THE POWER OF POWERPOINT IN LISTENING
AT BEGINNING LEVELS OF SPANISH

by

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A DISSERTATION

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ABSTRACT

This study took place during the Spring and Fall semesters of 2008 at the University of Alabama in two Elementary Spanish classes. Using a combination of the findings reported by Mueller (1979), Bransford and Johnson (1972), Kim (2003), U. K. Chung (1994), and others as a base, this research aimed to extend the findings of previous studies on visually supported listening. It also aimed to compare empirically the effect of visually enriched PowerPoint slides (VEPP) on students’ listening outcomes using control and treatment conditions for comparison. This study was also interested in whether gender affected listening outcomes with and without VEPP.

This study presented quantitative evidence for the use of VEPP for pre-, during-, and postlistening activities at elementary levels. A mixed ANOVA determined that there were statistically significant differences between scores on listening exercises in the control and treatment conditions. The results suggest that students who were in the treatment condition (with VEPP) performed statistically significantly better. There was no main effect for gender, but an interaction revealed that females were at a disadvantage in comparison to the males in the control condition (non-VEPP); the treatment (VEPP) appeared to help them to catch up with the males in listening comprehension. Finally, qualitative information coming from participant surveys revealed that they preferred and felt less anxious with the use of VEPP for pre-, during-, and postlistening activities.
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## LIST OF ABBREVIATIONS AND SYMBOLS

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>VEPP</td>
<td>Visually Enriched PowerPoint</td>
</tr>
<tr>
<td>DCT</td>
<td>Dual Coding Theory</td>
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<tr>
<td>df</td>
<td>Degrees of freedom</td>
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<tr>
<td>EFL</td>
<td>English as a Foreign Language</td>
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<tr>
<td>ESL</td>
<td>English as a Second Language</td>
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<tr>
<td>FL</td>
<td>Foreign Language</td>
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<tr>
<td>FLES</td>
<td>Foreign Language in the Elementary School</td>
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<td>L1</td>
<td>First language</td>
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<td>L2</td>
<td>Second language</td>
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<tr>
<td>m</td>
<td>Mean</td>
</tr>
<tr>
<td>p</td>
<td>Level of statistical significance</td>
</tr>
<tr>
<td>t</td>
<td>Computed value of t test</td>
</tr>
<tr>
<td>VEPP</td>
<td>Visually Enriched PowerPoint</td>
</tr>
</tbody>
</table>
CONTENTS

ABSTRACT .................................................................................................................................... ii

ACKNOWLEDGMENTS ............................................................................................................. iii

LIST OF ABBREVIATIONS AND SYMBOLS .......................................................................... iv

LIST OF TABLES ......................................................................................................................... ix

LIST OF FIGURES ......................................................................................................................... x

1. INTRODUCTION .....................................................................................................................1
   Purpose of the Study ..................................................................................................................5
   Research Questions ..................................................................................................................6
   Significance of the Study .........................................................................................................10
   Definition of Terms ................................................................................................................10
   The Role of Visual Support in Listening .................................................................................15

2. LITERATURE REVIEW ........................................................................................................23
   Definition of Listening and Cognitive Processes .................................................................23
   Tracing Listening History ....................................................................................................24
   Current Focus on Listening Research ...................................................................................25
   Theoretical Approaches Related to Visually Supported Listening ........................................27
      Schema Theory and L2 Listening Comprehension ...........................................................27
      The Dual Coding Theory ................................................................................................28
      Generative Theory of Multimedia Learning and Its Connection with Visually Supported
      Listening .............................................................................................................................30
Comprehensible Input Hypothesis

The Use of PowerPoint

PowerPoint Pros

PowerPoint Has Its Critics

Empirical Studies in the Use of PowerPoint in Classes

Visually Supported Listening Studies

Research on Video in Listening Comprehension

Research on Still Pictures, Illustrations, Graphics, and Overhead Projector Pictures in Listening Comprehension

Research on Multiple Presentations and Combinations in Listening Comprehension

Research on Multimedia Annotations in the Computer for Listening Comprehension

What is Missing in Visually Supported Listening

Anxiety and the Role of Visual Support in Listening Comprehension

Gender in L2 Listening Comprehension

3. METHODOLOGY

Participants

Reasons for Choosing this Specific Population of Students

Goals for Novice Levels in Foreign Language Listening

Research Method

Listening Activities for the Control and Treatment Conditions

Schedule of Activities

Description of Stimulus Materials: Visually Enriched PowerPoint Slides for the Treatment Condition

Data Analysis and Scoring Procedures for the Pilot and Main Study
4. RESULTS AND DISCUSSION .................................................................102
   Introduction ..........................................................................................102
   Instruments ..........................................................................................102
   Participants ..........................................................................................103
   Statistical Analysis .............................................................................104
   Discussion of Results ..........................................................................106

5. SUMMARY, SUGGESTIONS, AND CONCLUSIONS .........................110
   Overview ..............................................................................................110
   Research Questions ..............................................................................111
   Summary of Findings ..........................................................................112
   Limitations of the Study ......................................................................114
   Suggestions for Future Research .......................................................116
   Conclusions .........................................................................................117

REFERENCES ...................................................................................120

APPENDIXES ....................................................................................131
A: IRB APPROVAL ..............................................................................132
B: SAMPLE OF A VISUALLY ENRICHED POWERPOINT FROM CHAPTER 2 134
C: PLACEMENT REQUIREMENTS ..........................................................137
D: SAMPLE LISTENING ACTIVITY FROM ELEARNING .......................139
E: LISTENING PRETEST .......................................................................142
F: LISTENING ACTIVITIES FOR THE SEMESTER ..............................145
G: PARTICIPANT SURVEY .................................................................158
H: PARTICIPANT SURVEY ABOUT THE USE OF VEPP FOR LISTENING ACTIVITIES IN CLASS ..........................................................................................................................................................160
LIST OF TABLES

1. Schedule for Treatment and Control

2. Quasi-Experimental Schedule for the Pilot and Main Study: Spring 2008-Fall 2009
LIST OF FIGURES

1. Response to survey question regarding the usefulness of VEPP in lessening anxiety prior to a listening comprehension exercise ...................................................106
CHAPTER 1

INTRODUCTION

In real life a listener usually has the advantage of visual cues that establish both the context and the respective roles of the participants in a conversation. In a hotel check-in encounter, one would see a hotel foyer, a guest with a suitcase standing on one side of a desk, and a receptionist (possibly in uniform) standing on the other. According to Field (2008), our understanding of the conversation might be considerably assisted by facial expressions and visual cues. None of this is available when the learner is listening to an audio recording in an artificial environment such as the classroom. Recognizing the issue, listening teachers increasingly make use of visual material on DVD or video to compensate the weaker listeners in the class and also to create a more realistic environment. That is why it seems reasonable to include some sort of visual stimulus to accompany listening activities, because, among other reasons, most real target-language-use situations include visual stimuli, and it seems unreasonable to have students stare at nothing (e.g., a piece of paper and the CD player) while they do their listening activities.

The idea of conducting research on the effects of visually supported listening on comprehension activities in class came from different sources. The first source was the researcher’s introduction (in 2002) to the visually supported listening test that TOEFL on computer uses to test international students’ listening prior to entering American Universities. Visual support for TOEFL came in the form of static photos of the speakers taking part in a conversation. The person taking the listening test listened to the conversations and lectures while
static photos of the speakers were shown on the computer monitor. To date, the TOEFL on computer listening test still includes visual support for students.

The second source was the researcher’s personal experience as a graduate teaching assistant of elementary levels of Spanish in a Southern university. The researcher was interested in the impact and role of visual support for grammar, writing, and reading activities, but especially for listening because it seems to continue to be a skill overlooked by language instructors, according to the L2 literature in listening. Additionally, although there were many claims and beliefs in the literature about the facilitative role of visual elements in aiding learners’ comprehension, few empirical studies were available to support those claims. That is why a short oral survey was conducted in Spring 2008 about what techniques Spanish graduate teaching assistants and instructors used for listening activities in class in order to develop and promote students’ listening comprehension. Graduate teaching assistants and instructors from this Southern university were asked if they really did listening activities, and if so, why and how. They revealed different ideas and positions; some said they did not have enough time to do listening in class; others argued that it is enough for students to listen to the teacher and other students in class; and others said that students have the CDROMs in their books, which they can use at home to do their own listening. Finally, some of them reported that they concentrated more on speaking activities in class.

Recent research by Optiz and Zbaracki (2004) explains some of the reasons and fallacies behind why instructors do not consider listening activities a necessary topic for instruction. The researchers pointed out the following: (1) Some instructors believe that listening develops naturally; (2) there is a lack of understanding about what listening is and isn’t; (3) listening cannot be taught; (4) the curriculum is already crowded; (5) practicing teachers were not taught
how to teach and do listening activities; (6) if it were important, it would be addressed in the curriculum; and finally (7) it is not a hot topic. An interesting fact revealed in listening research is that “listening is the most frequently used language skill. Of the time most individuals devote to communicating, 45% is spent listening, 30% speaking, 16% reading, and approximately 9% writing” (Nichols & Stevens, 1957, cited in Elkhafaifi, 2005, p. 505). Elkhafaifi also pointed out that in today’s society people are exposed to different types of communication technology (radio, television, satellite broadcast, etc.), and therefore individuals must be prepared to receive and process information through listening more than ever before. Rivers (1988) had already confirmed that the average adult spends 45% of his or her time listening, with another 11%-16% devoted to reading. Only 30% of an adult’s time is spent speaking, and only 9% is devoted to writing. Additionally, Vandergrift (1999) said that an initial emphasis on listening comprehension is important as a more natural way to learn a language because listening comprehension requires recognition knowledge, whereas speaking skills require retrieval knowledge. Thus, listening comprehension should be taught and practiced before speaking skills are developed. This is because students have difficulty in listening for accurate meaning and in learning to produce correct sounds at the early stages of language learning. Based on this previous research, the importance of developing listening skills is clear.

Most of the research done on second/foreign language listening concludes that listening has been the “Cinderella,” the “forgotten skill,” the “neglected skill,” the “overlooked skill,” the “passive skill,” the “overestimated skill,” and so on, in language learning and communication. It seems that more time has been devoted to researching other skills. Although still somewhat neglected, listening now plays a more central role in language teaching. For example, in the last two decades, communicative- and proficiency-oriented approaches in foreign language teaching
have placed increasing importance on listening comprehension as a methodological concern. According to Feyten (1991), “language acquisition is based on what we hear and understand (decoding messages)” (p. 175). She cited Dunkel (1986), indicating that “the key to achieving proficiency in speaking is developing proficiency in listening comprehension” (p. 100). Morley (2001) also pointed out that “during the 1980s special attention to listening was incorporated into new instructional frameworks….Throughout the 1990s, attention to listening in language increased dramatically and aural comprehension became an important area of study” (p. 69). Finally, she added that “much work remains to be done in both theory and practice” (p. 69).

According to Celce-Murcia (2001), listening “has been neglected with regard to both its place in second or foreign language teaching methodology and the development of techniques and materials for use in the classroom” (p. 67). One of the many reasons for this situation is that listening and reading skills were seen, and in some cases, continue to be seen, as passive skills, especially in the foreign language setting where there is limited time for students to use and practice all of the skills properly.

Another source of the neglect of listening is rooted in the treatment of the four skills (listening, speaking, reading, and writing) as separate segments of a curriculum, although there is a recent trend toward skills integration (Brown, 2001). One example of this situation is that some foreign language textbooks tend to focus on one or two skills, sometimes to the exclusion of the others (Brown, 2001). Finally, one more factor that contributes to the neglect of listening has been the lack of appropriate materials available to instructors who wish to emphasize listening skills (Long, 1987). For example, in the foreign language setting, most Spanish textbooks for basic levels include CD ROMs of conversations or dialogues for listening purposes, but they rarely contain supporting materials (PowerPoint slides, transparencies, pictures, drawings, videos...
with short conversations in different contexts such as a supermarket, an airport, a hospital, etc.). Thus, the study of visually supported listening is practical research that may lead to significant findings for listening classroom implementations across the curriculum, in particular, in the area of the effects of visually enriched PowerPoint presentations for listening in a classroom experiment, which is the focus of this dissertation.

Purpose of the Study

Traditionally, texts for L2 listening have been delivered through the auditory channel with a tape recorder or with the teacher reading the listening text without any additional materials or support. The purpose of this dissertation is to provide implications and implementations for classroom teaching of L2 listening comprehension using visually enriched PowerPoint (VEPP from here on) for pre-, during-, and postlistening activities. Listening materials used in the classroom should generate interest so that listening will be facilitated at beginning levels. In addition, instruction should include some prelistening activities to activate students’ background knowledge of the topic of the conversation. Therefore, instead of having students immediately participate in L2 listening activities without any preparation, teachers could enhance learners’ familiarity with the listening material by engaging students in activities such as class discussion, brainstorming, and vocabulary study supported by VEPP.

Additionally, the purpose of providing support for low-level Spanish learners is not simply to help them get better listening grades. It is rather to encourage them to persist in their efforts to develop their listening proficiency in Spanish. The present investigation is also viewed as an extension of previous studies in visually supported listening by Bransford and Johnson (1972), Mueller (1979), and Kim (2003). It also continues the experimentation into understanding the impact of visuals, in this case visually enriched PowerPoint, on listening.
comprehension. Finally, the study is also aimed at contributing to the body of literature related to L2 visually assisted listening, to investigate if there is more empirical evidence to support the consensus among language researchers that nonverbal information is useful for L2 listeners in constructing meaning from a spoken text, and how it may affect students’ outcomes. This study was approved by the IRB under Protocol # IRB #07-OR-292, and it was called “The Effect of Visually Enriched PowerPoint on Students’ Listening Outcomes at Beginning Levels of Spanish” (see Appendix A).

Research Questions

This study attempted to investigate the potential effects of visually enriched PowerPoint on students’ listening outcomes. The researcher designed PowerPoint presentations for the prelistening stage, the during-listening stage, and the postlistening stage. These pre-, during-, and postlistening activities with visual support aimed to help L2 listeners prepare for, focus on, and evaluate their processing of listening material. The visually enriched PowerPoint presentations were utilized in a treatment (VEPP) versus a control (non-VEPP) condition during a period of two semesters (Spring 2008 for the pilot study and Fall 2008 for the main study). The VEPP slides in the pre-, during-, and postlistening stages contained pictures and photographs, depending on the listening activity proposed by the textbook (Tú dirás, 4th ed.). Most of the visuals were taken from the Internet (Google), whereas the pictures of the real speakers of the different conversations were scanned from the Spanish textbook. Each listening activity was taken from the textbook and took 15 to 25 minutes of class time. These listening activities were part of the aural practice done in class to develop students’ listening proficiency and were not taken into consideration when calculating students’ grades. There was a total of six listening activities (chapters 1 through 6 of the textbook). The researcher designed a prelistening pretest
that included some of the vocabulary and grammar from all six chapters to determine if there were any differences in the aural proficiencies of the two classes before treatment with VEPP. Finally, this study involved students in two college-level elementary Spanish classes who alternated being in the experimental and the control conditions, and who had several factors in common: age, proficiency level, interests, teacher (the researcher), first language, foreign language setting, Spanish textbook, and hybrid course setup (in-class and online combination) in a coordinated language program.

The PowerPoint presentations for the treatment condition were prepared and designed by this researcher according to Peterson’s (2001) suggestions, which are in essence to identify the who, what, where, and when of the action that takes place and the spatial relationships involved before students hear the words corresponding to the listening activity. Appendix B contains a sample of a VEPP from chapter 2. All the PowerPoints used in this study were designed and created by the author of this dissertation. The use of VEPP in the different listening stages is explained in detail as follows:

*Visually Enriched PowerPoint Slides for the Prelistening Stage*

The activities for the prelistening stage included specific words, phrases, or content encountered in the listening material. These activities included VEPP slides with different pictures relating to the specific activity that were intended to get the listeners to start thinking about the topic in general and activate their previous knowledge about the conversation’s topic. In short, the prelistening stage was meant to develop learners’ curiosity about how all the phrases and words they heard fit together in context (Peterson, 2001). The prelistening activities from the Spanish textbook already included a written introductory situation to the conversation in order to set the context. The treatment was adding VEPP to bring awareness of, attention to, and interest
in the audio material to come. An example of an activity at this stage can be found in Appendix B.

**Visually Enriched PowerPoint Slides in the During-Listening Stage**

During this stage students were listening and watching the VEPP on the screen. In general students listened two or three times to a conversation depending on their needs. The first time students only listened and looked at the screen (for the treatment condition). The second time they began to answer the listening comprehension questions. Finally, the last time students listened again and confirmed their answers. The purpose at this stage was to set the context of the conversation by making connections between the speakers and providing more memorable, life-like listening situations. An example of an activity at this stage can be found in Appendix B.

**Visually Enriched PowerPoint Slides at the Postlistening Stage**

This stage helped students to clarify their comprehension and confirmed their assumptions about what they had just heard. This activity included VEPP slides with the content, context, and vocabulary of the corresponding listening activity. The main purpose of these PowerPoint slides was the confirmation of what the students heard. An example of an activity at this stage can be found in Appendix B. Students were not allowed to change their answers to the correct ones, after checking the right answers with the teacher in class, to avoid an inaccurate representation of what students actually understood when doing the activity in the control and in the experimental conditions. Written feedback was given to students after all answer sheets were hand graded and returned to them at a later time.

In designing the VEPP it was assumed that for visuals to support retention, they must typify the topic that they illustrate. To be effective, they must be geared to the topics or situations of the different listening activities from the book; otherwise the effectiveness of the visual may
be lost. These are some of the assumptions behind the theory of dual coding (Paivio, 1975), which will be discussed in more detail later.

In the control condition (non-VEPP) participants followed the same procedure, except that they did not have any type of visual support or VEPP.

After all listening activities for a given chapter were completed, the researcher compared the effects of VEPP on student outcomes in the treatment and the control conditions. The scores of each listening exercise (one per chapter) were the ones that the researcher used to compare the experimental and the control conditions. Therefore, collected data comparing student outcomes allowed the researcher to determine and measure the possible influence and effectiveness of VEPP on participants’ listening outcomes. This study sought to answer the following research questions:

1. What are the effects on students’ listening outcomes (listening comprehension grades) when VEPP and non-VEPP are presented during the pre-, during-, and postlistening exercises?

2. Do males and females differ in their listening comprehension scores in both conditions (VEPP and non-VEPP)?

3. What did students report about anxiety with and without VEPP?

Based on the research questions and the literature review, the following hypotheses were formulated:

H1: Participants’ scores from the treatment condition (VEPP) will be higher than those in the control condition (no VEPP, audio only).

H2: There will be gender differences on listening scores.
H3: Students will report listening anxiety to be lower when they have VEPP for their
listening activities.

Significance of the Study

The aim of this study was to provide empirically tested insights into the role of VEPP in
listening activities for beginners in Spanish class. First, this study will help language researchers
and Spanish educators understand whether visual techniques/presentations such as VEPP slides
may positively influence listening outcomes in Spanish elementary classes. If the findings
demonstrate that VEPP positively affects students’ listening outcomes, then this information
could impact and contribute to future curriculum design in beginning level Spanish classes.
Second, the results arising from this study will provide Spanish language programs and teachers
more valuable, theoretical, and practical information about visually supported listening with
PowerPoint and listening in general.

Definition of Terms

The following terms are defined according to their use in this study.

*ACTFL (American Council of the Teaching of Foreign Languages).* This is the most
widely recognized organization in the teaching language field. ACTFL provides a detailed
description of the kinds of communication functions, range of vocabulary, degree of accuracy,
and flexibility that learners of a language are able to control at different levels in each of the four
major language skills (listening, speaking, reading, and writing). These descriptions can be
helpful in setting language learning goals, in planning learning activities, and in evaluating
proficiency (ACTFL Proficiency Guidelines, 1983).
Advance organizer. These pedagogical devices activate relevant background knowledge to facilitate learning and retention of new material. These pedagogical aids may include pictures, titles, topic summaries, prequestions, and the like (Omaggio, 2001).

Bottom-up processing view of listening. This process involves identifying the sections of the speech signal that correspond to given phonemes and words (Thomas, 2004).

CALL. CALL, or Computer Assisted Language Learning, is a growing field during the past years in ILT (Information and Learning Technology) with a wide selection of applications (multimedia computing, the Internet, and the World Wide Web). In other words the computer is used as a vehicle for delivering instructional materials to the student (Higgins, 1988).

Cognitive and metacognitive strategies. Cognitive strategies refer to the steps or operations used in learning or problem solving that require the direct analysis, transformation, or synthesis of learning materials. According to Hismanoglu (2000), Rubin identified six main cognitive learning strategies that contribute directly to language learning: clarification, verification guessing/inductive inferencing, deductive reasoning, practice, memorization, and monitoring. On the other hand, metacognitive learning strategies are used to oversee, regulate, or self-direct language learning. They involve various processes such as planning, prioritizing, setting goals, and self-management (Hismanoglu, 2000).

Comprehensible input. Comprehensible input has been described as i +1 (Krashen, Terrell, Ehrman, & Herzog, 1984), that is, material that is familiar to the student (i) plus a certain amount of unfamiliar material whose meaning can be induced from the context (1). When students are presented with input at the i +1 level, they make use of “key vocabulary items (nouns, verbs, adjectives, and sometimes adverbs)” (1984, p. 266) that are familiar to them in order to understand the global meaning carried by the input. Context (linguistic and
nonlinguistic) serves to clarify the meanings of unfamiliar words that can subsequently become part of the student’s familiar vocabulary (Call, 1985).

*Contextual visual.* This includes images that provide additional support to help listeners understand the content of a spoken passage.

*Test construct.* This refers to a hypothesized mental ability that cannot be directly observed or measured in language testing, for example listening ability. Language tests attempt to measure the different constructs that underlie this specific language ability.

*eLearning.* This is the name given by the University of Alabama to the new course management system (CMS) that permits instructors to place course materials such as syllabi, handouts, lecture notes, evaluations, quizzes, webquests, cyberjournals, and videos on the Internet.

*Elementary Spanish level 101.* This is an introductory course to the Spanish language and culture. Spanish 101 is the first of a two-course sequence (101 and 102) of Elementary Spanish. The main objective of this course is to familiarize students with Spanish language and Hispanic cultures as well as to provide ample opportunities for language practice and cultural awareness. Students with 2 years or more of high school Spanish who did not place into Spanish 101 may not enroll in this course. This course has been designed for nonnative speakers. Only students with little (took Spanish in High School more than 4 years ago) or no previous Spanish study can enroll in this course.

*FLES program.* This acronym refers to Foreign Language in the Elementary School.

*Input.* “Input is the language that a learner hears (or reads) that has some kind of communicative intent. By communicative intent we mean that there is a message in the language
that the learner is supposed to attend to; his or her job is to understand, to comprehend the meaning of the utterances or sentence” (Lee & VanPatten, 2003a, pp. 25-26).

*Mental representations.* According to fundamentals of cognitive psychology, this is an unobservable code for information. One’s ability to perceive, comprehend, learn, decide, and act depends on mental representations. For example, think about a robin. The mental representation of a robin codes information about the bird’s shape, size, and coloring, and perhaps even a distinctive song. A person’s or artist’s drawing of a robin is an external representation of the real thing (Kellogg, 2007)

*Multimedia annotations.* This refers to materials used on a computer. These annotations may entail a combination of video, text, images, and sound.

*Non-VEPP.* Interpretation of this phrase in the dissertation is no visually enriched PowerPoint included as part of the condition.

*Recognition knowledge.* When listeners identify linguistic elements—vowels, consonants, words, sentences—to do the construction of meaning.

