TEACHER FLOW AND ITS RELATIONSHIP TO SCHOOL MINDFULNESS AND ENABLING SCHOOL STRUCTURE

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ABSTRACT

The relationship existing between teacher flow experience, mindfulness, and enabling school structure was investigated. Teacher flow experience, mindfulness, and enabling school structure were examined in order to determine if unique and significant relationships existed between these three variables. A total of 51 elementary, middle, and high schools were surveyed. This included the participation of 521 teachers and 45 principals and assistant principals for a total of 566 participants. Instrumentation for the study included the Flow State Scale (FSS), the Mindfulness Scale (M-Scale), and the Enabling School Structure Scale (ESS).

Results concluded that there was no relationship that existed between teacher flow experience and mindfulness. Moreover, there was no relationship that existed between teacher flow experience and enabling school structure. Teacher flow experience was found to be so individualistic in nature that it was impermeable to such organizational factors as mindfulness and school structure. Other findings have shown that mindfulness and enabling school structure had a significant relationship. However, the strong relationship that existed between these two variables was seen to be a problem of collinearity. Pedhazur (1997) stated, “Collinearity may have devastating effects on regression statistics to the extent of rendering them useless, even highly misleading. Notably, this is manifested in imprecise estimates of regression coefficients” (p. 295).
LIST OF ABBREVIATIONS AND SYMBOLS

$a$ Cronbach’s Alpha of internal validity

$df$ Degree of freedom: Number of values that vary after specific restrictions are placed on the value

$M$ Mean: A sum of a set of measurements divided by the number of measurements for a given set

$P$ A probability that is associated with an occurrence of the null hypothesis of a value which can be as extreme as or even more extreme than the observed value

$r$ Pearson’s Product Correlation

$t$ Value of a t-test

$<$ Is equal to less than

$=$ equal to

$VIF$ Variance Inflation Factor
ACKNOWLEDGMENTS

My educational journey began in the small southeastern Alabama town of New Brockton, Alabama some 35 years ago. From an educational standpoint, I have always held the belief that I should challenge myself to achieve more. However, this ideal has been no small feat to consider as I have been working predominately in an advanced educational setting, including The University of Alabama, for nearly 20 years. To a tremendous degree, I owe the opportunity that I have been given to excel in my educational journey to my wife who has worked extremely hard to help me through every means possible. She has sacrificed everything to put me first, and, for this reason, I am truly a better person. I will never be able to repay her for all that she has helped me accomplish. Thank you Emily.

When I think of my grandmother, I am reminded of Emerson’s quote:

To laugh often and much; to win the respect of intelligent people and the affection of children; to earn the appreciation of honest critics and endure the betrayal of false friends; to appreciate beauty, to find the best in others; to leave the world a bit better, whether by a healthy child, a garden patch, or a redeemed social condition; to know even one life has breathed easier because you have lived. This is to have succeeded.

I have also been very fortunate to have a guiding force through the form of my grandmother who gave me nurturing, including the confidence that I needed to succeed as a person. She also sacrificed her life to ensure that my life would be better and for this reason, I dedicate this research in her memory. I love you We We.

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CHAPTER 1
INTRODUCTION

Overview

Flow is a phenomenon occurring when a person feels fully engaged and becomes totally immersed in what he or she is doing (Beard & Hoy, 2010, p. 427). The current study researches relationships existing between the constructs flow, school mindfulness, and enabling school structure. Past research has indicated that a strong relationship exists between mindfulness and enabling school structure (Hoy, 2003). However, there is little, if any empirical research that teacher flow experience, mindfulness, and enabling school structure are related. This study seeks to find a significant relationship existing between these three constructs and thus a study of these constructs and their relationship is warranted.

Background of the Study

When a flow experience occurs while a teacher is instructing a lesson, his or her physical actions meet their awareness of their surroundings and they become fully engaged in the given activity. Csikszentmihalyi (1990, p. 53; Hoy & Beard, 2010, p. 427) stated that this is the degree to which “an activity becomes spontaneous and almost automatic: [people] stop being aware of themselves as separate from the activity they are performing.”

I was teaching a chemistry lesson, and the students were excited about working with alcohol lamps. But the girl couldn’t get her wick to burn. The rest of the class wanted to move on with their projects, but I told everyone to wait. I was not going to leave her behind, even after she told me to continue and not worry about her.
Normally I do not interfere with science projects, because failure can be part of the learning process. Yet this was simply a matter of faculty equipment; it had nothing to do with the chemical principle we were exploring that morning. I needed to step in. The girl had tears in her eyes, and I felt ashamed of myself for ever have felt like giving up. Suddenly her sadness was all that mattered.

Athletes often refer to getting “into the zone” when they forget about the crowd and the pressure and see only the ball. It can happen in other fields too. For that moment the only thing that mattered to me was that girl should have a successful experiment. She was going to go home with a smile on her face. I bent closely over the lamp of her alcohol lamp. I was determined to get the lamp working. And it started working! The wick caught fire, and I looked up triumphantly to see the smile I expected on the girl’s face.

Instead, she took one look and started screaming in fear. Other kids started yelling as well. I did not understand that why they were all pointing at me, until I realized that while I was lighting the lamp, the flame had touched my hair; it was now smoldering and scaring the hell out of the children. Several of them ran to me and swiped at my head. Talk about a dream come true--they got to hit the teacher on the head and say they were trying to help him.

A few minutes later, all was well and the experiment proceeded. I felt (and looked) like an idiot. And yet for the first time in weeks, I felt great about being a teacher. I had been able to ignore the crap that all teachers on the front lines face. I had done everything I could to help someone. I didn’t do it particularly well, but the effort was there. I thought to myself that if I could care so much about teaching that I didn’t even realize that my hair was burning, I was moving in the right direction. From that moment, I resolved to always teach like my hair was on fire. (Esquith, 2007, pp. xi-xii)

For flow to occur, the individual must have the following nine factors in place: a balance between the challenge (task at hand) and the skills they will need to complete the challenge, the merging between an action they will need to execute and the awareness of what they are trying to accomplish, clear goals, clear feedback, concentration, sense of control, loss of self-consciousness, the transformation of time, and autotelic experience or the sake of completing a task for the intrinsic value that it contains and nothing more. The study suggests that for teacher flow to occur, it is imperative that an organization be mindful and enabling.

Independent variables enabling school structure and school mindfulness have common characteristics making each a complementary concept for the other. Hoy and Sweetland (2001)
found that such enabling school structure exists along a single continuum measured by levels of formalization and centralization. Individual teacher and school mindfulness are conditions that are measured by a number of characteristics. Individual mindfulness is measured by a creation of new categories or by categorizing and labeling of specific situations by paying attention to the situation and the context of the given situation, the openness to new information, and the awareness of multiple perspectives. Hoy argued (2002) that organizational or school mindfulness is measured in terms of a preoccupation with failure, a reluctance to simplify interpretations, a commitment to resilience, the deference to expertise, and a sensitivity to operations. Each “requires trust, openness, flexibility, cooperation, and organizational learning. Both are concerned with problem solving, collaboration, and anticipating the unexpected” (Hoy, 2002, p. 99). Moreover, each of these characteristics place heavy emphasis on learning from mistakes.

Teacher flow is a process occurring when stakeholders within an enabling school structure act mindfully. In other words, teachers who experience flow are also mindful of their surroundings. There must also be a mindful collective that is present within the school for a teacher to experience flow. Teachers may more easily experience flow working within a school that has an enabling rather than a hindering structure. The current study focused on elementary, middle, and high school administrators and teachers within city and county school systems located within northeastern, west central, and southeastern Alabama.

Need and Purpose of the Study

To understand the background concepts for promoting flow, I will introduce the idea to the field. To this end, Chapter 2 (literature review) will discuss constructs including school structure, mindfulness, and teacher flow. The concept of flow will be explored through the works
of Csikszentmihalyi (1975, 1990) and Jackson and Csikszentmihalyi (1999). Secondly, the study will apply these constructs to schools. The concept of mindfulness will be explored through the works of Ellen Langer (1989, 1992). Moreover, the development of organizational mindfulness will also be explored through the work of Weick and Sutcliffe (2002). Enabling school structure will be explored through the works of Hoy and Sweetland (2000, 2001). Finally, the study will test the relationships existing between these three constructs. The three terms will be operationalized in the terms of schools through the works of Hoy and Sweetland (2000, 2001); Hoy (2003); Hoy, Gage, and Tarter (2004, 2006); and Beard and Hoy (2010).

Significance of the Study

The research is of significance in that it extends to the knowledge base that currently exists within the field of educational administration. The works of Hoy and Sweetland (2000, 2001); Hoy (2003); and Hoy, Gage, and Tarter (2004, 2006) have been responsible for linking school mindfulness and enabling school structure. The work of Hoy and Beard (2010) has also been responsible for introducing flow into the schools as a characteristic of elementary teachers. The current study is theoretically significant because it will attempt to connect the constructs of school mindfulness, enabling school structure, and teacher flow.

The study is also significant because it underpins flow as a teaching mechanism embedded in schools with enabling structures maintaining a mindful collective. It has practical significance because teacher flow may introduce different teaching techniques that are more conducive to learning environments. Learning approaches need to be innovative and therefore lacking of rigorous routine. Hoy, Gage, and Tarter (2004) stated, “The point is, mindful
individuals need not be trapped in narrow context: there is always something new to notice. The trick is see the unusual and avoid the anesthetic of routine” (308).

Scope

The study focused on teachers and administrators who responded to the three surveys working in elementary, middle, and high schools within city and county school systems located in Tuscaloosa County, Alabama.

Limitations

The current theory used to link these three concepts is the most efficient explanation because independent variables including school mindfulness and enabling school structure have been linked together in previous studies (Hoy, 2002) and have been proven to be complementary concepts. Hoy (2002) stated, “Both require trust, openness, flexibility, cooperation, and organizational learning. Both are concerned with problem solving, collaboration, and anticipating the unexpected” (p. 99). The dependent variable, teacher flow, has not yet been linked to the two independent variables in any previous studies. Also, evidence could exist that promotes another theory to test the relationships existing between these variables. The study was also limited in that it was cross-sectional, meaning that only a snapshot of the outcome and the characteristics associated with it during a particular period of time had been identified. There was also error in the sample size and location of the study, meaning that a limited number of teachers and administrators working within city and county schools systems within Tuscaloosa County, Alabama had been measured. Finally there was an error in the measurement of the study.
Problem Statement

There is no current research in the field linking teacher flow with enabling school structure and teacher mindfulness. This study attempted to illustrate a relationship that exists between teachers who experience flow working within an enabling school structure with a mindful collective.

Research Questions

1. Is teacher flow related to school mindfulness?
2. Is teacher flow related to enabling school structure?
3. Is enabling school structure related to school mindfulness?
4. Are enabling school structure and school mindfulness related to teacher flow?

Hypotheses

H₁: Enabling school structure is positively related to teacher flow experience.
H₂: Teacher flow is positively related to school mindfulness.
H₃: Enabling school structure is positively related to school mindfulness.
H₄: Enabling school structure and mindfulness are positively related to teacher flow.

Definition of Concepts

The following definitions of terminology have been taken from the leading research in the current subject:

*Flow*. Flow is defined by Csikszentmihalyi (1975) as a “holistic sensation that people feel when they act with total involvement” in a given situation. (p. 36). He (1990) also described flow
as occurring during enjoyable moments when “people describe their state of mind when consciousness is harmoniously ordered, and they want to pursue whatever they are doing for its own sake” (p. 6). Flow is identified by nine dimensions including challenge-skill balance, action-awareness merging, clear goals, unambiguous feedback, transformation of time, sense of control, loss of self-consciousness, concentration of the task at hand, and an autotelic experience. Each of these nine dimensions are identified and defined in the following paragraphs.

