), a#(5), a#(5), 4.00%</td>
</tr>
<tr>
<td>i(4), o&quot;#(4), a(4), 3.20%</td>
</tr>
<tr>
<td>a#(3), æ(3), 2.40%</td>
</tr>
<tr>
<td>#a(2) 1.60%</td>
</tr>
</tbody>
</table>

Segment Total (absolute)

Narrow (439):

<table>
<thead>
<tr>
<th>Segment</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>t(51),</td>
<td>11.61%</td>
<td></td>
</tr>
<tr>
<td>n(23),</td>
<td>s(23), 5.23%</td>
<td></td>
</tr>
<tr>
<td>t(21),</td>
<td>4.78%</td>
<td></td>
</tr>
</tbody>
</table>
l(17), 3.87%  
k(16), 3.64%  
#s(14), 3.18%  
#Ɂ(13), 2.96%  
d(12), 2.73%  
^Ɂ(11), 2.50%  
b(10), m(10), t(10), #d(10), #k(10), 2.27%  
p(8), #m(8), v(8), 1.82%  
s(7), 1.59%  
#f(6), d(6), r(6), z(6), t(6), g(6), 1.36%  
f(5), #(5), f(5), h(5), 1.13%  
t(4), h(4), j(4), k(4), g(4), v(4), .91%  
p(3), m(3), t(3), #t(3), 3(3), k(3), .68%  
#p(2), b(2), v(2), d(2), z(2), w(2), .45%  

(236):  
a(39), 16.52%  
a(36), 15.25%  
r(30), 12.71%  
u(13), 5.50%  
a(12), 5.08%  
æ(10), 4.23%  
ɨ(9), 3.81%  
e(8), 3.38%  
o(6), 2.54%  
a(5), #a(5), #(5), 2.11%  
o(4), 1.69%  
#a(3), 1.27%  
#e(2), #a(2), #x(2), a(2), a(2), .84%  

Broad (439):  
ø(66), 15.03%  
s(44), k(44), 10.02%  
t(39), 8.88%  
n(34), 7.74%  
d(28), 6.37%  
t(23), 5.23%  
m(22), 5.01%  
l(18), 4.10%  
p(14), 3.18%  
b(13), g(13), 2.96%  
f(11), 2.50%  
v(10), 2.27%  
j(9), 2.05%  
z(8), n(8), 1.82%  
h(7), 1.59%  
r(6), w(6), 1.36%  
d(4), j(4), .91%  
r(3), .68%  
θ(2), .45%  

(236):  
a(43), 18.22%  
a(41), 17.37%  
r(32), 13.55%  
a(20), 8.47%  
i(19), 8.05%  
u(16), 6.77%  

960
e(12), 5.08%
o(11), ø(11), æ(11), 4.66%
e(8), 3.38%
œ(6), 2.54%
ʌ(5) 2.11%
675 total segments

**Supra-Segments: Consonant Clusters**

Consonant Cluster Total for Stressed and Unstressed Syllables and Monosyllables according to Syllable Configuration

Monosyllable Consonant Cluster Onset (all entries are word initial) (9):
#st(2), #kʰɹ(2) 22.22%

Monosyllable Consonant Cluster Coda (all entries are word final) (10):
st#, #st#(2), #ŋk#(2) 20.00%

First Syllable Consonant Cluster Stressed Onset (all entries are word initial) (19):
#kʰɹ(5), 26.31%
#spɹ(2), #gɹ(2) 10.52%

First Syllable Consonant Cluster Stressed Coda:

First Syllable Consonant Cluster Unstressed Onset (all entries are word initial) (5):
#st(2) 40.00%

First Syllable Consonant Cluster Unstressed Coda:

Second Syllable Consonant Cluster Stressed Onset (7):
st(2) 28.57%

Second Syllable Consonant Cluster Stressed Coda:

Second Syllable Consonant Cluster Unstressed Onset:
Second Syllable Consonant Cluster Unstressed Coda:

Third Syllable Consonant Cluster Stressed Onset:
Third Syllable Consonant Cluster Stressed Coda:

Third Syllable Consonant Cluster Unstressed Onset:
Third Syllable Consonant Cluster Unstressed Coda (2):
st#(2) 100%

Fourth Syllable Consonant Cluster Stressed Onset:
Fourth Syllable Consonant Cluster Stressed Coda:
Fourth Syllable Consonant Cluster Unstressed Onset:
Fourth Syllable Consonant Cluster Unstressed Coda:

Fifth Syllable Consonant Cluster Stressed Onset:
Fifth Syllable Consonant Cluster Stressed Coda:
Fifth Syllable Consonant Cluster Unstressed Onset:
Fifth Syllable Consonant Cluster Unstressed Coda:

Consonant Cluster Total for Stressed and Unstressed Onsets and Codas

Stressed Onset (29):
#kʰɹ(5), 17.24%
#spɹ(2), st(2), #gɹ(2) 6.89%

Stressed Coda:

Unstressed Onset (11):
#st(2), st(2) 18.18%

Unstressed Coda (4):
st#(3) 75.00%
Consonant Cluster Total for Onsets and Codas

Onset (49):
#kʰ(7), 14.28%
#st(5), 10.20%
st(4), 8.16%
#ds(3), 6.12%
bj(2), #sp(2), #sp(2), #g(2) 4.08%

Coda (16):
st#(5), 31.25%
nd(2), st#(2), ηk(2) 12.50%

Consonant Cluster Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllable Consonant Cluster (19):
#st(2), st#(2), ηst#(2), #sp(2), ηk(2) 10.52%

First Syllable Consonant Cluster Stressed (19):
#kʰ(5), 26.31%
#sp(2), #g(2) 10.52%

First Syllable Consonant Cluster Unstressed (5):
#st(2) 40.00%

Second Syllable Consonant Cluster Stressed (9):
st(2) 22.22%

Second Syllable Consonant Cluster Unstressed:

Third Syllable Consonant Cluster Stressed:
Third Syllable Consonant Cluster Unstressed (3):
st#(2) 66.66%

Fourth Syllable Consonant Cluster Stressed:
Fourth Syllable Consonant Cluster Unstressed:

Fifth Syllable Consonant Cluster Stressed:
Fifth Syllable Consonant Cluster Unstressed:

Consonant Cluster Total per Syllable

First Syllable Consonant Cluster (24):
#kʰ(5), 20.83%
#st(3), 12.50%
#ds(2), #sp(2), #sp(2), #g(2) 8.33%

Second Syllable Consonant Cluster (16):
st(3), 18.75%
bj(2), nd#(2) 12.50%

Third Syllable Consonant Cluster (6):
st#(2) 33.33%

Fourth Syllable Consonant Cluster:

Fifth Syllable Consonant Cluster:

Consonant Cluster Stressed and Unstressed Total

Consonant Cluster Stressed (31):
#kʰ(5), 16.12%
#sp(2), st(2), #g(2) 6.45%

Consonant Cluster Unstressed (15):
st#(3), 20.00%
Consonant Cluster Total (absolute)

Narrow (65):
#kʰʃ(7), 10.76%
#st(5), st#(5), 7.69%
st(4), 6.15%
#dʒ(3), 4.61%
bj(2), nd#(2), #sp(2), #spʃ(2), #st-placeholder(2), #gə(2), ηk#(2) 3.07%

Broad (65):
st(14), 21.53%
kʃ(9), 13.84%
dʒ(4), 6.15%
pʃ(2), bl(2), bj(2), fl(2), tʃ(2), nd(2), sp(2), spʃ(2), #st(2), gə(2), ηk(2) 3.07%

65 total consonant clusters

Supra-Segments: Whole Syllables

Whole Syllable Total for Stressed and Unstressed Syllables and Monosyllables

Monosyllable Whole Syllable (22):
#fʃst(2) 9.09%

First Syllable Whole Syllable Stressed (all entries are word initial) (58):
#ʃə(4), 6.89%
#ə(3), 5.17%
#kʰʃʃ(2) 3.44%

First Syllable Whole Syllable Unstressed (all entries are word initial) (34):
#ʃə(3), 8.82%
#ʃe(2), #ə(2), #stə(2), #kə(2) 5.88%

Second Syllable Whole Syllable Stressed (30):
ʃə(2) 6.66%

Second Syllable Whole Syllable Unstressed (62):
na(2), r#(2), sa(2), ʃə(2) 3.22%

Third Syllable Whole Syllable Stressed:

Third Syllable Whole Syllable Unstressed (38):
kʃ#(3), 7.89%
las#(2) 5.26%

Fourth Syllable Whole Syllable Stressed:

Fourth Syllable Whole Syllable Unstressed:

Fifth Syllable Whole Syllable Stressed:

Fifth Syllable Whole Syllable Unstressed:

Whole Syllable Total per Syllable

First Syllable Whole Syllable (all entries are word initial) (92):
#ʃə(4), 4.34%
#ʃə(3), #ə(3), 3.26%
#ʃ(2), #spʃ(2), #kʰʃʃ(2), #ʃe(2), #ə(2), #stə(2), #kə(2), #gə(2) 2.17%

Second Syllable Whole Syllable (92):
na(2), r#(2), sa(2), ʃə(2) 2.17%

Third Syllable Whole Syllable (41):
kʃ#(3), 7.31%
las#(2)  4.87%
Fourth Syllable Whole Syllable:
Fifth Syllable Whole Syllable:

Whole Syllable Stressed (91):
#JA(#4), 4.39%
#A(#3), 3.29%
#k#r#s(2), JA(#2) 2.19%

Whole Syllable Unstressed (144):
k#(5), 3.47%
sa(#3), JA(#3), 2.08%
z(2), #e(#2), #a(#2), ma#(2), ta(#2), na(#2), r#'#(2) #sta(#2), JA(#2), las#(2),  #ka(#2) 1.38%

Whole Syllable Total (absolute)
Narrow (257):
k#(5), 1.94%
JA(#4), 1.55%
sa(#3), JA(#3), JA(#3), 1.16%
z(2), #t(#2), nu(#2), #sp(2), #k#r#s(2), #e(#2), #a(#2), ma#(2), ta(#2), na(#2), r#'#(2) #sta(#2), JA(#2), las#(2),  #ka(#2), #f#st(#2), JA(#2),
#gau(#2) .77%