*Retrieval knowledge.* When in normal conversation, speakers translate thoughts into words at high speed. To enable this speed, the retrieval of distinct types of linguistic knowledge has to be orchestrated with millisecond precision.

*Schemata or background knowledge.* Banks of information that the student brings with him/her (Brown, 2001).

*Target language.* This refers to “a language someone is studying and learning in addition to the first language” (Ross, 2003, p. 12).
Technique. Brown (2001) defined *techniques* as all tasks and activities that either teachers or learners perform in the classroom. He added that they are always planned and deliberate. In other words, they are the product of a choice made by the teacher.

**TOEFL:** The Test of English as a Foreign Language evaluates the ability of an individual to use and understand English.

**Top-down processing view of listening.** This model suggests that the listener actively constructs (or, more accurately, reconstructs) the original message of the speaker using incoming sounds as clues. In this reconstruction process the listener uses prior knowledge of the context and situation within which listening takes place to make sense of what he or she hears (Nunan, 1997).

**Videotext.** The terms *videotext* and *audio-only text* are used to describe the input provided to test takers during L2 listening test tasks. A videotext delivered through the medium of video uses both aural and visual channels to deliver the input to the test takers, and thus the test takers both see and hear the speakers. An audio-only text uses only the aural channel to deliver input to the test takers.

**Visual support.** In this study, visuals are synonymous with contextual visuals, visual cues, pictorial stimuli, illustrations, pictures or drawings, and visually enriched PowerPoints.

**Virtual day.** A virtual day takes place every Tuesday and Thursday for Spanish 101, 102, and 103 classes and is devoted to online activities housed in eLearning. Students are not required to do their virtual day work at a specified time on that day nor are they required to do their work in the department’s Language Resource Center. All of the activities for Virtual Days must be completed during the 24-hour time period, which begins at 12:00 a.m. Tuesday/Thursday and ends at 11:59 p.m. Tuesday/Thursday.
**VEPP.** This is the acronym for visually enriched PowerPoint (this term will be used in the dissertation).

**The Role of Visual Support in Listening**

According to Wagner (2006), researchers are becoming more aware and interested in the role of nonverbal communication in listening comprehension (Baltova, 1994; Buck, 2001; Gruba, 1997). They have agreed that nonverbal components are an essential part of L2 listening ability, and that L2 listeners are able to more easily create meaning of a spoken text that includes nonverbal input than a spoken text that does not include nonverbal input. According to their research, the inclusion of nonverbal elements in listening could greatly assist the process of comprehending aural input in most listening situations. Therefore adding video and visuals to the teaching of listening comprehension reflects natural human behavior; in real-life conversation, people not only listen, but they also process the visual information accompanying the verbal message. However, there are some situations where there is no way to include this type of support, for example, telephone conversations, listening to the radio, and listening to loudspeakers. Another strong argument to support the inclusion of visual support to assist listening tasks is the addition of construct validity (the degree to which a test measures what it claims, or purports, to be measuring; Brown, 1994, p. 231) on the assessment of listening. According to Wagner (2006) the presence of visual support would allow L2 listeners to make more valid inferences, and this could lead to improved L2 listening performance. Additionally, visuals may help satisfy the diverse needs and styles of auditory, visual, and kinesthetic learners in any language setting.

However, there are some researchers (Chan, 2008; Glenn, 1989; Tuffs & Tudor, 1990; Vanderplank, 1988; Vernon, 1955 ) who do not believe and support the positive role of visual
support for listening activities and listening tests in class. These studies will be described in brief later.

Shin (1998) and Wagner (2006) agreed that if L2 listeners have the opportunity to anticipate and see the speakers of the conversation and their relationship before listening, this preview could allow listeners to make more accurate initial hypotheses about speakers’ roles and the context of the speaking situation. Additionally, Ko (1998) also indicated that making use of visual support for listening activities can foster students’ confidence in comprehending the main idea of the conversations and they can better focus on processing the language input.

In the particular case of beginning level students in foreign language, listening activities have tended to be difficult tasks to facilitate. This is because beginning students tend to try to understand messages using linguistic features. For them, each word is as important as the next, and they often get lost trying to pay attention to everything (Long, 1987). However, it is important to keep in mind and remind these students that communication not only involves linguistic elements but also nonlinguistic features that may facilitate their comprehension. According to U. K. Chung (1994), Dunkel (1986), Rivers (1981), and Ur (1984), messages are composed of oral information and paralinguistic information provided by speakers and visual information set in a conversational environment. Therefore, more empirical research should be conducted to explore if this nonlinguistic information really impacts and influences students’ listening comprehension in a positive way. Some studies showed that listening comprehension is facilitated by a number of factors, such as presenting contextual visuals, preteaching vocabulary, summarizing sentences, asking questions, and so on (Mueller, 1979; Rubin, 1990; Secules, Herron, & Tomasello, 1992). Krashen (1985) also stated that several studies have shown that “when context is added subjects’ understanding of a text improves” (p. 23). This context can take
the form of a picture or providing a short title or description (Hudson, 1982; Mueller, 1979; Omaggio, 1979; all cited in Krashen, 1985). Further, according to Kim (2003), “most of the studies show that listening comprehension is improved more when contextual cues and supplements (still, movable pictures and headlines) are presented in advance of listening to the spoken text” (p. 2).

Celce-Murcia and Hilles (1988) indicated that pictures are especially useful with beginning and low-intermediate learners, who have trouble understanding long or complicated verbal cues. They added that “interesting pictures or entertaining pictures motivate students to respond in ways that more routine teaching aids, such as textbook or a sentence on the board, cannot” (p. 73). Finally, they concluded that pictures are a very effective resource for getting students to match form with meaning at low intermediate levels.

Teng (1994) also pointed out the positive role of visually supported listening according to the results of an experimental study that she conducted in Taiwan with EFL students in high school. She said that “beginners are very likely to give up listening or to listen without understanding. Having well-developed cultural schemata and well-designed visuals cues, the EFL learners can get additional help for comprehension to compensate for their limited L2 linguistic knowledge” (pp. 546-547).

Buck (2001) pointed out that since technologies have become available, visual and audio are now being promoted together. He stated that visual information is an important variable in language comprehension because it serves as a supplement to the linguistic information, and it also serves to define the context in which the spoken message will be interpreted. However, he said, more research is clearly needed concerning “whether visual support makes a difference to comprehension, and whether any differences are construct-relevant” (pp. 253-254). Additionally,
Swaffar and Valtten (1997) pointed out that although the study of listening comprehension and multimedia research is still in its infancy, empirical studies of children and FL learners support the idea that multisensory media such as videos help students to read visual as well as auditory messages. So when compared with students who have only print or auditory texts, learners supplied with audio-visual materials understand and remember more.

In a recent teleconference (November 27, 2007), Leavitt argued that using visuals can be beneficial because we may use them to make our students think in a meaningful way. He pointed out that they are beneficial because they can help to capture students’ attention, generate interest, organize information in their minds, and activate students’ prior knowledge. He concluded that visuals help our students to encounter new information and integrate it into existing knowledge. However, he warned that one must be careful with the correct use of visuals in order to avoid distracting students with providing information and visuals that they may not need.

Bachman (1990) and Bachman and Palmer (1996) also pointed out that if we are looking to assess a person’s L2 listening ability in a communicative language ability framework, such as the one we have in the current study, then it would be necessary to include nonverbal (and nonlinguistic) components of spoken communication in the construct definition.

Chicouene (1974) also discussed the value of fixed images in audiovisual listening. He said that there are two different functions of still pictures: (a) the representation of the situation as it arises, and, in particular, the representation of the characters that appear in the dialogue; and (b) the translation into pictures of words spoken by the speakers. Chicouene stated that the real area of superiority of the picture is the relationship between the elements (speaker, listener, statement, and situation). With the use of VEPP, we argue that this relationship could be simulated.
Aleman-Centeno (1982) also emphasized that research has long indicated that providing visual cues in second language teaching is one of the preferred tools for converging meaning, aiding retention and reducing cognitive load. She added that indeed, the field dependency of some individuals makes it necessary to provide them with visual references in addition to auditory cues before they can successfully comprehend a spoken message in the second language. (p. 21)

Brown and Yule (1983) also agreed that there are different elements that account for listening comprehension, including visual aids to support the text-pictures, diagrams, and so on. They summarized and said that the speaker, the listener, the content, and the support are the basic elements where instructors should give emphasis during their instruction in order to facilitate students’ listening comprehension.

Rost (2002), when speaking of “integrating non-verbal cues,” stated that not all input that is used by listeners is oral. He said, “Indeed, in many situations, a great deal of information is communicated independently of the language that is spoken” (p. 36). He also said that because of the prevalence of visual information, particularly with the advancing use of multimedia, it is important to understand how visual information enhances linguistic input, distorts or replaces it, and sometimes even contradicts it. Finally, he added that visual signals must be considered as “co-text,” an integral part of the text that the listener is able to utilize for interpretation.

On the other hand there are some researchers who have rejected the effectiveness of visual support (Glenn, 1989; Tuffs & Tudor, 1990). They argued that visual support does not facilitate comprehension and does not offer any benefit to nonnative speakers. For example Vernon (1955) stated that providing extra linguistic information by adding pictures may do nothing; however he did not provide any empirical data to support this idea. Vanderplank (1988) also pointed out that extralinguistic cues may result in delay of development of more L1-like listening comprehension abilities, precisely because of learners’ lack of competent language
processing abilities. Chan (2008) conducted an experimental study with four classes and a total of 74 participants in China in order to investigate the effects of different types of visuals, such as pictures, diagrams, and photos of the speakers’ part, with items on listening tests in China. Two classes were from Art Design School of Zhejiang Gongshang University, whose English proficiency was low on average. The other two were the regular first-year students of Zhejiang Gongshang University, with comparatively high English proficiency. Chan’s findings suggested that instead of facilitating the test taker’s performance on listening comprehension, visuals, especially context visuals, even have debilitating effects. Chan said that there may be two reasons for this. First, the audio listening activation without visuals has been well-accepted by ESL test takers, and the sudden innovation is unconsciously rejected by them. The second is a pedagogical reason. She said that ESL teachers have seldom trained students in graphic literacy in order to activate prior knowledge structures or to facilitate comprehension of English texts, even the written ones. Finally, Ockey (2007) conducted a qualitative study to compare a series of still images to video in academic computer-based tests to determine how test takers engage with these two test modes. Using interviews and observations, Ockey suggested that the use of video as a visual support may result in measuring test takers’ abilities to use visual cues to aid comprehension. He said, “Therefore, if the construct is defined as listening without processing visual information, as has been the case with measures that have used audio-only input, then visual cues that enhance the performance of test takers are construct irrelevant” (p. 532).

A reaction to these positions against visually supported listening came from Ko (1998) and many other researchers in this field (Ginther, 2001; Kim, 2003; Li, 2003; Mueller, 1979; Rubin, 1990) who have conducted experimental studies and have been able to show the positive role of visual support in comprehension. Ko did not agree that listening comprehension should
be done using the listening faculty alone without extralinguistic support such as visual information. He argued that listening instruction has been concentrated on testing students rather than preparing them to listen to real-life situations. He added that this practice has been adopted as a result of disassociating listening comprehension practices and tests in classrooms, which have been presented in the audio mode (with a tape recorder) and with the sole purpose of classroom instruction rather than developing competence for real-life L2 language use. Ko pointed out that it therefore seems important to address such a misconception, because visual information is typically an integral part of real-life communication, contributing to the enhancement of aural comprehension. Ko clarified that there may be some occasions that require decoding and comprehending of aural input in the absence of visual information (e.g., telephone conversations), but such cases constitute only a small part of daily communication situations.

Because there seem to be different positions on the impact of visuals in listening, it may be necessary to conduct more empirical research in order to add more conclusive results and identify which type of visual support technique is more effective and appropriate for listening at beginning levels. Therefore, the present study sought to investigate the effects on students’ outcomes when VEPP slides are presented before, during, and after listening activities in class. It was hypothesized that because beginning-level students in Spanish do not have many linguistic tools available, they may need more suitable visual techniques/presentations to be able to understand messages and develop listening proficiency in a foreign language. The main reason for choosing PowerPoint slides with visual organizers is that so far as this investigator knows, there are no existing studies related to VEPP slides for listening activities in class, and additionally PowerPoint is a very common and convenient tool employed by teachers daily in their classes.
Before turning to previous studies done on visually supported listening, a definition of listening that is used in this dissertation is presented. Then a short historical background of listening skills and the current focus on listening research are presented. Following that, some cognitive processes involved in listening with visuals are described (schema theory, dual coding theory, and generative theory of multimedia and learning). Finally, a connection between the theory of comprehensible input by Krashen and visually assisted listening are discussed.
CHAPTER 2
LITERATURE REVIEW

This investigation deals with the design, development, and evaluation of visually enriched PowerPoint (VEPP) for listening activities in class and their effect on student outcomes at beginning levels of Spanish. Several studies and articles have been found to be particularly useful in clarifying the scope and purpose of this study. The theoretical foundation of this study is derived from cognitive learning theorists and linguistic theorists regarding how to enhance and facilitate the comprehension of linguistic input assisted by visual support. This chapter provides a substantial amount of literature that is closely related to the current study. The important points are highlighted.

Definition of Listening and Cognitive Processes

There does not seem to be a consensus about the definition of listening, but the definition of listening used in this research follows closely the one presented by Rubin (1990). “Listening consists of processing information which the listener gets from visual and auditory clues in order to define what is going on and what the speakers are trying to say” (p. 309).

As mentioned previously, listening is no longer considered a passive process where the listener just receives information. Brown (2001) cited Clark and Clark (1977) and Richards (1983) to describe the different cognitive and interactive processes involved in listening. First, the hearer processes what he calls “raw speech” and holds it as an “image” in his/her short-term memory. Then, the hearer also needs to identify the type of discourse and the speaker’s intentions by using different clues from the context and the content (one of those clues may be
visuals) in order to interpret the meaning of the message. Therefore, in order to interpret the speech, the hearer recalls his/her background information or schemata so that cognitive associations can be made to interpret the message. Then, the listener gives a literal and an intended meaning to the message. However, the listener needs to check for any other interpretation that is not so literal, which is sometimes difficult for the L2 learner. The listener needs to match a perceived meaning with an intended meaning. As an interactive process where many simultaneous actions occur, the listener has to decide whether the new information will be retained in short- or long-term memory. Finally, the important part of the information is retained conceptually, whereas the rest of the information is deleted.

Tracing Listening History

The following brief historical overview of language teaching theories and methodologies reveals how and in what moments listening skills began to move up in importance. According to Elkhafaifi (2005), the change of status of listening comprehension may be due to the development of communicative and proficiency approaches to language teaching over the past three decades. Until World War II, language teachers used the traditional grammar translation method. Learning a language was mainly an extension of the approach used to teach classical languages to the teaching of modern languages. Therefore, written translation from one language to another language was the goal of this method (Celce-Murcia, 2001). However, at the end of World War II, American military personnel and the government saw the need to develop oral proficiency in other languages. That is why the Army Specialized Training Program (ASTP) was developed. It was known as the army method, or audio-lingual method. This method was based on behavioral psychology, specifically habit formation, and it consisted of pattern drills, repetition, and memorization of set phrases. Language learners used conversation and pattern
drills, mostly oral, in order to be able to speak the language (Brown, 1994). Because the goal was to speak and understand a language rather than just read it or write it, listening skills became important at that time. Much use was made of language laboratories, tapes, and visuals aids (Brown, 2001). The importance of listening comprehension skills and the memorization of patterns were maintained with this method.

As a reaction to the audio-lingual method, a more cognitive, or communicative, approach to language learning began to appear. In communicative language learning, language is seen as a vehicle for communication, and listeners and readers are no longer regarded as passive; rather they are active participants in the negotiation of meaning. *Schemata, expectancies, and top-down/bottom-up processing* are among the terms used to talk about negotiation of meaning (Savignon, 2001). Listening and reading were no longer referred to as “receptive” skills, because these characteristics did not capture the nature of interactive communication. Central to the communicative approach are the theories of input (listening to comprehensible language) and output (producing language). Because the emphasis is on meaning and functions, students must be able to understand the spoken word, making listening a top priority. In other words, the notion of listening became more functional.

**Current Focus on Listening Research**

This section briefly describes where listening research is concentrated today. Rubin (1994) stated that much of current research on listening has been devoted to the factors that may influence second/foreign language listening comprehension. According to Rubin, the five major factors are as follows: text characteristics (variation in a listening passage/text or associated visual support); interlocutor characteristics (variation in the speaker’s personal characteristics); task characteristics (variation in the purpose for listening and associated responses); listener
characteristics (variation in the listener’s personal characteristics); and finally, process
characteristics (variation in the listener’s cognitive activities and in the nature of the interaction
between the speaker and listener).

Peterson (2001) pointed out that future research on listening should concentrate on
students’ proficiency levels and strategy use, saying that “we need to know more about what
good listeners do and how they learn their strategies” (p. 98). She also suggested that we need to
know more about the effects of more intensive classroom practices on bottom-up as well as top-
down processing. Finally, Peterson (2001) and Duker (1964) agreed that there is a need for more
commonly accepted measures of proficiency in SL/FL listening. They argued that this area has
been neglected, and that much research needs to be done. In other words, it is necessary to create
assessments that serve as standards in listening comprehension.

Additionally, today’s research on listening assessment points to the need to address the
importance of visuals in the making of better listening comprehension tests. For example, Buck
(2001) indicated that visual information is an important variable in language comprehension
because it helps define the context in which the spoken message will be interpreted. He added
that “the common practice of playing a disembodied recording from an audio player does not
create a very realistic listening situation” (p. 253). However, he argued that because technologies
such as videotapes, cameras, and video players have become available for providing visual
information in class, it is also necessary to know how this visual technology affects listening
comprehension; because visual information may sometimes interfere with the testing processes,
it may increase what Buck called “the cognitive load” of the test taker. He concluded, then, that
research is necessary to explore testing with visuals, with no visuals, with still pictures, and so

on. Buck also called for research on what happens when the visual information conflicts with the verbal information.

Theoretical Approaches Related to Visually Supported Listening

*Schema Theory and L2 Listening Comprehension*

Listening is primarily a cognitive activity, involving the activation and modification of concepts in the listener’s mind. As a way of referring to activated portions of conceptual knowledge, cognitive psychologists and linguists often refer to modules of knowledge as schemas (or schemata). For example, if you are listening to a news broadcast on an international conflict in Colombia, you might bring to mind numerous existing schemas about drugs, kidnapping and violence, and past history in this country. Indeed, according to Rost (2002), you will need to bring them into your memory in order to comprehend any news story.

Because comprehension involves the formation of meaning in our minds, our knowledge of the world needs to be utilized in the comprehension process. That is why cognitive researchers stated that human knowledge is organized around schemata or banks of information that people bring to mind. This theory plays an important role in reading as well as in listening comprehension. With regard to listening, schema theory allows students to construct meaning by supplying relevant background knowledge in the process of comprehension rather than by only matching the sound and meaning. In other words students might be able to make associations between what they are hearing and what they know about the topic or theme of a conversation, and in this way they might be able to predict, anticipate, or confirm what is to be heard in the upcoming listening activity (Samuels, 1984). To this end, the use of VEPP before and during listening activities may play a positive role in the activation of listeners’ background knowledge and in the comprehension process.
According to different researchers (Bacon, 1992; Cook, 1996; Teng, 1997), the use of schemata in listening comprehension is an advantage for second language learners because, first, at lower levels of language learning, students with limited or no background knowledge might have to rely solely on the imperfect or null L2 linguistics knowledge to decode the listening passage. Therefore, visual techniques (such as VEPP) and strategies for schemata activation might play a positive role for these language learners at this particular level. Second, another advantage of using schemata activation is that learners possess “scripts” (versions, models, and patterns of different real-life conversations) that might be helpful in making inferential and listening processes much easier and more accurate. Additionally, if students are aware of the situational and cultural background knowledge of the listening passages they are about to hear, their comprehension could be also enhanced. Thus, activation of schemata turns out to be an important goal for language instructors in their instructional setting. In conclusion, schema theory implies that if L2 learners are induced to use their background knowledge in comprehension, this can override the difficulty they may have in dealing with linguistic aspects of any conversation.

*The Dual Coding Theory*

One important theoretical underpinning of the positive effects of visuals on L2 students’ reading comprehension as well as listening is the dual coding theory (DCT) proposed originally by Paivio in 1971. The DCT was originally developed to account for verbal and nonverbal influences on memory, but it has been extended and used in other areas such as listening and reading comprehension as well. This theory attempts to describe how the human mind processes information. Paivio’s DCT gives equal weight and importance to verbal/linguistic processing and
nonverbal/imagery processing. Paivio stated that our minds have become very specialized in dealing simultaneously with language and with nonverbal objects.

Despite the fact that listening is perceived through a different channel than reading, this theory can further our understanding of the helpfulness of pictures for listening comprehension as well. According to Paivio (1986) the basic assumptions of this theory are that there are two systems in human cognition: a verbal system and an imagery (nonverbal-nonlinguistic) system. The verbal system processes and stores linguistic information, whereas the visual system processes and stores images and pictorial information. Paivio said that the two systems are functionally distinct, separate but interconnected, so that they can function independently, in parallel, or in an integrated manner. Regarding the separateness, the two systems are independent of each other in that one system can be active without the activation of the other, or the two systems also can be active in parallel. As for the interconnectedness, the two systems can be functionally interconnected, because activity in one system can trigger activity in the other. In other words, language can evoke imagery and vice versa. For example, a person who sees a picture of a house can recall the word *house*, and vice versa.

The value and the importance of Paivio connecting listening comprehension and visuals with DCT is that he provided a cognitive framework that shows how information from text (or spoken messages) and illustrations interplay in the human cognition, and how illustrated texts and spoken messages with pictures may be more easily stored in memory than nonillustrated text or spoken messages alone. In other words information via dual coding (visual and verbal) is believed to be easier to retain and comprehend in the learners’ mind. In this way when a person reads texts or illustrated texts, or listens to messages with pictures, verbal and nonverbal information are processed and stored, which may enhance memory. To summarize, a person’s
comprehension may be facilitated because illustrations can be a reference for language, and they may have the potential to help retain and recall important information. Students may be able to better transfer what they already know about the conversations when visual and verbal cues are presented concurrently than when visual and verbal information are presented separately. In the present study, DCT underlies the use of visually enriched PowerPoint with listening activities for beginning levels of Spanish. That is why the understanding of an oral text may be increased when spoken information is coded both verbally and nonverbally.

Dual coding theory may help listeners understand the positive effects of additional relevant verbal and nonverbal (visual) information and subsequently better help listeners comprehend aural texts because learners may be able to process information via dual coding. In conclusion, VEPP might serve as a tool to implement an aural instructional strategy to enhance listening comprehension because according to Paivio pictures are more likely to activate both coding systems upon processing than words, as they are coded twice, both as images and as their corresponding verbal labels. Additionally, he added later that it is faster to recall information in the nonverbal system (pictures) than in the verbal system because again the learners access information (nonverbal and verbal) simultaneously. There is a good deal of empirical evidence in support of Paivio’s theory (Beagles-Ross & Gat, 1983; Hayes, Kelly, & Mandel, 1986; Li, 2003; Nugent, 1982).

Generative Theory of Multimedia Learning and Its Connection with Visually Supported Listening

This theory is also related to cognitive memory models that are used for describing how information processing takes place in students’ minds. It was proposed by Mayer between 1991 and 2001, but it is based on Paivio’s dual coding theory. The main claim of this theory is that the use of visuals and verbal annotations in a multimedia environment (ranging from motion pictures
to computer-based tutoring systems) may assist listening comprehension in a second language and even in the acquisition of vocabulary from aural texts. The idea is that during the listening process students might select from the material available and then they might construct referential connections between verbal, visual, and aural representations, providing more retrieval routes to the information they are listening to in order to recall vocabulary words and comprehend the passage.