**Challenge-skills balance.** This is a dimension of flow occurring when both a challenge and a person’s skills are extended to new levels. All individuals may find their own balance between the two thus setting the stage for flow. Csikszentmihalyi (1990) indicated that “Any activity contains a bundle of opportunities for action, or challenges, that require appropriate skills to realize. For those who don’t have the right skills, the activity is not challenging; it is simply meaningless” (p. 50).

**Action-awareness merging.** This occurs when all of a person’s relevant skills are needed to cope with the challenges of a situation, that person’s attention is completely absorbed by the activity. There is no excess psychic energy left over to process any information but what the activity offers. All the attention is concentrated on the relevant stimuli. As a result, one of the most universal and distinctive features of optimal experience takes place: people become so involved in what they are doing that the activity becomes spontaneous, almost automatic; they stop being aware of themselves as separate from the actions that are performing. (Csikszentmihalyi, 1990, p. 53)

**Clear goals.** Clear goals act as a major component for individuals who have complete involvement within a flow activity. Jackson and Csikszentmihalyi (1999) stated that as the activity progresses, clear goals enable the individual to know what they are doing. They further stated, “This is because clarity of intention helps to focus attention and avoid distraction.” When goals are not clear it is important for an individual to have a strong sense of what they intend to
accomplish. Moreover, goals may many times be “invented or negotiated on the spot” (Csikszentmihalyi, 1990, p. 56).

**Unambiguous feedback.** This is a dimension of flow that refers to the knowledge that an individual has of their performance allowing for continuity in the pursuit of goals (Jackson & Csikszentmihalyi, 1999, p. 22). Feedback is important because it contains the message that success in the task at hand has been achieved. Csikszentmihalyi (1990) stated, “Such knowledge creates order in the consciousness, and strengthens the structure of the self” (p. 57).

**Concentration of the task at hand.** This is one of the most common dimensions of flow and, while it lasts, it is possible to forget all of the unpleasantries of life. Csikszentmihalyi (1990) stated that this dimension “is an important by-product of the fact that enjoyable activities require a complete focusing of attention on the task at hand--thus leaving no room in the mind for irrelevant information” (p. 58).

**Sense of control.** This is a dimension of flow in which an individual lacks a sense of worry about losing control within the situation. Individuals may exhibit a sense of control within a situation “with no active awareness of control but simply not worried about the possibility of lack of control” (Csikszentmihalyi, 1975, p. 44). However, “Too much control or seeking of control actually pushes one out of flow. Too little control, and again one is less likely to be in flow--and in such a case, more likely to be experiencing anxiety” (Jackson & Csikszentmihalyi, 1999, p. 26).

**Transformation of time.** This is a dimension of flow occurring when an individual experiences time as speeding up or slowing down but nevertheless rendered by the activity at hand; however, Csikszentmihalyi (1990) indicated that there are some activities in which the
telling of time is important to the activity rather than distracting to it. Jackson and Marsh (1996) stated that “time may simply become irrelevant and out of one’s awareness” (p. 20).

Loss of self-consciousness. This is a dimension of flow that occurs because there is not enough attention left over for an individual to consider the past or future or any other irrelevant stimuli including the self. Jackson and Marsh (1996) indicated that loss of self-consciousness “does not mean the person is unaware of what is happening in mind or body, but rather is not focusing on the information normally used to represent to oneself who one is” (p. 19).

Autotelic experience. This is the key element of flow and it represents an end in itself. Csikszentmihalyi (1990) referred to it as “a self-contained activity, one that is done not with the expectations of some future benefit, but simply because the doing itself is the reward” (p. 67). It is seen as the end results of the other eight dimensions of flow.

Individual mindfulness. According to Langer (1989), individual mindfulness is the process of drawing novel distinctions in all day-to-day operations of life. Hoy, Gage, and Tater (2004) referred to mindfulness as the “ongoing scrutiny of existing expectations, continuous refinement of those expectations based on new experiences, appreciation of the subtleties of context, and identification of novel aspects of context that can improve foresight and functioning” (p. 308). According to Langer, there are three dimensions that compose individual mindfulness. They include: a creation of new categories, an openness to new information, and an awareness of multiple perspectives. These three dimensions are defined in the following paragraphs.

Creation of new categories. This is a dimension of individual mindfulness defined by Langer (1989) that involves categorizing and labeling by paying attention to situation and context.
Openness to new information. This is a dimension of individual mindfulness defined by Langer (1989) that involves welcoming novelty in the form of ideas, concepts, or information.

Awareness of multiple perspectives. This is a dimension of individual mindfulness defined by Langer (1989) that involves becoming mindfully aware of more than one perspective. Hoy (2002) stated that “Mindfulness can give individuals more control over their contexts by helping them create different and more useful perspectives” (p. 96).

Premature cognitive commitment. This is the process of forming a mindset when encountering a problem and clinging to the same mindset the next time the problem arises. Hoy, Gage, and Tarter (2004) stated that,

individuals tend to seize on standard classifications, use routine rules and procedures, and then proceed to be seduced by their habits. Even when the routine ways don’t work, they simply do more of the same in the belief that more is the key to fixing the problem. (p. 306)

Organizational mindfulness. Weick and Sutcliffe (2001) referred to mindfulness as organizations that,

organize themselves in such a way that they are better able to notice the unexpected in the making and halt its development. If they have difficulty halting the development of the unexpected, they focus on containing it. And if some of the unexpected breaks through the containment, they focus on resilience and swift restoration of system functioning. (p. 3)

Organizational mindfulness is characterized by five dimensions: preoccupation with failure, a reluctance to simplify interpretations, sensitivity to operations, a commitment to resilience, and deference to expertise. These five dimensions are defined in the following paragraphs.

Preoccupation with failure. This is a hallmark of organizational mindfulness defined by Weick and Sutcliffe (2001) as the ability for an HRO to “treat any lapse as a symptom that something is wrong with the system, something that could have severe consequences if separate small errors happen to coincide at one awful moment” (p. 10).
Reluctance to simplify interpretations. Weick and Sutcliff (2001) defined this as an HRO’s ability to create complete and nuanced pictures of the organization’s coordinated activity. HROs simplify less and see more.

Sensitivity to operations. Defined by Weick and Sutcliff (2001) as an HRO’s ability to see the big picture within its organizations. Situational awareness is the key as problems are detected, adjustments are made, and prevention of problems enlarging occurs.

Commitment to resilience. Defined by Weick and Sutcliff (2001) as an HRO’s ability to “develop capabilities to detect, contain, and bounce back from those inevitable errors that are part of an indeterminate world. The signature of an HRO is not that it is error-free, but that the errors don’t disable it” (p. 14).

Deference to expertise. Defined by Weick and Sutcliff (2001) as an HRO’s ability to “push decision-making down--and around. Decisions are made on the front line, and authority migrates to the people with the most expertise, regardless of their rank” (p. 16).

Mindlessness. This is a concept defined by Langer (1997) that “is categorized by an entrapment of old categories; by automatic behavior that precludes attending to new signals; and by action that operates from a single perspective” (p. 4).

Highly reliable organization. This is defined by Weick and Sutcliffe (2001) as “organizations that operate under trying conditions all the time yet manage to have fewer than their fair share of accidents. The better of these organizations rarely fail even though they encounter numerous unexpected events” (p. 3). Highly reliable organizations are comprised of such organizations as hospital emergency rooms, nuclear power generating plants, and air traffic control centers.
**Enabling school structure.** This is a structure that is created by enabling formalization and enabling centralization. Enabling formalization and enabling centralization are “the rules, regulations, and procedures [that] are helpful and lead to problem solving among members rather than rigid, coercive activities that demand conformity” (Hoy & Sweetland, 2001, p. 301).

**Centralization.** According to Hoy and Sweetland (2001), centralization of authority “is the locus of control for organizational decision making; it is the degree to which employees participate in decision making” (p. 299).

**Formalization.** According to Hoy and Sweetland (2001), formalization “is the degree to which the organization has written rules, regulations, procedures, and policies” (p. 297).

**Summary**

In Chapter 1, an overview of the topic was identified. The purpose of Chapter 1 was to introduce and present the study in reference to schools as well as establish a connection with two other variables: mindfulness and enabling school structure. Chapter 1 also defined a series of terms to give the reader a comprehensive understanding of the concepts that will be applied throughout Chapter 2 as well as the rest of the paper. The purpose of the study was identified as whether teacher flow experience is related to mindfulness and enabling school structure. Hypotheses and research questions were also developed to test the interrelationships among the variables as they will be explained by the theory. In essence, Chapter 2 will be comprised of a review of the literature posed at giving the reader a better understanding of relationships existing between teacher flow, school mindfulness, and enabling school structure.
CHAPTER 2
REVIEW OF LITERATURE

Introduction

This chapter reviews the research history of teacher flow, mindfulness, and school structure. A concise synopsis for flow, mindfulness, and enabling school structure has been developed within the conceptual framework of the study. The theoretical framework of the study attempts to tie the construct of flow together with the constructs of mindfulness and enabling school structure by comparing the characteristics of each. The theoretical framework will pinpoint the matching characteristics of the constructs and offer explanations through examples of how these characteristics work together. The theoretical framework will also attempt to answer the research questions within the study. Hypotheses for the study have been identified and will attempt to test the theory of the study. A model, which has been tested by the hypotheses, has been created. Furthermore, the model has been created to test the variables within the study.

Conceptual Framework

The theory of flow, mindfulness in its subparts, including individual, organizational, and educational mindfulness, and enabling school structure, including its elements of formalization and centralization are provided in the following section of chapter 2. Also included in the conceptual framework are the antecedents and interpretive conflicts of the variables.
**Flow**

The terms “in the groove” or “in the flow” describe a transformation that occurs when a deep level of concentration is achieved through which an individual accomplishes an activity. Maslow’s (1965) studies refer to the process of flow as “peak experience” and “self-actualization.” In his discussion of self-actualization and peak experience, Maslow pointed out that many scientists maintain a love and devotion for their work to the point of self-abnegation. He posited of a scientist experiencing self-actualization:

> His self-forgetfulness can certainly be called a transcendence of the ego. His absolute morality of honesty and total truth can certainly be called a semi-religious attitude, and his occasional thrill or peak experience, the occasional shudder of awe, and the humility and smallness before the great mysteries he deals with, all these can be sacral. (p. 226)

In summary, flow is a positive state occurring when an individual has a balance existing between the challenges that may be associated within an activity and the skills necessary to meet the demands of the given activity (Jackson & Csikszentmihalyi, 1999 p. 4). Flow is defined as a positive “state in which people are so involved in an activity that nothing else seems to matter; the experience itself is so enjoyable that people will do it even at great cost, for the sheer sake of doing it” (Csikszentmihalyi, 1990, p. 4). The flow experience is comprised of nine dimensions: challenge-skill balance, action-awareness merging, clear goals, clear feedback, concentration, sense of control, loss of self-consciousness, transformation of time, and an autotelic experience.

Csikszentmihalyi (1990) began the studies of flow assuming that flow was an activity intrinsically motivating. His work revealed the intrinsic need of mountain climbers to climb, chess players to play chess, music composers to compose, and athletes to compete. The purpose of climbing, for example, is simply to climb, that is, to engage in the activity; he described this purpose as achieving the autotelic experience. Autotelic experiences describe a “psychological state, based on concrete feedback, which acts as a reward in that it produces continuing behavior
in the absence of other rewards (Csikszentmihalyi, 1975a, p. 23). Autotelic experiences “are rewarding in themselves . . . [they] provide little worlds of their own which are enjoyable” (Csikszentmihalyi, 1975a, 1975b, 1990, 2003). Joggers run, for instance, just for the sake of running and no other purpose. Csikszentmihalyi also referred to the autotelic experience as “flow” because it is less awkward and because it has no external goals or rewards. However, a state of flow does not depend entirely on the objective nature of the challenges present or on the objective level of skills; in fact, whether one is in flow or not depends entirely on one’s perception on what the challenges and skills are. (Csikszentmihalyi, 1975a, p. 50)

Flow derives from an individual’s consciousness or from “the self,” Csikszentmihalyi’s term for consciousness. The optimal state of each inner experience contains an order in consciousness, which occurs when attention “invested in realistic goals, and when skills match the opportunities for action” (Csikszentmihalyi, 1990, p. 6). Pursuing goals brings about an order in awareness because of the deep concentration involved on the task at hand. The individual momentarily forgets about everything else (p. 6).