Broad (257):
JA(#6), 2.33%
JA(#5), k#(5), 1.94%
sa(#4), 1.55%
z#(#3), #e(#3), #a(#3), ma#(3), sta(#3), a(#3), 1.16%
si(#2), st(#2), r(#2), nu(#2), sp(2), k#r#s(2), to(#2) JA(#2) ta(#2), na(#2), r#'#(2) LA(#2), las(2),  #(#2), KA(#2), f#st(2), k#r#k(#2), ma(#2), gau(2) .77%

257 total whole syllables
### Supra-Segments: Whole Words

Whole Word Total per Word Length

<table>
<thead>
<tr>
<th>Word Length Total</th>
<th>Syllable</th>
<th>Receiving</th>
<th>Stress</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>None</td>
<td>First</td>
<td>Second</td>
</tr>
<tr>
<td>Monosyllabic: 19.29%</td>
<td>0</td>
<td>82.35%</td>
<td>72.41%</td>
</tr>
<tr>
<td>Bisyllabic: 44.73%</td>
<td>0</td>
<td>3.22%</td>
<td>24.13%</td>
</tr>
<tr>
<td>Trisyllabic: 27.19%</td>
<td>0</td>
<td>100%</td>
<td>0</td>
</tr>
<tr>
<td>Tetrasyllabic: 8.77%</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Penta syllables: 0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Stressed Syllable Total: 63.73% 32.96% 3.29% 0 0

Table Key: The “Word Length Total” column figure represents the percentage of words that is of that word length. For the cells inside the “Syllable Receiving Stress” columns, the amount on top indicates what percentage of a particular word length was stressed on that syllable. The number on the bottom indicates, for all the words that received stress on a particular syllable, what percentage of these words were of a particular word length. The “Stressed Syllable Total” row indicates what percentage of words was stressed on a particular syllable. Note that monosyllables were not analyzed as receiving stress and the “None” cell in the “Stressed Syllable Total” row is inapplicable.

Whole Monosyllables (22):
forst [fɔrst](2) 9.09%

Whole Bisyllables:
Whole Trisyllables:
Whole Tetrasyllables:
Whole Penta syllables:
APPENDIX G

COMPLETE PHONETIC INVENTORY DATA SHEETS
Phonetic Inventory Data Sheet-Narrow

Question ID: S. the wad of hair removed when cleaning a hairbrush

Vowels:

<table>
<thead>
<tr>
<th></th>
<th>front</th>
<th>central</th>
<th>back</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>unrounded</td>
<td>rounded</td>
<td>unrounded</td>
</tr>
<tr>
<td>high</td>
<td>tense</td>
<td>i¹#, i¹, i¹ː, #i</td>
<td></td>
</tr>
<tr>
<td></td>
<td>lax</td>
<td>i, #i</td>
<td></td>
</tr>
<tr>
<td>mid</td>
<td>tense</td>
<td>e¹#</td>
<td></td>
</tr>
<tr>
<td></td>
<td>lax</td>
<td>e, #e</td>
<td></td>
</tr>
<tr>
<td>low</td>
<td>tense</td>
<td>æ, æ#, #æ, æ¹</td>
<td></td>
</tr>
<tr>
<td></td>
<td>lax</td>
<td>a#, #a, a^#</td>
<td></td>
</tr>
</tbody>
</table>

Consonants:

<table>
<thead>
<tr>
<th></th>
<th>Bilabial</th>
<th>Labio dental</th>
<th>Dental</th>
<th>Alveolar</th>
<th>Post alveolar</th>
<th>Retroflex</th>
<th>Palatal</th>
<th>Velar</th>
<th>Uvular</th>
<th>Pharyngeal</th>
<th>Glottal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plosive</td>
<td>#p, p#,</td>
<td>#p#, p, #p¹#, p¹#, #b, b, b#, b#</td>
<td>#t¹#, t, t#, t¹#: #d, #d</td>
<td>#k, k#, k¹#, k¹#</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Affricate</td>
<td>#ʧ, #ʧ#</td>
<td>#j, #j#</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nasal</td>
<td>m</td>
<td></td>
<td>#n, n#, n,</td>
<td>=n,</td>
<td>=n#</td>
<td>#n, n#</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trill</td>
<td></td>
<td></td>
<td></td>
<td>#h, h</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tap or Flap</td>
<td></td>
<td></td>
<td></td>
<td>#j, #j#</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fricative</td>
<td>f, #f, #f#, #v, v</td>
<td>θ</td>
<td>#z, z, z#</td>
<td>#ʃ, #ʃ#</td>
<td>#ʃ, #ʃ#</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lateral Fricative</td>
<td></td>
<td>b</td>
<td></td>
<td>#j, #j#</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Approximat</td>
<td>#j, #j#</td>
<td></td>
<td>#j, #j#</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lateral Approximat</td>
<td>#l, l</td>
<td>t, t#, t#, t</td>
<td>#w, w</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Phonetic Inventory Data Sheet-Broad

**Question ID: S. the wad of hair removed when cleaning a hairbrush**

### Vowels:

<table>
<thead>
<tr>
<th></th>
<th>front</th>
<th>central</th>
<th>back</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>unrounded</td>
<td>rounded</td>
<td>unrounded</td>
</tr>
<tr>
<td>high</td>
<td>tense</td>
<td>i(19)</td>
<td>u</td>
</tr>
<tr>
<td></td>
<td>lax</td>
<td>r(23)</td>
<td></td>
</tr>
<tr>
<td>mid</td>
<td>tense</td>
<td>e</td>
<td></td>
</tr>
<tr>
<td></td>
<td>intermediate</td>
<td>a(30), ɑ(10)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>lax</td>
<td>τ(11)</td>
<td>ʌ(17)</td>
</tr>
<tr>
<td>low</td>
<td>tense</td>
<td>æ(24)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>lax</td>
<td>a(7)</td>
<td>a(41)</td>
</tr>
</tbody>
</table>

### Consonants:

<table>
<thead>
<tr>
<th></th>
<th>Bilabial</th>
<th>Labiodental</th>
<th>Dental</th>
<th>Alveolar</th>
<th>Postalveolar</th>
<th>Retroflex</th>
<th>Palatal</th>
<th>Velar</th>
<th>Uvular</th>
<th>Pharyngeal</th>
<th>Glottal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plosive</td>
<td>p(20), b(22)</td>
<td>t(20), d(17)</td>
<td>t(20), d(17)</td>
<td>k(39), g(27)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Affricate</td>
<td>ts(2)</td>
<td>tʃ(6), dʒ(4)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nasal</td>
<td>m(14)</td>
<td>n(28)</td>
<td></td>
<td>η(5)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trill</td>
<td>r</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tap or Flap</td>
<td></td>
<td>r(2)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fricative</td>
<td>f(16), v(3)</td>
<td>θ(5)</td>
<td>s(43), z(11)</td>
<td>f(17), ʒ</td>
<td>h(4)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lateral Fricative</td>
<td></td>
<td></td>
<td>ɭ</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Approximant</td>
<td>ʃ(39)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lateral Approximant</td>
<td>l(25)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

968
Phonetic Inventory Data Sheet-Narrow

Question ID: T. the grease that accumulates on top of a hot pizza

Vowels:

<table>
<thead>
<tr>
<th></th>
<th>front</th>
<th></th>
<th>central</th>
<th></th>
<th>back</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>unrounded</td>
<td>rounded</td>
<td>unrounded</td>
<td>rounded</td>
<td>unrounded</td>
</tr>
<tr>
<td>high</td>
<td>tense</td>
<td>i# , #i #, i</td>
<td></td>
<td>#u</td>
<td></td>
</tr>
<tr>
<td></td>
<td>lax</td>
<td>i , #i</td>
<td></td>
<td>u</td>
<td></td>
</tr>
<tr>
<td>mid</td>
<td>tense</td>
<td>e , e#</td>
<td></td>
<td></td>
<td>#o# , o# , o#</td>
</tr>
<tr>
<td></td>
<td>intermediate</td>
<td>a , a# , a# , a#</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>lax</td>
<td>e , e#</td>
<td></td>
<td>3#</td>
<td></td>
</tr>
<tr>
<td>low</td>
<td>tense</td>
<td>a , a , a# , a#</td>
<td></td>
<td></td>
<td>a , a# , a#</td>
</tr>
<tr>
<td></td>
<td>lax</td>
<td>a# , a , a#</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Consonants:

<table>
<thead>
<tr>
<th></th>
<th>Bilabial</th>
<th>Labio dental</th>
<th>Dental</th>
<th>Alveolar</th>
<th>Post alveolar</th>
<th>Retroflex</th>
<th>Palatal</th>
<th>Velar</th>
<th>Uvular</th>
<th>Pharyngeal</th>
<th>Glottal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plosive</td>
<td>#p, p#</td>
<td>#p , p</td>
<td>t , t#</td>
<td>#t , t#</td>
<td>#d , d</td>
<td>#x</td>
<td>k , k#</td>
<td>k# , k</td>
<td>#k# , k</td>
<td>#k , k #</td>
<td>#g , g</td>
</tr>
<tr>
<td></td>
<td>m , m</td>
<td>m , m #</td>
<td>#n , n , n#</td>
<td>#n</td>
<td>#n#</td>
<td>#j #</td>
<td>η</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Affricate</td>
<td>#ʧ , ʧ#</td>
<td>#ʧ , ʧ#</td>
<td>#ʤ , ʤ#</td>
<td>#ʤ</td>
<td>#ʤ#</td>
<td>#x #</td>
<td>η</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nasal</td>
<td>m#</td>
<td>m , m #</td>
<td>#n , n , n#</td>
<td>#n</td>
<td>#n#</td>
<td>#j #</td>
<td>η</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trill</td>
<td>r(4)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tap or Flap</td>
<td>r(4)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fricative</td>
<td>#f , f#</td>
<td>#f , f#</td>
<td>#s , #s</td>
<td>#s</td>
<td>#s# , s# , s#</td>
<td>#z #</td>
<td>x#</td>
<td>#h , h</td>
<td>#h , h #</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lateral Fricative</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Approximant</td>
<td>j , #j</td>
<td>j</td>
<td>#j</td>
<td>j</td>
<td>w , #w</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lateral Approximant</td>
<td>l , l</td>
<td>l #</td>
<td>l #</td>
<td>l #</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Phonetic Inventory Data Sheet-Broad

Question ID: T. the grease that accumulates on top of a hot pizza

Vowels:

<table>
<thead>
<tr>
<th></th>
<th>front</th>
<th>central</th>
<th>back</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>unrounded</td>
<td>rounded</td>
<td>unrounded</td>
</tr>
<tr>
<td>high</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>tense</td>
<td>i(24)</td>
<td></td>
<td>u</td>
</tr>
<tr>
<td>lax</td>
<td>r(26)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>mid</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>tense</td>
<td>e(12)</td>
<td></td>
<td>o(11)</td>
</tr>
<tr>
<td>lax</td>
<td>i(9)</td>
<td>ə(22), ə(7)</td>
<td></td>
</tr>
<tr>
<td>low</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>tense</td>
<td>ə(18)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>lax</td>
<td>a(11)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Consonants:

<table>
<thead>
<tr>
<th></th>
<th>Bilabial</th>
<th>Labio dental</th>
<th>Dental</th>
<th>Alveolar</th>
<th>Post alveolar</th>
<th>Retroflex</th>
<th>Palatal</th>
<th>Velar</th>
<th>Uvular</th>
<th>Pharyngeal</th>
<th>Glottal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plosive</td>
<td>p(17), b(11)</td>
<td></td>
<td>t(18), d(12)</td>
<td></td>
<td></td>
<td>k(39), g(22)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Affricate</td>
<td></td>
<td></td>
<td></td>
<td>tf(4), dg(7)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nasal</td>
<td>m(21)</td>
<td></td>
<td>n(23)</td>
<td></td>
<td>n(23)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trill</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tap or Flap</td>
<td></td>
<td></td>
<td></td>
<td>r(4)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fricative</td>
<td>f(19), v</td>
<td>θ(2)</td>
<td>s(62), z(7)</td>
<td>f(6)</td>
<td></td>
<td>x</td>
<td></td>
<td>h(4)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lateral Fricative</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Approximant</td>
<td>j(34)</td>
<td></td>
<td>j(5)</td>
<td>w(11)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lateral Approximant</td>
<td>l(42)</td>
<td></td>
<td>l(23)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Phonetic Inventory Data Sheet-Narrow

Question ID: U. an unexpected cool breeze on a sultry day

Vowels:

<table>
<thead>
<tr>
<th></th>
<th>front</th>
<th>central</th>
<th>back</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Consonants:

<table>
<thead>
<tr>
<th>Bilabial</th>
<th>Labio dental</th>
<th>Dental</th>
<th>Alveolar</th>
<th>Post alveolar</th>
<th>Retroflex</th>
<th>Palatal</th>
<th>Velar</th>
<th>Uvular</th>
<th>Pharyngeal</th>
<th>Glottal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plosive</td>
<td>p, p#, #p#, #pʰ, #p, pʰ, b, b#</td>
<td>t, t#, #t, #tʰ, tʰ, t ʰ</td>
<td>θ</td>
<td></td>
<td>#kʰ, #k, k#</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Affricate</td>
<td>#tf, #tf, #dʒ</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nasal</td>
<td>m#, #m, m, #m</td>
<td>n, n#, n#</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trill</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>#r</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tap or Flap</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>ɾ</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fricative</td>
<td>#f, #f, #f, f, f #, v, #v, v#</td>
<td>θ</td>
<td>#s, s#, s, z, #z, z#</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>#h, h</td>
</tr>
<tr>
<td>Lateral Fricative</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Approximant</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>#w, #w#</td>
</tr>
<tr>
<td>Lateral Approximant</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>#t, #t</td>
</tr>
</tbody>
</table>
Phonetic Inventory Data Sheet-Broad

Question ID: U. an unexpected cool breeze on a sultry day

### Vowels:

<table>
<thead>
<tr>
<th></th>
<th>front</th>
<th>central</th>
<th>back</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>unrounded</td>
<td>rounded</td>
<td>unrounded</td>
</tr>
<tr>
<td>high</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>tense</td>
<td>i(38)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>lax</td>
<td>i(34)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>mid</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>tense</td>
<td>e(6)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>lax</td>
<td>e(9)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>low</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>tense</td>
<td>æ(14)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>lax</td>
<td>a(15)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Consonants:

<table>
<thead>
<tr>
<th>Bilabial</th>
<th>Labiodental</th>
<th>Dental</th>
<th>Alveolar</th>
<th>Postalveolar</th>
<th>Retroflex</th>
<th>Palatal</th>
<th>Velar</th>
<th>Uvular</th>
<th>Pharyngeal</th>
<th>Glottal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plosive</td>
<td>p(18), b(8)</td>
<td>t(26), d(6)</td>
<td></td>
<td></td>
<td>k(23), g(6)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Affricate</td>
<td></td>
<td>tf(3), dg</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nasal</td>
<td>m(19)</td>
<td>n(29)</td>
<td></td>
<td></td>
<td>n(4)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trill</td>
<td></td>
<td>r</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tap or Flap</td>
<td>r(6)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fricative</td>
<td>f(23), v(12)</td>
<td>θ(2)</td>
<td>s(36), z(12)</td>
<td>f(17), z(2)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>h(6)</td>
<td></td>
</tr>
<tr>
<td>Lateral Fricative</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Approximant</td>
<td>θ(35)</td>
<td></td>
<td></td>
<td></td>
<td>j(5)</td>
<td></td>
<td></td>
<td></td>
<td>w(28)</td>
<td></td>
</tr>
<tr>
<td>Lateral Approximant</td>
<td>l(34)</td>
<td></td>
<td></td>
<td></td>
<td>θ(13)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Phonetic Inventory Data Sheet-Narrow

Question ID: V. the feeling experienced by a death-row inmate after being pardoned or exonerated

<table>
<thead>
<tr>
<th>Vowels:</th>
<th>front</th>
<th>central</th>
<th>back</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>tense</td>
<td>unrounded</td>
<td>rounded</td>
</tr>
<tr>
<td>high</td>
<td></td>
<td>i#', i#, i, i', #i'</td>
<td></td>
</tr>
<tr>
<td></td>
<td>lax</td>
<td>t, t', #t</td>
<td></td>
</tr>
<tr>
<td>mid</td>
<td>tense</td>
<td>e#', e', e</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>a#', a, a', a#, a'</td>
<td></td>
</tr>
<tr>
<td></td>
<td>lax</td>
<td>e, #e, e'</td>
<td></td>
</tr>
<tr>
<td>low</td>
<td>tense</td>
<td>a, a#', a', a#', a'</td>
<td></td>
</tr>
<tr>
<td></td>
<td>lax</td>
<td>a, a#', a', a#', a'</td>
<td></td>
</tr>
</tbody>
</table>

Consonants:

<table>
<thead>
<tr>
<th>Bilabial</th>
<th>Labial</th>
<th>Dental</th>
<th>Alveolar</th>
<th>Post alveolar</th>
<th>Retroflex</th>
<th>Palatal</th>
<th>Velar</th>
<th>Uvular</th>
<th>Pharyngeal</th>
<th>Glottal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plosive</td>
<td>#p*, p*, #p, p, b, #b</td>
<td>#t, t#, #t', t'#, t, t', d, d#, d', d', #d</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Affricate</td>
<td></td>
<td></td>
<td>#t', #d', d</td>
<td>#t, #d</td>
<td>#k*, k*, #k, k#, k, k'</td>
<td>#g, g,</td>
<td>#g#</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nasal</td>
<td>#m, m#, m, -m#</td>
<td>#n, n#, n, n#</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trill</td>
<td></td>
<td></td>
<td>#r</td>
<td></td>
<td>#r</td>
<td></td>
<td></td>
<td></td>
<td>#r</td>
<td></td>
</tr>
<tr>
<td>Tap or Flap</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>#h, h#</td>
</tr>
<tr>
<td>Fricative</td>
<td>f, f#, f', #f, #v, v</td>
<td>θ, θ#, s, s#, s, #s, z, #z, z#</td>
<td>f, #f, f#</td>
<td></td>
<td>h, #h</td>
<td>#h#</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lateral Fricative</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Approximant</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lateral Approximant</td>
<td>#l, l</td>
<td></td>
<td>#j, #j</td>
<td>#w, w</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Phonetic Inventory Data Sheet-Broad

Question ID: V. the feeling experienced by a death-row inmate after being pardoned or exonerated

Vowels:

<table>
<thead>
<tr>
<th></th>
<th>front</th>
<th>central</th>
<th>back</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>unrounded</td>
<td>rounded</td>
<td>unrounded</td>
</tr>
<tr>
<td>high</td>
<td>tense</td>
<td>i(30)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>lax</td>
<td>τ(42)</td>
<td></td>
</tr>
<tr>
<td>mid</td>
<td>tense</td>
<td>e(7)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>intermediate</td>
<td></td>
<td>a(30), æ(13)</td>
</tr>
<tr>
<td></td>
<td>lax</td>
<td>τ(17)</td>
<td></td>
</tr>
<tr>
<td>low</td>
<td>tense</td>
<td>æ(28)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>lax</td>
<td>a(13)</td>
<td></td>
</tr>
</tbody>
</table>

Consonants:

<table>
<thead>
<tr>
<th>Bilabial</th>
<th>Labio dental</th>
<th>Dental</th>
<th>Alveolar</th>
<th>Post alveolar</th>
<th>Retroflex</th>
<th>Palatal</th>
<th>Velar</th>
<th>Uvular</th>
<th>Pharyngeal</th>
<th>Glottal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plosive</td>
<td>p(17), b(16)</td>
<td>t(38), d(17)</td>
<td></td>
<td>k(28), g(19)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Affricate</td>
<td></td>
<td>tʃ(2), ʤ(5)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nasal</td>
<td>m(24)</td>
<td>n(54)</td>
<td></td>
<td></td>
<td>η</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trill</td>
<td></td>
<td></td>
<td>r</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tap or Flap</td>
<td></td>
<td></td>
<td>r(2)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fricative</td>
<td>f(24), v(4)</td>
<td>θ(3), s(45), z(11)</td>
<td>f(17)</td>
<td>h(6)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Approximant</td>
<td></td>
<td></td>
<td>j(35)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lateral Approximant</td>
<td></td>
<td></td>
<td>j(8)</td>
<td></td>
<td>w(17)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Phonetic Inventory Data Sheet-Narrow

Question ID: W. a feeling of extreme disappointment

Vowels:

<table>
<thead>
<tr>
<th></th>
<th>front</th>
<th>central</th>
<th>back</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>unrounded</td>
<td>rounded</td>
<td>unrounded</td>
</tr>
<tr>
<td>high</td>
<td>tense</td>
<td>iː, i, i#</td>
<td>y</td>
</tr>
<tr>
<td></td>
<td>lax</td>
<td>ι</td>
<td></td>
</tr>
<tr>
<td>mid</td>
<td>tense</td>
<td>#e, e#, e^{i}</td>
<td>ο, ο</td>
</tr>
<tr>
<td></td>
<td>intermediate</td>
<td>a, #a, #a, #a, a, a#</td>
<td></td>
</tr>
<tr>
<td></td>
<td>lax</td>
<td>ε, ε^{i}</td>
<td>οε#</td>
</tr>
<tr>
<td>low</td>
<td>tense</td>
<td>ιε</td>
<td></td>
</tr>
<tr>
<td></td>
<td>lax</td>
<td>a*#, a*, a, a#</td>
<td></td>
</tr>
</tbody>
</table>

Consonants:

<table>
<thead>
<tr>
<th></th>
<th>Bilabial</th>
<th>Labio dental</th>
<th>Dental</th>
<th>Alveolar</th>
<th>Post alveolar</th>
<th>Retroflex</th>
<th>Palatal</th>
<th>Velar</th>
<th>Uvular</th>
<th>Pharyngeal</th>
<th>Glottal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plosive</td>
<td>#p, p, #b, b</td>
<td>#t, t′, t#, t</td>
<td>t, d, d′, d</td>
<td>#d, #d</td>
<td>k, k#, k #k, #k</td>
<td>g</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Affricate</td>
<td>ts#</td>
<td>tʃ#, tʃ, dʒ#</td>
<td>dʒ, dʒ</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nasal</td>
<td>#m, m, m#, m#</td>
<td>n#, n, n#, n</td>
<td>ɳ#, ɳ#</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trill</td>
<td>r, r#</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tap or Flap</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fricative</td>
<td>f, f#, #f, f</td>
<td>θ</td>
<td>#s, s, s, s</td>
<td>#s, #s, #s</td>
<td>x, x#</td>
<td>#h, h#, h</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lateral Fricative</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Approximant</td>
<td>#j, j, j#</td>
<td>j</td>
<td>#w, w</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lateral Approximant</td>
<td>l, #l, l#</td>
<td>l, r, r#, r#</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Phonetic Inventory Data Sheet-Broad

Question ID: W. a feeling of extreme disappointment

Vowels:

<table>
<thead>
<tr>
<th></th>
<th>front</th>
<th>central</th>
<th>back</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>unrounded</td>
<td>rounded</td>
<td>unrounded</td>
</tr>
<tr>
<td>high</td>
<td>tense</td>
<td>i(17)</td>
<td>y</td>
</tr>
<tr>
<td></td>
<td>lax</td>
<td>u(29)</td>
<td></td>
</tr>
<tr>
<td>mid</td>
<td>tense</td>
<td>e(11)</td>
<td>ø(2)</td>
</tr>
<tr>
<td></td>
<td>intermediate</td>
<td>a(26), æ(15)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>lax</td>
<td>e(8)</td>
<td>æ</td>
</tr>
<tr>
<td>low</td>
<td>tense</td>
<td>æ(22)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>lax</td>
<td>a(7)</td>
<td></td>
</tr>
</tbody>
</table>

Consonants:

<table>
<thead>
<tr>
<th></th>
<th>Bilabial</th>
<th>Labiodental</th>
<th>Dental</th>
<th>Alveolar</th>
<th>Post alveolar</th>
<th>Retroflex</th>
<th>Palatal</th>
<th>Velar</th>
<th>Uvular</th>
<th>Pharyngeal</th>
<th>Glottal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plosive</td>
<td>p(9), b(26)</td>
<td></td>
<td>t(23), d(35)</td>
<td></td>
<td></td>
<td></td>
<td>k(26), g(14)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Affricate</td>
<td></td>
<td>ts</td>
<td>tʃ(2), dʒ(4)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nasal</td>
<td>m(30)</td>
<td>n(44)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>ø(3)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trill</td>
<td></td>
<td>r(2)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tap or Flap</td>
<td></td>
<td>r(6)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fricative</td>
<td>f(21), v(2)</td>
<td>θ(3)</td>
<td>s(38), z(9)</td>
<td>f(7)</td>
<td></td>
<td></td>
<td>x(3)</td>
<td></td>
<td></td>
<td></td>
<td>h(5)</td>
</tr>
<tr>
<td>Lateral Fricative</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Approximant</td>
<td></td>
<td>æ(37)</td>
<td>j</td>
<td></td>
<td></td>
<td></td>
<td>w(7)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lateral Approximant</td>
<td></td>
<td>l(21)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>t(12)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Phonetic Inventory Data Sheet-Narrow

Question ID: X. the feeling of being woken in the middle of the night by a strange noise

Vowels:

<table>
<thead>
<tr>
<th></th>
<th>front</th>
<th>central</th>
<th>back</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>unrounded</td>
<td>rounded</td>
<td>unrounded</td>
</tr>
<tr>
<td>high</td>
<td>tense</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>i, i#, i#,</td>
<td></td>
<td>i#</td>
</tr>
<tr>
<td></td>
<td>#i¹, i¹</td>
<td></td>
<td></td>
</tr>
<tr>
<td>lax</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>i, i¹</td>
<td></td>
<td></td>
</tr>
<tr>
<td>mid</td>
<td>tense</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>e¹#, e¹</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>a#, #a, a±,</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>a#</td>
<td></td>
</tr>
<tr>
<td>lax</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>e, e¹</td>
<td></td>
<td>o#</td>
</tr>
<tr>
<td></td>
<td>#e, #e</td>
<td></td>
<td></td>
</tr>
<tr>
<td>low</td>
<td>tense</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>æ, #æ</td>
<td></td>
<td></td>
</tr>
<tr>
<td>lax</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>#a, a¹, #a¹,</td>
<td></td>
<td>a, #a, a#</td>
</tr>
<tr>
<td></td>
<td>a</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Consonants:

<table>
<thead>
<tr>
<th></th>
<th>Bilabial</th>
<th>Labio dental</th>
<th>Dental</th>
<th>Alveolar</th>
<th>Post alveolar</th>
<th>Retroflex</th>
<th>Palatal</th>
<th>Velar</th>
<th>Uvular</th>
<th>Pharyngeal</th>
<th>Glottal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plosive</td>
<td>p, pʰ</td>
<td>#pʰ, p#, b, #b</td>
<td>t, #tʰ, tʰ, t#, d#, #d, d</td>
<td></td>
<td></td>
<td>k, #k, k#, kʰ, kʰ', kʰ, #kʰ, g, #g, g#</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Affricate</td>
<td></td>
<td>dz</td>
<td>tf¹, tf, dz¹, dz, #dz₁</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nasal</td>
<td>m, m#</td>
<td>#m, #m#</td>
<td>n, #n, n#, #n, #n</td>
<td></td>
<td></td>
<td>η#, η</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trill</td>
<td></td>
<td>r</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tap or Flap</td>
<td></td>
<td>f</td>
<td>#f, f¹, f, f,#, f v, #v, v</td>
<td>Θ</td>
<td>s, s#, #s, s#: z, #z</td>
<td>f, #f, f#</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fricative</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lateral Fricative</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Approximant</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lateral Approximant</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

977
Phonetic Inventory Data Sheet-Broad

Question ID: X. the feeling of being woken in the middle of the night by a strange noise

Vowels:

<table>
<thead>
<tr>
<th></th>
<th>front</th>
<th></th>
<th>central</th>
<th></th>
<th>back</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>unrounded</td>
<td>rounded</td>
<td>unrounded</td>
<td>rounded</td>
<td>unrounded</td>
<td>rounded</td>
</tr>
<tr>
<td>high</td>
<td>tense</td>
<td>_i(20)</td>
<td>_i</td>
<td>_u(14)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>lax</td>
<td>_i(35)</td>
<td>_i</td>
<td>_u(14)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>mid</td>
<td>tense</td>
<td>_e(9)</td>
<td></td>
<td>_o(7)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>intermediate</td>
<td>_a(29), _a(12)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>lax</td>
<td>_ε(16)</td>
<td>_œ</td>
<td>_ʌ(2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>low</td>
<td>tense</td>
<td>_a(11)</td>
<td></td>
<td>_œ(2)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Consonants:

<table>
<thead>
<tr>
<th></th>
<th>Bilabial</th>
<th>Labiodental</th>
<th>Dental</th>
<th>Alveolar</th>
<th>Postalveolar</th>
<th>Retroflex</th>
<th>Palatal</th>
<th>Velar</th>
<th>Uvular</th>
<th>Pharyngeal</th>
<th>Glottal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plosive</td>
<td>p(14), b(12)</td>
<td></td>
<td></td>
<td>t(35), d(26)</td>
<td></td>
<td></td>
<td>k(45), g(14)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Affricate</td>
<td></td>
<td></td>
<td></td>
<td>dz</td>
<td>tf(3), dg(4)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nasal</td>
<td>m(14)</td>
<td></td>
<td></td>
<td>n(37)</td>
<td></td>
<td></td>
<td>η(4)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trill</td>
<td></td>
<td></td>
<td></td>
<td>r(5)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tap or Flap</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fricative</td>
<td>f(18), v(5)</td>
<td></td>
<td></td>
<td>Θ(2)</td>
<td>s(36), z(6)</td>
<td></td>
<td>X</td>
<td>h(7)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lateral Fricative</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Approximant</td>
<td></td>
<td></td>
<td></td>
<td>j(60)</td>
<td></td>
<td></td>
<td>j(7)</td>
<td>w(6)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lateral Approximant</td>
<td></td>
<td></td>
<td></td>
<td>l(20)</td>
<td></td>
<td></td>
<td>t(16)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Phonetic Inventory Data Sheet-Narrow

Question ID: Y. the name of the remotest island on earth

### Vowels:

<table>
<thead>
<tr>
<th></th>
<th>front</th>
<th>central</th>
<th>back</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>unrounded</td>
<td>rounded</td>
<td>unrounded</td>
</tr>
<tr>
<td>high</td>
<td>tense</td>
<td>i̞, i̞#, i̞, #i, i</td>
<td></td>
</tr>
<tr>
<td></td>
<td>lax</td>
<td>i, #i</td>
<td></td>
</tr>
<tr>
<td>mid</td>
<td>tense</td>
<td>e, e#, e</td>
<td></td>
</tr>
<tr>
<td></td>
<td>intermediate</td>
<td>a̞, a̞#, #a̞, a̞, a̞#</td>
<td></td>
</tr>
<tr>
<td></td>
<td>lax</td>
<td>e, #e, e</td>
<td></td>
</tr>
<tr>
<td>low</td>
<td>tense</td>
<td>a̞, a̞#, a̞#</td>
<td></td>
</tr>
<tr>
<td></td>
<td>lax</td>
<td>a, a#, #a</td>
<td></td>
</tr>
</tbody>
</table>