The difference between Paivio’s and Mayer’s theories is that Paivio’s does not necessarily claim that the use of multimedia is a requirement for verbal, visual, and aural connections to happen on students’ minds.

To summarize, based on Paivio’s DCT and Mayer’s generative theory of multimedia learning, people and their cognitive mechanisms are able to organize visually presented material such as VEPP and auditorily presented materials (the listening activities in class) “into coherent mental representations, build referential connections between these mental representations and finally integrate them with one another into the mental model they build for the listening text” (Li, 2006, p. 53).

*Comprehensible Input Hypothesis*

The argument that comprehensible input alone provides the route to second/foreign language acquisition (Krashen, 1980) is far from being generally accepted by the research community. Nevertheless, teachers and researchers agree that aural comprehension skills are a central component of the ability to communicate effectively and properly in a second/foreign language. That is why one theoretical perspective that applies to listening and to language learning in general is the comprehensible input hypothesis (Krashen, 1980), although he seemed not to be clear about what he meant by this term. The definition adopted in this dissertation can
be found in the definition of terms section. The following paragraphs present the relationship of
the comprehensible input hypothesis to visually supported listening.

The purpose of citing Krashen is to provide more theoretical foundation about the
positive role of external contextualization (with visuals) for listening comprehension rather than
discuss and debate acquisition issues, which are beyond the scope of this dissertation. In 1985
Krashen further illustrated the importance of extralinguistic information by discussing its role in
the context of his input hypothesis. The input hypothesis claims that “humans acquire language
in only one way, by understanding messages, or by receiving comprehensible input” (p. 2). In
other words, learners should be able to understand the essence of what is being said or presented
to them, but the input need not only be words.

The input hypothesis consists of five hypotheses: the acquisition-learning hypothesis, the
natural order hypothesis, the monitor hypothesis, the input hypothesis, and the affective filter
hypothesis. In the case of the input hypothesis, it brought to the forefront a discussion of the term
comprehensible input and originated a debate over its role in second language (SL) acquisition,
as well as in SL teaching. Although I will not be adding any comment to that debate, I think that
this particular hypothesis is strongly connected to my research on visually supported listening. I
am establishing this connection because, according to Krashen (1985) and the input hypothesis,
“we are able to understand language containing unac quired grammar with the help of context,
which includes extralinguistic information, our knowledge of the world, and previously acquired
linguistic competence” (p. 2). He added that “the beginning language teachers provide context
via visual aids (pictures and objects) and discussion on familiar topics” (p. 2).

In addition to what has been mentioned previously, Krashen’s ideas also contributed to
the further development of a line of SL investigation dealing with how to make input more
comprehensible to language learners. One practical application or interpretation of comprehensible input may consist of providing students with i + 1 (as mentioned in Krashen’s input hypothesis) in the form of visual contexts that might make messages more comprehensible, especially at beginning levels. Making input comprehensible for beginning levels may go beyond the words, because it involves the presentation of background and context and also the use of effective presentation techniques. Then, with the use of context or visual cues students may enhance their knowledge of the language and make input more comprehensible for themselves via the appropriate context presented. To sum up our discussion within the framework of Krashen’s input hypothesis, one can reasonably infer that visuals for context play a vital role in supplying information necessary for creating meaning in the mind of the listener. In other words, comprehension of messages might be enhanced through the use of visuals.

Another connection between visually supported listening and Krashen’s ideas is the lowering of students’ affective filter (Dulay, Burt, & Krashen, 1982). According to these researchers the use of contextual visuals might be a way of helping the low proficiency students to lower their affective filter so that they feel less threatened and learning can proceed more effectively during listening instruction.

Lee and VanPatten (2003a) also discussed the importance of comprehensible input with the help of contextual visual cues. They said, “Incomprehensible language can suddenly become comprehensible under certain circumstances (e.g., the learner grasps the meaning because of context or a visual clue and thinks, ‘Aha! That’s what she’s saying to me.’”; p. 27). Lee and VanPatten concluded that the concept of input is perhaps the single most important concept of second language acquisition because it is not possible to think that learners can learn a language without input of some sort.
Lee and VanPatten’s (2003b) investigations into input in the classroom also indicate that teachers at beginning levels deliver simplified input by using many nonlinguistic means to make themselves understood. They pointed out that teachers use drawings, photos, diagrams, objects, gestures, and other visual aids to accompany their speech. They also stated that “these nonlinguistic means serve to anchor the input in the ‘here and now’; that is why they provide a mechanisms for making the subject of conversation concrete rather than abstract” (p. 33). They concluded “that the necessary characteristics of good input are that it be (1) comprehensible and (2) meaning bearing (carries a message that the learner attends to)” (p. 45). Therefore, the previous description from Lee and VanPatten regarding how to make comprehensible input can help us to understand how the use of visual techniques and presentations may play an important role in comprehension processes. For example, they may facilitate learners’ comprehension, especially in listening activities where abstract and mental processes are highly involved. Buck (2001) pointed out that unfortunately, ascertaining the exact role of extralinguistic cues in listeners is difficult, as the role probably varies with each listener, situation, context, and instrument that measures comprehension (e.g., tests, quizzes). However, some evidence is emerging from previous research that indicates that nonlinguistic cues often influence and impact listening comprehension. For example studies conducted by Mueller (1979), Baltova (1994), Gruba (1997), Wagner (2006), and others support the positive impact of visuals in listening. These studies and many more will be reviewed in detail later.

By emphasizing the role of comprehensible input, second language acquisition research has given a major boost to listening. As Rost (1994) pointed out, listening is vital in the language classroom because it provides input for the learner. Listening is thus fundamental to language learning. Terrell (1977), Dunkel (1986), and Feyten (1991) also recognized the importance of
listening comprehension and the benefit of promoting it first over other skills, at least in the initial phase of learners’ language development.

The Use of PowerPoint

It is becoming common that modern language instruction relies more and more on the use of technology in order to convey ideas and messages with the help of images, symbols, and sounds. A convenient and practical medium of presenting these ideas is PowerPoint. PowerPoint has become one of the most common tools used in different areas, and the foreign language field is not an exception. However, the use of PowerPoint in university classes is ubiquitous yet understudied in empirical pedagogical research. (James, Burke, & Hutchins, 2006). Adams (2006) suggested that PowerPoint supports a cognitive and pedagogical style. Additionally, PowerPoint usage among educators seems to be relatively unreflective and taken for granted. Therefore, questions have been raised about the implications of the use of this medium for knowledge dissemination in different classroom settings. The next section reviews and describes briefly research conducted in PowerPoint.

PowerPoint Pros

According to Stein (2006), PowerPoint presentations give more opportunity to engage a more modern-tech-savvy and already information-laden audience and create memorable presentations. She also pointed out that PowerPoint lends itself to topics that are better explained graphically, such as those that utilize flow charts, schematics, clip art, photographs, or video. Additionally, PowerPoint might facilitate getting ideas across to large groups. Bovee, Thill, and Schatzman (2003) explained that visuals in the form of PowerPoint can improve learning outcomes by up to 400%, as people can process visuals 60,000 times faster than text. Adams (2006) stated that teachers using PowerPoint presentations are described generally as more
organized. Additionally, she said that through PowerPoint, teachers can integrate more accurately, vividly, and rapidly text and images, such as digitized photographs, diagrams, charts, film clips, and web pages. Finally, she added that by carefully mixing and combining images and sound a presentation can appeal to a number of different learning styles and be more stimulating for students.

Loisel and Galer (2004) described PowerPoint as a “great tool because it allows for smooth presentation filled with more than just words. PowerPoint has numerous capabilities such as different colors and backgrounds for each slide, many sound effects and motion abilities, and multiple pictures with animation capabilities. Each of these techniques grabs the audience’s attention and is more memorable than just a simple lecture” (p. 5).

PowerPoint Has Its Critics

According to Yale professor Edward R. Tufte (cited in Stein, 2006), a visual communication expert, PowerPoint is a program that often reduces the analytical quality of a presentation. He added that PowerPoint ready-made templates usually weaken verbal and spatial reasoning and that people might miss crucial information. He also said that PowerPoint facilitates poorly designed communication graphics and can ultimately detract from a speaker’s ability to connect with the audience. However, this position does not have an empirical basis and it is not yet supported by research. In fact, according to James, Burke, and Hutchins (2006), although anecdotal evidence on the pros and cons of PowerPoint use abounds in the practitioner literature (e.g., Guernsey, 2001; Harris, 2004; N. B. Jones & Bowen, 2004; Norvig, 2003; Wineburg, 2003), empirical study of its use in college classrooms remains scant. Harris stated that PowerPoint was created and designed to be used in the world of business but has now become commonplace in the world of education where its bad usage is generating controversy.
There is also evidence intimating a passive role for students, a lack of spontaneity and interaction during class meeting time using PowerPoint (Frey & Birnbaum, 2002; Harris, 2004).

To summarize, the whole idea of PowerPoint was that it should be secondary, simply an aid, to the speaker. But what often happens with PowerPoint is that the speaker is more interested in moving from slide to slide than communicating points and elucidating meaning to the audience (Stein, 2006).

**Empirical Studies in the Use of PowerPoint in Classes**

In terms of outcome-based research on the influence of PowerPoint on cognitive recall, Szabo and Hastings (2000) found higher grades in two PowerPoint teaching (PPT from now on) conditions (PPT lecture and PPT lecture with notes) compared with an overhead lecture condition. Lowry’s (1999) study in a UK environmental science course also reported that PPT participants received better grades than a traditional lecture cohort (although these findings were limited because of the administration of different test questions). Nowaczyk, Santos, and Patton (1998) assessed student perceptions of PPT use in a statistics course and found that students reported at both the midterm and final exams that they preferred PPT to help them understand the course materials. Daniels (1999) reported no significant differences in students’ cognitive performance scores when PPT was used. However, in Amare’s (2006) study of undergraduate students in a technical writing course, performance scores were actually higher in the traditional lecture format than in PPT-enhanced lectures. Thus, the outcome-based performance findings are mixed, but most prior empirical studies have suggested a positive influence on perceptions of learning and testing performance associated with basic PPT use.

In conclusion, there has not been much empirical research on the use of PowerPoint in the educational setting. This research is, then, a contribution to expand our knowledge and also
to understand more how this common tool may impact teaching and students’ listening in a foreign language setting.

Visually Supported Listening Studies

According to Herron, York, Cole, and Linden (1998) the use of relevant introductory materials (advance organizers) to aid comprehension of L1 and L2 texts is supported by different classroom research works. There are studies on student comprehension of relatively short reading and listening passages showing that comprehension may be enhanced by prior presentation of an anchoring framework such as pictures, key words, and so forth, related to the context of the spoken or written message students are about to read or hear.

The literature review of some previous dissertations and articles about visually supported listening has included findings on visually supported reading. However, in this current research only studies on visually supported listening will be described and discussed to support the literature review of this dissertation. The reason for excluding studies on visually supported reading is that mixing findings and conclusions in two different language skills seems unnecessary; according to Wagner (2006), reading and listening are different processes, and they should be researched as such. Wagner cited Wong (2001) to explain that with listening, the auditory signal fades rapidly, as the input is in real time during real-life situations. In addition, listeners have to rely on intonational and other prosodic cues to segment the input into meaningful units, which limits processing resources to listeners. The written signal (in reading), however, does not fade, and readers can go back to the text and reread the information. Wong stated that whereas written input is already segmented for the reader through orthography, aural input must be segmented by the listener. Wong concluded that listening demands more processing resources than reading.
Omaggio (2001) also cited different studies in her book about the role of context with visuals for reading as well as listening comprehension. She pointed out that most of these studies support the use of visual organizers and other contextual support (photos, drawings, etc.), especially at beginning levels (Bransford & Johnson, 1972; Hudson, 1982; Mueller, 1979; Omaggio, 1979; Schallert, 1976; Tableiber, Johnson, & Yarbrough, 1988). In addition, these studies have supported the idea of schema theory as a way of approaching reading and listening development. The research questions for these studies can be summarized as follows: (1) To what extent do pictures, drawings, and other visual organizers enhance students’ comprehension?; (2) What kind of pictures are the best, and what are their effects on comprehension of target language materials?; and (3) Do students at all levels of proficiency benefit to the same degree from the use of pictorial aids? After reviewing these studies, Omaggio came to an important conclusion regarding visually supported reading and listening: “It seems to be clear…that comprehension is an active process where students interact with the text, using background knowledge that they bring to the comprehension process” (p. 151). She added that “when the input provided to language learners is organized and easily relatable to what they already know, the burden of comprehension and learning is eased considerably” (p. 150).

Omaggio also stated that reading and listening comprehension involve three factors: (1) the individual’s knowledge of the linguistic code; (2) cognitive skills; and (3) the individual’s knowledge of the world, “especially at lower levels of proficiency, where extralinguistic cues and advance organizers may activate appropriate schema to close the gaps in comprehension caused by the imperfect knowledge of the code” (pp. 176-178). In conclusion, Omaggio suggested the use of extralinguistic support (visuals) as a more active way to teach listening.
The next section describes, reviews, and critiques more extensively how previous studies done on exclusively visually supported listening were conducted in terms of methodology (this includes participants, research methodology—qualitative, quantitative, case study, experimental, ethnography, comparative, etc.—data source, duration of study, data analysis, and drawbacks) and also how those studies have informed the present research in terms of research methodology and findings. The following studies include all articles and dissertations found during extensive research. To my knowledge, this list of studies is very close to being exhaustive. All studies are cited in chronological order and according to a category (audio, video, multimedia, illustrations, combination, and so on).

**Research on Video in Listening Comprehension**

As mentioned previously, research on listening and multimedia is still in its infancy (Swaffar & Valtten, 1997). However there are already some empirical studies that have supported the benefits of combining both. In fact most of the research on visually supported listening is concentrated on the impact of using video in class (e.g., Baltova, 1994; Brett, 1997; J. M. Chung, 1999; Ginther, 2001; Gruba, 1993; Kim, 2003; Ko, 1998; Li, 2006; Ortmeyer & Goldstein, 1983; Parry & Meredith, 1984; Rubin, 1990; Secules et al., 1992; Seo, 2002; Shin, 1998; Wagner, 2006). There are many empirical studies and descriptive studies that report the positive effects of video on students’ listening outcomes.

The first study to be considered on the effects of video use is by Ortmeyer and Goldstein (1983). The purpose of their study was to investigate the effectiveness of the methods and modes used for listening comprehension skills in an ESL setting. The two modes of presentation were audio mode without visual representation versus video. This research was conducted with 112 university students who were Chinese speakers with limited English proficiency learning English
as a second language. The instruments used to measure students’ comprehension were listening tests designed by the teachers. The results of this study contradicted previous research about the effectiveness of video. According to the researchers the audio mode without visual support was more effective than the video for learning to listen and understand ESL. However, the researchers warned that these results should be interpreted with caution.

Parry and Meredith (1984) also explored the effect of the channel of input when they investigated the effect of the use of video on L2 listening test performance. The investigators studied American college students who studied Spanish at different levels: beginning I, beginning II, intermediate, and advanced. The participants took a test that consisted of 27 dialogues in Spanish, with 60 multiple-choice comprehension questions. There were two conditions (groups) in the experiment: video (including both visual and aural channel) and audio-only (aural channel only). The investigators found that three of the four groups (beginning I, beginning II, intermediate) in the video condition performed better (at a statistically significant level) on the multiple-choice comprehension questions than did the comparable level audio-only groups. The results of this study suggest that the channel of the input can affect test performance, and they provide empirical evidence in support of the notion that the use of visuals may lead to increased student listening performance.

Similarly Wolff (1987) conducted a study to investigate the effect of illustrations on German learners of English watching a video. He studied 350 German learners of English between 12 and 18 years old who watched a video text of a narrator telling a story in English. One group of participants saw the video only, whereas the other group saw the video and also saw a simple illustration that was related to the text. The participants then had to orally recall the story afterward in their L1. These oral recalls were transcribed, and a preposition analysis was
performed to measure comprehension. According to the researcher the results of the preposition analysis were ambiguous. However, the general findings of this study revealed that the more difficult the texts, the more likely that the listener made use of the contextual support that the illustration provided. Wolff described how the participants reported that the illustrations accompanying one of the stories (“Rupert the Bear”) did not help them in decoding the text, whereas participants reported that their processing of the other story (“Balloon Story”) was “almost entirely dependent on the illustration” (p. 316)

Similarly, Rubin (1990) and her colleagues carried out a study with students of Spanish that involved listening comprehension using video. The purpose of the study was to determine the effects of a video on listening comprehension over a period of 8 weeks. The sample of 394 participants was taken from second year, second semester high school students. The instruments used to measure students’ comprehension were comprehension quizzes. The findings of this study suggest that “video can serve as a haven to enhance listening comprehension if it is selected so that it provides sufficient clues for information processing” (p. 315). All groups improved their listening scores with the use of video. Additionally, this investigation indicated that the use of listening strategies can help students work with more difficult material. Some students indicated, “I know what to look for because of my hypothesis” (p. 315).

In another study Secules et al. (1992) conducted two experiments. In the first experiment 52 university students of French, who were mostly freshmen and sophomores, participated in a study of listening comprehension using video during their regular classroom time. All students were members of second semester classes, having had previous experience with French. The purpose of this experiment was to improve students’ listening comprehension through the use of the video. The results show that students who had viewed *French in Action* videotapes
throughout the semester demonstrated considerably greater listening comprehension than students for whom video had not been part of the curriculum. The instruments used to measure students’ comprehension included comprehension questions, understanding of main ideas, and making inferences. The researchers used the first language of students, in this case, English, to recall main ideas.

In the second experiment the researchers wanted to measure whether participants learned new structures either with the video or nonvideo method. There were a total of 27 college students enrolled in first semester French classes at the same university as in Experiment 1. Of the 27 students 11 had not previously studied French. Results of Experiment 2 showed no significant differences between the experimental (video curriculum) and control (traditional curriculum, no video) group conditions in overall learning of linguistic structures. The conclusion of both experiments suggests that the use of video is an important pedagogical tool to promote and enhance listening comprehension but not necessarily new vocabulary and structures. Additionally, according to the researchers, further research is necessary to determine more precisely “which skills video best facilitates at which developmental levels, and which skills might be more effectively taught using other methods” (p. 488). In other words the use of video provides students with other important experiences and it could be exploited in other areas as well (culture, vocabulary, pronunciation, etc.).

Gruba (1993) presented some conflicting evidence about how the inclusion of the visual channel through the use of video texts on L2 listening tests affects performance. Gruba’s study involved 91 participants who were college and graduate students taking ESL service courses at an American university. There were two conditions (groups) in the study: video mediated, and audio mediated. The participants in the video-mediated condition were presented with a
simulated academic lecture presented through the visual and aural channels through the use of video texts. The participants in the audio-mediated group were presented the same simulated academic lecture, but through the aural channel only. The participants were given a 14-item true/false and multiple-choice listening test. The researcher found that the video-mediated group did not score higher (at a statistically significant level) on the listening comprehension test than the audio-mediated group. However, the reliability for the test was quite low, which calls into question the results of the study. Later in 1997 Gruba argued that the use of video is theory driven, in that it allows for construct definition of listening that incorporates both visual and verbal elements of spoken real-life communication. Gruba also pointed out that the use of video in class is pedagogically driven because now it is a very common tool used for teaching listening in the classroom. Gruba also recommended that language test developers be careful when using video as a testing medium because of construct validity concerns. He also wondered to what extent visual presentation of information has listening trait validity, which means he questioned the extent to which L2 listeners actually watch the video monitor when presented with a listening video text, and additionally he questioned the potential distraction that video could cause to listeners. Finally, he added that it was important to abandon an approach to research that seeks to directly compare one method to another (video versus audio only) on the grounds that comparative methodologies cannot provide clear results, that they lack theoretical grounding, and that they are simplistic in how they see the interaction of variables in complex settings. The study cited previously is important because its results demonstrate some methodological shortcomings, and it also suggests that more research is needed to explore the role of the channel (visual-aural) in L2 listening performance. Although a consensus seems to have emerged among L2 listening researchers that including the visual channel when presenting the input can be
beneficial for listeners in comprehending aural input, in actuality there is not a great deal of empirical evidence to support it. Alternatively, if the use of video or in general visuals is found not to lead to better student listening performance, it is important for researchers to investigate why this is the case.

Baltova (1994) also conducted two experiments that compared the video comprehension of 53 eighth-grade students of French as a second language in Ontario, Canada. The purpose of the first experiment was to assess the importance of visual information for second language comprehension in the case of classroom learners of French at the intermediate level. The participants had begun their core French program in Grade 1, and most of them had had the same teacher for the entire length of their program. In the primary division the students had received 20 minutes of French instruction each day, and in Grades 4 to 6 they had studied the language for 40 minutes every other day. Starting with Grade 7, French time for these students was doubled to 40 minutes daily. Hence, by the end of Grade 8 the students had taken a considerable number of hours in French. Baltova’s research is unique in the sense that she attempted to distinguish “listening” comprehension from “viewing” comprehension in the performance of her audiovisual group by comparing their scores with that of her visual group. However, this study presented some conflicting evidence regarding the use of video and sound in listening comprehension. Students were exposed to a French story under four different conditions. Respondents in a sound-only condition listened to the soundtrack of a brief story on the VCR without being able to see the screen; those in a video and sound condition both listened and watched its videotaped version; others in a silent viewing condition simply watched the video with the sound turned off; and in a so-called no-story condition participants were not familiarized with the story in any mode. The participants in the first three conditions were given a multiple-choice comprehension
test that checked how well they understood the main events in the story. The students in the non-story condition were also given the same test items in order to determine which items were easily inferable from other test items or from common knowledge and did not depend on the content of the story. The findings of this experiment strongly support the informative power of the visual channel and illustrate the facilitative and complementary role of visual cues in comprehension in general. The purpose of the second experiment was to find out whether visual information could improve the understanding of the text itself, besides general comprehension. The second experiment contained only two conditions: the sound-only treatment and the video and sound treatment. The test results recorded no significant difference between the performance of the video and sound and sound-only conditions. However, the mean of the scores in the video and sound group was slightly higher. Additionally, students’ preferences indicated that the majority of the students preferred studying French with video. Based on the results it appears that studying with video constitutes a much more positive experience, and this in itself is a valuable piece of information, because affective factors are known to be important for learning (e.g., Gardner, 1985). Baltova concluded that in general “visual cues were informative and enhance comprehension in general but did not necessarily stimulate the understanding of the text itself. Additionally, video was found to be a more popular tool than only audio for listening activities” (p. 513). One of the limitations of this study might be the advanced French learners Baltova used as participants for her study to determine the effects of video. These learners had been in contact with the French language since the first grade and in a French language environment such as Canada.