**Antecedents.** Maslow’s (1964) “transcendence of ego,” deCharm’s (1968) “origin” state, and Alderfer’s (1969) Growth ERG Theory constitute three theories from which Csikszentmihalyi draws information in order to aid in his creation of flow. Although these theories do not directly identify flow, they share some of the same psychological properties as the concept of flow and are identified within the flow theory. Moreover, his work may be considered a major movement in the field of positive psychology.

Maslow’s “transcendence of ego.” Maslow’s description of the “transcendence of the ego” is similar to Csikszentmihalyi’s dimensions including “merging of action and awareness”
and a “loss of ego” or “loss of self-consciousness” because an individual who experiences these dimensions loses a lack of concern for one’s self as they merge with their surrounding environment. Maslow (1964) stated, “There is a tremendous concentration of a kind which does not normally occur. There is the truest and most total kind of visual perceiving or listening or feeling” (p. 60). Moreover, his term “peak experience” describes a flow experience because a person “feels immersed in what he or she is doing” (Beard & Hoy, 2010, p. 427). Also, “peak experience” is characteristic of Csikszentmihalyi’s dimensions of flow including “loss of self-consciousness” and “transformation of time” because there contains a “disorientation of time and space or even a lack of consciousness of time and space” (Maslow, 1964, p. 63).

deCharm’s “origin” state. deCharms’s (1968) work on intrinsic motivation also contributes to Csikszentmihalyi’s notion of flow. deCharms described Csikszentmihalyi’s process of flow as the “origin” state. In a study of school children, deCharms (1968) found differences in the feelings of students toward teachers (or followers toward leaders) when the students felt that they had control “in determining the course of events in the classroom situation” (p. 312). “Origin” was the term used to describe the students who felt in control within the classroom. “Pawn” was the term used to describe the students who did not maintain control throughout the course of events occurring within a classroom situation. deCharms found that students who were categorized into an “origin” state had a significant amount of intrinsic motivation. He believed that students from the “origin” state felt that they owned their behavior. Consequently, they took their behavior “more seriously and enjoyed it regardless of outside recognition” (Csikszentmihalyi & Csikszentmihalyi, 1988, p. 6). This study led deCharms to
posit that people who were extrinsically rewarded for selecting activities spontaneously would display a decrease of intrinsic motivation the next time the activity was selected.

Clay Alderfer “Growth ERG” Theory. In Clayton Alderfer’s (1969) ERG Theory, there are three core needs that humans strive to meet and provide the basic elements for motivation. Initially, existence needs represent various forms of material needs as well as psychological desires (Alderfer, 1969, p. 145). Hunger and thirst represent existence needs. Relatedness is a core need that involves relationships with other people of significance. Sharing thoughts and feelings with others represents an example of how individuals satisfy relatedness needs. Finally, growth needs “include all needs which involve a person making creative or productive effects on himself or the environment” (p. 146). Growth represents the need most closely related to flow in that a person who is seeking to satisfy this need must sometimes maximize their efforts for problem solving. In some occasions, the person must develop additional capacities to problem solve. Much like flow’s dimension of challenge-skill balance, in Alderfer’s growth need, a person must have the skill and be at the right level to cope with the situational demands that are above average for the person. Furthermore, like achieving an autotelic experience, an intrinsic reward of the self takes place. A person has feelings of self-worth and intrinsic motivation. Alderfer (1969) stated, “A person experiences a greater sense of wholeness and fullness as a human being by satisfying growth needs. Thus, satisfaction of growth needs depends on a person finding the opportunity to be what he is most fully and to become what he can” (p. 147).

Positive psychology. The term flow is used to describe an optimal experience and derives from the works of Csikszentmihalyi; its heritage can be traced from the positive psychology
movement. Positive psychology is described as “a science of positive subjective experience, positive individual traits, and positive institutions that promise to improve quality of life and prevent the pathologies that arise when life is barren and meaningless” (Seligman & Csikszentmihalyi, 2000, p. 5). By this description, flow is part of the positive experience of positive psychology. These positive experiences of life include happiness, creativity, and the process of being totally involved in the many life challenges that a person believes to be in control over is known as optimal experience (Csikszentmihalyi, 1990, p. 3). It is in the periods of optimal experience that people experience flow. Flow occurs when a person can invest optimal attention in achieving a goal. Episodes of flow occur when individuals feel in control of actions and masters of fate. Moreover, “On the rare occasions that it happens, we feel a sense of exhilaration, a deep sense of enjoyment that is long cherished and that becomes a landmark in memory for what life should be like” (Csikszentmihalyi, 1990, p. 3).

*Experience sampling method.* Csikszentmihalyi measured flow in everyday life through the Experience Sampling Method (ESM). Through ESM, selected individuals were given electronic pagers and were paged. During random moments of each day (usually eight times daily for a total of 56 times weekly), subjects were to complete an Experience Sampling Form (ESF) immediately. The ESF consisted of open-ended items as well as numerical scales indicating the intensity of various emotions occurring as activities were completed (Csikszentmihalyi & Csikszentmihalyi, 1988, p. 254).
**Interpretive Conflicts**

There are two current constitutive definitions of flow: the Quinn Model and the Jackson-Marsh Model.

*Quinn Model.* The Quinn Model, which is not used in this study, defines flow as “the experience of temporally merging one’s situation awareness with the automatic application of activity-relevant knowledge and skills” (Quinn, 2005, p. 615). Quinn (2005) examines flow through the “context of knowledge work and high performance workers within the context of organizations” (Beard & Hoy, 2010, p. 431). He states,

The problem with managing the performance of knowledge workers is that knowledge work is complex and situation-specific. It seldom has one single correct result, and there is seldom one correct way of doing it, so results are difficult to quantify. (p. 610)

Quinn stated that a problem with Csikszentmihalyi’s interpretation of flow is that each of the nine elements of flow represents different types of concepts. Quinn further stated that “challenge-skill balance and goal clarity are structural features of an activity, whereas concentration is a type of effort, and feedback is a set of cues that the individual extracts from the activity” (Beard & Hoy, 2010, p. 431). Quinn (2005) argued that the other “remaining elements are subjective experiences: perceptions of undergoing particular psychological, biological, and contextual events” (p. 614).

Quinn (2005) further indicated that these differences in the constructs contribute to the reason that Jackson had difficulty modeling flow as a second order factor containing all of the nine factors (Beard & Hoy, 2010, p. 431). He stated,

Structural features like the challenge-skill balance and goal clarity are more likely to precede the other elements in a causal model because they define an activity that person invests effort in, derives feedback from, and has a subjective experience in. (p. 614)
However, Quinn (2005) placed the concept of flow into a causal model consisting of antecedents or consequences. His logic rests on the belief that “goal setting and other organizational research provides us with a conceptual framework for understanding what the causal model should be” (p. 614). He argued that since the nine elements of flow could not serve as indicators of one flow construct, then the definition of flow had to be reconsidered (Beard & Hoy, 2010, p. 433). Csikszentmihalyi (1975) indicated that the “clearest sign of flow is the merging of action and awareness” (p. 38). He further stated that the merging of action and awareness occurs when an “activity becomes spontaneous, almost automatic; people stop being aware of themselves as separate from the activity they are performing” (Jackson & Csikszentmihalyi, 1999, p. 53). Although Quinn (2005) stated that the merging of action and awareness plays a role in flow, he suggested that flow should be defined as the “experience of temporarily merging one’s situation awareness with the automatic application of activity-relevant knowledge and skills” (p. 615). For Quinn, flow occurs when action meets awareness; the other dimensions of Csikszentmihalyi’s model “are separate antecedents or consequents of flow” (Beard & Hoy, 2010, p. 433). Moreover, Quinn’s model “no longer confounds activity characteristics with experiential outcomes” (Beard & Hoy, 2010, p. 433).

Quinn’s model views flow as the merging of action and awareness while performing an activity that becomes almost automatic and spontaneous. The antecedents for flow include challenge-skill balance, goal clarity, concentration on the task at hand, and feedback. However, “it is the merging of action and awareness that produces flow” (Beard & Hoy, 2010, p. 433). Consequences for flow include sense of control and autotelic experience. For Quinn, “flow is placed in the context of a causal model in which the concepts are separated into antecedents and consequences” (Beard & Hoy, 2010, p. 433).
Jackson-Marsh Model. Flow is a positive state occurring when a person perceives balance between challenges associated with a situation and the person’s abilities to meet those demands associated with the situation (Jackson & Csikszentmihalyi, 1999, p. 4). The current study applies a constitutive definition taken from the works of Jackson and Csikszentmihalyi (1999). The authors defined flow as follows:

A state of consciousness where one becomes totally absorbed in what one is doing, the exclusion of all other thoughts and emotions. So flow is about focus. More than just focus however, flow is a harmonious experience where mind and body are working together effortlessly, leaving the person feeling like something special has just occurred. (p. 5)

This definition describes the merging of action and awareness and is made possible when an individual projects total concentration on a limited stimulus field (Seligman & Csikszentmihalyi, 2000). Maslow (1971) referred to this process as a “narrowing of consciousness” or a “giving up the past and future” (p. 63). This “peculiar dynamic state yields a holistic sensation people feel when they act with total involvement” (Beard & Hoy, 2010, p. 46) otherwise known as the flow experience. Beard and Hoy further stated that the “fundamental elements of flow emphasize how important individual mental factors are in experiencing flow. Recognizing that flow is a psychological state is understanding that it can be achieved only through the control of the mind” (p. 46). Thus by controlling the mind, flow may occur in a variety of situations (Jackson & Csikszentmihalyi, 1999). Csiksszentmihalyi identifies nine dimensions in which the flow state may occur. They include: challenge-skill balance, action-awareness merging, establishment of clear goals, unambiguous feedback, concentration on task at hand, sense of control, loss of ego or self-consciousness, transformation of time, and the autotelic experience.

Dimensions of flow. The initial dimension of flow includes challenge-skill balance. Csikszentmihalyi (1975a; 1975b; 2003) indicated that this dimension occurs when a person has
the skill and is at the right level to cope with the situational demands that are above average for the person (Csikszentmihalyi & Csikszentmihalyi, 1988; Jackson & Csikszentmihalyi, 1999).

Flow cannot be experienced if challenge equals skills but rather it must stretch an individual to new levels. It is also important that an individual maintain a perception that their skills are great enough to accomplish a challenge. Jackson and Csikszentmihalyi (1999) stated that individuals may find a balance appropriate for skill potential and thus set the stage for flow. The skills that are needed to match the perceived opportunity depend on what an individual chooses to define as a challenge (p. 17). It is also important to note that what individuals believe themselves to be able to accomplish determines the flow experience more than their actual ability (p. 17).

Another dimension of flow is action-awareness merging. This is the most common element through which flow may occur. It occurs when an individual’s skills are applied to cope with the challenges of a situation and there is no psychic energy (attention) left to process any information rather than the given activity. All attention is channeled to the relevant stimuli. As a result of this experience, people become so involved in this process that the activity becomes spontaneous and automatic and there becomes no separation between themselves and the action that they are performing (Csikszentmihalyi, 1975a; 1975b; 1990; 2003; Csikszentmihalyi & Csikszentmihalyi, 1988; Jackson & Csikszentmihalyi, 1999).