### Consonants:

<table>
<thead>
<tr>
<th></th>
<th>Bilabial</th>
<th>Labio dental</th>
<th>Dental</th>
<th>Alveolar</th>
<th>Post alveolar</th>
<th>Retroflex</th>
<th>Palatal</th>
<th>Velar</th>
<th>Uvular</th>
<th>Pharyngeal</th>
<th>Glottal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plosive</td>
<td>pʰ, #pʰ, p, b, #b, b#</td>
<td></td>
<td>t, tʰ, #tʰ, t#, t#, d#, #d, d</td>
<td></td>
<td></td>
<td></td>
<td>k, kʰ, #kʰ, k, #k, k#, g, #g</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Affricate</td>
<td>dʒ</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nasal</td>
<td>#m, m, #m#, #m</td>
<td></td>
<td>n, #n, n#, #η, #η</td>
<td></td>
<td></td>
<td></td>
<td>η#, η</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trill</td>
<td>r</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tap or Flap</td>
<td>r</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fricative</td>
<td>f, f#, #f, v</td>
<td>θ, #θ, θ#, #θ</td>
<td>s, #s, #s, #s; z, z#, #z</td>
<td>f, #f, #f</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>h, #h</td>
</tr>
<tr>
<td>Lateral Fricative</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Approximant</td>
<td>j, j#, #j</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lateral Approximant</td>
<td>l, #l, l̞</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Phonetic Inventory Data Sheet-Broad

Question ID: Y. the name of the remotest island on earth

Vowels:

<table>
<thead>
<tr>
<th></th>
<th>front</th>
<th>central</th>
<th>back</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>unrounded</td>
<td>rounded</td>
<td>unrounded</td>
</tr>
<tr>
<td>high</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>tense</td>
<td>i(32)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>lax</td>
<td>i(28)</td>
<td></td>
</tr>
<tr>
<td>mid</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>tense</td>
<td>e(12)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>intermediate</td>
<td></td>
<td>a(43), a(7)</td>
</tr>
<tr>
<td></td>
<td>lax</td>
<td>e(15)</td>
<td></td>
</tr>
<tr>
<td>low</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>tense</td>
<td>æ(17)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>lax</td>
<td>a(13)</td>
<td></td>
</tr>
</tbody>
</table>

Consonants:

<table>
<thead>
<tr>
<th></th>
<th>Bilabial</th>
<th>Labiodental</th>
<th>Dental</th>
<th>Alveolar</th>
<th>Postalveolar</th>
<th>Retroflex</th>
<th>Palatal</th>
<th>Velar</th>
<th>Uvular</th>
<th>Pharyngeal</th>
<th>Glottal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plosive</td>
<td>p(15), b(19)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Affricate</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>dʒ(1)</td>
</tr>
<tr>
<td>Nasal</td>
<td>m(16)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>η(4)</td>
</tr>
<tr>
<td>Trill</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>r(3)</td>
</tr>
<tr>
<td>Tap or Flap</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>r(3)</td>
</tr>
<tr>
<td>Fricative</td>
<td>f(14), v(3)</td>
<td>θ(4), δ</td>
<td>s(37), z(15)</td>
<td>f(8), j(2)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>h(5)</td>
</tr>
<tr>
<td>Lateral Fricative</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Approximant</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>j(5)</td>
</tr>
<tr>
<td>Lateral Approximant</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>w(16)</td>
</tr>
<tr>
<td>Approximant</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>θ(37)</td>
</tr>
<tr>
<td>Lateral Approximant</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>r(16)</td>
</tr>
</tbody>
</table>
Phonetic Inventory Data Sheet-Narrow

Question ID: Z.

Vowels:

<table>
<thead>
<tr>
<th></th>
<th>front</th>
<th>central</th>
<th>back</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>unrounded</td>
<td>rounded</td>
<td>unrounded</td>
</tr>
<tr>
<td>high</td>
<td>tense</td>
<td>i#', #i', i', i</td>
<td></td>
</tr>
<tr>
<td></td>
<td>lax</td>
<td>i, #i</td>
<td></td>
</tr>
<tr>
<td>mid</td>
<td>tense</td>
<td>e#', e'</td>
<td></td>
</tr>
<tr>
<td></td>
<td>intermediate</td>
<td>a, #a, #a, a, a</td>
<td></td>
</tr>
<tr>
<td></td>
<td>lax</td>
<td>ε#, ε</td>
<td></td>
</tr>
<tr>
<td>low</td>
<td>tense</td>
<td>æ, #æ</td>
<td></td>
</tr>
<tr>
<td></td>
<td>lax</td>
<td>æ', æ</td>
<td></td>
</tr>
</tbody>
</table>

Consonants:

<table>
<thead>
<tr>
<th></th>
<th>Bilabial</th>
<th>Labio dental</th>
<th>Dental</th>
<th>Alveolar</th>
<th>Post alveolar</th>
<th>Retroflex</th>
<th>Palatal</th>
<th>Velar</th>
<th>Uvular</th>
<th>Pharyngeal</th>
<th>Glottal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plosive</td>
<td>#p, p, #pʰ, b, b', #b</td>
<td></td>
<td>t, #t', t', t'ʰ, d</td>
<td>#d</td>
<td></td>
<td>k, kʰ, #kʰ, k#, g#, g, #g</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Affricate</td>
<td>ts#</td>
<td>tʃ#, #dʒ</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nasal</td>
<td>#m, m, #m#</td>
<td></td>
<td>n, n#, #η#, #η</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trill</td>
<td>r</td>
<td>r</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tap or Flap</td>
<td>r</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fricative</td>
<td>f, #f, #f, #v, #v</td>
<td>θ</td>
<td>s, #s, s#, #s'</td>
<td>#ʃ, #ʃ', #ʃ, #ʃ</td>
<td>#h, h#</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lateral Fricative</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Approximant</td>
<td>j, #j, j#</td>
<td>j</td>
<td>w, #w</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lateral Approximant</td>
<td>l, #l</td>
<td></td>
<td>t, #t, #t, #t</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Phonetic Inventory Data Sheet-Broad

Question ID: Z.

Vowels:

<table>
<thead>
<tr>
<th></th>
<th>front</th>
<th>central</th>
<th>back</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>unrounded</td>
<td>rounded</td>
<td>unrounded</td>
</tr>
<tr>
<td>high</td>
<td>tense</td>
<td>i(24)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>lax</td>
<td>ε(26)</td>
<td></td>
</tr>
<tr>
<td>mid</td>
<td>tense</td>
<td>e(14)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>intermediate</td>
<td>θ(34), θ(6)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>lax</td>
<td>ε(14)</td>
<td></td>
</tr>
<tr>
<td>low</td>
<td>tense</td>
<td>æ(17)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>lax</td>
<td>a(6)</td>
<td></td>
</tr>
</tbody>
</table>

Consonants:

<table>
<thead>
<tr>
<th></th>
<th>Bilabial</th>
<th>Labio dental</th>
<th>Dental</th>
<th>Alveolar</th>
<th>Post alveolar</th>
<th>Retroflex</th>
<th>Palatal</th>
<th>Velar</th>
<th>Uvular</th>
<th>Pharyngeal</th>
<th>Glottal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plosive</td>
<td>p(6), b(13)</td>
<td></td>
<td>t(27), d(29)</td>
<td></td>
<td></td>
<td>k(19), g(6)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Affricate</td>
<td></td>
<td></td>
<td>ts</td>
<td>tf, dz(2)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nasal</td>
<td>m(17)</td>
<td></td>
<td>n(54)</td>
<td></td>
<td></td>
<td>η</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trill</td>
<td></td>
<td></td>
<td>r</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tap or Flap</td>
<td></td>
<td></td>
<td>r(3)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fricative</td>
<td>f(19), v(5)</td>
<td></td>
<td>θ(2)</td>
<td>s(40), z(18)</td>
<td>J(18), z(5)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>h(3)</td>
</tr>
<tr>
<td>Lateral Fricative</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Approximant</td>
<td></td>
<td></td>
<td>θ(2)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lateral Approximant</td>
<td></td>
<td></td>
<td>l(28)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>l(11)</td>
</tr>
</tbody>
</table>
Phonetic Inventory Data Sheet-Narrow

Question ID: a.

Vowels:

<table>
<thead>
<tr>
<th></th>
<th>front</th>
<th>central</th>
<th>back</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>unrounded</td>
<td>rounded</td>
<td>unrounded</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>rounded</td>
</tr>
<tr>
<td>high</td>
<td>tense</td>
<td>i, i#, i</td>
<td></td>
</tr>
<tr>
<td></td>
<td>lax</td>
<td>i</td>
<td></td>
</tr>
<tr>
<td>mid</td>
<td>tense</td>
<td>e, e#, e#</td>
<td>o, o#, o#</td>
</tr>
<tr>
<td></td>
<td>intermediate</td>
<td>a, a#, a#, a, a#</td>
<td></td>
</tr>
<tr>
<td></td>
<td>lax</td>
<td>ε</td>
<td>^</td>
</tr>
<tr>
<td>low</td>
<td>tense</td>
<td>æ, æ#</td>
<td>ã, a#, ã, a#</td>
</tr>
<tr>
<td></td>
<td>lax</td>
<td>a, a'</td>
<td></td>
</tr>
</tbody>
</table>

Consonants:

<table>
<thead>
<tr>
<th></th>
<th>Bilabial</th>
<th>Labio dental</th>
<th>Dental</th>
<th>Alveolar</th>
<th>Post alveolar</th>
<th>Retroflex</th>
<th>Palatal</th>
<th>Velar</th>
<th>Uvular</th>
<th>Pharyngeal</th>
<th>Glottal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plosive</td>
<td>p, p#,</td>
<td>#p#, #p, b, b#</td>
<td>#t#,</td>
<td>t#, t'#, t', d#, d, #d, d'#</td>
<td>#k, k, #k#, k#, #g, g</td>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Affricate</td>
<td></td>
<td>tʃ#</td>
<td>tʃ, tʃ#</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nasal</td>
<td>#m, m#,</td>
<td>m, m#</td>
<td>n, n#</td>
<td>n#</td>
<td>η, η#</td>
<td>η, η#</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Trill</td>
<td>r</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tap</td>
<td>Tap or Flap</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fricative</td>
<td>f, f#, #f, #v, v#, θ</td>
<td>s, #s, s#, #z, z#</td>
<td>#ʃ, #ʃ, #ʃ#</td>
<td></td>
<td>#h</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lateral Fricative</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Approximant</td>
<td>#l, l#</td>
<td>j, l#</td>
<td></td>
<td></td>
<td>#w, w</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lateral Approximant</td>
<td>l, l#, #l</td>
<td>l, l#, #l</td>
<td>j, l#</td>
<td>#l#</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Phonetic Inventory Data Sheet - Broad

Question ID: a.