Herron (1994) used 38 beginning-level university students of French to explore how students’ listening comprehension of a foreign language video could be facilitated by the use of a
single advance organizer. The participants of this study were 8 males and 30 females from an American college who were in a French 102 class. The participants had been exposed to French in 101 classes, and some of them had been in other settings studying French (11 students had had 2 years of exposure to French in high school plus French 101; 2 students had had one year of exposure to French in high school; and 9 students had had 2 or more years of exposure to French in high school). This study was a quantitative study where all data came from students’ listening comprehension tests. The duration of this study was one semester (1993), and all data were analyzed using parametric statistical analysis according to the researcher, who was also the teacher of the class. The research design of this study was as follows: Each class had a total of five videos in each condition (advance organizer + video condition, and video condition). According to the researcher, the two classes “were, in fact, mirror images of one another” (Herron, 1994, p. 191). In order to test the effect of the advance organizer on student listening comprehension, students in both conditions viewed the same video and took the same test. Comprehension of each of the 10 videos was formally evaluated on a written test immediately after the students finished viewing the video. Six test items per video were targeted. The students did not have a copy of the questions but only a blank sheet of paper before them. The teacher read each question aloud in English. Then she gave the students enough time to answer each question in writing before she moved on to the next item. Later, students were told to answer in English as completely as they could, giving several responses for each item when possible. The students answered in their native language so as not to confuse listening skills with writing skills in French. Students’ responses were scored by two judges in order to establish reliability. One of the judges was the investigator. Results of this research indicate that students who accessed the advance organizer prior to viewing the video scored significantly better than those who were not
provided with any advance introduction of relevant concepts. The advance organizer consisted of several short sentences written in French that summarized chronologically the events in the video. Finally, Herron argued that a limitation of this study was that the investigator was also the teacher (as in this current research case). However she said that in the future, these two roles could be separated by having several classes and their teachers participate in the research. She suggested that “the use of multiple teachers and their students would have the effects of: 1) broadening the sample size; 2) helping to ensure that the teachers are blind to the study's hypotheses; and 3) testing the practicality of the treatment (i.e., whether different teachers implemented it willingly and as intended)” (Herron, 1994, p. 196).

In the present study, the researcher was also the teacher for two main reasons. First, no one could guarantee that somebody outside this research would follow the planned procedures for the purposes of this research, and second, as it was mentioned before, there were administrative limitations in the researchers’ work setting that did not allow for interfering and working in someone else’s classes.

Later on, in 1995, Herron, Hanley, and Cole conducted a different experiment to compare the effect of two advance organizer conditions on students’ retention of information in French videos. The participants of this study were 39 students enrolled in two sections of a 15-week, second semester French course at Emory University. The study took place in the Spring of 1995. Of the 39 participants, 18 students had had a French course in college; 9 students had had 1 to 3 years of exposure to French in high school plus first semester French in college; 2 students had had 1 year of exposure to French in high school; and 10 students had had 2 years of exposure to French in high school. As we see in the previous detailed description, the participants of this study had a very diverse background in the French language, and the results of this study could
have been impacted by this variable. The two advance organizer conditions were (1) description only, and (2) description + pictures. In the first advance organizer condition, the teacher read aloud six sentences that summarized in chronological order the major scenes from a video lesson. These sentences were not written on the board, so the students had to listen carefully to comprehend the sentences. The major difference in the second advance organizer condition was that each sentence read aloud by the teacher was also accompanied by a picture relevant to the context. The findings of the study suggest that students’ comprehension and retention of information was significantly more enhanced in the description + picture advance organizer condition, in which more contextually relevant background knowledge about the video was activated before the listening activity. The researchers confirmed the positive role and impact of contextual information in the form of a visual because of the students’ lack of knowledge of the language.

In another study Teichert (1996) also explored the role of advance organizers before watching a video in two conditions. The participants of this study were 50 college students enrolled in intermediate German conversation classes at Western Michigan University. In the first condition he used illustrations, brainstorming, and questions, along with video- and audiotapes (used outside of class). In the second condition the students did not receive advance organizer treatment. All students took the same standardized listening pre- and posttest. The findings from this research indicate that students who were exposed to the treatment condition—advance organizers and video—developed superior listening skills measured by an external standardized test instrument. Additionally, there were no significant differences in scores by gender. Teichert justified this selection of population by arguing that advance organizers have
been used successfully at the beginning levels of instruction, but no known studies until that time (1996) had found positive results for an FL at the intermediate level.

In 1996 Progosh conducted a survey about students’ attitudes toward the use of listening using the aural and the visual channel. He did not conduct any experimental research. In the survey he just found that more than 92% of the students said that they thought the use of video was a good idea and that they preferred that teachers use it instead of audio-only listening assessments.

Brett (1997) conducted a study in listening comprehension with undergraduate students at a university in Great Britain. The study investigated listening performance in a computer-based multimedia environment and its effectiveness in developing listening comprehension in English as a Foreign Language (EFL). Participants in this study were in one of three conditions: audio only, video, and multimedia (computer). The learners in the study were all final year undergraduates in a business and language degree. They were European, French, German, and Spanish. Forty-nine learners participated in this study. As the researcher said, “all subjects were characterized as advanced learners of English” (p. 43). The participants were presented with six different listening texts, and they had to answer comprehension questions about those texts. The format of the questions was multiple choice and put sentences in chronological order. There were also some cloze tests. When comparing results from the six listening comprehension tasks, Brett found that the multimedia group scored higher (at a statistically significant level) than the audio-only group on three of the six tasks. The multimedia group also scored higher than the video group on two of the six tasks. The video group scored higher than the audio-only group on four of the six tasks and lower than the audio on two of the six tasks (tests of statistical significance were not performed). The findings of this study are limited and should be taken with caution.
because there were no reliability statistics, and the study was conducted with a small sample according to the researcher. In addition, according to the researcher the sample was comprised of learners who were motivated and “academic” English language undergraduates. The researcher also said that it might be necessary to confirm in other learning contexts that such benefits and gains within pedagogic context of this study may be transferred to real-life performance.

Similarly, Shin (1998) conducted a study to investigate the effect of the use of a videotape formatted listening test (VFLT). The participants of the study were 83 international students in a Midwestern university’s seven English 101 courses. All students were enrolled with native speakers of English in other classes that were related to their fields of study (business, sciences, etc.). Shin divided the participants into two groups of comparable ability. The first group was the video group, and they had the text delivered using both visual and aural channels through the use of video texts. The second group was the audio-only group, and they had the input delivered via the aural channel via an audio-only text. The two groups took a listening test composed of four academic lecture texts with 18 multiple-choice comprehension questions. The results of this study revealed that the video group scored higher than the audio-only group (at a statistically significant level). Shin suggested that the participants were able to utilize contextual clues provided by the video text. This suggests that the use of video leads to increased performance on L2 listening tests. However, one limitation of the study is that Shin did not use the same texts for both groups. The text for the audio-only group had some changes. According to the researcher he did this because he wanted the text to more closely resemble conventional audio only. The findings seem to provide convincing support for the use of video formatted listening tests.
In another study, J. M. Chung (1999) compared listening comprehension rates for video texts using a variety of techniques: advance organizers, captions, a combination of both, and none of the techniques. The 183 participants in this study were 17- to 19-year old, 4th-year, non-English majors in four classes. The participants attended Ming-Hsing Institute of Technology in Hsinchu, Taiwan during the fall of 1997. The researcher was the teacher of all these classes. Most participants had studied English for about 6 years, however the researcher pointed out that their proficiency level was low-intermediate, with better reading ability than listening ability. The investigator used an American television series called “Family Album, U.S.A.; Book I” for this research. The instruments used to measure students’ comprehension were multiple-choice tests and true/false questions. The results of the study showed that more effective comprehension occurred when using the combination of techniques than when using any single one. This study suggests that teachers should consider the benefits of using both advance organizers and captions when teaching listening skills through video viewing. The advance organizers in this research provided participants with key vocabulary and background information of upcoming materials to be heard.

Seo (2002) conducted a study to investigate the effect of visuals on the listening comprehension of Japanese in two different listening contexts (audiovisual and audio only). Additionally, the researcher investigated how L1 participants versus L2 participants used strategies for listening comprehension of the Japanese language. The participants of this study were 14 students. The first group (L1) consisted of two female university students (ages 21 and 22). The L2 group consisted of 12 monolingual Australian university students aged 20-37 (6 males and 6 females). None of the L2 group had studied Japanese in high school, and only a few had lived in Japan for a limited period (around 10 months). Two news broadcasts and two family
drama series from Japanese satellite television were used in this research. The researcher used “think-aloud” procedures to tap listeners’ on-line processing of covert mental activity. In this way it was possible to access cognitive processes and organization of knowledge. The results of this study showed that the greater the participant’s proficiency, the more cognitive over metacognitive strategies used. The results also revealed that under audio-visual conditions the participants used more cognitive strategies (top-down processing), whereas under audio conditions the participants used more metacognitive strategies (bottom-up processing). In addition, the L1 group used far fewer cognitive and metacognitive strategies than the L2 subgroups. Finally, the researchers concluded that the audio-visual listening context promotes the development of top-down processing skills, whereas the audio-only listening context promotes the development of bottom-up processing skills. However, it is important to keep in mind that these two skills have complementary roles in advancing listening proficiency. Some important conclusions of this study indicate that teachers should select listening materials for students to practice these two types of skills (top down and bottom up) to develop listening proficiency in general. Finally, this particular study provides the present research and in general all research with insightful and valuable information about the types of strategies (in this case cognitive) students use when information is presented visually. Knowing this, researchers and teachers are more conscious of students’ mental processes with the use of visuals in class.

In a recent study, Li (2003) compared the effectiveness in three experimental groups and a control group of certain combinations of visual images and audio narration for the comprehension of a video in an EFL context. Based on the evaluation of students’ performance on a 10-item comprehension test in the form of questions and short answers, the researchers found that students in the experimental groups who were allowed dual coding of information
(visual images and video) achieved a significantly higher score on the comprehension test than those who were provided with only audio narration of the video. Based on this study, it would seem that learners can construct a mental representation of the semantic information from either the audio or the visual component alone; however comprehension and memory are enhanced when the two channels of information interact and work jointly with each other. According to Kozma (1991), “when presented together each source provides additional complementary information that retains some of the characteristics of the symbol system of origin….Audio may be sufficient for those knowledgeable of a domain, but visual symbol systems supply important situational information for those less knowledgeable” (p. 192). Findings like this suggest and justify the need to develop a visual-based language curriculum for beginning levels that allows for the dual coding of information for L2 learners rather than an audio-based language program. One good reason for doing this would be that beginning learners are known to have imperfect L2 linguistic knowledge.

In a similar study, Wilberschied and Berman (2004) attempted to explore the differences in achievement in foreign language listening comprehension of 61 students in a Foreign Language in an Elementary School (FLES) program when advanced organizers were used before watching the video. The participants of this study were children who were not native speakers of Chinese. The participants were in the second, third, and fifth grades. These 61 students were studied during instruction using video clips from authentic Chinese TV broadcasts in two advance organizer conditions: (a) advance organizer with written words and sentences (no pictures) in Chinese that summarized major scenes in the video the students watched, and (b) the same written words and sentences as the first, with accompanying pictures taken from the video.
Wilberschied and Berman’s (2004) research could be classified as quantitative and qualitative because data came from surveys, interviews with students, and listening comprehension tests. The duration of their study was 3 months. All data analysis was based on t-test analysis and effect size calculations. The data set included 14 listening comprehension tests, a survey of participants’ feelings about the project, and student interviews at the end of the study. The 14 listening tests were carried out as part of the regular classroom instructional practice. The participants were randomly divided into two groups: advance organizer with word description only (control group), and advance organizer with word description and picture (treatment group). In order to eliminate an ordering effect, groups in each grade’s classes were alternately rotated between treatments. Additionally, all students in both groups took the same written tests immediately after viewing. The scores from those tests were not part of students’ grades for the course. The tests consisted of two parts: multiple choice and essay/story retelling. Finally, students were not allowed to include drawings on the second part (essay/story retelling). The findings revealed that less-language-proficient students benefited more from the use of visual organizers on video clips from authentic Chinese TV broadcasts. Because it was not possible to establish the statistical significance of the listening comprehension scores from the exercises, this study failed to establish differences in listening comprehension between the two advance organizer conditions. However, interview results indicated that learners preferred the advance organizer condition with pictures to the one with the text alone.

Regarding the previous study, there are some limitations worthy of mention. For example, the researchers recognized and accepted that the length of their study was too short (only 3 months). They said that a longer period of time, perhaps 6 to 9 months, might yield more informative results. In addition, the way the researchers measured students’ listening
comprehension using an essay/retelling portion (in the second part of tests) may not have been accurate and objective. Research suggests that written tests may not be the best way to measure listening comprehension (Buck 2001). The students with better English writing ability may have had an advantage. Another limitation of this study is that because it was a FLES program, the participants were given foreign language instruction for 40 to 50 minutes each day. Therefore the number of hours of exposure to the language was significant compared to other settings in foreign languages, which would affect generalizability of the results. Additionally, the students in the previous study have been in a FLES program since first grade, which makes them more proficient in listening compared to other populations. Finally, the researchers expressed that their sample size was statistically small and limited. They concluded that results might be somewhat different using a much larger sample.

In an unpublished doctoral dissertation, Wagner (2006) conducted a quasi-experimental study of a qualitative and quantitative nature to compare test-taker performance; the control group \( (n = 99) \) took an L2 listening test with audio-only texts, whereas the experimental group \( (n = 103) \) took the same listening test, but with video texts. The participants of this study were 202 students in a Community English Program (CEP) at Teachers’ College, Columbia University. That means the participants were student-teachers in CEP and they were also students in the TESOL and Applied Linguistics Masters degree programs at Teachers’ College. Additionally, the participants had diverse native languages. The researcher used ANCOVA and MANOVA procedures to analyze test results. The findings of his study suggest that the experimental group (video) scored 6.5 points higher than the control (audio-only) group, and this difference was statistically significant. The results suggest that nonverbal information should be included in the construct definition of L2 listening ability. Verbal reports conducted by the researchers also
suggest that for at least some of the participants, the utilization of the nonverbal components of a spoken text is an integral part of the L2 listening process. One limitation recognized by the researcher is that the participants were not really representative of a typical language program population. It is not possible to generalize the results of this study to student populations at undergraduate levels in foreign languages settings.

In another study, Li (2006) conducted an experiment to examine the effects of advance organizers, visual images, and gender differences on a video-based listening comprehension task performed by 120 college students in an EFL context. The participants were chosen from a convenience sample from a national university of science and technology. Li was an English teacher at that institute and he was very familiar with that school. The participants in this study took a placement test and were classified into three levels: Level A, Level B, and Level C. Each level was composed of students from different departments. According to Li, students in Level A had higher proficiency in listening. Students in Level C were less proficient than those in Level B. So that means that students from Level B were at an intermediate level. That is the description that Li provided in his chapter on methodology. From the previously mentioned classes Li chose one at random for his current study. He had about 135 students, both males and females, but was able to use the data from only 120 participants. According to Li, the participants had studied English for at least 7 years, and Mandarin Chinese was their first language. Additionally, he said the participants had different ability levels in their listening comprehension scores. This fact was analyzed in order to control for statistically significant differences among groups. Then in the three intact classes (A, B, and C) students were randomly assigned into one of the three video presentation modes: a full audiovisual film, a visual-only silent film followed by audio-only narration, and a visual-only silent film followed by a full audiovisual presentation. At the same
time he randomly assigned three packets with three different advance organizer conditions (short sentences with pictures the researcher took from the video, activation of cultural schemata, and a comprehension question preview). This study used a 3 x 3 between-subjects factorial arrangement to analyze collected data. The results of this study show that students performed best when they had question preview as an advance organizer prior to watching the video, moderately well when they had summaries of major sentences with accompanying pictures, and poorest when they had cultural background cues. Regarding gender differences, Li stated that males and females are known to be different in their use of strategies to process information. He said that contrary to this hypothesis, male and female participants performed similarly on the comprehension test in his study.

**Research on Still Pictures, Illustrations, Graphics, and Overhead Projector Pictures in Listening Comprehension**

The following studies were conducted using pictures and illustrations before listening to a passage (audio-mode only). It is worth mentioning that two of these studies were conducted in a first-language setting. The first research in this category is Bransford and Johnson’s (1972), which has been the inspiration for many investigations in the field of visually supported listening. Four studies that related to listening comprehension in the native language investigated the relationship between context and listening comprehension. The participants were high school students who volunteered. The two investigators conducted a study incorporating two sets of experiments. They wanted to demonstrate that relevant contextual knowledge is a prerequisite for comprehension of prose passages. In their study, when the respondents were given a passage that was difficult to comprehend and remember by itself, their recall was improved when they were supplied an appropriate semantic context (a picture or the topic of the text) before they listened to the test passage. They pointed out that comprehensibility of listening can be enhanced
substantially by contextual visuals, particularly when the context of the material is not readily apparent from the linguistic cues. In all four studies, students who were given an appropriate contextual pictorial before listening to the test passage had significantly better comprehension and recall scores than did students who were not provided with context. They concluded that a picture helps students make better predictions in comprehension because a relationship is built in students’ minds. They also pointed out that comprehensibility of listening material can be enhanced substantially by contextual visuals, particularly when the context of the material is not readily apparent from the linguistic cues. One of the limitations of this study, for the purpose of this current research, is that it was conducted in first-language comprehension, however it has provided the inspiration for a growing number of second and foreign language investigations.

In another study, Mueller (1979), focusing on how to reduce the artificiality of many listening materials for second language learning, provided a contextual visual from which students could infer an extralinguistic context. He conducted his study with college-level, beginning German students at the United States Air Force Academy. One hundred twenty-three participants were distributed between Experiment 1 and Experiment 2. In Experiment 1 there were students who did not have much experience with the target language, whereas in Experiment 2 there were students who had four to six semesters of German. The purpose of the study was to determine the effect of visuals (300-word tape interview and a drawing as a contextual visual) on the listening comprehension process. The contextual visual he used depicted the general situation and showed the participants from the text, their relationships to one another, and the relevant concepts dealing with the situation. Mueller hypothesized that visuals providing contextual cues to a listening passage would enhance learner comprehension. He believed that the visuals would serve as advance organizers activating relevant aspects of stored
memory, thereby providing a framework within which the passage could be understood. The study concluded that visuals can enhance comprehension as measured by free recall (the participants had to write as much information as they could remember about the listening passage) but in inverse proportion to the listeners’ level of language proficiency. Mueller found that the more proficient the learner, the less comprehension was enhanced by the visual aid. He also found that the visual-before groups (seeing the visual before hearing) were benefited the most, especially at the lower proficiency levels. One of the limitations of this study may be the use of the free recall task because by nature it asks students to use production skills, and at a lower level it could be more critical because students are just beginning the study of the language. Another drawback could be the criteria or scoring system used to grade those written reports. One wonders to what extent listening can be measured by using a written report in the target language or even in the native language. It will be important to make sure students’ listening is being measured instead of students’ writing. As the preceding study stands, the answer to these last points remains uncertain.

In similar research done the same year but in first-language research Levin and Berry (1980) conducted four experiments to determine whether pictures would improve recall of true-life newspapers passages. This study is also different from the rest of the previous studies because it was conducted in a first-language setting with children in fourth grade. The articles were taken from newspapers (these articles were recorded) and had illustrations. Then children heard these articles played on a cassette recorder and had to recall what they heard. There were two conditions. In the picture condition children listened to each passage while they viewed the picture for the passage. Children in the control condition simply listened to the passages. Then the children were instructed to think back to the passages. The findings suggest that visual
illustrations can improve children’s recall of real-life incidents of the kind reported in the articles. Children who listened to newspaper articles in the company of illustrations remembered more than the children who merely listened to the articles. Finally the researchers added that the fourth-grade population was quite adept at remembering the passage information even without pictures. One limitation of this study for the current study of visually supported listening in L2 is the fact that it was conducted in a first-language setting and it was conducted with a different population (children) from the one normally present in foreign language programs in different universities.

In another study, Bright (1986) researched the effects of pictorial extralinguistic context using an overhead projector and a transparency and its relationship to isolated utterances on listening comprehension in Spanish. Participants for this study were drawn from a population of 142 intermediate Spanish students at the United states Air Force Academy in Colorado. The instructor asked the participants to do an exercise in comprehension and recall after hearing a total of six sentences that were read by the instructor only one time. The transparencies contained information that might aid students in comprehending and recalling the sentences. The purpose of the activity was to try to remember the sentences as accurately as possible in less than 30 seconds. This experiment lasted 2 days. Criterion measures were in the respondents’ ability to recall and write in English the gist or idea unit of each of the aural stimuli in Spanish after hearing all six utterances. The findings of this study revealed that the presentation of a contextual visual can be expected to facilitate recall of previously heard materials. The nature of this facilitating influence, however, remains somewhat imprecise and in need of further inquiry according to the researcher. The researcher explained the selection of intermediate-level students by saying that “subjects with less experience in Spanish would have made this task unnecessarily
difficult” (p. 61). One limitation of this study could be the fact of using isolated sentences that could make the listening task either easier or more difficult depending on the sentences students heard. Second, this type of activity was not a regular conversation or passage where students have to listen to the content, context, and speakers as usually happens in regular conversations. This type of experiment was simply hearing isolated sentences and then connecting them to the visual support. Additionally, participants were hearing the teacher reading/dictating sentences in Spanish instead of listening to a tape recorder. This listening activity seemed more a dictation activity than a real-life listening task. Therefore, the possible impact of visuals may be somehow different in this experiment with isolated sentences than in regular conversations where students have to concentrate on more aspects. Finally, the length of the study was too short to be able to determine with certainty the long-term impact of visuals on a projector on students’ listening.

In another study, Snyder (1988) conducted an experiment where she examined the ability of visual aids (overhead transparencies, fill-in pictures, magazine pictures) to facilitate second language acquisition in terms of vocabulary, listening comprehension, and structure. The 107 high school students in this study had taken Spanish One and were now enrolled in Spanish Two in a county school in Pennsylvania. Two groups covered identical topics except that one group was taught substantially more and had more varied audio-visual aids than prescribed by the standard curriculum. After 7 weeks it was found that the audio-visual group preformed significantly better in vocabulary and listening. No significant difference was found between the groups in terms of their performance on grammar. One of the limitations of this study could be the fact of looking for pictures in magazines to match any conversation. This is a very time-intensive task and might demand too much preparation time to be practical.
In a similar study, Teng (1994) conducted an experiment with Chinese high school EFL learners in Taiwan. The main intent of her study was to find out whether and how cultural schemata and visual cues influenced EFL listening comprehension. The first research question was whether students would perform better in EFL listening if they were provided cultural schemata. The second question was whether these students would perform better in EFL listening if they were provided visual cues. The participants in this study were 126 female Chinese students from the 10th grade at Chiayi Girls Senior High School in Taiwan. The groups to explore the impact of visual support and cultural schemata were as follows: lecture-audio group, speaker video group, and picture video group. There was also a group of 15 American students in an undergraduate class at the University of Minnesota who served as a control group. The Chinese participants had studied English for about 4 years in school, and according to the researcher they all had a low-intermediate level of English. The listening materials used in this study were two short lectures about two holidays, Thanksgiving and the Dragon Boat Festival. It is important to mention that these two lectures were recorded for native speakers and modified for this experiment. During the experiment the students listened twice to the lectures, had to do recall of what they heard, and then answered 10 sentence-recognition questions. The results of this study seem to support the previous claim that cultural schemata affect listening comprehension in positive ways. The study also revealed that learners seemed to perform better in listening comprehension when they were provided visual cues than when they were not. Therefore, this study provides further evidence for the effectiveness of visual cues on L2 listening comprehension.