The establishment of clear goals occurs when activities are clearly defined (set in advance or developed from involvement within another activity). This gives an individual a clear direction of their role in the activity thus aiding the experience of complete involvement within a flow activity (Csikszentmihalyi, 1990, p. 54). The complexity of an activity may determine the degree of difficulty for goal setting or the clarity of the goal. In many creative activities, goals are not easily set; however, a person may more easily achieve clear goals of an activity by
visualizing the activity in advance or creating a goal as the activity is met (Csikszentmihalyi, 1990; Jackson & Csikszentmihalyi, 1999).

A person receives unambiguous feedback helping them determine if they are succeeding in the goal at hand. This occurs because clear goals are given through the feedback. Flow derives from a large part by knowing that an individual’s actions are important. The kind of feedback that is desired is often unimportant; however, what makes the information valuable is for the individual to know that the goal is accomplished. Csikszentmihalyi (2003) indicated that knowledge from feedback creates order in the consciousness, and works to strengthen the structure of the self. Again, Csikszentmihalyi (2003) stated, “Feedback may come from colleagues or supervisors who comment on the performance, but preferably it is the activity itself that will provide the information” (p. 43).

Another dimension of flow, and one of the most common, is total concentration on the task at hand. This dimension precedes flow and is a necessary condition before flow occurs. When reaching flow, concentrating on a task requires that an individual focus all attention on the task at hand leaving no room for irrelevant information. An individual’s ordinary state of mind involves unexpected and frequent episodes of interference with attention. However, flow improves the quality of experience. Csikszentmihalyi (1990) stated, “The clearly structured demands of the activity impose order, and exclude the interference of disorder in the consciousness” (1990, p. 58).

An individual also maintains a sense of control during periods of flow. The sense of control is not over the environmental stimulus but rather over an individual’s actions. Csikszentmihalyi (2003) stated that during flow, an individual does not necessarily do what they want but rather maintains a collective presence of making things happen as they wish (p. 51).
Activities that produce flow experiences are constructed to allow the “practitioner to develop sufficient skills to reduce the margin of error to as close to zero as possible” (Csikszentmihalyi, 1990, p. 60). When an individual becomes so engrossed in an activity that there is no attention available for any extra demand of the activity, total control or the freedom to determine the content of the consciousness is lost (p. 62). However, enjoyable activities producing flow have the potential for negative outcomes by becoming an addiction. This occurs because the self becomes captive to a certain kind of order making it unwilling to cope with the ambiguities of life (p. 62).

Another dimension, loss of self-consciousness, occurs when an individual has such intense focusing that they push “anything not related to the task at hand out of consciousness” (Csikszentmihalyi, 1975, p. 55). Moreover, the person loses the concern for self and becomes part of the activity (Csikszentmihalyi, 1975, p. 42). A person who is freed from self-consciousness performs more naturally at a higher level. With the absence of preoccupation with self, a person need not focus on any information used to represent to one’s self what is expected of them. Csikszentmihalyi (1990) stated, “The loss of self-consciousness does not involve a loss of self and certainly not a loss of self consciousness, but rather a loss of consciousness of the self” (p. 65).

Transformation of time is another dimension of flow that alters perceptibility of an event. The awareness of time is responsible for slowing down or speeding up an activity and in many cases, this awareness aids in the successful completion of an activity (Csikszentmihalyi, 1990; 2003; Jackson & Csikszentmihalyi, 1997). This becomes a dimension of flow because an individual controls “the subjective experience of the passage of time” (Csikszentmihalyi, 2003, p. 55). There are also activities that require knowing exactly what time it is such as surgeons who
have to move meticulously from one operation to the next. It this situation, it is important to tell clock time intuitively because it is one of the skills required to experience flow (Csikszentmihalyi, 2003, p. 54; Jackson & Csikszentmihalyi, 1997, p. 29).

Finally, autotelic experience is the intrinsic reward that a person receives when completing an activity. There is an intrinsic goal or value rather than an extrinsic goal when completing the flow activity (Csikszentmihalyi, 1975a, 1975b, 1997, 2003; Jackson & Csikszentmihalyi, 1999). Csikszentmihalyi (1990) stated,

The autotelic experience, or flow, lifts the course of life to a different level. Alienation gives away to involvement, enjoyment replaces boredom, helplessness turns to feelings of control, and psychic energy works to reinforce the self, instead of being lost in the service of external goals. When experience is intrinsically rewarding life is justified in the present, instead of being held hostage to a psychological future gain. (p. 69)

This dimension of flow acts as the link between all of the other dimensions (Csikszentmihalyi, 1975a, 1975b, 1990, 1997, 2003; Jackson & Csikszentmihalyi, 1999). LeFevre (1988) found that “during work, motivation, activation, concentration, creativity, and satisfaction were all higher while in flow” (Csikszentmihalyi & Csikszentmihalyi, 1988, p. 312).

In summary, flow is a positive state occurring when an individual has a balance existing between the challenges that may be associated within an activity and the skills necessary to meet the demands of the given activity (Jackson & Csikszentmihalyi, 1999 p. 4). Flow is defined as a positive “state in which people are so involved in an activity that nothing else seems to matter; the experience itself is so enjoyable that people will do it even at great cost, for the sheer sake of doing it” (Csikszentmihalyi, 1990, p. 4). The flow experience is comprised of nine dimensions: challenge-skill balance, action-awareness merging, clear goals, clear feedback, concentration, sense of control, loss of self-consciousness, transformation of time, and an autotelic experience.
Flow State Scale (FSS). From Csikszentmihalyi’s constitutive definition of flow is derived the operational definition of flow known as the Flow State Scale (FSS). Created by Jackson and Marsh (1996), the FSS was developed to “test the empirical nature and structure of flow as measured by a series of questions and scales” (Beard & Hoy, 2010, p. 430). By studying athletes and sports, Jackson and Marsh provided evidence that the nine dimensions of flow form a holistic and integrated whole known as flow or flow experience.

The FSS is a 36-item instrument that represents the nine dimensions of flow. Crafted by Jackson and Marsh (1996), the measure was originally developed for sports and physical activity settings but was applied in the current study to measure teacher flow. Each of the nine scales, representing the nine dimensions of flow is measured by four items. The rating scale includes a Likert-type model ranging from (1) = strongly disagree to (7) = strongly agree. Internal consistency for the instrument is reliable (a M = .83).

Summary

Flow implies a broad awareness of the environment. Individuals who experience flow are aware of their surroundings. They have clear goals of the challenges/obstacles within their environment. There exists an order of consciousness through which these individuals “experience clarity of goals and knowledge of performance, complete concentration, feelings of control, and feelings of being totally in tune with the performance” (Jackson & Marsh, 1996, p. 18). Suffice it to say, focus becomes the key to achieving flow. Consequently, flow should be related to mindfulness and enabling structure in that these variables facilitate a process for achieving objectives when facing challenges/obstacles. Expectations for these challenges are tested rather than accepted. Moreover, mindful individuals in enabling school structures who
experience flow see the unusual when facing a challenge; they merge themselves to the challenge holistically maintaining the necessary traits for achieving the task at hand. Ultimately, individuals who experience flow are mindful; both of which are achieved because enabling school structures are devised to help rather than hinder its stakeholders.

Mindfulness


Individual mindfulness. Ellen Langer (1993) defined mindfulness as “a state of mind that results from drawing novel distinctions, examining information from new perspectives, and being sensitive to context” (p. 44). Moreover, “It is an open, creative, probabilistic state of mind in which the individual might be led to finding differences among things thought similar and similarities among things thought different” (Langer, 1993, p. 44). As Langer stated within the definition, there are three key qualities to a mindful state of being including the creation of new categories, an openness to new information, and the ability to form multiple perspectives.

Langer (1993) stated that mindlessness patterns occur when people are trapped by existing categories. The mindless individual may be committed to one predetermined application of the given information, while other solutions or applications are simply not explored (Langer, 1993, p. 22). Mindless individuals respond automatically and with closed-minded single perspectives when facing new dilemmas. Premature cognitive commitment is a term psychologist use to describe mindlessness and it occurs when people follow routine rules to fix
problems. If the routine does not work, individuals continue to do more of the same believing that more is the key to fixing the problem (Hoy, Gage, & Tarter, 2004, p. 306). The formation of premature cognitive commitment is illustrated in a study conducted by Langer and Piper (1987). Within the study, subjects were introduced to familiar or unfamiliar objects through a conditional or absolute way. By “conditional” it is meant that the familiar or unfamiliar object introduced could be used for a multitude of activities. By “absolute” it is meant that the familiar or unfamiliar object could only be used for one specific activity. Langer and Piper found that when an alternative need for an item arose, only subjects in the unfamiliar conditional group thought to use the item in a creative way. Moreover, Langer et al. (1989) found that students who are taught conditionally are more creative than students who are taught by applying absolute language.

Langer (1989) further stated that context confusion occurs when individuals “confuse the context controlling the behavior of another person with the context determining their own behavior” (p. 40). This mindset occurs before any reflection may occur (Langer, 1989, p. 22). For example, a teacher who applies the same lesson plans year in and year out does not look for new applications for the information because they are fixed (premature cognitive commitment) on what works for them. If the same lesson plans are applied year in and year out, the teacher is responding automatically and acting from a single perspective. There is no novel approach to applying the same lesson plans and a multitude of student needs are left unaddressed. “Being mindless is like being on automatic pilot” (Langer, 1997, p. 4). Ultimately, “the causes of the mindlessness that influence daily behavior or repetition, narrow mindsets, preoccupation with ends rather than means, and context confusion” (Hoy, Gage, & Tarter, 2006, p. 239).

Mindlessness relies on the application of old categories; however, mindfulness differs in that it is the continual creation of new categories. Creation of new categories includes the
receiving and monitoring of new categories rather than existing ones. This occurs as individuals question existing procedures as correct. Langer (1989) stated, “When we make new categories in a mindful way, we pay attention to the situation and the context” (p. 65). Mindful individuals are flexible and avoid the trap of routine performance.

An individual must also be open to new ideas and multiple perspectives. The receiving of novel information “is a basic function of living creatures” (Langer, 1989, p. 66). A lack of new information can be harmful to the human body’s sensory system. Without the reception of new information, the sensory system can shut down. The openness to multiple points of view is also a characteristic of mindfulness. Langer stated, “Once we become mindfully aware of views other than our own, we start to realize that there are as many different views as there are different observers” (p. 68). However, being mindful does not mean that a defined way of interacting with other people brings about a certain outcome. It means that an individual remains aware that the number of potential perspectives will never be exhausted. Langer, Bashner, and Chanowitz’s (1985) research found that students who were asked to view people with disabilities from multiple perspectives became less inclined than peers to negatively evaluate people with disabilities. For example, a teacher who updates lesson plans and practices different teaching philosophies in the classroom form multiple teaching perspectives. This illustrates an innovative and novel approach to education and thus mindful behavior. Moreover, mindfulness gives individuals more control over their context hence aiding them to create different and more applicable perspectives (Hoy, 2003). Many teachers assume that other teachers share their same intentions and motives; but in reality, they have different meanings. Again, teachers who refuse to accept a novel approach to teaching because they perceive the approach as a submission of their methods and adherence to new methods practices mindlessness.
Lieberman and Langer (1997) found that mindful teaching practices have a pronounced effect on student learning. Students who were asked to make curriculum instruction more meaningful for themselves compared to groups of students who memorized it were able to comprehend and utilize the instructional material better. For example, students who are asked to retain instructional material from the Civil War perspective found the information more difficult to retain and utilize in such measures as writing essays. However, students found the material more meaningful when they chose to take a perspective from an individual actor who experienced the war. Langer and Moldoveanu (2000) stated, “The former presents the information as a closed package; the latter invites further consideration of how the information might vary from still other perspectives” (p. 4).