Vowels:

<table>
<thead>
<tr>
<th></th>
<th>front</th>
<th>central</th>
<th>back</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>unrounded</td>
<td>rounded</td>
<td>unrounded</td>
</tr>
<tr>
<td>high</td>
<td>tense</td>
<td>i(25)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>lax</td>
<td>r(28)</td>
<td></td>
</tr>
<tr>
<td>mid</td>
<td>tense</td>
<td>e(14)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>intermediate</td>
<td></td>
<td>a(29), a(9)</td>
</tr>
<tr>
<td></td>
<td>lax</td>
<td>e(13)</td>
<td></td>
</tr>
<tr>
<td>low</td>
<td>tense</td>
<td>æ(12)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>lax</td>
<td>a(18)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>u(14)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>a(7)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>η(2)</td>
</tr>
</tbody>
</table>

Consonants:

<table>
<thead>
<tr>
<th></th>
<th>Bilabial</th>
<th>Labio dental</th>
<th>Dental</th>
<th>Alveolar</th>
<th>Post alveolar</th>
<th>Retroflex</th>
<th>Palatal</th>
<th>Velar</th>
<th>Uvular</th>
<th>Pharyngeal</th>
<th>Glottal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plosive</td>
<td>p(14), b(20)</td>
<td></td>
<td>t(33), d(13)</td>
<td></td>
<td></td>
<td>k(17), g(9)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>?</td>
</tr>
<tr>
<td>Affricate</td>
<td>ts</td>
<td></td>
<td>tʃ(2), dʒ</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nasal</td>
<td>m(14)</td>
<td></td>
<td>n(47)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trill</td>
<td>r</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tap or Flap</td>
<td>r(4)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fricative</td>
<td>f(19), v(8)</td>
<td></td>
<td>s(40), z(6), ʃ(9)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lateral Fricative</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Approximant</td>
<td>j(40)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lateral Approximant</td>
<td>l(38)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>l(20)</td>
</tr>
</tbody>
</table>
Phonetic Inventory Data Sheet-Narrow

Question ID: b.

Vowels:

<table>
<thead>
<tr>
<th></th>
<th>front</th>
<th>central</th>
<th>back</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>unrounded</td>
<td>rounded</td>
<td>unrounded</td>
</tr>
</tbody>
</table>
| high  | tense    | #i, i#, i̯ |         |       | #u̯, | #uː“, u”, u”#
|       | lax   | #i, i |       |       |       |         |
| mid   | tense   | e, e# | ø    |         | #o, | o"#, o“ |
|       | lax | ε, ε#, ε̯, |         |       | #ʌ, | ʌ, ʌ |
| low   | tense | æ, æ̯ |       |       | #a, | a#, a |
|       | lax | a, a#: a#, a|       |       |       |         |

Consonants:

<table>
<thead>
<tr>
<th></th>
<th>Bilabial</th>
<th>Labio dental</th>
<th>Dental</th>
<th>Alveolar</th>
<th>Post alveolar</th>
<th>Retroflex</th>
<th>Palatal</th>
<th>Velar</th>
<th>Uvular</th>
<th>Pharyngeal</th>
<th>Glottal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plosive</td>
<td>p, #p,</td>
<td>p#, #p#,</td>
<td>t, #t,</td>
<td>#t#,</td>
<td>#k#,</td>
<td>#k#,</td>
<td>k, k#,</td>
<td>g, #g,</td>
<td>g#</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>p#</td>
<td>b, b#</td>
<td>t#,</td>
<td>d, d#</td>
<td>d#,</td>
<td>d#</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Affricate</td>
<td>#f#</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nasal</td>
<td>#m, m,</td>
<td>m#,</td>
<td>#n,</td>
<td>n#,</td>
<td>n#</td>
<td>n#</td>
<td>η#,</td>
<td>η#</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>m̂</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Trill</td>
<td>r</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tap or Flap</td>
<td>r</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fricative</td>
<td>#f,</td>
<td>f#,</td>
<td>θ#,</td>
<td>s,</td>
<td>s#,</td>
<td>#f,</td>
<td>f#</td>
<td>#x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>f</td>
<td>v#</td>
<td>d</td>
<td>#z,</td>
<td>z#</td>
<td>z</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Lateral Fricative</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>#h</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Approximant</td>
<td>j, j#</td>
<td></td>
<td>#j,</td>
<td>j#</td>
<td>w, w</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lateral Approximant</td>
<td>#l, l</td>
<td>t, t#,</td>
<td>t#,</td>
<td>j, j#</td>
<td>#w, w</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

985
Phonetic Inventory Data Sheet-Broad

Question ID: b.

Vowels:

<table>
<thead>
<tr>
<th></th>
<th>front</th>
<th>central</th>
<th>back</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>unrounded</td>
<td>rounded</td>
<td>unrounded</td>
</tr>
<tr>
<td>high</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>tense</td>
<td>i(28)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>lax</td>
<td>τ(23)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>mid</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>tense</td>
<td>e(10)</td>
<td>ø</td>
<td></td>
</tr>
<tr>
<td>lax</td>
<td>e(19)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>low</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>tense</td>
<td>æ(13)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>lax</td>
<td>a(11)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Consonants:

<table>
<thead>
<tr>
<th></th>
<th>Bilabial</th>
<th>Labio dental</th>
<th>Dental</th>
<th>Alveolar</th>
<th>Post alveolar</th>
<th>Retroflex</th>
<th>Palatal</th>
<th>Velar</th>
<th>Uvular</th>
<th>Pharyngeal</th>
<th>Glottal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plosive</td>
<td>p(14), b(28)</td>
<td>t(16), d(14)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>k(25), g(4)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Affricate</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nasal</td>
<td>m(20)</td>
<td>n(36)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trill</td>
<td>r</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tap or Flap</td>
<td>r(5)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fricative</td>
<td>f(12), v(8)</td>
<td>θ, δ</td>
<td>s(31), z(8)</td>
<td>j(14)</td>
<td></td>
<td></td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td>h(6)</td>
</tr>
<tr>
<td>Lateral Fricative</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Approximant</td>
<td>l(40)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lateral Approximant</td>
<td>l(30)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>τ(22)</td>
</tr>
</tbody>
</table>
## Phonetic Inventory Data Sheet-Narrow

**Question ID:** c.

### Vowels:

<table>
<thead>
<tr>
<th></th>
<th>front</th>
<th>central</th>
<th>back</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>unrounded</td>
<td>rounded</td>
<td>unrounded</td>
</tr>
<tr>
<td><strong>high</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>tense</td>
<td>i#, i', i</td>
<td></td>
<td>u&quot;</td>
</tr>
<tr>
<td>lax</td>
<td>#i, i</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>mid</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>tense</td>
<td>e', e</td>
<td></td>
<td></td>
</tr>
<tr>
<td>intermediate</td>
<td></td>
<td></td>
<td>#a, a, a#,</td>
</tr>
<tr>
<td>lax</td>
<td>#e, e, e'</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>low</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>tense</td>
<td>a, a, a&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>lax</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Consonants:

<table>
<thead>
<tr>
<th></th>
<th>Bilabial</th>
<th>Labio dental</th>
<th>Dental</th>
<th>Alveolar</th>
<th>Post alveolar</th>
<th>Retroflex</th>
<th>Palatal</th>
<th>Velar</th>
<th>Uvular</th>
<th>Pharyngeal</th>
<th>Glottal</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Plosive</strong></td>
<td>#p, p, #pʰ, #b, b</td>
<td></td>
<td>t, #tʰ, tʰ</td>
<td>t', t'ʰ</td>
<td>#d, d, d'</td>
<td>#kʰ, kʰ</td>
<td></td>
<td></td>
<td></td>
<td>#g, g, g̊</td>
<td></td>
</tr>
<tr>
<td><strong>Affricate</strong></td>
<td></td>
<td></td>
<td>ts'</td>
<td>#tf, tf'</td>
<td>#dʒ, dʒ'</td>
<td>#k, kʰ, k̊</td>
<td>k'</td>
<td></td>
<td></td>
<td>#g, g, g̊</td>
<td></td>
</tr>
<tr>
<td><strong>Nasal</strong></td>
<td>#m, m̊</td>
<td></td>
<td>#n, n#</td>
<td>n̊, n̊#</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Trill</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Tap or Flap</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Fricative</strong></td>
<td>#f, f, #v, v</td>
<td>#θ'</td>
<td>#s, s#</td>
<td>#f', f'</td>
<td>#s'</td>
<td>#z, z#</td>
<td>##</td>
<td></td>
<td></td>
<td>h</td>
<td></td>
</tr>
<tr>
<td><strong>Lateral Fricative</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Approximant</strong></td>
<td>#l, l</td>
<td></td>
<td></td>
<td></td>
<td>#j, j</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Lateral Approximant</strong></td>
<td>#l, l</td>
<td></td>
<td></td>
<td></td>
<td>#j, j</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Lateral Approximant</strong></td>
<td>#l, l</td>
<td></td>
<td></td>
<td></td>
<td>#j, j</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

987
Phonetic Inventory Data Sheet-Broad

Question ID: c.