In another study, Ruhe (1996) examined how effective graphics were as lecture comprehension support for 103 low-proficiency ESL listeners at the University of Cariboo in
Canada. The program these students attended did not focus on listening, only on reading and writing. Therefore, none of the participants were enrolled in any listening courses during the experiment. All students volunteered to be in this study, and they were from China, Japan, Korea, India, and Greece. All data were collected during two semesters. Almost all participants had been in Canada for less than 6 months. Ruhe conducted this experiment with 103 college-level Asian students. The two experimental conditions were as follows: (1) One group heard an audiotape while looking at a page with an organizational graphic, and (2) a second group heard an audiotape with no words or graphic provided. The two groups performed under similar conditions. Ruhe hypothesized that providing graphic organizers would lead to increased comprehension because the graphic would provide contextual support. The researcher used four test minilectures about different topics to measure students’ comprehension. The findings indicate that the group with the advance organizer performed better (at a statistically significant level) than the group with no words and graphic provided. Ruhe hypothesized that the graphics might help to stimulate the listeners to match sounds with the visual. The researcher called this process cognitive matching in which listeners match the sounds with the visual.

In another study conducted in Cali, Colombia, Rivas-Montes (1996) explored the use of audiovisual aids in two science classes about contamination, water cycle, and the weather in a bilingual high school. The native language of these students was Spanish, and their second language was English. For her experiment she had a control (no visuals) and an experimental (with visuals) class. In the latter, the instructor used lamas (pictures) to support what he was explaining to the class, whereas in the control group the teacher did not use any type of support. The researcher administered different comprehension tests for each topic, and the findings indicate that the experimental class scored better than the control class. One drawback of this
study was that the researcher did not conduct any type of statistical analysis on her research methodology to conclude if the difference was statistically significant. She assumed that students who scored higher (2, 3, 4 points) than the control group were better at a significant level. Additionally, for her general conclusions she did not keep in mind that students from bilingual high schools in Cali have a high language proficiency in most skills that could affect the results of the study. In Cali, Colombia if a student goes to a bilingual school it means she/he has previously been exposed to many years of the English language to be able to be immersed in this type of high school. Additionally, students from bilingual schools can listen, read, write, and speak pretty well.

Choi (1997) conducted a study with 480 respondents (all women) about the use of visuals in reading and listening comprehension. The purpose of the study was to compare Korean high school students’ listening and reading comprehension of English texts in two different conditions: with contextual visual support and without visual help. The level of English ranged between first, second, and third year. The investigator used Chinese folk tales for this research. After they heard the text twice the participants were told to write down everything they remembered in Korean on a piece of paper. The data were analyzed using ANOVA. The findings revealed that students with visual support in the form of prelistening or prereading instruction performed significantly better in the recall task than the students who had not received such instruction before the comprehension test. According to the researcher in this study, one of the positive findings is that the contextual visual improved Korean high school students’ listening comprehension regardless of their proficiency levels. However, one of the drawbacks of this study was the use of free recall (writing ideas) to measure students’ listening comprehension,
because again it implies the use of writing skills. Additionally, there is the possibility that students might be able to produce recall protocol based solely on the pictures.

Another study in this category is Burger’s (2001). The purpose of her study was to compare two preparation techniques (vocabulary instruction and visual or graphic organizer) to see which was more helpful for ESL students from a university in Canada. The participants of her study were intact classes from a noncredit, academically oriented intensive program. Classes usually spent three 1.5-hour sessions per week in the language laboratory for listening. Additionally, students had to be at an advanced level in order to handle the listening material. Therefore the investigator selected the highest level group for the experiment in each of three 12-week semesters so that the proficiency levels of the three groups were roughly equal. The number of participants in each condition was the following: the visual group had 10 students, the vocabulary group had 13, and finally the control group had 10. In summary, for one group she had vocabulary instruction before each practice lecture and the other group worked with a key visual or graphic organizer. The control group did not apply any type of technique. The results of this study indicate that all groups, on average, improved in their ability to understand the test lecture. She said that it was impossible to say which technique was the best based on statistical evidence. However, the teachers’ and the students’ reactions to the graphic organizer were more positive than in any other condition (vocabulary instruction or none).

In another study, Ching-Shyang Chang and Read (2007) investigated the effects and limitations of visual support in a foreign language setting in an environment with a low level of English proficiency. The participants were 140 students engaged in a postsecondary educational program at a college in Taiwan. These students were enrolled in a required English listening course. According to the researchers most of the students had studied English for at least 5 years,
but they had low listening proficiency. The study was conducted with three experimental and a control condition. The different experimental conditions were as follows: visual material in the form of a set of pictures to illustrate the talk (visual support, VS); reading materials in the form of a short text in Chinese to be read in advance (textual support, TS); and repetition of the input, so that the participants heard each talk two times (repeated input, RI). Finally, participants in the control condition did not receive any type of support (no support, NS). The materials for the listening class were taken from a textbook at the level of the participants. The instruments used to measure students’ comprehension were multiple-choice and gap filling activities. The findings of this study reveal that listening support with repeated input was more effective than visual or textual support. Additionally, the participants’ perceptions indicated that they considered repeated input and visual support more useful for listening tasks. In conclusion, this study showed how input repetition could also improve students’ listening comprehension in foreign language settings.

Research on Multiple Presentations and Combinations in Listening Comprehension

The following studies on visually supported listening have in common that they used different combinations of techniques in order to test which ones can positively impact students’ listening comprehension outcomes in different levels.

U. K. Chung (1994) conducted an experimental study to investigate whether hearing the audio of four natural dialogs without images or in conjunction with single, multiple, or moving video images facilitated listening comprehension in college students enrolled in intermediate and advanced French courses. The control group saw only the visual portion of the same dialogs. The participants of this study were 75 students (24 advanced French, 27 intermediate French, and 24 visual-only subjects). These students were from the Urbana campus of the University of
Illinois and were paid to be in this study. Chung measured participants’ listening comprehension by their ability to recognize information from the dialogue, to actively recall main ideas and details, and to generate inferences. He used self-reports, short summaries, and recognition tests as instruments to measure students’ comprehension. He used MANCOVA and MANOVA to compare advanced and intermediate French groups across all four presentation conditions. According to Chung, his study “supports previous work on listening comprehension using visuals and upholds common-sense wisdom that visuals assist listening comprehension” (p. 106). The main findings can be summarized as follows:

(a) Adding images almost always improves listening comprehension of dialogs and reduces recall errors, with moving images leading to the most improvement. (b) Paralinguistic cues aid in the interpretation of dialogs and are made obvious through the use of moving images. (c) Multiple still images may be distracting or disconcerting under some circumstances. (d) Images alone are not sufficient for representing a dialog, unless generating inferences is the desired outcome. (e) The particular images used to represent a scene may have a strong influence on how predictable the scene’s content may be to the viewer. (f) Predictable scenarios may be easier to comprehend than those which are outside of the viewers/listeners frame of reference. (g) Higher-proficiency subjects appear to be better at using the available information in the listening task than lower-proficiency students, but equal to lower-proficiency students in recall of visual information. (U. K. Chung, 1994, p. 107)

The second study in this category is Ginther’s (2001) from the TOEFL test and testing program. This study is specific to the TOEFL test and the testing program, where most of the actual research is conducted by Educational Testing Service (ETS) staff (e.g., Ginther) rather than by outside researchers. Ginther’s research attempted to explore and understand the effects of providing different types of visuals—such as pictures, diagrams, and still photos of the speakers—along with items on the computer-based Test of English as a Foreign Language (TOEFL) during one semester (Spring 1998). The number of participants was 160 (73 males and
87 females) recruited from ESL programs at a large state university in the Midwest. The participants had different origins and languages (Hindi, Chinese, Indonesian, Korean, and Spanish). For this research the investigator chose 80 students with high proficiency and 80 with low proficiency. Her research methodology is classified as qualitative and quantitative because data came from personal questionnaires from the participants and from the administration of listening comprehension multiple-choice tests. Finally, in order to analyze all data, the researcher used a nested cross-over design or partially crossed Latin Square (participants nested in proficiency, level, and form). The research design used in this study is as follows: First, four sets of experimental stimuli were created. Each set was divided into two subsets of stimuli and items so that the sets could be presented with or without visual accompaniments. Two of the subsets were dialogues/short conversations (with or without context visuals; dialogues and short conversations were combined as they comprised a single relatively short stimuli type); two were academic discussions (with or without context visuals); two were mini-talks (with or without context visuals); and two were mini-talks (with or without content visuals). Each participant was administered one of 16 TOEFL test forms. In addition to performance data, participants were administered a series of questionnaires about their attitudes toward the presence or absence of visual accompaniments to the verbal stimuli. All of the experimental materials and the questionnaires were administered by computer. Participants were observed by the researcher as they worked through the experimental materials. Finally, the time the participants required to complete the entire experiment ranged from 59 to 114 minutes. The findings of this study suggest that the presence of visuals results in facilitation of performance when the visuals bear information that complements the audio portion of the stimulus. According to Ginther, presenting examinees with a blank screen in the computer-based testing (CBT) environment was
considered inappropriate, and the introduction of visuals was intended to enhance the face validity of the test. Most importantly, he said that the inclusion of visuals could be a better representation of actual communicative situations in real life. If one compares Ginther’s research with the other studies previously described, there are indeed significant differences in terms of setting, testing, and time. Ginther’s study is more concerned with the impact of visuals during the testing situation of the TOEFL, whereas the other studies, including this current research, are more concerned with the impact of visuals in regular listening sections in class throughout different phases (pre-, during-, and postlistening). In the case of the settings one also sees how in Ginther’s study that participants are in a testing room where time is running, whereas in the other studies participants are in more relaxed environments, which were the classroom and the school. Finally, one also could see that Ginther’s research students’ listening proficiency is advanced (participants are going to study in American universities at undergraduate and graduate levels) compared to participants in the other studies. Therefore, results may vary according to the setting (testing situation versus class activity) and students’ needs (TOEFL requirement versus foreign language class).

There are two other studies in this category that share similar settings and findings: those of Ko (1998) and Kim (2003). These two studies were conducted in South Korea, one of them in a middle school setting and the other in a high school setting. Ko sought to investigate and describe six Korean ninth graders’ use of visual support in decoding and comprehending the spoken text in an authentic video episode, and their cognitive and affective reactions to the presence of visual support in the listening material. These six Korean students were females from a middle school with sufficient background in English according to the researcher. The type of research methodology used was case studies along with surveys. All qualitative data came from
interview protocols and think-aloud protocols. This research was conducted over 2 months, and it used data triangulation analysis to describe results and findings. Ko’s research design was as follows: She requested that an English teacher randomly select the participants from different classrooms. She used an authentic video episode from “The Story of Princess Sleepy,” where the linguistic and visual stimuli are highly correlated. According to Ko, the participants were asked to replicate orally in the L2, English, the words that they could decode. During the comprehension task they orally indicated their understanding of what was being said in their L1, Korean. They were engaged in these tasks in the audio mode and in the video mode. Additionally, the participants took part in individual interviews in order to describe their reactions to the absence and the presence of visual support during listening tasks. Finally, the decoded data and the comprehension data were tape-recorded and then translated and transcribed by the researcher. Basically, there were four tasks phases: a prelistening stage, an audio phase, an audiovisual phase, and an interview phase. Ko’s (1998) study demonstrated the need to examine participants’ processing of a spoken text in L2 comprehension using audiovisual materials. Therefore, her research design was adequate for uncovering and analyzing what was on students’ minds when they were listening and whether visual support helped their comprehension. The findings of this study empirically support the facilitative role of visual support in bottom-up processing of a spoken text.

On the other hand, Kim (2003) attempted to explore and describe the effects of different presentations using pictures and video cues for improving listening comprehension of English news programs. Participants were 687 Korean secondary school students assigned to four experimental conditions. All experiments were conducted in the classroom at the participants’ school under the supervision of the experimenter. His research is a quantitative study using pre-
and posttest scores as data sources. He did not specify how long it took him to conduct the study, 
but in his acknowledgments he said “years,” so one assumes that it was more than one year. 
Finally, all data were analyzed using planned comparisons and ANOVA with a repeated measure 
on the test-time factor. He also used ANOVA to contrast between- and within-subjects’ effects to 
report results and findings. Kim’s research design was as follows: He conducted four 
experiments with different visual presentation techniques. The first experiment was conducted 
with three different conditions and involved 351 participants. The second and third experiments 
were done with 96 participants and involved four different conditions. Finally, the fourth 
experiment was conducted with 144 participants under six different conditions. All conditions 
for each experiment were conducted in three phases: pretest phase, training phase, and posttest 
phase. Additionally, all tests were multiple choice, fill in the blank, and true/false formats. The 
stimulus materials used for the experiments were six different English educational TV news-
based texts, each between about 2 and 3.5 minutes long. Finally, the findings of this study 
revealed that when presenting video cues with headlines to assist learners in understanding the 
spoken message, there was more improvement in second/foreign language listening 
comprehension. He also concluded that “the greater the amount of visual cues, the more listening 
comprehension is improved” (p. 212). Finally, he reported that less proficient students benefited 
more from the contextual cues for comprehension than did more proficient students. 

Comparing and analyzing the two previous studies in terms of number of participants we 
see that there is a huge difference (6 versus 687). However, we also see how Ko’s study design 
implies more contact and personal interviews with participants. This qualitative research would 
use fewer participants than Kim’s study, which was quantitative. The first study was conducted 
in only 2 months, whereas the second one took years due to the complexity of its design.
Although both studies used different research methodologies they came to the same general key conclusions about the advantages and usefulness of using visuals for listening comprehension from a participant self-report and a numerical perspective.

*Research on Multimedia Annotations in the Computer for Listening Comprehension*

The following studies have been conducted in multimedia environments where students manipulated software designed for listening.

The first study in this category is Aleman-Centeno’s (1982) research. The purpose of her study was to develop and evaluate the effectiveness of computer-based instructional sequences with audiovisual description in order to determine their contribution to the development of listening comprehension skills of second-year Spanish students. There were three conditions in this experiment. In the first one the participants used computer with audio visual. In the second condition participants used computer with audio. Finally, in the third condition participants used audio alone. This study was conducted during the Spring semester of 1981 in the department of Spanish and Portuguese at the University of Iowa. The participants were enrolled in their second year of Spanish (intermediate level). The total number of participants was 75, but the data came from only 63, with the remaining data discarded. In this investigation all the materials used were designed and proposed by the researcher. A computer programmer and a media production specialist aided in creating the stimulus materials. The results from the one-way ANOVA indicate that achievement increases regardless of the delivery system and visuals employed (computer with audiovisual dialogues, computer with audio dialogues, and tape recorders without computer). However the researcher said that even if there was no significant statistical difference between the three treatment groups, the participants in the computer-based
instructional sequences with audiovisual dialogues performed slightly better than those using computer with audio alone.

Using multimedia, Mayer and Sims (1994) also conducted two experiments to investigate the effects of visual and verbal information combined on two types of learners: learners with high spatial ability and learners with low spatial ability. This study was conducted in a first-language setting, however it was not conducted in a foreign language setting; it was conducted in a physics and science class. The students viewed a computer generated animation and listened simultaneously (concurrent group) or successively (successive group) to a narration that explained the working either of a bicycle tire pump (Experiment 1) or of the human respiratory system (Experiment 2). The participants for the first experiment were 86 college students who lacked extensive knowledge about mechanical devices. On the other hand, the participants of the second experiment were 97 college students who lacked extensive prior knowledge of human anatomy. Statistical analysis revealed that inexperienced learners were better able to transfer what they had learned about a scientific system when visual and verbal explanations were presented concurrently than when visual and verbal explanations were separated. The theoretical explanation for this finding derives from the dual-coding theory where the concurrent presentation of verbal and visual description of a system increases the possibility that students will be able to build connections between their mental representations of visually and verbally presented explanations. This study is useful for the current research because according to its findings students who are mainly inexperienced, especially the Spanish elementary levels, may benefit from pictures being coordinated with words. So these students are the most likely to benefit from instruction that carefully synchronizes the presentation of verbal and visuals forms.
The researchers also suggested that it would be necessary to examine the role that individual differences might play in multimedia learning.

In another study, Despain (1997) investigated the effects of two delivery systems for listening comprehension exercises on the language performance and attitudes of beginning Spanish students. This study attempted to identify whether students who used computer-delivery listening comprehension with graphics learned the language more effectively than students using a cassette tape and a manual. The participants in this study were 80 students enrolled in five sections of a first-year, first-semester, college-level Spanish course at North Carolina State University during the 5-week, first summer session of 1996. The researcher was not the instructor of these groups. Respondents spent most of the time completing exercises in the computer lab in order to do what this study proposed. Both groups used the same audio material, with the difference being that the computer-delivery program was developed by the researcher to include graphics. In the computer-delivery system students listened to the conversation by clicking on the audio button and then clicking on the picture that corresponded to the conversation. According to the instructions, students were able to listen to the conversation only once. The findings revealed that students tend to learn more effectively and efficiently using the computer delivery system. Additionally, students who completed the exercises via computer had a more positive attitude toward listening comprehension exercises. However, the researcher warned that this was a preliminary study and that the results should be treated with caution.

Another study in this category is that of Plass, Chun, Mayer, and Leutner (1998). They wanted to test the effects on vocabulary and comprehension tests using visual and verbal learning preferences of second-language learners. The participants were 103 college students enrolled in second-year German language courses in a university in California. Students participated as a
regular class activity. Thirty-nine participants were classified as visualizers, and 35 were classified as verbalizers. All students took the same vocabulary and comprehension test. The materials consisted of a 2-minute, computer-generated preview video developed by the researchers that summarized the key events in a story and served as an advance organizer before the students listened to the story. There were pictorial and verbal annotations available. The instruments used to measure comprehension were vocabulary tests, a posttest, and a comprehension posttest (students had to write down a summary of the story). The general findings of this study suggest that students learned more effectively when they had access to and actively selected visual and verbal modes of elaborating on presented material than when they had access to or selected only one mode or neither. The second finding suggests that visual learners benefited more from visual modes of elaborating on the material, whereas verbal learners benefited more from verbal modes of elaborating on the material. This study also shows the importance of examining learning preferences when researchers want to study learning with multimedia. On the educational side this study is telling educators that teachers should give options for selecting and processing material presented in both visual and verbal annotations. In this way, teachers will be addressing individual differences in class. Finally, this study points out the advantage of adding a visual component to the traditionally strong emphasis on verbal modes of instruction that many foreign language teachers use.

The next study in this category is that of L. C. Jones (2001). She examined the effect of four different multimedia listening comprehension treatments, based on the presence or absence of visual and verbal annotations (visual, verbal, verbal and visual, and neither), on students’ comprehension and vocabulary acquisition. Jones defined annotation as “visual and verbal supplementary items, such as word translation, or a visual representation of a particular word,
that are intended to provide additional meaning to the listening passage” (p. 11). All these annotations were on computer. The 170 participants in her study were enrolled in second semester basic French courses. Students participated in this study as a regular class activity and received some extra credit for participating. There was a pilot study and a main study. The material she used for this research was an aural reading of an authentic encounter between Monsieur de La Salle and the Quapaw Indians in 1682. It was a French narration that students listened to on the computer. The results of this study indicate that students most successfully understood the vocabulary and the passage when they could select from visual and verbal annotations that accompanied the aural passage (dual coding). In conclusion, the presences of visuals helped participants to link information with the aural message and thus better retain information.

L. C. Jones and Plass (2002) conducted a study that tested the effectiveness of pictorial and written information on listening comprehension using multimedia. The researchers investigated how the choice of written and pictorial annotations in a listening comprehension activity affected students’ comprehension and also acquisition of new vocabulary from an aurally presented authentic historic text. The study was conducted at a university in the south central United States with French students \( (n = 171) \). These students were in a second-semester class and they voluntarily participated. The participants were given a listening comprehension pretest in order to assess their proficiency before being assigned to any of the four treatment groups established by the researchers. The treatments were described as follows: (1) no annotation, (2) written annotation, (3) only pictorial annotation, and (4) both pictorial and written annotation available. The findings of this study revealed that students who got the fourth treatment (pictorial
and written annotations) did better in comprehension and vocabulary compared to the other groups.

The last study in this category is Ockey’s (2007). He conducted a study in order to compare a series of still images to video (two types of visuals) in academic computer-based tests. He wanted to determine how listeners engaged in these two modes. The six participants were all international students studying English as a second language who were enrolled in a large university in the western United States. They were financially compensated to be in the study. They were categorized into three different ability levels: advanced, upper intermediate, and lower intermediate. All the participants majored in different careers such as psychology, engineering, biology, and business management and came from Taiwan, France, Spain, Japan, Korea, or China. The materials used in this study were two computer-based listening tests designed to look at the ways test takers engaged with the two modes of input (context-only still images versus context-only video). The input for both tests was taken from a videotaped university classroom lecture. The participants reported that still images were helpful initially to establish a context for the speech event, but they were not aided by them thereafter. In other words listeners did not seem to gain any additional information from the still images after initial exposure. However, they reported that they were more distracted when visuals changed to a different image, so it might be better to have only one still image rather than a series. The results of the study also suggest that listeners engaged with still images and with video in different ways. Finally, when a video is employed, most listeners used information that came from the video to help process the input. In other words, the use of video may result in measuring listeners’ abilities to use visual cues to aid comprehension instead of only listening abilities. According to the researcher, “If the construct is defined as listening without processing visual
information, as had been the case with measures that have used audio-only input, then visual
cues that enhance the performance of test takers are construct irrelevant” (p. 532). This study is
very significant because researchers and teachers should be able to determine to what extent
visuals should be considered part of the listening construct and also to what extent the tests and
activities in listening should include visuals for enhancing comprehension. This study also
suggests how the use of video for listening may be contradictory if one wants to measure real
listening comprehension in class instead of video visual comprehension.

From the previous studies it is quite evident that pictorial cues can enhance listening
comprehension, especially at the beginning level (Herron, 1994; Mueller, 1979; Secules et
al.,1992; Teng, 1994). Visual support seems to assist these low proficiency learners in listening.
Some researchers (Mueller,1979; Teng, 1994) indicate that more retrieval cues should be
available to low language proficiency students because visual cues provide students with
additional information that can help them in generating ideas, formulating hypothesis, and
making better predictions about what will occur in the text, thus eliminating misleading concepts
from being formed. However, the studies have also revealed that visuals do not seem to enhance
listening recall for advanced proficiency students (Mueller, 1979). According to Hudson (1982),
because their skills are more extensive (at intermediate and advanced levels), students are able to
bring more nonvisual information to their minds than the beginning-level students.

The reason for considering previous language background and years of exposure to the
language as a drawback and limitation in previous studies is that according to research in
methodology and methodological issues (Kumar, 1996), researchers should keep in mind and
control for all possible related variables (gender, GPA, language background, etc.) that could
impact and contaminate the results and conclusions of studies. Additionally, it is important to
mention in any study’s limitations section the different variables that could possibly influence research results. Kumar provided a good and simple example of how the idea of previous background in a language (time of study, years of contact, etc.) could affect the results of the types of research that were cited in this current literature review. Kumar said that suppose you want to study a relationship between smoking and cancer. Studies have shown that there are many factors affecting this relationship (number of cigarettes, dietary habits, the age of the smoker, etc.). All these previous factors could affect the extent to which smoking might cause cancer. These variables may either increase or decrease the magnitude of the relationship. Unfortunately, as it has been found, there are quite a few false Spanish beginners in many foreign language settings around the United States. Therefore these variables, Spanish background, and years of previous contact, and so on, should be taken into consideration for the results, interpretations, conclusions, and limitations of this current research and any research of this type.