Organizational mindfulness. Langer’s (1989) development of individual mindfulness has been applied to aid the development of organizational mindfulness. Although individuals in organizations can be mindful, organizational mindfulness consists of a number of collective properties rather than individual ones. Weick and Sutcliffe (2001) referred to mindful organizations as organizations which organize themselves in such a way that they are able to notice the unexpected in the making and halt its development. If they have difficulty halting the development of the unexpected, they focus on containing it. And if some of the unexpected breaks through the containment, they focus on resilience and swift restoration of system functioning. (p. 3)

Weick and Sutcliffe (2001) refer to the term “highly reliable organization” (HRO) when they refer to mindful organizations that have collective properties. An HRO is an organization that continuously operates under trying conditions yet has minimal if any accidents (Weick & Sutcliffe, 2001, p. 3). Examples of HROs include nuclear power plants, air traffic control centers,
and emergency medical facilities. HROs face a multitude of unexpected events daily because “their technologies are complex and their constituencies are varied in their demands--and because the people who run these systems like all of us, have an incomplete understanding of their own systems and what they face” (Weick & Sutcliffe, 2001, p. 3). From an organizational standpoint, mindfulness thought processes occur when the organization is driven by anticipating the unexpected and sometimes “”think outside the box” mechanisms.

For instance, school safety plans are crafted by school leaders for schools to follow in case of an emergency situation. Within a school, fire detectors are installed throughout hallways and classrooms. Fire detectors are installed to warn school stakeholders to exit the building in case of a fire. Sprinklers are not installed to prevent fires from occurring within a school but rather to keep fires contained. Moreover, in the event of a fire, each individual teacher within the school is responsible for leading supervised students to a designated location safely outside of the school. Schools practice fire drills each month to ensure each teacher knows how to respond in case a fire spreads throughout a school.

*Educational mindfulness.* Weick and Sutcliffe (2001) described five dimensions that promote mindfulness within highly reliable organizations (HROs). These dimensions have also been applied by Hoy, Gage, and Tarter (2006) to form the educational concept of mindfulness. These dimensions include preoccupation with failure, reluctance to simplify interpretations, sensitivity to operations, a commitment to resilience, and a deference of problems to expertise.

Preoccupation with failure is a dimension of mindfulness. It occurs when HROs analyze all symptoms within the organization in anticipation that there is a problem. The key is to analyze all small problems before they become large ones. Hoy (2003) stated that “Mindful
leaders and organizations avoid preoccupation with their successes, in part, because success breeds contentment and sometimes arrogance, which ultimately leads to vulnerability. Instead, mindful organizations pay attention to the small mistakes and seek to eliminate them” (p. 97).

Encouragement of reporting errors, reflection and inquiry of near misses or close calls, and the idea that complacency is dangerous are all factors considered with preoccupation with failure. For example, mindful school leaders who concentrate on raising standardized test scores do not focus on low achieving students alone, but rather high and low achieving students. They place emphasis on improving the scores of low achieving students as well as continuing the success rate of their high achieving students. Suffice it to say, all student scores are viewed as needing improvement. A mindless approach occurs when school leaders remain content with high achieving students and only place emphasis on low achievers.

HROs are reluctant to simplify issues because of the importance to understand the subtleties of all situations. For instance, mindful school leaders try to improve standardized test scores by reviewing student demographical information. Data such as individualized education plans, prior year test scores, grading achievement, disciplinary history, student ethnicity, and socioeconomic status are all factors analyzed to aid school leaders in improving standardized test achievement. A mindless approach would be to base test scores on principles of ethnicity and socioeconomic status alone. A rule of thumb is to simplify less and see more. Hoy, Gage, and Tarter (2006) noted that life in schools is complex so “teachers and administrators need to adopt multiple perspectives to understand the shadings that are hidden below the surface of the obvious (p. 319).

HROs are sensitive to operations. When planning for the unexpected, each intricate part of the organization must be interpreted. There must be a plan for the unexpected and the
organization may not be removed to the point that each intricate part is not understood or not planned for. For example, teachers who do not communicate openly with other teachers within professional learning communities concerning teaching methods for students and the learning styles of students prevent effectiveness (Hoy, 2003, p. 380). Also, “sensitivity to teaching and learning enables real-time information so there is little time lag in information processing. Preventing such information lag means staying close to teaching and learning” (Hoy, 2003, p. 380).

HROs are also committed to resilience. When the unexpected occurs, schools must detect a plan to bounce back from mistakes because no organization is perfect and no amount of anticipation will remedy an accident or mistake from occurring. Moreover, mindful organizations are strong, flexible, and able to rebound from mistakes or accidents (Hoy, 2003, p. 380). For instance, school systems failing to reach adequate yearly progress (AYP) goals mandated by the No Child Left Behind (NCLB) Act do not terminate all of the employees working within the failing school. Mindful leaders and faculty members evaluate what went wrong and devise a plan to correct the errors.

Finally, mindful organizations such as schools defer problems to expertise rather than to experience or job status. Mindful leaders select teachers who have the “know how” to solve problems rather than following a rigid code of rank. Weick and Sutcliffe (2001) stated, “Decisions are made on the front line, and authority migrates to the people with the most expertise, regardless of their rank” (p. 16).
Summary

In summary, mindfulness is a collective property; however, organizational mindfulness is more than a sum of individual mindfulness. Individuals within mindful organizations are also aware of their surroundings. Thinking outside the box becomes a common theme for mindful organizations to follow. Weick and Sutcliff (2001) stated of mindful organizations,

Mindfulness redirects attention from the expected to the unexpected, from the confirming to the disconfirming, from the comfortable to the uncomfortable, from the explicit to the implicit, from the manifest to the latent, from the factual to the probable, and from the simple to the complex. (p. 44)

Organizational mindfulness is defined as the “ongoing scrutiny of existing expectations, continuous refinement of those expectations based on new experiences, appreciation of the subtleties of context, and identification of novel aspects of context that can improve foresight and functioning” (Langer, 1989; Hoy, 2007; Weick & Sutcliff, 2001). It is difficult for organizations to be mindful “because it requires flexibility, vigilance, openness, and the ability to break set” (Hoy, Gage, & Tarter, 2004, p. 308).

Mindfulness Scale. The School Mindfulness Scale (M-Scale) is a 20-item, 6-point Likert-type model ranging from (1) strongly disagree to (6) strongly agree. The two measures represent two dimensions of flow: principal mindfulness and faculty mindfulness. Principal and faculty mindfulness form to create school mindfulness. Moreover, internal consistency for the instruments is reliable ($\alpha$ M = .96 for principal, .93 for faculty, and .95 for the overall measure). The scale was developed by Hoy, Gage, and Tarter (2004).
Organizational Structure

Antecedents. Formalization and centralization comprise the two antecedents of organizational structure.

Formalization. According to Weber (1947), legal or rational, traditional, and charismatic grounds are three bureaucratic types of authority. Weber (1947) posited that these types of authority are a necessity for the establishment of legitimacy and imperative coordination within a bureaucratic structure of an organization. Rational grounds rests on a belief in the “legality” of patterns of normative rules and the right of those elevated to authority under such rules to issue commands (legal authority). Weber (1947) indicated the effectiveness of legal authority within an organization occurs when there is an “acceptance of the validity . . . of mutually interdependent ideas,” and it is within this type of authority that formalization may be introduced (p. 329). Written rules, mandates, procedures, and policies (i.e., formalization) agreed upon and made law by an organization constitute the mutually accepted and agreed upon laws that Weber described.

Many stakeholders within organizations assume the term “bureaucracy” implies rigidity; endless rules and regulations; or simply put, “red tape.” Gouldner’s (1954) concentration on Weber’s theory of bureaucracy studied industrial bureaucracy within a gypsum mine plant uncovering the evolution and transition of three types of bureaucracies including mock, representative, and punishment-centered; the latter producing an over-conformity and rigidity of rules and policies.

According to Gouldner (1954), formalization is the extent of written rules, procedures, and instructions (Adler & Borys, 1996; Hoy & Sweetland, 2000, 2001; Puch & Hickson, 1976).
Gouldner’s (1954) case study of General Gypsum Company introduced representative and punishment-centered formalization. Representative formalization refers to the written rules, policies, and procedures within an organization. Gouldner posited that a bureaucratic pattern is attributed to punishment-centered formalization including the following:

1.) The rules about which the pattern was organized was enforced, but primarily by one group, either workers or management, rather than by both.
2.) Adjustment to rules was not attained by ignoring them, nor by “educating” the deviant or involving him in the rule’s administration, but by punishing him.
3.) The pattern was associated with considerable conflict and tension. (p. 214)

Aiken and Hage (1968) followed Weber with a definition for formalization as “the degree of work standardization and the amount of deviation that is allowed from standards” (p. 499; Hoy et al., 1983; Hoy & Sweetland, 2000, 2001, p. 297).

Aiken and Hage’s (1969) research within social welfare organizations aided the developing of the study’s concept, centralization. It is defined as “the degree to which employees participate in decision making” (p. 497; Hoy & Sweetland, 2000, 2001). In organizations with high contents of centralization, decision-making processes are concentrated along the organization’s oligarchy (i.e., board members, trustees, management, etc.) and channeled down an accepted chain of command. Contrarily, organizations with low amounts of centralization experience shared decision-making among members of the organization’s stakeholders.

From this research of Weber (1947), Adler and Borys’s (1996; Adler, 1999) theory develops two dimensions of formalization including enabling and coercive. Coercive formalization refers to rules and procedures that are applied to punish subordinates when they do not comply; such rules tend to hinder work practices and more often than not alienate individual workers (p. 84; Hoy & Sweetland, 2000, 2001). Adler (1999) stated, “The role of hierarchy, procedure manuals, and staffs is to assure that potentially recalcitrant, incompetent, or
irresponsible employees do the right thing. If bureaucracies always served this purpose, then indeed efficiency would inevitably trade off creativity and motivation” (p. 38).

Hoy and Sweetland (2000) stated, “Instead of giving committed access to accumulated organizational learning, coercive procedures are designed to force reluctant subordinates to comply (p. 527). Coercive rules and procedures are prone to constrain and punish employees for mistakes or unusual practices rather than reward unusual and perhaps innovative yet productive practices (Hoy, 2003). Hoy (2003) stated, “Instead of promoting flexibility and organizational learning, coercive procedures force reluctant subordinates to acquiesce and comply with formal routines” (p. 369).

Adler and Borys (1996) refer to enabling formalization as support or help in aiding individuals solve problems. Such procedures are flexible guides that reflect “best practices” and engage workers into dealing with difficult dilemmas in effective, efficient, and nonstressful ways (p. 83, Hoy & Sweetland, 2000, 2001). Again, Adler (1999) stated,

When bureaucracies take this form rather than the more traditional, coercive form, even highly bureaucratic structure will be experienced by employees as a tool with which they can better perform their tasks, rather than a weapon used by their superiors against them. (p. 38)

Enabling formalization aids participants in finding the solutions to problems because they offer flexibility and promote best practices by school employees rather than insisting that the employees follow rigid rules and procedures. Flexibility rather than rigidity is a highly important characteristic of enabling school structure due to the unpredictable events that occur within school settings. Hoy and Sweetland (2000) indicated a “general rule that professional judgment is acceptable, rather than blind obedience to the rules, prevents rigidity and promotes problem solving” (p. 527).
Centralization. Hoy and Sweetland (2000) stated that enabling centralization describes the “authority structures that are flexible, cooperative, and collaborative rather than rigid, autocratic, and controlling” (p. 529). Hirschorn (1997) stated that the development of a “culture of openness” occurs when all stakeholders within an organization allow themselves to become vulnerable to one another in preconditioning for their activities and duties. Essentially, to develop a “culture of openness” within an organization, all stakeholders must acknowledge their contribution in the organization’s success but also criticism when their organization fails. Mobilizing and accessing strong quality characteristics while alleviating the negative characteristics of its employees is a major attribute for an organization to achieve a “culture of openness” (p. 27).