Vowels:

<table>
<thead>
<tr>
<th></th>
<th>front</th>
<th>central</th>
<th>back</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>unrounded</td>
<td>unrounded</td>
<td>rounded</td>
</tr>
<tr>
<td>high</td>
<td>tense</td>
<td>i(33)</td>
<td>u</td>
</tr>
<tr>
<td></td>
<td>lax</td>
<td>r(28)</td>
<td></td>
</tr>
<tr>
<td>mid</td>
<td>tense</td>
<td>e(8)</td>
<td>α(13)</td>
</tr>
<tr>
<td></td>
<td>intermediate</td>
<td>a(39), a(10)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>lax</td>
<td>e(19)</td>
<td>η(3)</td>
</tr>
<tr>
<td>low</td>
<td>tense</td>
<td>æ(23)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>lax</td>
<td>a(13)</td>
<td></td>
</tr>
</tbody>
</table>

Consonants:

<table>
<thead>
<tr>
<th></th>
<th>Bilabial</th>
<th>Labio dental</th>
<th>Dental</th>
<th>Alveolar</th>
<th>Post alveolar</th>
<th>Retroflex</th>
<th>Palatal</th>
<th>Velar</th>
<th>Uvular</th>
<th>Pharyngeal</th>
<th>Glottal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plosive</td>
<td>p(17), b(21)</td>
<td></td>
<td>t(37), d(24)</td>
<td></td>
<td></td>
<td>k(36), g(16)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Affricate</td>
<td></td>
<td></td>
<td>ts</td>
<td>tf(2), dɡ(9)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nasal</td>
<td>m(30)</td>
<td></td>
<td>n(45)</td>
<td></td>
<td></td>
<td>η(2)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tap or Flap</td>
<td></td>
<td>r(7)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fricative</td>
<td>f(18), v(4)</td>
<td>θ(3)</td>
<td>s(27), z(13)</td>
<td>f(13), ʒ(2)</td>
<td>x</td>
<td>h</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lateral Fricative</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Approximant</td>
<td></td>
<td>j(61)</td>
<td></td>
<td></td>
<td></td>
<td>j(6)</td>
<td>w(5)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lateral Approximant</td>
<td></td>
<td>l(25)</td>
<td></td>
<td></td>
<td></td>
<td>l(11)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Phonetic Inventory Data Sheet-Narrow

Question ID: d.

Vowels:

<table>
<thead>
<tr>
<th></th>
<th>front</th>
<th>central</th>
<th>back</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>unrounded</td>
<td>rounded</td>
<td>unrounded</td>
</tr>
<tr>
<td>high</td>
<td>/i/, /i, /i:/</td>
<td>/u/</td>
<td>/u/, /u/, /u:/</td>
</tr>
<tr>
<td>lax</td>
<td>/i/</td>
<td>/u/</td>
<td></td>
</tr>
<tr>
<td>mid</td>
<td>/e/, /e/, /e:/</td>
<td></td>
<td>/o/, /o/</td>
</tr>
<tr>
<td>lax</td>
<td></td>
<td></td>
<td>/ɔ/, /ɔ/, /ɔ/</td>
</tr>
<tr>
<td>low</td>
<td>/æ/, /æ/, /æ:/</td>
<td>/a/, /a/, /a:/</td>
<td>/a/, /a/</td>
</tr>
</tbody>
</table>

Consonants:

<table>
<thead>
<tr>
<th></th>
<th>Bilabial</th>
<th>Labio dental</th>
<th>Dental</th>
<th>Alveolar</th>
<th>Post alveolar</th>
<th>Retroflex</th>
<th>Palatal</th>
<th>Velar</th>
<th>Uvular</th>
<th>Pharyngeal</th>
<th>Glottal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plosive</td>
<td>#p, p,</td>
<td>#b, b</td>
<td>p, p#</td>
<td>p#, #p#</td>
<td>#p, #p, #p#</td>
<td>t, t#, t</td>
<td>d, d#</td>
<td>#d, #d, d</td>
<td>#k, #k</td>
<td>#k, k</td>
<td>#g, g</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Affricate</td>
<td>#tʃ, #dʒ,</td>
<td></td>
<td>#tʃ, #dʒ</td>
<td>#tʃ, #dʒ</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nasal</td>
<td>#m, m,</td>
<td></td>
<td>n, n#</td>
<td>n, n#</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>m#, m#</td>
<td></td>
<td>#n, n, n#</td>
<td>#n, n, n#</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trill</td>
<td>#r</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tap or Flap</td>
<td>r</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fricative</td>
<td>#f, f,</td>
<td></td>
<td>#s, s#</td>
<td>#s, s#</td>
<td>#ʃ, #ʃ, #ʃ#</td>
<td>#ʃ, #ʃ, #ʃ</td>
<td>#z, #z</td>
<td>z</td>
<td>#h</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lateral Fricative</td>
<td></td>
<td></td>
<td>#ʃ, #ʃ, #ʃ#</td>
<td>#ʃ, #ʃ, #ʃ#</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Approximant</td>
<td>#j, j, j#</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lateral Approximant</td>
<td>#l, l</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Phonetic Inventory Data Sheet-Broad

Question ID: d.

Vowels:

<table>
<thead>
<tr>
<th></th>
<th>front</th>
<th>central</th>
<th>back</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>unrounded</td>
<td>rounded</td>
<td>unrounded</td>
</tr>
<tr>
<td>high</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>tense</td>
<td>i(26)</td>
<td>u</td>
<td>u(2)</td>
</tr>
<tr>
<td>lax</td>
<td>x(37)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>mid</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>tense</td>
<td>e(13)</td>
<td></td>
<td>o(8)</td>
</tr>
<tr>
<td>lax</td>
<td>e(14)</td>
<td></td>
<td>a(31), a(18)</td>
</tr>
<tr>
<td>low</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>tense</td>
<td>æ(12)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>lax</td>
<td>a(13)</td>
<td></td>
<td>a(35)</td>
</tr>
</tbody>
</table>

Consonants:

<table>
<thead>
<tr>
<th>Bilabial</th>
<th>Labio dental</th>
<th>Dental</th>
<th>Alveolar</th>
<th>Post alveolar</th>
<th>Retroflex</th>
<th>Palatal</th>
<th>Velar</th>
<th>Uvular</th>
<th>Pharyngeal</th>
<th>Glottal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plosive</td>
<td>p(18), b(9)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Affricate</td>
<td>tf, dg(3)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nasal</td>
<td>m(22)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trill</td>
<td>r(2)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tap or Flap</td>
<td>r(3)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fricative</td>
<td>f(4), v(10)</td>
<td>θ, ð(2)</td>
<td>s(58), z(11)</td>
<td>f(14), ʒ</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>h(2)</td>
</tr>
<tr>
<td>Lateral Fricative</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Approximant</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>j(5)</td>
</tr>
<tr>
<td>Lateral Approximant</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>l(33)</td>
</tr>
</tbody>
</table>

990
Phonetic Inventory Data Sheet-Narrow

Question ID: e.

### Vowels:

<table>
<thead>
<tr>
<th></th>
<th>front</th>
<th>central</th>
<th>back</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>unrounded</td>
<td>rounded</td>
<td>unrounded</td>
</tr>
<tr>
<td>high</td>
<td>tense</td>
<td></td>
<td>i, i̯, i̯#</td>
</tr>
<tr>
<td></td>
<td>lax</td>
<td></td>
<td></td>
</tr>
<tr>
<td>mid</td>
<td>tense</td>
<td>e̯, e̯#</td>
<td></td>
</tr>
<tr>
<td></td>
<td>intermediate</td>
<td></td>
<td>#a, a, a#</td>
</tr>
<tr>
<td></td>
<td>lax</td>
<td>ε, ε̯</td>
<td></td>
</tr>
<tr>
<td>low</td>
<td>tense</td>
<td>æ</td>
<td></td>
</tr>
<tr>
<td></td>
<td>lax</td>
<td>a̯, a̯#</td>
<td>a, a̯</td>
</tr>
</tbody>
</table>

### Consonants:

<table>
<thead>
<tr>
<th></th>
<th>Bilabial</th>
<th>Labio dental</th>
<th>Dental</th>
<th>Alveolar</th>
<th>Post alveolar</th>
<th>Retroflex</th>
<th>Palatal</th>
<th>Velar</th>
<th>Uvular</th>
<th>Pharyngeal</th>
<th>Glottal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plosive</td>
<td>#p, #pʰ, p, pʰ, p#, #b, b</td>
<td></td>
<td>#t, #tʰ, tʰ, t̺, t̺#, t̺, d̺, d̺, d̺#</td>
<td></td>
<td>#k, #kʰ, k, kʰ, k <code>k</code>, k'#, k#, #g, g, g#</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Affricate</td>
<td></td>
<td></td>
<td>ts</td>
<td>#tʃ, #dʒ, dʒ, dʒ#</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nasal</td>
<td>#m, m, m#, m̄#</td>
<td></td>
<td></td>
<td>#n, n, n#, n̄, n̄#</td>
<td></td>
<td></td>
<td>n̄, n̄#</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trill</td>
<td></td>
<td></td>
<td>r</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tap or Flap</td>
<td></td>
<td></td>
<td>r</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fricative</td>
<td>#f, f, f#, f̄#</td>
<td>θ̄, θ̄, θ̄, θ̄, θ̄, θ̄, θ̄, θ̄, θ̄</td>
<td>#s, s, s#, s̄, s̄, s̄, s̄, s̄, s̄, s̄</td>
<td>#z, z, z#, z̄, z̄, z̄, z̄, z̄, z̄</td>
<td>γ</td>
<td>#h</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lateral Fricative</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Approximant</td>
<td>#j, j, j#</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>j</td>
<td>#w, w</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lateral Approximant</td>
<td>#l, l, l#</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>t, t̄, t̄#</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Phonetic Inventory Data Sheet-Broad

Question ID: e.