In previous research one could also notice that pedagogically the video-based language curriculum clearly seems to be effective in enhancing listening comprehension. It has been well documented in scholarly literature on video-based language curricula that video seems to have won its place as a preferred mode of listening material. However, some researchers also talked about the dangers of video presentation, arguing that students may view the visual material passively, and little learning may take place (Harmer, 1998; Joiner, 1990). Students should also be exposed to audio-only listening input, but their minds first need to be prepared to do this type of task in audio-only mode. Then with technology, teachers have unlimited possibilities to prepare students and activate their background knowledge during listening activities in class.
Therefore the use of VEPP during listening activities in class might play an important role, as Ur (1984) noted in the following statement:

> Visuals have an important function as aids to learning, simply because they attract students’ attention and help and encourage them to focus on the subject in hand. It is relatively difficult to concentrate on spoken material that is heard “blind,” far easier if there is something relevant to look at. (p. 30)

Ur’s (1984) idea is connected with what happens at beginning levels where students are facing the sounds of a new language they do not even know. For example think about certain critical languages that students are not necessarily exposed to in the United States (e.g., Arabic, Korean, Japanese, Swahili). One wonders what students’ feelings are when listening activities are conducted in those language classes at beginning levels without any visual support or aids. It seems pedagogically necessary and reasonable to expose students to some type of background and knowledge activation to lower their anxiety and enhance their comprehension. Therefore visually supported listening is an area that a number of researchers have hypothesized could impact in positive ways the performance of L2 listeners (Mueller, 1979; Ruhe, 1996; Wolff, 1987). Finally, previous studies also show how linguistic input can be presented using both the aural and visual channels, and thus listeners can utilize all the different visual input in order to create meaning from the spoken text, just as they can in most real-life settings.

In summary, the previous researchers have claimed the importance of the different forms of nonverbal signals, information, and modes in helping a listener create meaning from a spoken text. In this way L2 listeners use visual input to compensate for their limited listening comprehension abilities at beginning or even intermediate levels. However, it is important to keep in mind that in early stages of language learning, L2 listeners might rely more on top-down processing, using extralinguistic information to comprehend what is going on. Their goal should be, then, to move toward less dependency on extralinguistic information and develop competent
bottom up processing abilities (extracting information from the spoken text) in order to understand what is being said. Another important conclusion from the previous literature review is that using visual representation of the spoken message may help learners activate relevant words and notice them, and thus comprehend meaning not only to enhance comprehension of the spoken text but eventually to fostering learners’ speaking abilities (Dunkel, 1986).

What is Missing in Visually Supported Listening Studies

After reviewing the literature on visually supported listening with different presentation techniques (e.g., video, multimedia, visual organizers—with and without pictures on paper, still pictures on paper, moving pictures, summarizing sentences, pictures with sentences on paper), it seems that VEPP, which is obviously a common tool used today, is one mode of presentation that has not been empirically researched in class in preparing students for listening activities. This researcher looked for studies in visually supported listening with PowerPoint but has yet to find any.

This current research is different from previous research conducted in visually supported listening. Those differences are highlighted as follows. First, this study was conducted using six different listening activities (or tests of comprehension) from the students’ Spanish textbook. The activities were not modified or changed in any way. In previous research, investigators created and brought in their own listening activities for their experiments to measure students’ listening comprehension. Also, previous research has not followed a sequence of listening activities identified with each chapter of the textbook. This listening research was indeed part of students’ regular classes during two semesters (pilot and main study). The researcher only designed the VEPP for the different listening activities. The participants of this current experimental study were students who had never studied Spanish previously or had taken Spanish more than 4 years
prior to the study. Finally, in previous studies some researchers used students’ writing skills to measure listening comprehension, which could potentially confound the results. However this research did not use students’ writing to measure their listening comprehension.

There are also two other factors that have been overlooked in previous research on visually supported listening. These factors are gender and anxiety. To this author’s knowledge, there are few experimental studies (e.g., Li, 2006) on visually supported listening that also addressed gender differences. There are also quite a few studies that addressed students’ anxiety on visually supported activities (Arnold, 2000). This current study is then a contribution to the scarce research on visually supported listening and its relationship to gender and students’ anxiety. There are not many mentions of these variables in previous studies. This current research sought to explore gender differences (based on statistical analysis) and students’ listening anxiety (based on this researcher’s observations and previous research). According to MacIntyre, Baker, Clément, and Donovan (2002), “If the goal of L2 instruction is to increase the use of the L2, especially outside of the classroom, our understanding of age and sex variations becomes of paramount importance. L2 communication is a context-bound phenomenon, and that context is heavily determined by fundamental characteristics of the learner” (p. 560).

In conclusion, from the previous literature review research gaps were observed in the following areas: the impact of visually supported listening at beginning levels of foreign languages, the use and impact of PowerPoint in listening, the use and evaluation of listening materials already available in a curriculum (textbook listening materials), the use of visually supported listening as a way to lower students’ anxiety before listening, and finally gender differences in visually and nonvisually supported listening. The previous areas are those that this
current research sought to explore in order to draw practical conclusions based on statistical analysis, the researcher’s observations, participants’ opinions, and previous research.

**Anxiety and the Role of Visual Support in Listening Comprehension**

According to the research, a great percentage of students experience anxiety when they first begin learning a second language (Arnold, 2000). Beginning students have trouble understanding what is being said in class. One factor that researchers believe affects listening comprehension and, in general, language ability is anxiety. Research also indicates that because the affective dimension is very important when one is learning a language (Arnold, 2000; O’Malley & Chamot, 1990; Oxford, 1990; Stevick, 1980), the simplest task can become difficult and frustrating. Therefore anxiety is an important factor to explore and keep in mind in a foreign language setting.

Different researchers have also pointed out that listening and speaking are the skills that produce more anxiety (Arnold, 2000; MacIntyre & Gardner, 1994; Oxford, 1990). According to Arnold, previous studies have been conducted in different contexts to demonstrate experimentally what language teachers know intuitively: Learners in a foreign language classroom are often anxious, and this feeling may inhibit performance in the foreign language. That is why one of the purposes of this dissertation is to add more research derived from students’ perceptions about how anxiety in listening activities can be lowered when visual support is utilized. To this author’s knowledge, research on listening anxiety in foreign language is scant.

Arnold (2000) pointed out that in general researchers have been more interested in describing the problem of anxiety than on exploring in detail ways to avoid it. In her article, Arnold talked about the previous humanistic methods created in the 1970s (Silent Way,
Suggestopedia, Total Physical Response, etc.) as solutions for lowering students’ anxiety during the process of learning a language. Therefore the current research is practical in terms of teaching listening in class because it is proposing a visualization technique that could also lower or prevent students’ anxiety before listening tasks at beginning levels.

In fact, Arnold (2000) mentioned visualization as a promising technique for dealing with anxiety. Arnold pointed out that visualization “can facilitate the interiorization of knowledge by creating a more receptive state of awareness, permitting the affective/creative functions of a more holistic nature to participate in and strengthen the learning experience” (p. 780). However she said that most of the “suggestions offered for alleviating this anxiety have been vague and sweeping” (p. 780).

According to Field (2008), it might be necessary to rethink the approach the teachers have toward listening. He said that it is necessary to recognize that successful L2 listening communication demands listening in equal measure with speaking. He added, “We need to ensure that the words of teachers do not fall on stony ground because they have taken comprehension of learners for granted. We need to address a major cause of anxiety among learners—especially those confronting oral exams” (p. 5). Additionally, he concluded that it is necessary to open up a rich source of new linguistic materials for those who enter the L2 environment. Finally, he cited three major factors that contribute to the feeling of listening anxiety among students in class. First he mentioned the listening class that is teacher centered. That is to say the teacher controls the button of the CD or cassette player, predicts where the problems are likely to occur, asks relevant questions, replays certain parts and decides how much time is spent on the activities. The second factor is that playing a recording to a group of learners has an isolating effect. That is to say, students experience a feeling of isolation, because it could
be said that classroom listening is, of its very nature, isolating. Of the four skills it is the most internalized. Finally, the last factor Field mentioned is that listening takes place in real time. He said that the cassette or CD moves on, and the learner’s mind has to keep up with it. So listening is not under the control of the listener. Additionally, the learners cannot look back to check a word or words they have heard in order to check their comprehension. The three factors identified contribute to learner anxiety and provide a reason for learners’ citing listening as a difficult skill that caused anxiety.

Returning to Arnold (2000), she conducted an experimental study in listening comprehension where one group of learners was exposed to visualization and relaxation strategies before listening (experimental group), whereas the other group was exposed only to listening with no strategies (control group). The purpose of the study was to help participants cope with test anxiety. The participants of this study were two subgroups of 11 of approximately 80 students. The students were taking advanced-level English language classes at the University of Seville in Spain. The students who participated in this study were experiencing anxiety because they needed to pass a listening comprehension exam as a requirement for their degree.

The findings of this study, based on students’ answers on questionnaires and opinions, revealed the following: (1) Students had positive opinions toward visualization and relaxation techniques; (2) they felt that the techniques had a positive effect on lowering their level of anxiety; and (3) they reported that they felt more relaxed and better able to understand spoken English in an exam situation.

The conclusions of this study emphasized the importance of imagery for thinking. Arnold cited Damasio (1994) to point out that the various types of images such as visual, auditory, and so forth, are beneficial in preparing students’ minds for anxiety reduction, because knowledge is
dependent on image information. To summarize, according to research, anxiety reduction might conceivably lead to further increases in perceived communicative competence (MacIntyre, Noels, & Clement, 1997).

Again, to this author’s knowledge, there are few empirical studies on visual support for listening as a technique to lower students’ anxiety in class. All studies on anxiety have based their conclusions on the results of student surveys. Therefore, although surveys have been used to measure students’ anxiety, as in other studies (Arnold, 2000), the responses we got from the participants in the current study deepened our understanding of visually assisted listening. For this reason empirical research could contribute to reducing anxiety toward listening that negatively affects some students’ performance on L2 listening.

Gender in L2 Listening Comprehension

Another purpose of this dissertation is to add more empirical evidence of the type of relations generated between L2 listening comprehension and gender, based on statistical analysis. Additionally, the findings from these studies in gender could help us to understand how some learners’ characteristics such as gender may have an impact on test scores. It can also help us to understand the importance of designing a language proficiency test that fits our students’ needs and styles.

Gender is a factor that researchers believe affects listening comprehension (e.g., Boyle, 1987; Colnar, 1987; Farhady, 1982). However the findings are still controversial, speculative, and inconclusive. Li (2006) said that the relationship of gender to L2 listening comprehension is inconclusive, due to the small amount of research that has been conducted. However some have come to the conclusion that females fare better in general language ability. Gardner (1985), for example, reported different studies that demonstrate more positive attitudes toward language
learning among girls and argued that attitudinal differences might be responsible for obtained sex differences in achievement. Gardner also reported studies indicating that modern languages were perceived as a traditionally female field, where the teachers observed a pattern of girls performing better than boys in the language classroom and where teachers had higher expectations of girls than of boys (Clark & Trafford, 1995; Worral & Tsarna, 1987).

Some studies (Rosenthal & De Paulo, 1979; Farhady, 1982; Hall, 1978) suggest that females are better at listening tasks, or the other way around; others fail to find sufficient evidence to support the claim that males and females differ in listening comprehension in the second/foreign language classroom. The following section describes some of the studies conducted to examine the relationship between learner variables and learner performance in listening ability only. This learner variable is sex.

Hall (1978) and Rosenthal and DePaulo (1979) conducted research on video-based experimental studies of language listening and they suggested and provided evidence that females were found to be superior decoders of nonverbal information.

Farhady (1982) conducted a large-scale study on 800 incoming UCLA foreign students to examine the relationship between learner variables and learner performance. Learner performance was assessed through the UCLA English as a Second Language Placement Examination. Five components (listening, reading, grammar, cloze, and dictation) were included. The results showed no significant differences between males and females in their overall performance; however further analysis of the data indicated that male and female students did not perform equally well on the listening comprehension component: female students were found to outperform male students on the listening comprehension subtest.
Boyle (1987) conducted a study with 490 first-year Chinese university students. He investigated whether males excelling over females in listening vocabulary was a valid claim in an EFL/ESL context. He used a battery of tests with 12 subtests for this purpose. The procedure was as follows: The vocabulary listening task came in two formats: (1) matching the word heard in English with its corresponding picture, and (2) matching the word heard in English with one of the four alternative Chinese translations. The findings of this study revealed male superiority in listening. According to Boyle, these differences are due to biological differences in early development. This explanation is an easy way to clarify the nature of those differences; however, empirical investigations from experts in this field (biology and genetics) may also be needed to draw conclusions in terms of biological differences.

Another study in gender and L2 listening comprehension was conducted by Markham in 1988. The main purpose of this study was to establish the existence or nonexistence of sex bias as a factor in ESL student listening recall. A total of 98 students, 45 advanced and 53 intermediate ESL, were part of this study. Of the participants, 56 were male and 42 were female. The participants listened to an expository prose passage about Amish people in Pennsylvania. The students were told to listen attentively to the audiotape without taking notes and then to write down all that they could remember using complete sentences. All respondents were tested during their regularly scheduled class periods. The results revealed that male and female students did not differ significantly in their level of listening comprehension.

Similarly, Bacon (1992) compared the level of comprehension between men and women who listened to two short expository passages in Spanish. The comprehension of the participants was measured by the researcher using an interview in which participants were probed to tell as much as they understood about the two listening passages. Again, the results of this study
revealed that there were no significant differences between men and women in the level of comprehension of the two listening passages.

A study conducted by Colnar (1987) also revealed that there were no significant differences between the sexes in listening comprehension, nor were there any significant interactions between type of message, sex of listener, and the effect on test scores. The purpose of her study was to determine if there were significant differences in listening comprehension between men and women. The participants were 160 undergraduates. They listened to a 20-minute informative message, after which they responded to a 15-item multiple choice test. Finally, Colnar recommended that further research be conducted on the factorial structure of listening comprehension of the sexes and test and message construction.

Finally, a different study conducted by Hwang in 1997 did not show a significant relationship between listening comprehension and gender. Female students’ listening scores were not significantly higher than those of the male counterparts. The participants in this study were 401 Taiwanese college-level students between the ages of 18 and 24. However, 45 subjects were deleted from the study. All had studied English as a foreign language. Of the 356 participants, 125 were female and 231 were male. Each participant in the experiment completed two tests; one was the listening section of the Comprehension English Language Test (CELT), and the other test was Wu’s (1974) Hidden Figure Test (AHFT).

Ho (1987) also conducted an experimental study in 1987. The purpose of this study was to investigate factors (sex, verbal intelligence, personality, and attitude variables) that could contribute to individual differences in foreign language skills. Participants were first-year university students from the University of Hong Kong, which is an English language institution in a Chinese language community. There were 117 males and 113 females. Measures of the four
basic language skills, reading, writing, listening and speaking, were included in this study. The results of this study regarding gender did not reveal any significant differences in listening between males and females, but it showed that females were superior in writing and speaking.

In spite of the fact that previous research does not show any significant differences between males and females when they deal with comprehending aural input, the findings are still very inconclusive due to a lack of research that would account for the relationship between gender and listening comprehension in particular.
CHAPTER 3

METHODOLOGY

After reviewing and exploring many studies on listening done with visuals, no studies, to the knowledge of this author, were found on the effects of visually enriched PowerPoint in listening activities in class. This dissertation explored listening skills along with the use of this specific visual technique presentation because listening still needs more research, especially with Spanish foreign language beginner classes, where research is still scarce. In addition, beginning levels of Spanish are the population that seems to need more extralinguistic context in listening due to their limited linguistic tools. Finally, PowerPoint is a very common tool for classroom teachers, and it may be useful to examine its positive potential and impact in language classes.

This experimental study was conducted in this researcher’s classes in order to determine whether there were significant effects on students’ listening comprehension outcomes when VEPP slides were presented in pre-, during-, and postlistening class activities.

To date, to this author’s knowledge, there has been no study whose focus was on listening accompanied by VEPP slides at beginning levels of Spanish. It is hoped, then, that this study will offer results and conclusions that will be useful to future studies for visually supported listening in foreign language classes, and to general studies on the development of the skill of listening.

Participants

The main study comprised two university classes of beginning level students of Spanish who had not previously taken Spanish or who had not taken Spanish in the 4 years prior to
enrolling. Beginning level classes have a maximum of 25 students; there were a total of 45 students who participated in the pilot study, and 46 who participated in the main study. The majority of students were speakers of English studying Spanish as a foreign language at a Southern university.

The participants in this study were classified as beginning-level learners based on the placement requirements form that students have to fill out in elementary levels of Spanish at the beginning of each semester (see Appendix C). Students usually check the box next to the placement criteria that pertains to how they were placed in the class that they are currently attending. Then the instructor, with the help of the coordinator, determines which students may stay in the class according to the criteria they checked. It is important to mention that a preliminary study of the population revealed that there were many false beginners registered for Sp 101 classes in this university, who already had some previous knowledge of Spanish. According to Thomas (2006), false beginners are defined as students who take beginning classes but who are not true beginners. She said that these students’ knowledge of the vocabulary, their familiarity with grammatical structures, and their ability to understand the written and oral word surpass the skills and knowledge of their classmates who have just begun the study of the language (true beginners). Finally, she said that as more and more foreign languages are offered in high school, and more colleges require them for entrance, the potential for bringing false beginners to college classes grows. In Spanish the situation is aggravated by its rising popularity and because of the presence of heritage learners. Whether they are false or true beginners, we will continue to use the general term beginning level to refer to 101 students, although there may be more false than true beginners in the classes.
Reasons for Choosing This Specific Population of Students

There are different reasons that the Spanish elementary level was chosen for this research on listening. According to Brown (2001),

... teaching beginners is considered by many to be the most challenging level of language instruction. Since students at this level have little or no prior knowledge of the target language, the teacher (and accompanying techniques and materials) becomes a central determiner in whether students accomplish their goals. (p. 98)

Goals for Novice Levels in Foreign Language Listening

It is important to mention the goals for students at a novice level in a foreign language setting. According to the American Council on the Teaching of Foreign Languages (ACTFL) guidelines for listening, novice students are characterized in the following manner:

*Novice-Low.* Understanding is limited to occasional isolated words, such as cognates, borrowed words, and high-frequency social conventions. Essentially, there is no ability to comprehend even short utterances.

*Novice-Mid.* Able to understand some short, learned utterances, particularly where context strongly supports understanding, and speech is clearly audible. Comprehends some words and phrases from simple questions, statements, high-frequency commands, and courtesy formulae about topics that refer to basic personal information or the immediate physical setting. The listener requires long pauses for assimilation and periodically requests repetition and/or a slower rate of speech.

*Novice-High.* Able to understand short, learned utterances and some sentence-length utterances, particularly where context strongly supports understanding, and speech is clearly audible. Comprehends words and phrases from simple questions, statements, high-frequency commands, and courtesy formulae. May require repetition, rephrasing, and/or a slowed rate of speech for comprehension (ACTFL, 1983).
To summarize, according to the course objectives for Elementary Spanish 101 and the ACTFL guidelines for listening, at the end of the semester a student should be able to listen and understand basic passages and conversations in Spanish related to chapter topics and vocabulary covered in class.

A second reason for choosing elementary students for this study is that at this Southern university, students at elementary levels of Spanish have few contact hours per week in class, which means that students are less exposed to listening in general (fewer hours than in previous years because of the redesigned course format, which falls under the hybrid classification: a combination of 3 hours in class, 2 hours online). They only have contact with the teachers and their classmates on Mondays, Wednesdays, and Fridays. On Tuesdays and Thursdays students do virtual days, which are devoted to online activities housed in eLearning, but they have very few assigned listening activities on those days. In conclusion, students only do listening on eLearning as part of Exam 1 and Exam 2, with no visual support, and in multiple-choice format (see Appendix D). This study did not consider students from Spanish 102 or 103 as possible participants because these students have already had more exposure to and previous experience with the language than Spanish 101 students. Furthermore, students’ listening skills in 102 and 103 may be better than those of students at the 101 level. Usually, students from 102 have already completed SP 101 at this university, whereas students from 103 have completed Spanish 101 at a different university or they have taken 2 or more years of high school Spanish within the past 4 years. A study at beginning levels may also have practical benefits as to recommendations on how to increase the number of listening-related activities.
Research Method

This study is a quasi-experimental design. *Quasi* refers to the fact that the participants in the sample were not randomly assigned to groups, but it was a convenience sample of two Spanish classes. The pilot study took place Spring 2008, and the main study took place Fall 2008. First, a pretest was administered to both classes and scored at the beginning of this study. The pretest consisted of a listening test designed by the researcher, with grammar and vocabulary from chapters 1 through 6 of the textbook, the chapters that Spanish 101 covers during a whole semester (see Appendix E). The listening pretest determined whether there were any significant differences in the listening proficiency levels of the students in the two classes.

For the experimental condition, the treatment consisted of using VEPP prepared by the researcher according to the content and context of the conversations in the listening activities. For the control condition, the exercises consisted of using the textbook *¡Tú dirás!* which generally presents photos of the speakers in the conversation as the only visual support for listening activities. These photos are located at the beginning of the listening activities with the introduction to each conversation. Paper worksheets were prepared to accompany each one of these activities for the duration of the research for both treatment and control.

Based on the literature review and previous studies on visually supported listening, the focus of this study is whether visual support such as VEPP will affect beginning level students’ listening outcomes. To reach this goal, a mixed ANOVA was conducted to examine the effects of the within-subjects manipulations of six unit listening exercises in two Spanish 101 classes. The dependent variable was the mean of six listening scores, and the independent variables were treatment and class. It was a 2 (treatment) × 2 (class) design. Each class alternately received the VEPP treatment during each listening activity, while the other class functioned as the control
Each student was given six listening activities, received the treatment of VEPP slides for three of the activities, and was part of the control group for three activities, in an alternating pattern. Class 1 received the treatment (visual aids) for activities 1, 3, and 5, and Class 2 received the visual aids for activities 2, 4, and 6 (Table 1). Participants’ scores in the VEPP condition were averaged to get one measure as well as participants’ scores in the non-VEPP to get the second measure. The listening scores were kept in an Excel spreadsheet and exported to SPSS to analyze how students did in the VEPP and non-VEPP condition. A $t$ test was conducted to see if there were any significant differences between the two conditions.

Each participant had three treatment condition scores and three control condition scores, which were averaged to provide one treatment condition measure and one control condition measure. In this way it was possible to compare each participant’s control and treatment scores for a within-subjects comparison. Participants’ scores in one Spanish class could also be compared to those of the other Spanish class, for a between-subjects comparison to determine whether being in one class over the other affected the results of the treatment. Students alternated being in the treatment condition to control for class and the cumulative effect of one group receiving the treatment every time. With this design, both classes could benefit from the experimental materials.

With the previous design description one tried to determine if using visually assisted support at the pre-, during-, and postlistening stages in the form of VEPP would impact students’ outcomes in listening activities. The research design was checked by a member of the Institute for Social Science Research at the university where this study was conducted.
Table 1

Schedule for Treatment and Control

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<tr>
<th>Activity</th>
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<td>Listening Activity 2</td>
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<td>Listening Activity 3</td>
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<td>Listening Activity 4</td>
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<td>Listening Activity 5</td>
<td>Class 1</td>
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<td>Listening Activity 6</td>
<td>Class 2</td>
<td>Class 1</td>
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Listening Activities for the Control and Treatment Conditions

The listening activities used for this study were taken directly from the textbook that participants use for Spanish 101, ¡Tú dirás! 4th edition (see Appendix F). The textbook is divided into 14 chapters and is preceded by a Capítulo preliminar (Preliminary Chapter). Each chapter consists of three etapas (stages) that present new material and review the content of previous etapas. Each etapa begins with Para empezar to give a contextualized overview of new vocabulary. According to the authors, with this 4th edition, the etapas are now briefer and more visual, with key vocabulary items now introduced in one to two integrated scenes of real-life communicative situations. There is only one listening activity per chapter, called Vamos a escuchar, which is located at the end of the first etapa. All listening sections are accompanied by pre- (Antes de escuchar) and postlistening (Después de escuchar) exercises. In general the pre-exercises are written “prediction” exercises. They are used to activate students’ previous knowledge of the topic before they listen to the conversation and answer the postlistening
exercises (*Después de escuchar*). In general, the postlistening exercises consist of multiple-choice listening comprehension questions, completion of charts, completion of ideas, and checking boxes according to what students hear. It is important to say that listening comprehension activities from chapters 1 and 2 give the instructions for the activities in English. However, chapters 3 through 6 give instructions in Spanish because it is assumed that at that point students are able to read and follow instructions in Spanish.