In schools, enabling centralization describes a hierarchical structure that aids problem solving. This type of structure offers flexibility, cooperation, and collaboration rather than rigidity and control. Administrators use their position of power and authority to buffer teachers thus creating effective school atmospheres that are conducive to learning (Hoy, 2003, p. 371). Hoy and Sweetland (2000) referred to enabling hierarchy as “an amalgam of authority where members feel confident and able to exercise power in their roles. The hierarchy is seen as unobtrusive and helpful” (p. 529).

Hoy and Sweetland (2001) described hindering centralization as “a hierarchy and administration that gets in the way rather than helps its participants solve problems and do their work” (p. 111). Bureaucracies with hindering centralization “respond to outside pressures in such dysfunctional ways as increasing direct and autocratic supervision, over-standardizing work processes, and standardizing outputs” (Hoy & Sweetland, 2000, p. 529). Within schools, administrators and supervisors apply authority to maintain control and discipline employees,
which, in turn, may become repetitive. Hindering centralization is based on control, and this control is responsible for obstructing teacher innovation. Ultimately, a consequence of hindering centralization results in teacher resistance by forcing teachers to adhere to artificial standards rather than independent judgments about student needs (Hoy, Blazovsky, & Newland, 1983). Hoy and Sweetland (2000, 2001) suggested that formalization and centralization co-vary in relationship; also, research demonstrates that formalization and centralization exist along a continuum with hindering at one extreme and enabling along the other. Now, the review of the literature will attempt to offer a description of the different types of bureaucracy and their relationship to members of schools.

Bureaucratic structures may be viewed as either enabling or hindering. The degree of formalization and centralization that an organization maintains helps determine whether the organization is enabling or hindering. Formalization is defined as “the degree to which the organization has written rules, regulations, procedures, and policies” (Hoy & Sweetland, 2001, p. 297). Characteristics of organizations with enabling formalization include an engagement of interactive dialogue, the viewing of problems as opportunities, a fostering of trust among organizational stakeholders, learning from mistakes, value differences among organizational stakeholders, a delight in the unexpected, and a facilitation of problem solving (p. 299).

Centralization of authority is the degree to which all organizational stakeholders are involved within the decision-making process (p. 299). Characteristics of organizations with enabling centralization include a facilitation of problem solving, cooperation, collaboration, flexibility, encouragement of innovation, and the protection of participants within the decision-making process (p. 299).
School structure scale. The Enabling School Structure Scale (ESS) is a 12-item instrument. Crafted by Hoy and Sweetland (2001), the measure was developed to determine the degree of enabling or hindering school structure within schools. The rating scale includes a 5-point Likert-type model ranging from (1) = never occurs to (5) = always occurs. Internal consistency for the instrument is reliable.

Theoretical Framework

Teacher Flow and School Mindfulness

Teacher flow and school mindfulness are multidimensional constructs that are given conditions for each other. The nine dimensions of flow, challenge-skill balance, a merging of action and awareness, loss of ego, clear goals, immediate feedback, deep concentration, sense of control, transformation of time, and an autotelic nature, are interrelated to the five hallmarks of organizational mindfulness including preoccupation with failure, reluctance to simplify interpretations, sensitivity to operations, commitment to resilience, and deference to expertise. Although these constructs have different meanings to the faculty members within schools that experience them, they have specific similarities that make them interrelated. In other words, a person who is mindful will experience flow and a person who is experiencing flow will be mindful.

Teacher flow dimensions of challenge-skill balance and control as well as the school mindfulness dimension of deference of expertise are interrelated. A teacher experiences flow when “both challenge and skills are high and equal to each other” (Csikszentmihalyi, 2003, p. 44). A mindful teacher applies the necessary skills or expertise needed to instruct a class. Teachers understand that they have been trained to instruct all students; moreover, they have a
sense of confidence that they will perform to their highest ability. Mindful teachers experiencing flow also believe they can control their classroom environment. For example, teachers establish control over student behavior during classroom instructional time. Mindful schools defer to expertise by avoiding “the error of embracing standard rules and rigid structures. Instead, the focus is on matching expertise with the problem regardless of rank and status” (Hoy, Gage, & Tarter, 2007, p. 319).

A merging of action and awareness, loss of self-consciousness, transformation of time, and deep concentration on the task at hand are dimensions of flow that are closely aligned with sensitivity to operations because mindfulness is sensitive to teaching and learning. The focus of the school should be its core and the core of a school is teaching and learning (Hoy, Gage, & Tarter, 2004). Experiencing flow illustrates teacher desire and passion to reach this sensitivity. For example, an art teacher who instructs students in the fundamentals of watercolor painting may experience flow as a result. Details of the direction and the description of the activity are offered through the teacher’s application and explanation. The teacher becomes one with the lesson. This “oneness” represents a merging of the action and awareness and a deep concentration on the task as the teacher applies her skills toward instructing the activity. Furthermore, time slows down or speeds up as the teacher “finds the flow” of the lesson.

Flow dimensions including establishing clear goals and prompting immediate feedback are related to the mindfulness processes reluctance to simplify and preoccupation with failure. Mindful schools are reluctant to simplify student complexity and diversity within each classroom setting because they serve students of various demographics and needs. Faculty members position themselves in such ways as to see as many student learning activities in the classroom as possible. This helps teachers and administrators gain multiple perspectives into understanding
student needs so that they may create clear goals. Faculty members also gauge feedback based on student achievement and behaviors. Mindful schools are preoccupied with failure because they identify the demographics and needs of the students before they become problematic (Hoy, Gage, & Tarter, 2006, p. 319).

Mindful teachers who experience flow are sensitive to operations and reluctant to simplify classroom diversities. While instructing lessons, teachers establish clear goals and monitor their feedback immediately. Teachers establish clear goals through their abilities to guide a lesson. They must determine what means it will take for all students to learn and where the lesson should end. Teachers gain feedback by analyzing student-learning ability. Through this process, mindful teachers discover student deficiencies and try different methods of instruction to correct them. For example, teaching students with individualized education plans requires different methods of instruction and sometimes modifications and accommodations. It also requires teachers to be more open-minded to student diversity and complexities. This is a difficult process when compared to students who learn within a general instructional range.

Finally, an autotelic experience is related to the mindfulness property commitment to resilience. Mindful schools are resilient in that they identify mistakes or problems and bounce back to overcome them. Moreover, faculty members have autotelic experiences because bouncing back from mistakes and solving problems has intrinsic value. Teachers who experience flow have an underlying sense of accomplishment knowing they have been able to help bounce back from mistakes and solve problems. Csikszentmihalyi stated (1975b), “Because the flow activity has clear and noncontradictory rules, people who perform it can temporarily forget their identity and its problems. The result of all these conditions is that one finds the process intrinsically rewarding” (p. 48).
For instance, each year all public schools require their students be administered a standardized test. It is a top priority for all faculty members for students to score within a level of satisfactory achievement. Teacher instruction may be weighed critically and considered problematic when students do not achieve within a satisfactory level. Mindful teachers work to identify underachieving students and aid them in achieving satisfactory scores. Teachers who work with these students do not receive incentive pay for achievement but rather are rewarded intrinsically when students do score within satisfactory levels of achievement. Csikszentmihalyi stated, “If schools made their main goal teaching youths how to enjoy life, they would accomplish the ultimate task of human liberation: to free people from addiction of extrinsic rewards” (p. 334). A mindful school finds a way to remove, contain, or rebound from the effects of the unexpected (Hoy, Gage, & Tarter, 2004). Moreover, “the mindful school develops and refines the capacity within teachers and administrators to detect, contain, and overcome inevitable mistakes” (Hoy, Gage, & Tarter, 2004, p. 311). It is through the relationship existing between school mindfulness and the dimensions of teacher flow experience that the following hypothesis is offered:

\[ H_1: \text{Teacher flow is positively related to school mindfulness}. \]

Teacher flow and organizational structure. Organizational structure varies depending on the types of rules and procedures as well as decision-making processes that an organization maintains. Many organizations such as schools have strict centralized rules and hierarchical regimes that may hinder the flow process. However, schools with enabling structure offer a better climate for teachers to experience flow. Enabling school structures assist employees with
problem solving; they are flexible rather than rigid; and, they open the door for faculty members to experience flow in their responsibilities such as activities including student instruction.

There are nine dimensions comprising the element of flow: challenge-skill balance, a merging of action and awareness, a loss of ego, the establishment of clear goals, immediate feedback, a level of deep concentration, the exercise of a sense of control, a transformation of time, and an autotelic nature. Moreover, all of the aforementioned dimensions occur simultaneously resulting in a flow experience. In schools with high levels of centralization and formalization, the dimensions and thus the flow experience becomes more difficult to obtain.

For example, challenge-skill balance is a dimension of flow that may occur when a classroom challenge equals the skills of a teacher who is operating at an extraordinary level. Enabling structures invite teachers to apply their skills to endure and overcome classroom challenges. The merging of action and awareness is another dimension of flow activity and is the most common. It occurs when a teacher and activity such as teaching a lesson become merged into one action. This dimension does not last for a long period of time and is interrupted as teachers begin to ask themselves “Am I doing well?” (Csikszentmihalyi, 1975, p. 45). Teachers experience a loss of self-consciousness as they merge with the activity. Jackson and Marsh (1996) stated, “The absence of preoccupation with self does not mean the person is unaware of what is happening in mind or body, but rather is not focusing in the information normally used to represent to oneself who one is” (p. 19). There is a deep level of concentration throughout the matriculation of the lesson. For instance, teachers prep themselves to handle student feedback as well as unpredictable activities occurring during the lesson. A transformation of time occurs in which time “speeds up” or “slows down” as they instruct the class during a lesson. Contrarily, autocratic administrators in hindering schools sometimes insist that classroom challenges be
handled by a strict formalized standard regardless of teaching ability. This may interfere with a teacher’s ability to reach the dimensions necessary for operating in a flow state.

The establishment of clear goals, the application of feedback, and the exercise of a sense of control are dimensions of flow occurring more freely within an enabling school structure. For example, during a flow experience, teachers keep the goal(s) or objective(s) of the lesson in mind as they instruct the class. Moreover, the use of feedback, such as student questions and comments concerning the lesson, serve as checks and balances for teachers monitoring student comprehension. Teachers also exercise a sense of control in the classroom by ensuring that the lesson stays on a timetable and the students stay on task. Any unexpected events, such as student disruptions, are monitored and handled by the teacher as they occur.

In hindering schools, teachers may disregard or neglect to discuss their flow experiences with other faculty members because they fear discipline or reprimand as flow dimensions are not commonly discussed by autocratic administrators as being common teaching traits or interpreted by strict school board policies as being common practices. Hoy (2003) stated, “When rules become the mechanism for feeling secure and comfortable, the perspective becomes one of protecting oneself rather than taking risks and engaging in problem solving activities” (p. 382). However, school structures should enable their teachers to take risk when teaching students without fear of reprimand. Schools with enabling structure follow procedures that “invite interactive dialogue, view problems as opportunities, foster trust, value differences, capitalize from mistakes, and delight in the unexpected; in brief, they facilitate problem solving” (Hoy & Sweetland, 2008, p. 298). Moreover, schools with enabling structures have administrators who are flexible, cooperative, and collaborative.
There is not much extrinsic motivation in schools. Teaching is one of the lowest paid professions in the nation. When autotelic experiences occur, teachers feel a sense of self-gratification because they believe in their accomplishment. Moreover, teachers working in schools with enabling structure believe that they have a “say so” in the decision-making process and feel confident to question policy and procedures in a professional manner. The autotelic experience or flow experience complements enabling school structure through these practices. It is through the relationships existing between enabling school structure and the dimensions of the flow experience that the following hypothesis is offered:

\[ H_2: \text{Teacher flow experience is positively related to enabling school structure.} \]

School mindfulness and enabling school structure. Structure has been identified as either hindering or enabling based on the level of centralization and formalization existing among its core roots. As structural elements, centralization and formalization are dimensions that “vary together and form a single, unitary continuum of structure” (Hoy & Sweetland, 2001, 2003). At the extremes of the continuum, “enabling structures have both enabling rules and hierarchies, whereas hindering structures have both coercive rules and hindering hierarchies” (Hoy, 2003, p. 371). School mindfulness and enabling school structure are interrelated constructs. The five dimensions of mindfulness, preoccupation with failure, reluctance to simplify interpretations, sensitivity to operations, commitment to resilience, and deference to expertise, may be identified as having similarities with formalization and centralization properties of school structure.