Vowels:

<table>
<thead>
<tr>
<th></th>
<th>front</th>
<th>central</th>
<th>back</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>unrounded</td>
<td>rounded</td>
<td>unrounded</td>
</tr>
<tr>
<td>high</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>tense</td>
<td>i(18)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>lax</td>
<td>τ(35)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>mid</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>tense</td>
<td>e(10)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>intermediate</td>
<td></td>
<td></td>
<td>a(33), æ(15)</td>
</tr>
<tr>
<td>lax</td>
<td>e(12)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>low</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>tense</td>
<td></td>
<td>æ(12)</td>
<td></td>
</tr>
<tr>
<td>lax</td>
<td>a(13)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Consonants:

<table>
<thead>
<tr>
<th></th>
<th>Bilabial</th>
<th>Labio dental</th>
<th>Dental</th>
<th>Alveolar</th>
<th>Post alveolar</th>
<th>Retroflex</th>
<th>Palatal</th>
<th>Velar</th>
<th>Uvular</th>
<th>Pharyngeal</th>
<th>Glottal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plosive</td>
<td>p(23), b(16)</td>
<td></td>
<td></td>
<td>t(43), d(25)</td>
<td></td>
<td></td>
<td>k(58), g(13)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Affricate</td>
<td>ts(2)</td>
<td>tf, dg(5)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nasal</td>
<td>m(24)</td>
<td></td>
<td></td>
<td>n(43)</td>
<td></td>
<td></td>
<td>η(6)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trill</td>
<td>r(2)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tap or Flap</td>
<td>r(9)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fricative</td>
<td>f(14), v(3)</td>
<td>θ, δ</td>
<td>s(27), z(10)</td>
<td>f(3), ʒ</td>
<td></td>
<td>γ</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lateral Fricative</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Approximant</td>
<td></td>
<td>α(56)</td>
<td></td>
<td></td>
<td>j(5)</td>
<td></td>
<td>w(13)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lateral Approximant</td>
<td></td>
<td>l(27)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>t(12)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Phonetic Inventory Data Sheet-Narrow

Vowels:

<table>
<thead>
<tr>
<th></th>
<th>front</th>
<th>central</th>
<th>back</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>unrounded</td>
<td>rounded</td>
<td>unrounded</td>
</tr>
<tr>
<td>high</td>
<td>tense</td>
<td>#i, i, i#</td>
<td></td>
</tr>
<tr>
<td></td>
<td>lax</td>
<td>#i, i</td>
<td></td>
</tr>
<tr>
<td>mid</td>
<td>tense</td>
<td>#e', e', e#'</td>
<td></td>
</tr>
<tr>
<td></td>
<td>intermediate</td>
<td>#a, a, a#, a#, a#</td>
<td></td>
</tr>
<tr>
<td></td>
<td>lax</td>
<td>#e, e', e'</td>
<td></td>
</tr>
<tr>
<td>low</td>
<td>tense</td>
<td>#ae, æ</td>
<td></td>
</tr>
<tr>
<td></td>
<td>lax</td>
<td>#a', a, a', a#, a#, a#</td>
<td></td>
</tr>
</tbody>
</table>

Consonants:

<table>
<thead>
<tr>
<th></th>
<th>Bilabial</th>
<th>Labio dental</th>
<th>Dental</th>
<th>Alveolar</th>
<th>Post alveolar</th>
<th>Retroflex</th>
<th>Palatal</th>
<th>Velar</th>
<th>Uvular</th>
<th>Pharyngeal</th>
<th>Glottal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plosive</td>
<td>#p, #p#, p#, p, b</td>
<td>#t, #t#, t#, t</td>
<td>#d, d#, d#</td>
<td>#k, #k#, k, k#, g, g#</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Affricate</td>
<td></td>
<td>#tf, tf, #ds, ds</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nasal</td>
<td>#m, m, oη#</td>
<td>#n, n, n#, oη, oη#</td>
<td></td>
<td>η, η#</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trill</td>
<td></td>
<td></td>
<td>r</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tap or Flap</td>
<td></td>
<td></td>
<td>r</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fricative</td>
<td>#f, f, f#, f#, v, v#</td>
<td>θ</td>
<td>#s, s, s#, #f, f#, #z, z, z#</td>
<td>3</td>
<td>#x</td>
<td>#h, h</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lateral Fricative</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Approximant</td>
<td>#j, j, j#</td>
<td></td>
<td>#j, j</td>
<td>#w, w</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lateral Approximant</td>
<td>#l, l</td>
<td></td>
<td>l, l, l#</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Question ID: f.
Phonetic Inventory Data Sheet-Broad

Question ID: f.

Vowels:

<table>
<thead>
<tr>
<th></th>
<th>high</th>
<th>mid</th>
<th>low</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>front</td>
<td>central</td>
<td>back</td>
<td></td>
</tr>
<tr>
<td></td>
<td>unrounded</td>
<td>rounded</td>
<td>unrounded</td>
<td>rounded</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>tense</td>
<td>i(18)</td>
<td>u(2)</td>
<td>u(21)</td>
<td></td>
</tr>
<tr>
<td>lax</td>
<td>i(21)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>tense</td>
<td>e(11)</td>
<td></td>
<td></td>
<td>o(18)</td>
</tr>
<tr>
<td></td>
<td>a(28), a(10)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>lax</td>
<td>e(10)</td>
<td></td>
<td></td>
<td>a(3)</td>
</tr>
<tr>
<td></td>
<td>a(19)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>lax</td>
<td>a(10)</td>
<td></td>
<td></td>
<td>a(40)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Consonants:

<table>
<thead>
<tr>
<th></th>
<th>Bilabial</th>
<th>Labio dental</th>
<th>Dental</th>
<th>Alveolar</th>
<th>Post alveolar</th>
<th>Retroflex</th>
<th>Palatal</th>
<th>Velar</th>
<th>Uvular</th>
<th>Pharyngeal</th>
<th>Glottal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plosive</td>
<td>p(15), b(8)</td>
<td></td>
<td>t(34), d(14)</td>
<td></td>
<td></td>
<td>k(47), g(10)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>tf(2), dg(5)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Affricate</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nasal</td>
<td>m(17)</td>
<td></td>
<td>n(49)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trill</td>
<td></td>
<td></td>
<td>r</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tap or Flap</td>
<td></td>
<td></td>
<td>r(3)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fricative</td>
<td>f(19), v(6)</td>
<td>Theta(2)</td>
<td>s(49), z(11)</td>
<td></td>
<td>f(8), 3</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Approximant</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lateral Approximant</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Phonetic Inventory Data Sheet-Narrow

Question ID: g.

Vowels:

<table>
<thead>
<tr>
<th></th>
<th>front</th>
<th>central</th>
<th>back</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>unrounded</td>
<td>rounded</td>
<td>unrounded</td>
</tr>
<tr>
<td>high</td>
<td>tense</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>#i, i#, i</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>lax</td>
<td>#t, t</td>
<td></td>
</tr>
<tr>
<td>mid</td>
<td>tense</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>e, e#, e</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>intermediate</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>lax</td>
<td>e</td>
<td></td>
</tr>
<tr>
<td>low</td>
<td>tense</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>lax</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Consonants:

<table>
<thead>
<tr>
<th></th>
<th>Bilabial</th>
<th>Labiodental</th>
<th>Dental</th>
<th>Alveolar</th>
<th>Post alveolar</th>
<th>Retroflex</th>
<th>Palatal</th>
<th>Velar</th>
<th>Uvular</th>
<th>Pharyngeal</th>
<th>Glottal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plosive</td>
<td>#pʰ, pʰ,</td>
<td>p, p#, #b,</td>
<td>tʰ, tʰ, t</td>
<td>t#, t#,</td>
<td>d, d, d</td>
<td>#k, #kʰ,</td>
<td>kʰ, k,</td>
<td>k#, #g,</td>
<td>g, gⁿ#</td>
<td>#h, h,</td>
<td>#h</td>
</tr>
<tr>
<td></td>
<td>p, p#, #b,</td>
<td>b#</td>
<td>tʰ, tʰ, t</td>
<td>t#, t#,</td>
<td>d, d, d#</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Affricate</td>
<td>#ʧ, #ʤ,</td>
<td>dʃ, dʃ#</td>
<td>dʃ, dʃ#</td>
<td>dʃ, dʃ#</td>
<td>dʃ, dʃ#</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nasal</td>
<td>#m, m, m</td>
<td>n, n, n#</td>
<td>n, n, n#</td>
<td>n, n, n#</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>m#, m#</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trill</td>
<td>r, #r</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tap or Flap</td>
<td>r</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fricative</td>
<td>#f, #f, f</td>
<td>θ, θ#</td>
<td>#s, s, s#</td>
<td>#s, #s, s</td>
<td>#ʃ, #ʃ, #f</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>#f, f, #v</td>
<td>v</td>
<td>#z, #z, z#</td>
<td>#z, #z, z#</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lateral Fricative</td>
<td>θ, θ#</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Approximant</td>
<td>#j, #j, j</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lateral Approximant</td>
<td>l, l#</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

995
Phonetic Inventory Data Sheet-Broad

Question ID: g.

Vowels:

<table>
<thead>
<tr>
<th></th>
<th>front</th>
<th>central</th>
<th>back</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>unrounded</td>
<td>rounded</td>
<td>unrounded</td>
</tr>
<tr>
<td>high</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>tense</td>
<td>i(19)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>lax</td>
<td>i(32)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>mid</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>tense</td>
<td>e(12)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>lax</td>
<td>e(8)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>low</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>tense</td>
<td>æ(11)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>lax</td>
<td>a(20)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Consonants:

<table>
<thead>
<tr>
<th></th>
<th>Bilabial</th>
<th>Labio dental</th>
<th>Dental</th>
<th>Alveolar</th>
<th>Post alveolar</th>
<th>Retroflex</th>
<th>Palatal</th>
<th>Velar</th>
<th>Uvular</th>
<th>Pharyngeal</th>
<th>Glottal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plosive</td>
<td>p(14), b(13)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Affricate</td>
<td>tf, dg(4)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nasal</td>
<td>m(22)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trill</td>
<td>r(3)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tap or Flap</td>
<td>r(6)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fricative</td>
<td>f(11), v(10)</td>
<td>θ(2)</td>
<td>s(44), z(8)</td>
<td></td>
<td>f(9)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>h(7)</td>
</tr>
<tr>
<td>Lateral Fricative</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Approximant</td>
<td>j(66)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>j(4)</td>
</tr>
<tr>
<td>Lateral Approximant</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>w(6)</td>
</tr>
</tbody>
</table>

996
February 11, 2009

Geremy Freeman
Department of Modern Languages & Classics
College of Arts & Sciences
The University of Alabama

Re: IRB # 09-OR-040 “Experimental Methods in Phonosemantics”

Dear Mr. Freeman:

The University of Alabama Institutional Review Board has granted approval for your proposed research.

Your protocol has been given expedited approval according to 45 CFR part 46. Approval has been given under expedited review category 7 as outlined below:

(7) Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies.

Should you need to submit any further correspondence regarding this proposal, please include the assigned IRB application number.

Good luck with your research.

Sincerely,

Carpantato T. Myles, MSM, CIM
Director & Research Compliance Officer
Office for Research Compliance
The University of Alabama