According to the *¡Tú dirás!* textbook, listening comprehension activities are designed to reinforce structures and vocabulary and improve pronunciation. The answers to listening comprehension activities, as well as the text audio script, are found in the Annotated Instructor’s Edition only. The listening dialogues or conversations expand on the story line of the video (that accompanies the textbook) about the lives of five young Spanish-speaking adults from different Latin American countries. These five young people are brought together to live and learn under the same roof just outside of San Juan, Puerto Rico. In this way the video and listening are integrated into the text with an audiovisual element, according to the authors of the textbook.

**Schedule of Activities**

During Spring 2008 and Fall 2008 a participant demographic survey (Appendix G), a listening pretest, and six listening activities were conducted in the two classes. Table 2 shows these listening activities, the chapter from the textbook that includes that activity, and the situation or subject matter for each listening activity.
Table 2

*Quasi-Experimental Schedule for the Pilot and Main Study: Spring 2008-Fall 2008*

<table>
<thead>
<tr>
<th>Activity</th>
<th>Title/Subject Matter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participant Survey</td>
<td>GPA, sex, age, Spanish background, and so on.</td>
</tr>
<tr>
<td>Pretest</td>
<td></td>
</tr>
<tr>
<td>Listening Activity Ch 1</td>
<td><em>Un café en Puerto Rico</em> (A cafe in Puerto Rico)</td>
</tr>
<tr>
<td>Listening Activity Ch 2</td>
<td><em>Allí vivo. En mi cuarto tengo</em> (I live there. In my room I have…)</td>
</tr>
<tr>
<td>Listening Activity Ch 3</td>
<td><em>El atareado día de Valeria</em> (Valeria’s busy day)</td>
</tr>
<tr>
<td>Listening Activity Ch 4</td>
<td>¿Qué van a hacer los compañeros? (What are the roommates going to do?)</td>
</tr>
<tr>
<td>Listening Activity Ch 5</td>
<td>¿Qué deportes les gustan a los compañeros? (What sports do the roommates like?)</td>
</tr>
<tr>
<td>Listening Activity Ch 6</td>
<td><em>Valeria va de compras</em> (Valeria goes shopping)</td>
</tr>
<tr>
<td>Participant’s Opinion</td>
<td>The use of VEPP for listening activities in class</td>
</tr>
</tbody>
</table>

Description of Stimulus Materials: Visually Enriched PowerPoint Slides for the Treatment Condition

As previously described, the researcher prepared and adapted VEPP slides for each listening activity that was part of this study. The PowerPoint slides were enriched with different types of visuals according to the content of each listening activity. The pictures and images in the PowerPoint slides were taken from Google Image Search and from the Spanish textbook. Speakers’ photos from the conversations were scanned and then added to the VEPP slides. According to Google regulations and copyright restriction policies, if images from its website are used as a part of an assessed piece of coursework, dissertation, or thesis, and they are used in a...
nonprofit educational setting, images and other material may be included without copyright infringement. The researcher contacted the site owner to obtain the requisite permissions and information in the event that this research is published in the future. According to the regulations, one may copy anything for the purposes of examination/inclusion in a thesis, although any copyright material should be removed if the exam/paper/thesis is subsequently published. Otherwise it is necessary to ask for permission to grant the use of those images.

Data Analysis and Scoring Procedures for the Pilot and Main Study

The quantitative data came from the outcome measures (six unit listening exercises). Analysis for the \( t \) test and mixed ANOVA design was performed using the statistical program SPSS for windows (Version 15.0). Participant performance was measured in terms of percentage of correct responses from the multiple-choice comprehension and completion activities in the listening exercises. The exercises were scored by an impartial graduate student and then reviewed by an independent rater (another graduate student) to ensure inter-rater reliability. Any discrepancies were discussed by the two raters. The results obtained from the unit activities for the control and experimental conditions were compared and analyzed statistically to determine if there were significant differences. The highest level of confidentiality was maintained in the collection of the data for this research, as the researcher was the only person to have access to the students’ grades. The data were then kept safely in the researcher’s personal library in her home, where she was the only one who had access. Participants were given an ID number after the data were collected, so the data were anonymous and confidential at this point.

The next chapter presents the statistical analysis of the results of the participants’ scores on the VEPP and non-VEPP conditions. It also explores gender differences. A presentation of the results of the participants’ opinions about the use of VEPP in listening activities is also included.
CHAPTER 4
RESULTS AND DISCUSSION

Introduction

This research had three purposes: The main purpose was to explore the impact of VEPP during pre-, during-, and postlistening stages on recall measures of listening comprehension among students of beginning college-level Spanish; a secondary purpose was to explore gender differences with and without VEPP; and the last purpose was to report participants’ opinions about the use of VEPP for pre-, during-, and postlistening activities. A \( t \) test and mixed ANOVA design guided the experimental configuration and the collection and analysis of the data. This chapter, therefore, reports the quantitative results of the listening comprehension outcomes with and without VEPP, gender differences with and without VEPP, and the qualitative dimension provided by a participant survey that explored their reactions to the use of VEPP for listening activities in class. Together, these results are shown to address the research questions and to test the hypotheses of this study.

Instruments

Each treatment (VEPP) and control (non-VEPP) activity was presented as another routine listening comprehension exercise in the normal curriculum. Students had no knowledge of the details or purpose of this research. Participants were told about this research and its purpose the last day of class. The VEPP presentations were presented on the projector screen located in front of the class. The presentation of the VEPP slides was coordinated with the conversation, which was played on a CD player.
Paper and pencil “activities,” in the form of six quizzes, were administered following each listening activity to measure listening comprehension, the participants’ ability to comprehend and recall each conversation from the six different chapters assigned to the class during the entire semester.

The two experimental conditions in this study were as follows:

1. VEPP accompanying pre-, during-, and postlistening activities: Participants in this condition saw and interacted with the PowerPoint during the three listening stages using the activities and instructions from the Spanish textbook. Then they listened to the conversation in Spanish from the textbook and they looked at the VEPP slides to contextualize what they were hearing. Finally, they recalled the conversation’s content by answering listening comprehension questions from the Spanish textbook.

2. Non-VEPP pre-, during-, and postlistening activities: Respondents in this condition did not see the PowerPoint during the three listening stages. They just saw and read the activities from the Spanish textbook. Then they followed the Spanish textbook instructions, they listened to the conversation in Spanish without VEPP slides, and they recalled the conversation’s content by answering the listening comprehension questions from the Spanish textbook. The students’ listening comprehension activities were then scored on the basis of the correct answers to the questions.

Participants

Participants for this study were taken from a population consisting of elementary (first-year) Spanish students at a Southern university. The main study was conducted during the first semester (Fall 2008) of a mandatory two-semester basic language course. Students fill out a form at the beginning of the semester that determined their placement into these classes. Students who
have never studied Spanish, as well as students who studied Spanish 4 or more years prior to the beginning of classes, are placed in these elementary classes. Forty-six Spanish students comprised the sample for the main study.

For this investigation, the university registration process precluded the random assignment of students to a specific treatment condition. Using a convenience sample designates this a quasi-experimental study. Because random assignment of participants is preferred, this is a limitation of the study.

Statistical Analysis

Hypothesis 1 predicted that VEPP would facilitate student listening comprehension and result in higher listening comprehension. A paired-samples $t$ test was used to compare the means of the treatment and control scores to determine if the VEPP treatment made a difference in the students’ listening outcomes. The test results revealed a significant difference between conditions, $t(45) = 2.768, p < .05$ (two-tailed). On average, participants ($n = 46$) produced higher listening scores in the VEPP condition than in the control, or non-VEPP, condition, ($M = 60.16, SD = 17.06; M = 54.51, SD = 14.59$, respectively). This study showed that using VEPP before, during, and after listening activities in a beginning Spanish class enhanced students’ listening comprehension of Spanish conversations. These findings provide support for Hypothesis 1.

Given the fact that previous research mentions differential cognitive effects of visuals support on males versus females in listening, the analysis was refined by introducing gender as a possible moderating factor. Hypothesis 2 predicted that the use of VEPP in listening activities would impact male and female listening scores differently. In our convenience sample, there were 16 males and 30 females. An ANOVA was run with treatment/VEPP and gender as independent variables (a $2 \times 2$ design) and the participants’ mean listening scores as the
dependent variable. The analysis revealed no main effect for gender, $F(1, 44) = .520, p > .05$. However, an interesting interaction emerged between treatment and gender, $F(1, 44) = 4.869, p < .05$. Although the means of the listening scores for males and females were not statistically different in the treatment condition (males: $M = 59.30$; females: $M = 60.62$), they were statistically different in the control condition (males: $M = 59.56$; females: $M = 51.82$). This finding suggests that the VEPP treatment enabled the female participants to recoup a preexisting disadvantage relative to the males in terms of listening comprehension, possibly due to females’ stronger reliance on visuals for message comprehension. These results corroborate previous research findings regarding gender-related differences in comprehension of audio and/or visual messages (Bacon, 1992; Colnar, 1987; Farhardy, 1982; Hwang, 1997; Li, 2006; Markham, 1988) and provide support for Hypothesis 2. More research is needed to clarify the relationship between gender and visually assisted listening.

Finally, a participant survey was utilized to determine students’ views and opinions about the use of VEPP during the pre-, during-, and postlistening stages. Forty-six students responded to the survey. Participants were asked to respond with Yes or a No as to whether or not the use of VEPP was useful in helping them feel less anxious before listening to a conversation in Spanish. Participants were also asked to provide additional comments (See Appendix H). The survey participants offered overwhelmingly positive responses (Figure 1), with 91.1% of the total student sample reporting that VEPP helped them feel less anxious before listening to a conversation in Spanish.
Figure 1. Response to survey question regarding the usefulness of VEPP in lessening anxiety prior to a listening comprehension exercise.

These were some of the commentaries collected from students’ surveys: “Yes, pictures help me to associate the words to the actual thing it was,” “Yes the visual PowerPoints were helpful to put a name with a picture,” “Yes help reinforce,” “Yes because I tend to remember things better after seeing a visual presentation,” “Yes because it helped put words to pictures and that is how people naturally learn,” “Audio with images—it helps to learn conversation,” “No, I still couldn’t understand what they were saying. The people spoke too fast in the listening activities,” “Yes, the visual support was an interactive learning tool making it easier to learn,” “Yes I am a visual learner so when I see something it helps me remember,” “Yes they provide an alternative learning style, which was good for me,” “Yes visual support breaks the normal routine and made it more interesting,” “No,” “Yes it helped me remember vocabulary,” and so on.

Discussion of Results

The present study reveals that Spanish foreign language learners at beginning levels seem to perform better in listening comprehension when they are provided visual cues via PowerPoint
during the pre-, during-, and postlistening stages. The results of the current study suggest that the students’ comprehension of a foreign language conversation can be effectively enhanced by providing VEPP as an advance organizer prior to listening to conversations in Spanish. The results also suggest that visual information might complement the aural information processed by the listener, or it might provide redundant information that can be useful for the listeners in confirming their processing and comprehension of the aural text. The results are also consistent with previous findings (Bright, 1986; Kim, 2003; Li 2006; Mueller, 1979; Rubin, 1990) and provide further proof that visual support may facilitate and enhance listening comprehension. This study also confirms how visual cues aid listening comprehension of new material by activating background knowledge and providing contextual cues to upcoming information. As to the use of PowerPoint versus other visuals (e.g., Aleman-Centeno, 1982; Chung, 1994; Gruba, 1993; Mueller, 1979; Rubin, 1990), the current study shows that PowerPoint is an appropriate multimedia tool that allows teachers to create interactive listening lessons. Teachers can use different colors, sounds, and pictures to make the listening lesson more appealing to students. Additionally, PowerPoint is easy to use and accessible to all, and teachers do not have to spend much time preparing a short PowerPoint for their listening lesson. Finally, PowerPoint allows teachers to be better prepared and present more material to help their students.

Most literature regarding the effect of gender differences in listening comprehension with and without visual support is very inconclusive (Li, 2006). Some studies indicate that females do better in language ability in general (Gardner, 1985), whereas other studies indicate that females are better at listening tasks and are better decoders of nonverbal information (Hall, 1978; Rosenthal & DePaulo, 1979). Boyle’s (1987) study found that men had superior listening abilities. Meanwhile other studies report no significant differences in females’ and male’s overall
performance in listening (Bacon, 1992; Colnar, 1987; Farhardy, 1982; Hwang, 1997; Markham, 1988). Only further investigation will help clarify the ambiguous/inconclusive findings with respect to visually and non-visually assisted listening and the impact on gender. Meanwhile the current study revealed that men did not benefit from visual support for listening, suggesting that men did not need it under the conditions of this study. However, women took more advantage of visual support for listening, suggesting that there was more impact on them, and suggesting that they performed worse in the absence of visual support. In conclusion, in the present study, visual support seemed to assist women more than men in listening tasks.

In general participants in this study expressed positive opinions about the impact of using VEPP in listening activities and how it helped them to feel less anxious. Thus the primacy of visual information in a listening activity cannot be overlooked in the second and foreign language curricula. Participants’ opinions also add to the research and confirm some previous and scarce research on how visual cues help reduce anxiety in the classroom (Arnold, 2000; Damasio, 1994). Participants’ remarks reflect the educational implication of this study that instructors at lower levels should provide students the option to select from and process visual and verbal stimuli that accompany an aural passage. By doing this, instructors are considering students’ learning preferences and at the same time addressing their needs. Participants’ commentaries are also consistent with previous research on the benefits and usefulness of verbal and nonverbal information in human learning and how linguistic input is enhanced when information is concurrently presented in auditory and visual modes (The Dual Coding Theory, Paivio, 1971; Mayer’s Generative Theory of Multimedia Learning, 1997, 2001). Finally, the findings are fairly indicative of how students liked it and felt less anxious when the instructor
used VEPP for the listening activities in class and the reasons why VEPP was a useful and interesting tool.

Chapter V presents the summary, conclusions, and recommendations of the current study based on these previous findings.
CHAPTER 5
SUMMARY, SUGGESTIONS, AND CONCLUSIONS

Overview

The motivation of this study was to investigate the effects of VEPP during pre-, during-, and postlistening stages on recall measures of listening comprehension among students of beginning college-level Spanish. The study compared students’ comprehension of Spanish conversations under two different conditions: with and without contextual (VEPP) support. The contextual support was given to the participants through the pre-, during-, and postlistening instruction, which involved viewing the VEPP. Successful comprehension was measured by the number of correct answers to the listening comprehension questions from the textbook. This study also investigated whether there were gender differences between men and women on their listening comprehension when VEPP was used or not used during listening activities. Finally, this study also reported participants’ opinions and feelings about the use of VEPP for pre-, during-, and postlistening activities and whether students felt less anxious when the instructor used VEPP. This chapter summarizes findings, gives recommendations for future research in this field, suggests important implications, and provides conclusions on visually supported listening.

The participants in this study were all students enrolled in Elementary Spanish (SP 101). Typically, these students had not studied Spanish before or they had studied Spanish in high school 4 or more years prior to enrolling in the class. Students placed in this class are required to pass two semesters to fulfill the university language requirement.
The research data were drawn from the students’ scores on their listening activities. The research design employed in the study was a $t$ test and mixed ANOVA, which allowed the researcher to determine the effect of visual help (VEPP) on listening comprehension and a gender effect.

Traditionally, classroom or language laboratory-based listening work has used audio cassettes or video cassettes accompanied by varieties of activities and a CD player in order to practice listening in and outside of class. However, due to technological advances in recent decades things have changed, and instructors have more resources available. In the field of second- and foreign-language listening, different researchers have claimed the positive impact of visual support for listening and reading comprehension processes (Brett 1997; Ginther 2001; L. C. Jones 2001; Kim 2003; Wagner, 2006). Results of performance on listening tasks conducted in different experimental and nonexperimental studies have previously shown more effective comprehension and recall while using multimedia and technology than with just audio or video plus pen and paper. Additionally, results have also shown that participants in those studies have manifested their preference for the use of visual support during listening tasks (Burger 2001; Ginther, 2001). Studying the effects of VEPP adds more research support to the idea that visually assisted listening may enhance comprehension and give students the opportunity to be more engaged in more contextualized language listening activities in class.

**Research Questions**

The goal of the present study was to investigate the following three research questions regarding the use of VEPP during pre-, during-, and postlistening activities in class. Specifically, the following questions guided the study:
1. What are the effects on students’ listening outcomes (listening comprehension grades) when VEPP is included during the pre-, during-, and postlistening exercises?

2. Do males and females differ in their listening comprehension scores in both conditions (VEPP and non-VEPP)?

3. What did students report about anxiety with and without VEPP?

Based on the goals of this study and the literature review, the following hypotheses were formulated and tested in this study:

H1: Participants’ scores from the treatment condition (VEPP) will be higher than those in the control condition.

H2: There will be gender differences on listening scores.

H3: Students will report anxiety to be lower when they have VEPP for their listening activities.

Summary of Findings

The first research question explored the impact of VEPP on students’ listening outcomes on beginning-level Spanish classes. The results of the current study suggest that students’ comprehension of a foreign language can be effectively enhanced by providing VEPP prior to and during listening to a Spanish conversation on a CD player. The findings of this study confirm and support previous evidence about how visual support in listening is helpful to activate students’ background knowledge because it provides contextualization to the new information students listen to in class.

The second research question examined how gender differences affected listening comprehension using VEPP. It was hypothesized that there would be some differences in the VEPP listening comprehension performance between male and female participants. The analysis
revealed that there were no significant differences in listening outcomes for gender. However, an interaction revealed that females were at a disadvantage in comparison to the males in the control condition (non-VEPP); the treatment (VEPP) appeared to help them to catch up to the males in listening comprehension. Unfortunately, most literature regarding the effect of visual support on listening for sex is inconclusive (Boyle, 1987; Colnar, 1987; Farhady, 1982; Li, 2006). The findings in this study have practical implications because they show the importance of keeping in mind learning styles and in creating environments equally accessible to men and women.

The third research question explored students’ attitudes and opinions toward the use of VEPP in their different stages of listening in class. The participants’ survey responses revealed the facilitating role of visual support in listening comprehension processes at beginning language courses. Participants expressed that they were less tense and nervous during the VEPP-enriched listening tasks in class. Additionally, they found the VEPP to be interesting and motivating, according to their commentaries on the participant survey. They also felt less bored during the listening-viewing tasks with VEPP. Most literature recommends that because of the limited proficiency of beginning students in L2, teachers should not deprive students of the experience of visual support in conjunction with audio. According to Wright (1989), it is easy to remember what we have seen and heard when both of our senses are engaged in the listening process. And additionally, combined visual and verbal stimuli not only motivate and interest, but they also provide contextualization and specific reference points for students’ attention to the portions of the conversation they need to focus on. In general students were positive about the facilitative role of VEPP for listening activities in class.

Overall, the results of this study indicate that the impact of VEPP is relevant to listening comprehension in the second/foreign language classroom. The use of VEPP in listening activities
helps students focus their minds so as to approach a listening task in a more effective and less anxious way. Finally, this study also adds to the literature regarding the positive effects of visual support in comprehension processes.

Limitations of the Study

This study generally supports previous research and findings on the positive impact of visually supported listening. However, there are a number of limitations in this study that should be considered.

1. The relative effectiveness of VEPP used in this study may vary as a result of learners’ listening proficiency and the format of the listening comprehension test. In this experimental study all the participants were rated beginning proficiency college learners. The use of this sample decreases the generalizability of findings to other language learners of various ages and proficiency levels.

2. The participants were selected at the convenience of the researcher, based on the availability of students in her own classes. There was the intention of adding more participants to this research, but that was difficult due to curriculum and administrative limitations in the work setting.

3. During the different sessions of the experiment, the researcher observed that some students took the listening activities in class as quizzes and not as activities they should enjoy. This fact indicates how afraid some students are when they have to work on listening activities. They had been told that the purpose of the textbook activities was not to quiz them and grade them but to develop and foster their listening abilities in general. However, listening anxiety was present among some students because they considered the activities to be tests.
4. It seemed that some of the textbook listening activities were aimed at intermediate rather than elementary-level students. According to what the students experienced and manifested in class during the pilot and the main study, some of the listening activities proposed in the textbook were designed beyond the current listening level of a beginning student.

5. During the prelistening activities students read all the listening activity instructions in English, and then after chapter 3 students had to read the instructions in Spanish. This meant they had to use their reading skills in Spanish (after chapter 3) to understand the questions from the corresponding listening activity. Additionally during some of the prelistening activities in some chapters, students also had to answer questions. This meant they had to use their writing skills either in Spanish or English to complete that particular section of the listening activity. According to research in assessment (Bachman, 1990) this could mean that students were being tested on other abilities or other language skills areas, in this case reading and writing, which might contaminate the study results in listening at some point. Field (2008) said that it is very difficult to check understanding accurately through the use of conventional comprehension questions. He also said that answering such questions often involves a great deal of reading and writing, and if learners give wrong answers, it may not be due to failure of listening at all. It may be because they have not understood the question properly (a reading problem) or because they lack the language to formulate a written answer (a writing problem).

6. It is possible that some participants were able to answer the listening comprehension questions based solely on the pictures that the VEPP contained.

Thus, when evaluating or reporting the findings and results from this study these limitations should be taken into account.
Suggestions for Future Research

Although the interest in studying and researching listening comprehension is growing, there is still very little empirical research on visually supported listening. Further research is clearly needed.

Based on the findings of this study, the following recommendations and suggestions can be made concerning visually supported listening in a foreign language context.

1. This study involved foreign language learners at a low proficiency level. Further studies that involve this level of foreign language students are recommended because there is very little empirical evidence about the impact of visually assisted listening at elementary levels.

2. Due to the small population that was tested, further research on this experiment should be undertaken. It is suggested that this type of research be conducted as a departmental endeavor in order to get a larger sample.

3. This study utilized one type of contextual support, that is, VEPP, to examine the impact on students’ listening outcomes. Other types of visual support before listening may have different effects on listening comprehension.

4. This study only utilized Spanish conversations from a specific foreign language textbook. Other types of conversations from different sources assisted by VEPP may have had a different impact on students’ listening outcomes.

5. This study only addressed the impact of VEPP on students’ listening outcomes. It would be interesting to explore the impact of VEPP and in general PowerPoint on other foreign language skills and areas such as vocabulary recall outcomes, grammar, writing, reading, speaking, and culture.
6. Further research is also suggested on how listening comprehension with and without visual support is impacted by gender differences.

In summary, this study can be considered another contribution toward supporting the use and positive impact of visual support at lower levels of language learning during listening comprehension processes.

Conclusions

Studies on visually supported listening in foreign and first languages have pointed to the effectiveness of visual and verbal modes for comprehending aural passages (Baltova, 1994; Burger, 2001; Ginther, 2001; L. C. Jones, 2001; Kim, 2003; Mueller, 1980; Omaggio, 1979; Rubin, 1990; Wagner, 2006). However, to this author’s knowledge, researchers have never examined the effects of VEPP on students’ comprehension of an aural passage. Now we have support for a positive VEPP effect on listening comprehension processes and student outcomes.