Enabling school structures are committed to resilience. A common feature for both enabling and mindful school structures is learning from mistakes. By hiding behind rules and procedures, school stakeholders protect themselves rather than take risks and engage in problem-
solving activities. Mindful schools learn to bounce back from mistakes that are made such as failing to meet adequate yearly progress. Hoy (2003) stated, “School administrators need to promote a mindful collective in which people are rewarded for their questioning, for finding mistakes, for admitting their own mistakes, and for being open with each other” (p. 382). Teachers should feel safe enough to question rules, procedures, the principal, as well as each other. Hoy (2003) stated, “The resilience of mindfulness complements the flexibility of enabling behavior just as the rigidity of mindlessness reinforces the inflexibility of hindering structures” (p. 382).

Enabling school structure also defers to expertise in the same way as mindful schools. Hoy (2003) stated that within enabling structures, there are hierarchies aligned with school members based on levels of expertise rather than by status or experience. Problem-solving strategies within enabling and mindless school structures are handled by matching the persons with the right level of expertise or training with the problem at hand. Hoy (2003) stated, “Reliance on the hierarchy to solve emergent problems is neither enabling nor mindful; in fact, it is both hindering and mindless” (p. 382).

Enabling and mindful school structures are also reluctant to simplify interpretations and are also sensitive to the day-to-day operations of the school. Mindful schools are aware that unexpected events may occur; so, they try and position themselves in ways in which they can see as much as possible. Hoy, Gage, and Tarter (2004) stated that mindful schools also “simplify less and see more by embracing nuances and complexity” (p. 311). Moreover, Hoy (2003) stated, “Mindfulness calls for continuous scanning and monitoring of activities and pays special attention to the smallest subtleties and deviations” (p. 383). Enabling structures that are mindful draw careful attention to all school capacities. They offer an open floor for advice concerning
Hoy further stated, “Questioning and openness are encouraged; thus inappropriate goals would likely be identified and changed more quickly in structures that are mindful” (p. 383). For example, enabling schools that are mindful monitor test data, behavior, and classroom grades to determine a student’s academic status. If students have low achieving academic status, it is not simply “chalked up” as students’ inability to comprehend or teachers’ inability to teach. Specific measures such as remediation is taken to ensure that diverse students’ achievement status improves.

Preoccupation with failure is a dimension of mindfulness not associated with enabling structures. Enabling schools structures have “school administrators who often attribute a school’s success to themselves or at least to their teachers rather than to luck” (Hoy, 2003, p. 382). As confidence for the school builds on successes being attributed to staff members as well as the following of rules and procedures, emphasis is placed on these rules and procedures to warn the faculty members of potential problems “but the school and its procedures are usually more focused on its successes and tend to ignore its shortcomings” (Hoy, 2003, p. 382). It is through the relationships existing between enabling school structure and the dimension of school mindfulness that the following hypothesis is offered:

\[ H_3: \text{School mindfulness is positively related to enabling school structure.} \]

Finally, the study also illustrates the relationship existing between enabling school structure, school mindfulness, and teacher flow. Given the argument that mindfulness and enabling school structure are individually related to flow, both should be simultaneously related to flow. It is this reason that the following hypothesis is offered:

\[ H_4: \text{School mindfulness and enabling school structure will make a joint and individual contribution to the explanation of teacher flow, with structure making the larger contribution.} \]
Figure 1. The relationship existing between dependent variable teacher flow experience and independent variables mindfulness and enabling school structure.

Summary

In Chapter 2, the literature was reviewed for flow, mindfulness, and enabling school structure. A theoretical model of their interrelationship was constructed. Hypotheses were developed to test the interrelationships among the variables as they were explained by the theory.
CHAPTER 3

METHODOLOGY

Overview

The current study was quantitative in nature and investigated the relationship existing between teacher flow, mindfulness, and enabling school structure. The dependent variable for the study was teacher flow. The two independent variables for the study were mindfulness and enabling school structure. Free and reduced lunch represented another variable that was controlled through socioeconomic status. Demographic questions for the survey’s participants included years of experience, gender, grade level taught, and degree earned.

Because mindfulness and school structure are organizational properties, the unit of analysis was the school rather than the individual teacher. Although teacher flow is a variable that is represented through the individual teacher, the focus of the study was the school. This study was related to the organizational characteristics of the school including mindfulness and structure and the effects they have on teachers’ ability to reach a flow state. The current chapter identifies the study’s sample selection process. It describes the design of the study including how the experimental and control groups were determined and any random assignment and the selection of the groups. The experimental treatment of the groups is identified. The measures for the independent and dependent variables have also been identified.
Sample Selection

A sample of convenience was developed using the Alabama State Department of Education website (www.alsde.edu). A sample of 68 schools was identified with 51 of the 68 schools participating in the study. The sample of the study consisted of 521 teachers and 45 principals and assistant principals from 51 elementary, middle, and high schools, within city and county school systems located in northeastern, western, and southeastern areas of Alabama. Although the sample population within the study was not random, an attempt was made to collect a reasonably representative cross section of elementary, middle, and high school faculty members within the selected Alabama schools.

Data Collection

Administrators and teachers in the sample were asked to voluntarily participate in the study by taking three surveys consisting of three measures. The measures included teacher flow, school and faculty mindfulness, and enabling school structure. Anonymity and confidentiality of all participants were protected throughout the study.

Initially, superintendents from school districts used in the sample were contacted by e-mail or phone to solicit permission for the schools to participate in data collection. After receiving permission from the superintendent of each district, individual school principals were contacted via e-mail or phone to request administrative and teacher participation in the data collection. Once formal consent was granted, administrators and teachers were asked to participate on a voluntary basis in the study. Surveys comprising the study were collected from participants through the use of Qualtrics, an on-line application that creates and distributes surveys for its intended users. Barrios, Villarroya, Borrego, and Olle’ (2010) found that web
questionnaires elicited a higher response rate with fewer overall errors, including fewer missing items and longer responses when open-ended questions were applied for PhD holders, than did alternative mail-in questionnaires (p. 213). The researcher composed an e-mail cover letter ensuring anonymity and confidentiality and requesting formal consent for all responses indicating that all participants should simply answer the questions to the best of their ability. There were no study identifiers linked to the subjects within the study. Furthermore, in no way could any answers submitted cause risk to the participants’ financial, employability, or professional reputation.

The importance of using Qualtrics in this study is that the participants were able to complete the surveys at their leisure and submit them through the Internet rather than completing the surveys during regularly scheduled faculty meetings. Sax, Gilmartin, and Bryant (2003) found that “an on-line survey respondent is free to complete the questionnaire at her or his convenience, which may increase the likelihood of participation” (p. 409). Using web-based survey applications such as Qualtrics has been found to be a cheaper and more efficient mode for collecting surveys. Manfreda, Bosnjak, Berzelak, Haas, and Vehovar (2006) stated,

Since it is usually cheaper to conduct a web survey, several additional measures for reducing non-response can be used in the web mode but not for some other mode within the same available budget. In web surveys which are usually cheaper we could invest more funds into procedures for increasing response rates--and this would be a fair basis for comparison--what might significantly change the difference in response rates. (pp. 98-98)

Furthermore, Kaplowitz, Hadlock, and Levine (2004) found that “in a population in which each person has Web access, a Web survey application can achieve a comparable response rate to a questionnaire delivered by surface mail if the Web version is preceded by a surface mail notification” (p. 100). Once the participants submitted their completed surveys, the completed surveys were distributed to a Qualtrics database where they were collected and analyzed.
Data Selection

The major variables of this study include flow (challenge-skill balance, action-awareness merging, clear goals, clear feedback, concentration, sense of control, loss of self-consciousness, transformation of time, and autotelic experience); school mindfulness (focus on mistakes and failure, reluctance to simplify, sensitivity to teaching and learning, commitment to resilience, and deference to expertise); and school structure.

Flow

Flow is operationally defined by the Flow State Scale (FSS). FSS is a 36-item instrument that represents the nine dimensions of flow. Crafted by Jackson and Marsh (1996) and Quinn (2005), the measure was originally developed for sports and physical activity settings but was applied in the current study to measure teacher flow. The nine scales, representing the nine dimensions of flow, are measured by four Likert-type items (1 = strongly disagree, 7 = strongly agree). Previous studies by Jackson and Marsh (1996) reported a Cronbach $\alpha$ of .80. Sample items measuring flow include such questions as:

- The challenge and my skills were at an equally high level.
- My goals were clearly defined.
- It was really clear to me that I was doing well.
- I was completely focused on the task at hand.

Enabling School Structure

School structure was measured using the Enabling School Structure Scale (ESS) developed by Hoy and Sweetland (2000, 2001). The original ESS was a 24-item, 5-point
Likert-type instrument through which the sample members were asked to identify the extent through which each item in the measure described behavior in the given school from never to always occurs. The ESS is a measure that indicates the amount of school structure perceived by teachers as being enabling or hindering while teaching and learning within a school. The measure was developed to include the two aspects of structure: formalization and centralization.

A one-factor solution was performed explained 43% of the variance. The factor loadings ranged between .40 to .81. Enabling school structure items loaded positively while hindering school structure items loaded negatively. Research by Hoy and Sweetland (2001) indicate the measure maintained an alpha coefficient of reliability of .96.

Hoy and Sweetland (2001) developed a shorter form of the scale consisting of 12-items. The 5-point Likert-type instrument consisted of the strongest factor loadings ensuring that enabling and hindering items were represented. A principal-axis factor analysis was performed and factor loadings ranged from .69 to .86, with the single factor loading explaining 64.4% of the variance. The alpha coefficient for the measure is .95 (Hoy & Sweetland, 2001). The measure is balanced with six enabling items (positive loadings) and six hindering items (negative loadings). For example, items measuring enabling bureaucracies include such questions as follows:

Administrative rules in this school enable authentic communications between teachers and administrators.

The administrative hierarchy of this school enables teachers to do their job.

Examples of items measuring hindering bureaucracies include the following:

The administrative hierarchy of the school obstructs innovation.

Administrative rules in this school are substitutes for professional judgment.

The reliability for the measure maintains at .90 or better. Moreover, it has good factor and predictive validity.
Mindfulness

School mindfulness was measured using the School Mindfulness Scale (M-Scale). The 14-item scale rests on five properties including a focus on failure, reluctance to simplify, sensitivity to operations, resilience, and deference to expertise and is a combination of both principal and faculty mindfulness. The measure consists of a 6-point, Likert-type response set varying from strongly disagree to strongly agree. The alpha coefficient of reliability for the scale maintained at .90 or better (Hoy, Gage, & Tarter, 2006). The variance for school mindfulness across all schools was .60. The variance within the schools was .31. This suggests that school mindfulness is a collective property. For example, items measuring mindfulness include such questions as follows:

- The principal welcomes challenges from teachers.
- When a crises occurs, the principal deals with it so we can get back to teaching.
- When things don’t go well, teachers bounce back quickly.
- Teachers in my building learn from their mistakes and change so they do not happen again.

Socioeconomic Status (SES)

SES, measured as a percentage of students qualifying for free and reduced lunch within the school, is a rough approximation of social class and was used in this study as a control variable.