In summary, the purpose of this study was to examine the impact of VEPP and to provide additional research about the positive effect of visual support using technology such as PowerPoint during listening comprehension activities in class. Results indicate that providing visually supported listening in the form of VEPP makes the aural material more comprehensible to the listeners at beginning levels because it activates their prior knowledge and schemata. Additionally, by using VEPP, listening activities are more contextualized. That is, this study shows that appropriate contextual visuals can improve listening comprehension recall for beginning students of Spanish. This result is not surprising and supports prior theoretical and empirical findings. In previous research Mueller (1980), Omaggio (1979), Bransford and Johnson (1972), Teng (1997), Li (2003), Kim (2003), Wagner (2006), Burger (2001), Ginther (2001), and others have demonstrated the beneficial effects of visually supported listening on
listening comprehension. Finally, it is important to keep in mind that it would not be reasonable to infer that audio-only recordings should be avoided for listening activities in our classes. It is understandable that students should be prepared for real-life situations where visual stimuli are not available to assist them in decoding messages, such as talking over the phone or listening to the radio.

Participants’ listening comprehension with visually assisted help in this study was relevant to gender. It seems that VEPP treatment enabled the female participants to recoup a preexisting disadvantage relative to the males in terms of listening comprehension, possibly due to their stronger reliance on visuals for message comprehension. More research is suggested in order to find more concrete results about this finding.

Participant surveys indicated that students prefer and like the use of technology in the form of VEPP with colors, pictures, and sound for the listening activities in class because they felt less tense and nervous.

The implications of this study provide empirical bases to indicate that visuals are useful for listening instruction in class. The study shows that given the foreign language context of this study, prelistening instruction that provides necessary background knowledge prior to comprehension tasks is an effective way to increase students’ Spanish comprehension. In conclusion, students benefited from the content- and context-related VEPP in understanding Spanish conversations. Given the importance of listening in second- and foreign-language acquisition, any assistance from instructors to help L2 listeners deserves consideration. These findings seem to be useful for developing instruction on effective use of VEPP in order to decode and comprehend spoken conversations better before, during, and after listening. It is not only the
visuals themselves that have helped students perform better but also the care shown by teachers who prepare their classes better and include more materials to help students to success.

It is hoped then that the implications of this research may be considered when teaching listening using VEPP. By framing listening activities with VEPP, the language learning listening process may become a more pleasant and successful experience for the learners at beginning levels, where students tend to get frustrated and give up very easily when they do not understand what is being said in class.

Finally, this study is also useful for universities and educators who are currently using and integrating multimedia in their teaching, specifically, in listening. The study suggests that presentation of aural passages in more technological ways (using PowerPoint for example) has a positive impact on beginning students of Spanish.
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APPENDIXES
APPENDIX A

IRB APPROVAL
November 5, 2007

Francia Eliana Martinez
Spanish Graduate Teaching Assistant
Modern Languages and Classics
College of Arts and Sciences

Re: IRB # 07-OR-292 “The Effect of Visual Support Techniques in Students’ Listening Outcomes in Beginning Levels of Spanish”

Dear Ms. Martinez:

The University of Alabama Institutional Review Board has granted approval for your proposed research.

Your protocol has been given expedited approval according to 15 CFR part 46. You have also been granted the requested waiver of informed consent. 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. Please provide participants with a copy of the attached participant information sheet.

Good luck with your research.

Sincerely,

Carrianto T. Myles, MSM, CIM
Director of Research Compliance & Research Compliance Officer
Office of Research Compliance
The University of Alabama
APPENDIX B

SAMPLE OF A VISUALLY ENRICHED POWERPOINT FROM CHAPTER 2
Before Listening

Listening Activity from chapter 2

Con Alejandra y Antonio

Before Listening
During Listening

After Listening
APPENDIX C

PLACEMENT REQUIREMENTS
1. Name: ___________________________ Email: ___________________________

2. Check your Current SP Class and write in the Section number-
   - SP101- ________
   - SP102 - ________
   - SP103 - ________
   - SP201- ________
   - SP202- ________

3. If you took the Placement Exam, write your score here: ________________

4. Regulation for Placement into Elementary and Intermediate Spanish: Please check the box next to the placement criteria that pertains to how you were placed in the class that you are currently in. If the criterion does not match, please see your instructor because you may have to change classes. Upon completion of this form, please turn into your instructor. Please note that SP103 is the equivalent of taking both SP101 and SP102 in the same semester. The same textbook is used. SP103 is not a higher level course.

   **SP 101**-
   - Never taken a Spanish class before
   - Took Spanish in High School more than 4 years ago

   **SP 102**-
   - Completion at the University of Alabama of SP101 with a C

   **SP 103**-
   - Completion at a different university of Spanish 101
   - Two or more years of High School Spanish within the past 4 years

   **SP 201**-
   - The placement exam
   - Completion at the University of Alabama of SP102 or SP103 with a C
   - If coming from High School, by the placement exam and having 3 or more years of High School Spanish
   - If coming from a different University with completion of SP102 or SP103 course, by the placement exam

   **SP 202**-
   - Completion at the University of Alabama of SP201 with a C
APPENDIX D

SAMPLE LISTENING ACTIVITY FROM ELEARNING
Sample listening activity from eLearning during virtual days

Question 1  (1 point)

<p>| | | | | |</p>
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</thead>
<tbody>
<tr>
<td>0</td>
<td>898</td>
<td>MC</td>
<td>1</td>
<td>4</td>
</tr>
</tbody>
</table>

COMPRENSION AUDITIVA (5 PTS TOTAL)

Listen carefully to Clara Herrera, a student at UCLA, discussing her interests and studies.

Clara es de...

- a. Argentina.
- b. Florida.
- c. Guatemala.
- d. México.

Question 2  (1 point)

<p>| | | | | |</p>
<table>
<thead>
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<tbody>
<tr>
<td>1</td>
<td>901</td>
<td>MC</td>
<td>1</td>
<td>4</td>
</tr>
</tbody>
</table>

Listen carefully to Clara Herrera, a student at UCLA, discussing her interests and studies.

A Clara le gusta...

- a. ver películas extranjeras.
- b. viajar.
- c. estudiar las ciencias.
- d. programar computadoras.

Question 3  (1 point)

<p>| | | | | |</p>
<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>2</td>
<td>903</td>
<td>MC</td>
<td>1</td>
<td>4</td>
</tr>
</tbody>
</table>

Listen carefully to Clara Herrera, a student at UCLA, discussing her interests and studies.

Clara toca...
- a. el piano.
- b. la guitarra.
- c. la batería.
- d. la trompeta.

**Question 4** (1 point)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>MC</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>909</td>
<td>MC</td>
<td>1</td>
<td>4</td>
</tr>
</tbody>
</table>

Listen carefully to Clara Herrera, a student at UCLA, discussing her interests and studies.

En la universidad estudia...

- a. literatura.
- b. filosofía.
- c. informática.
- d. lenguas extranjeras.

**Question 5** (1 point)

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<thead>
<tr>
<th></th>
<th></th>
<th>MC</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>913</td>
<td>MC</td>
<td>1</td>
<td>4</td>
</tr>
</tbody>
</table>

A Clara no le gustan las clases de...

- a. ciencias.
- b. historia.
- c. geografía.
- d. lenguas extranjeras.
APPENDIX E

LISTENING PRETEST
Nombre____________________________
Sp 101
Fecha: Enero del 2008          Score____/18

**COMPRENSIÓN AUDITIVA 1 (8 PTS TOTAL)**
*Listen carefully to Clara Herrera, a student, discussing her interests and studies. Completa la información de acuerdo con lo que escuchas.*

1. ¿De dónde es Clara? Clara es de____________________________.

2. ¿En qué ciudad vive Clara? Clara vive en la ciudad de____________________________.

3. ¿Clara vive en….? a. una casa       b. una residencia     c. un apartamento

4. ¿Qué le gusta hacer en su tiempo libre a Clara?

    A Clara le gusta____________________________.

5. ¿Qué instrumento le gusta tocar a Clara?

    Clara toca____________________________.

6. ¿En qué universidad estudia Clara?

    Clara estudia en la universidad de____________________________.

7. ¿Qué clases estudia Clara en la universidad?

    Clara estudia____________________________.

8. ¿Qué clase no le gusta a Clara? A Clara no le gusta/an___ __________.

**COMPRENSIÓN AUDITIVA 2 (5 puntos)**
*Luís is asking Paula about her parents' life and Paula is describing it. Listen to their conversation and indicate if the statements are true or false. Verdadero (true) and falso (false).*

1. Los padres de Paula viven en un pueblo y no en una ciudad.

    a. Verdadero. b. Falso.
2. El padre de Paula trabaja en una oficina de correos
   a. Verdadero.     b. Falso.

3. La madre de Paula no trabaja.
   a. Verdadero.     b. Falso.

4. A los padres de Paula les gusta pasear o ir a la plaza después del trabajo.
   a. Verdadero.     b. Falso.

5. A los padres de Paula no les gusta ir a Puebla (una ciudad en México)
   a. Verdadero.     b. Falso.

**COMPRENSIÓN AUDITIVA 3 (5 puntos)
Rafa Andani talks about one of the most well known stars of baseball, the Dominican, Sammy Sosa. Complete or choose the right option for each statement according on what you listened.**

1. En el partido (game) del sábado los Chicago Cubs jugaron (played) con__________.
2. Sammy Sosa comenzó (began) a jugar ( to play) a los________años en la liga de Estados Unidos.
   a.13 años     b.16 años     c.26 años
3. Sammy Sosa jugó_____ el sábado.
   a. bien  b. mal     c. regular
4. ¿Qué recibió (received) Sammy Sosa en 1988? __________________________
5. Los peloteros (baseball players) latinos son:
   a. excelentes     b. buenos     c. regulares
APPENDIX F

LISTENING ACTIVITIES FOR THE SEMESTER
Listening Comprehension Activity (Chapter 1) _____/ (15 points)
Name:______________________________
Group: 002, 004 Spanish level: Elementary

Vamos a escuchar

Sofía and Javier, two of the roommates from the ¡Tú dirás! Video decide to check out the local cafés in downtown San Juan. Listen carefully to the conversation they have in one of the cafés. Try to understand as much as you can, but remember that you are not expected to recognize or understand every word. Focus on the vocabulary and expressions you do recognize.

Antes de escuchar (Before listening)

What type of café do you prefer? Consider the following characteristics:

- the architecture and interior design
  - style and decoration: traditional, modern, etc.
  - types of seating: tables, chairs, sofas, etc.

- the atmosphere
  - music: yes or no; and if yes, what kind?
  - People: crowded or empty

Before you listen to the conversation, look at the exercise in the Después de escuchar section.

Después de escuchar (While and after listening)

There are two parts to Sofia and Javier’s conversation in the café. Listen to the first part and complete the following exercises.

Primeras impresiones del café

1. What in particular does Javier like about the café’s atmosphere?

2. What does Sofía like?
¿Quién?

What do Sofía and Javier decide to eat and drink? Write S for Sofía and J for Javier.

1. S____un café con leche
2. S____un té
3. S____un jugo de naranja
4. J____churros
5. J____un bocadillo

Now listen to the first part of their conversation again and complete the following exercise.

En más detalle

1. Which of the following types of bocadillos does the café have?
   ___bocadillos de chorizo
   ___bocadillos de queso
   ___bocadillos de atún y pimiento
   ___bocadillos de jamón

2. The waiter says the following to Sofía and Javier after taking their order. “Muy bien, gracias. Enseguida lo traigo.” Based on the context, what do you think “Enseguida” means?
   _______________________________________________________________________

Now listen to the second part of the conversation and answer the following.

¿Qué opinan Sofía y Javier?
1. The waiter asks Sofía and Javier how everything is. What do they reply?
   ___Todo está delicioso
   ___Todo está perfecto
   ___Todo está horrible
   ___Todo está rico (delicious)
2. What else do Sofía and Javier order?
________________________________________________________________________

**Listening Comprehension Activity (Chapter 2)** ______/ (18 points)

Name in full:_________________________________
Group: VEPP, NVEPP Spanish level: Elementary

**Vamos a escuchar**

**Allí vivo. En mi cuarto tengo…**

Alejandra y Antonio, from the ¡Tu dirás! video, are having a conversation. Listen carefully and complete the following activities. Try to understand as much as you can, but remember that you are not expected to recognize or understand every word. Focus on the vocabulary and expressions you do recognize.

**Antes de escuchar**

Based on what you already know about Alejandra and Antonio and what you’ve learned in this etapa, think about the answers that they are likely to give about:

- where they live
- what they have in their rooms at home

Now share your ideas with a classmate. Do you have similar responses?

Before you listen to the conversation, look at the exercises in the Después de escuchar section.

**Después de escuchar**
Comprensión  Fill in the chart below by checking off who has what.

<table>
<thead>
<tr>
<th></th>
<th>Alejandra</th>
<th>Antonio</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Vive en...</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>una casa</td>
<td></td>
<td></td>
</tr>
<tr>
<td>un apartamento</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Tiene...</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>una alfombra</td>
<td></td>
<td></td>
</tr>
<tr>
<td>una cómoda</td>
<td></td>
<td></td>
</tr>
<tr>
<td>muchos discos compactos</td>
<td></td>
<td></td>
</tr>
<tr>
<td>un escritorio</td>
<td></td>
<td></td>
</tr>
<tr>
<td>un estante</td>
<td></td>
<td></td>
</tr>
<tr>
<td>un estéreo</td>
<td></td>
<td></td>
</tr>
<tr>
<td>muchas fotografías</td>
<td></td>
<td></td>
</tr>
<tr>
<td>muchos libros</td>
<td></td>
<td></td>
</tr>
<tr>
<td>un reproductor de DVDs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>un ropero</td>
<td></td>
<td></td>
</tr>
<tr>
<td>una silla</td>
<td></td>
<td></td>
</tr>
<tr>
<td>un televisor</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Compare your completed chart with that of a classmate. Do you have the same answers?

Listen again to Alejandra and Antonio’s conversation and complete the following exercise.

**En más detalle**

1. ¿Con quién vive Alejandra? ¿Y Antonio?

   _____________________________________________

2. ¿Qué tiene Alejandra en las paredes?

   - [ ] pósters
   - [ ] fotografías
   - [ ] libros
3. ¿Qué necesita Antonio?
   ☐ una alfombra
   ☐ unos estantes
   ☐ discos compactos

Listening Comprehension Activity (Chapter 3)  ____/ (14 points)

Name in full:_________________________________
Group: VEPP, NVEPP Spanish level: Elementary

Vamos a escuchar

El atareado (busy) día de Valeria

Valeria and Javier, two of the roommates from the ¡Tú dirás! video, are having a conversation. Listen carefully and complete the following activities. Try to understand as much as you can, but remember that you are not expected to recognize or understand every word. Focus on the vocabulary and expressions you do recognize.

Antes de escuchar

Predicciones Based on what you learned in this etapa and what you know about Valeria and Javier, try to determine the following.

1. What grammatical expression will Valeria use to talk about what she has to do?

2. What exactly do you think Valeria has to do today? Make a list of possibilities.

3. What grammatical expression will Javier use to talk about what he feels like doing?

4. What one thing do you think Javier feels like doing?

Now share your ideas with the class. Did you have similar responses?
Before you listen to the conversation, familiarize yourself with the exercises in the Después de escuchar section.

**Después de escuchar**

¡Tengo mucho que hacer!  Listen as Valeria tells Javier what she has to do today. Mark all of the activities that she mentions.

Tengo que…

☐ …llamar por teléfono a mi madre.
☐ …llamar por teléfono a mis amigos en Venezuela.
☐ …escribir una postal.
☐ …escribir unos correos electronicos.
☐ …caminar a la playa.
☐ …caminar al centro.
☐ …comprar comida.
☐ …cocinar

**Más detalles sobre Valeria**  Listen again to Valeria and Javier’s conversation and answer the following questions that relate to Valeria.

1. ¿Qué no tiene la madre de Valeria?
   
   ______________________________

2. ¿Qué cree Valeria que tienen ganas de hacer sus amigos?
   
   _____________________________________________

3. ¿Cuántas hermanas tiene Valeria?
   
   ______________________________

4. ¿Por qué dice Valeria que tiene que comprar comida?
   
   _____________________________________________

5. ¿Qué piensa Valeria de la posibilidad de explorar la ciudad con los compañeros?
   
   _____________________________________________
Más detalles sobre Javier  Listen again to Valeria and Javier’s conversation and answer the following questions that relate to Javier.

1. ¿Cuál dice Javier que es la dirección de la Hacienda Vista Alegre?
   _______________________________________________________

2. ¿Qué dice Javier que tiene ahora?
   ________________________________

3. ¿Cuántos hermanos tiene Javier? ¿Cuántos años tienen? ¿Qué estudian?
   _______________________________________________________

4. ¿Qué tiene ganas de hacer Javier?
   ________________________________

5. ¿Con quién tiene que hablar?
   ________________________________

Compare your responses with those of a classmate. Do they coincide?

Listening Comprehension Activity (Chapter 4)    ______/ (6 points)

Name in full: _________________________________
Group: VEPP, NVEPP Spanish level: Elementary

Vamos a escuchar
¿Qué van a hacer los compañeros?

Antonio habla por teléfono con Javier. Escucha la conversación entre los compañeros. Presta atención al vocabulario y las expresiones que conoces.
Antes de escuchar

Predicciones  De acuerdo con (Based on) lo que sabes, intenta contestar estas preguntas.

1. Según la información del Capítulo 3, ¿qué quiere hacer Javier con sus compañeros?
   __________________________________________________________

2. ¿Qué estructura gramatical van a usar Antonio y Javier para hablar sobre sus planes?
   __________________________________________________________

3. ¿Qué tipo de actividades van a planear? Haz (Make) una lista de las posibilidades.
   __________________________________________________________
   __________________________________________________________
   __________________________________________________________

Comparte tus ideas con la clase. ¿Tienen ideas similares?

Antes de escuchar la conversación, mira las actividades en la sección Después de escuchar.

Después de escuchar

¡Una excursión!  Mientras (While) escuchas la conversación de teléfono de Antonio y Javier, contesta estas preguntas.

1. ¿Dónde está Antonio?
   ______________________

2. ¿Por qué está llamando (calling) Antonio por teléfono a Javier?
   __________________________________________________________

3. ¿Qué forma de transporte sugiere Javier?
   a. el metro
   b. el trolebús
   c. ir a pie
4. ¿Por dónde va a caminar Antonio?
   a. por la Plaza Colón
   b. por la Plaza de la Rogativa
   c. por el Paseo de la Princesa

¿Cómo lo dicen? Escucha la conversación una vez más. Después contesta las preguntas.

1. ¿Cómo contesta Javier al teléfono?
   ______________________________

2. En la conversación, Antonio le dice a Javier “not to worry”.
   ¿Qué expresión utiliza?
   ______________________________

Listening Comprehension Activity (Chapter 5) _____ / (12 points)

Name in full:_________________________________
Group: VEPP, NVEPP Spanish level: Elementary

Vamos a escuchar
¿Qué deportes les gustan a los compañeros?

Escucha la conversación de los compañeros sobre deportes. Intenta comprender lo más posible, pero recuerda que no tienes que entender cada palabra. Presta atención al vocabulario y las expresiones que conoces.

Antes de escuchar

Predicciones Basándote en lo que ya sabes de cada compañero/a, adivina (guess) qué deportes practican. Escribe tus ideas a continuación.

Javier ______________________________

Alejandra __________________________

Antonio ____________________________
Los deportes y actividades físicas
Mientras escuchas la conversación por primera vez, marca con una X los deportes o las actividades que practican los compañeros.

<table>
<thead>
<tr>
<th>Deporte</th>
<th>Javier</th>
<th>Alejandra</th>
<th>Antonio</th>
<th>Sofía</th>
<th>Valeria</th>
</tr>
</thead>
<tbody>
<tr>
<td>alpinismo</td>
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<tr>
<td>baloncesto</td>
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<td>buceo</td>
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<td>fútbol</td>
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<td>hockey sobre hielo</td>
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<td>tenis</td>
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<td>vólibol</td>
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<tr>
<td>yoga</td>
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</table>

Con más detalle
Escucha la conversación de Nuevo. Revisa tus respuestas de la actividad anterior y contesta las siguientes preguntas.

1. A Javier le gustan mucho las actividades al aire libre. ¿Qué negocio dice que quiere tener en el futuro?
2. ¿A qué compañero/a no le gustan los deportes? ¿Qué actividad dice que considera que es un deporte?
_____________________________________________________________

Listening Comprehension Activity (Chapter 6) _____/ (24 points)

Name in full:_________________________________
Group: VEPP, NVEPP Spanish level: Elementary

Vamos a escuchar
Valeria va de compras

Valeria se levantó temprano esta mañana y fue de compras. Acaba de llegar a casa con muchas bolsas (bags). Conversa con Alejandra sobre su día de compras.

Antes de escuchar
Predicciones Antes de escuchar la conversación, contesta las siguientes preguntas. Valeria fue a muchas tiendas en un centro comercial puertorriqueño. Abajo tienes una lista de tiendas en las cuales Valeria compró cosas. Adivina que compró Valeria en cada tienda. Escribe tus predicciones abajo.

| En la librería:                        |
| En la tienda de accesorios para el hogar:   |
| En la tienda de música:                  |
| En la floristería (flower shop):         |
| En la perfumería:                       |

Antes de escuchar la conversación entre Valeria y Alejandra, lee las preguntas en la sección Después de escuchar.

Después de escuchar
Las compras ¿Qué compró Valeria y para quién(es)? Llena el siguiente cuadro. Después contesta esta pregunta: ¿En quién piensa más Valeria a la hora de hacer compras?

<table>
<thead>
<tr>
<th>Tiendas</th>
<th>¿Qué compró Valeria?</th>
<th>¿Para quién(es)?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Librería</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accesorios para el hogar</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Música</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Floristería</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perfumería</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Con más detalle Escucha la conversación de nuevo y contesta las siguientes preguntas.

1. ¿Cómo se llama el centro comercial?
2. ¿Quiénes son Esmeralda Santiago y Carlos Baute?
3. ¿Puede devolver Valeria la planta si a los demás compañeros no les gusta?
4. ¿Cómo pagó todo Valeria?

Más preguntas sobre las compras de Valeria Contesta las siguientes preguntas sobre las compras de Valeria.

1. ¿A qué tienda fue Valeria?
2. ¿Qué buscó en la librería?
3. ¿Qué le sugirió la dependienta de la librería?
4. ¿A qué hora llegó al centro comercial?
5. ¿Cómo pagó sus compras?
6. ¿Según Alejandra, ¿qué tipo de día tuvo Valeria?
Participant Survey

Name_______________________________________
(Remember you will be assigned an ID number)

1. Gender: a. male b. female

2. Age:______

3. Which of these best describes your ethnic background?
   - African American/Black__
   - Caucasian/White__
   - Hispanic__
   - Asian __
   - Other____________________

4. Native Language
   a. English
   b. Other___________

5. High School GPA:_______

6. College GPA:_______

7. Have you formally studied Spanish in an academic setting? ___Yes   ___ No
   If yes, please answer the following:
   a. Where and When? ____________________________________________
   b. For how long? (quarters/semesters) ______________________________

8. Do you have friends or family with whom you speak Spanish? ___Yes   ___ No
   If yes, who? ___________________________________________________
   _______________________________________________________________
APPENDIX H

PARTICIPANT SURVEY ABOUT THE USE OF VEPP
FOR LISTENING ACTIVITIES IN CLASS
Participant Survey

Name_________________________________________
(Remember you will be assigned an ID number)

1. Did the use of PowerPoint (VEPP) help you to feel less anxious before listening to a conversation in Spanish?
   Yes____    No____

2. Any additional comments

______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________