Statistical Treatment

Data were presented describing the characteristics of the respondents and the sample. The unit of analysis is the school. The data were calculated using the Statistical Package for the
Social Sciences (SPSS). Initially, the measures’ descriptive characteristics were identified. The measures were then tested for reliability. Factor analysis was used to check the stability of the measures. Bivariate correlation tested the first three hypotheses within the study. A regression analysis was used to test the relationship between flow and the independent variables of the study found in the fourth hypothesis. A linear regression was applied to determine if unique and significant relationships existed between teacher flow experience, mindfulness and enabling school structure while controlling for socioeconomic status. Beta weights, $\beta$, $t$, and significance were examined by completing the regression analysis. Descriptive statistics were utilized when analyzing the following research hypotheses:

1. There is a positive relationship between teacher flow and mindfulness.
2. There is a positive relationship between teacher flow and enabling school structure.
3. There is a positive relationship between mindfulness and enabling school structure.
4. There is a positive contribution made between mindfulness and enabling school structure to teacher flow with enabling school structure making the larger contribution.

Summary

Chapter 3 identified the study’s sample selection process and described the design of the study. Experimental and control groups were determined. Random assignment and the selection of the groups were also explained. The experimental treatment of the groups was identified. Finally, the measures for the independent and dependent variables were listed.
CHAPTER 4

RESULTS

Chapter 4 reports the findings of the relationships existing between teacher flow experience, mindfulness, and enabling school structure. This chapter presents descriptive statistics, reliabilities, and correlations together with findings. Individual schools’ free and reduced lunch data were used to control for socioeconomic status.

Descriptive Statistics

The presented study examined elementary, middle, and high schools from northeast, western, and southeastern city and county school systems of Alabama. Of the 68 schools that were contacted, 51 participated in the study. Table 1 indicates the descriptive characteristics of the measures including socioeconomic status. Data used for this study are averages of teacher responses at each school. The school was the unit of analysis for this study and is represented by \( N \). Finally, the range, minimum, maximum, mean, and standard deviation is also found in Table 1.

Table 1

*Descriptive Characteristics of the Measures*

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<th>Max</th>
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<th>( SD )</th>
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<tr>
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</table>
Reliability

The alpha coefficient of reliability for each of the measurements is listed in Table 2. Teacher flow was measured by using the Flow State Scale (FSS), a 36-item Likert-type survey. Mindfulness was measured by using the M-Scale, a 14-item Likert-type survey. Enabling school structure was measured by using the Enabling School Structure Scale (ESS), which is a 12-item Likert-type survey. The alpha coefficients for reliability of all of the measures were found to be highly reliable with the FSS at .93, the M-Scale at .82, and the ESS at .90. There were 566 total participants who took the surveys.

Table 2

Cronbach Alpha Coefficients of Reliability by Scale

<table>
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<tr>
<td>M</td>
<td>51</td>
<td>566</td>
<td>14</td>
<td>.82</td>
</tr>
<tr>
<td>ESS</td>
<td>51</td>
<td>566</td>
<td>12</td>
<td>.90</td>
</tr>
</tbody>
</table>

Correlations

The correlations among all variables examined within the study are given in Table 3. Teacher flow experience and mindfulness were not related ($r = .06, p < .05$). The Pearson correlation between enabling school structure and teacher flow experience was not statistically significant. The relationship of socioeconomic status to teacher flow experience was not significant.
Table 3

*Pearson Correlation Coefficients among all Major Variables Examined in the Study*

<table>
<thead>
<tr>
<th>Var.</th>
<th>N</th>
<th>F</th>
<th>M</th>
<th>ESS</th>
<th>SES</th>
</tr>
</thead>
<tbody>
<tr>
<td>F</td>
<td>51</td>
<td>1</td>
<td>.06</td>
<td>-.16</td>
<td>-.12</td>
</tr>
<tr>
<td>M</td>
<td>51</td>
<td>.06</td>
<td>1</td>
<td>.91**</td>
<td>.14</td>
</tr>
<tr>
<td>ESS</td>
<td>51</td>
<td>-.16</td>
<td>.91**</td>
<td>1</td>
<td>.13</td>
</tr>
<tr>
<td>SES</td>
<td>51</td>
<td>-.12</td>
<td>.14</td>
<td>.13</td>
<td>1</td>
</tr>
</tbody>
</table>

*Notes.* **Correlation is significant at the 0.01 level (2-tailed). Teacher Flow Experience (F), Mindfulness (M), Enabling School Structure (ESS), Socioeconomic Status (SES).*

**Hypothesis Testing**

Hypotheses 1-4 predicted that all of the variables of the study would be related.

Hypothesis 1 stated that teacher flow is positively related to school mindfulness. Table 3 depicts a correlation between the two variables that is not statistically significant at the .05 alpha level.

Hypothesis 2 predicted that teacher flow experience is positively related to enabling school structure. Table 3 illustrates a correlation between teacher flow and enabling school structure that is not statistically significant at the .05 level.

Hypothesis 3 predicted that school mindfulness is positively related to enabling school structure. Table 3 displays a significant correlation of variance between the two variables \( r = .91, p < .01 \).

Finally, Hypothesis 4 predicted that mindfulness and enabling school structure would make individual and joint contributions to the explanation of teacher flow, with enabling school structure making the larger contribution. Although the relationship was negative, enabling school structure made a larger contribution to teacher flow than did mindfulness.

Moreover, to further test the relationships existing between the three given variables, a regression analysis was conducted to determine the unique contribution of teacher flow when
regressed onto both mindfulness and enabling school structure while controlling for socioeconomic status. Table 4 indicates the unstandardized regression coefficient (β), standard error, standardized regression coefficients (beta weights), t, and the significance. In the regression model (Table 4), the predictors comprised 25% of the variance for mindfulness and enabling school structure when controlling for SES. Mindfulness (β = 1.2, p < .01) and enabling school structure (β = -1.3, p < .01) were both found to be good predictors of teacher flow experience; however, enabling school structure and teacher flow experience were found to have an inverse relationship.

Table 4

Regression Coefficients of Teacher Flow on Mindfulness and Enabling School Structure and SES

<table>
<thead>
<tr>
<th>Predictor variables</th>
<th>Unstandardized coefficients</th>
<th>Standardizes coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
</tr>
<tr>
<td>(constant)</td>
<td>3.818</td>
<td>.187</td>
</tr>
<tr>
<td>Enabling school structure</td>
<td>-.467</td>
<td>.108</td>
</tr>
<tr>
<td>Mindfulness</td>
<td>.445</td>
<td>.110</td>
</tr>
<tr>
<td>SES</td>
<td>-.001</td>
<td>.001</td>
</tr>
</tbody>
</table>

*Note. Significant at p < .01 (2 tailed). R = .54, R² = .29, Adj R² = .25.*

The assumption of no multicollinearity was assessed by review of the tolerance (TIF) and variance inflation factor (VIF). It was thought that mindfulness and enabling school structure are so highly correlated that it distorted their relationships as well as the relationship existing with teacher flow experience, the dependent variable. In looking at the collinearity statistics, both mindfulness and enabling school structure have a tolerance of .17. A general rule of thumb indicates that anything over .1-.2 at the maximum is normal. The variance inflation factor (VIF)
for mindfulness is 5.9 and 5.8 for enabling school structure (Tabachnick & Fidell, 2007). Again, a general rule of thumb is to accept anything under 8-10 as normal (Tabachnick & Fidell, 2007).

After analyzing the variables, it was determined that enabling school structure had an inverse relationship with teacher flow experience. When holding enabling school structure constant, every 1-point increase in mindfulness equates to a .45 increase in teacher flow experience. When holding mindfulness constant, every 1-point increase in enabling school structure results in a .47 decrease in teacher flow experience. Hence, enabling school structure had an inverse yet significant relationship with teacher flow experience.

The inverse relationship existing between teacher flow experience and enabling school structure can be attributed to the amount of variance existing between teacher flow experience and mindfulness. As the amount of mindfulness that is attributed to teacher flow experience is increased, there is an even lesser amount of variance for enabling school structure. This causes the amount of enabling school structure to decrease thus leading to an inverse relationship between the two variables. Moreover, there is a strong bivariate correlation existing between mindfulness and enabling school structure ($r = .91, p < .01$). The bivariate correlation existing between teacher flow experience and mindfulness is ($r = .06, p > .01$) meaning that mindfulness is related to teacher flow experience. Mindfulness acts as a connecting variable between teacher flow experience and enabling school structure. SES had a negative relationship and nonsignificant correlation with teacher flow experience ($\beta = -.13, p > .01$).

Other Findings

Table 5 illustrates that by taking socioeconomic status (SES) out of the regression model, mindfulness ($\beta = 1.2, p < .01$) and enabling school structure ($\beta = -1.3, p < .01$) both make a
significant impact for teacher flow experience. The predictors accounted for 25% of the variance in mindfulness and enabling school structure when not controlling for SES. Again, enabling school structure was found to have a negative but significant relationship with teacher flow, ($\beta = -1.3, p < .01$).

Table 5

*Regression Coefficients of Teacher Flow on Mindfulness and Enabling School Structure*

<table>
<thead>
<tr>
<th>Predictor variables</th>
<th>Unstandardized coefficients</th>
<th>Standardizes coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td>(constant)</td>
<td>3.8</td>
<td>.186</td>
</tr>
<tr>
<td>Enabling school structure</td>
<td>-.47</td>
<td>.110</td>
</tr>
<tr>
<td>Mindfulness</td>
<td>.44</td>
<td>.107</td>
</tr>
</tbody>
</table>

*Note.* Significant at $p < .001$ (2 tailed). $R = .53$, $R^2 = .28$, Adj $R^2 = .25$.

Conclusion

In Chapter 4, a statistical test of relationships existing between teacher flow experience, mindfulness, enabling school structure, and socioeconomic status was examined. Correlational and regression data were established to analyze these relationships. The initial research question stated that there was a positive relationship existing between teacher flow and mindfulness. Inter-correlational data determined that there is a positive relationship existing between these two variables but the correlation was nonsignificant. The second research question asked if a positive relationship existed between teacher flow and enabling school structure. Bivariate correlation coefficients indicated no relationship between flow and enabling school structure. When analyzed through a linear regression, enabling school structure had a negative beta. Inter-correlational data and regression analysis determined there to be an extremely significant relationship existing between mindfulness and enabling school structure. Finally, the fourth
research question was answered through a combination of correlational measures and regression analysis. The findings indicated that enabling school structure had a more significant relationship with teacher flow than did mindfulness thus it was found to be a stronger predictor than was mindfulness. Socioeconomic status was not found to be a good predictor for the development of teacher flow experience.
CHAPTER 5

DISCUSSION OF RESULTS

Introduction

This chapter summarizes the study’s purpose and findings. Theoretical implications of this study are discussed. Practical guidelines are provided for administrators to enhance teacher flow experience, mindfulness, and enabling school structure. Suggestions for extending this inquiry are presented.

Summary of Findings

This study analyzed the relationship existing between teacher flow experience, mindfulness, and enabling school structure. In the regression model (Table 4), the predictors comprised 25% of the variance for mindfulness and enabling school structure when controlling for socioeconomic status. These findings may be misleading. The hypothesized findings from this study are provided as follows:

1. Teacher flow experience and mindfulness were not correlated.
2. Teacher flow experience and enabling school structure were not correlated.
3. Mindfulness and enabling school structure were strongly related.
4. Mindfulness and enabling school structure did not make a joint nor individual contribution to teacher flow experience. The apparent substantial \( R \) square is an artifact of collinearity and, consequently, the beta values are misleading.
Theoretical Implications

*Teacher Flow Experience and Mindfulness*

The initial research question asked what the relationship was between teacher flow experience and mindfulness. The answer to that question anticipated a positive relationship between these two variables. However, in the hypothesis tested, the variables were not related. The bivariate relationship existing between the two variables was $r = .06, p > .01$ when controlling for socioeconomic status. In the regression model (Table 4), the predictors comprised 25% of the variance for mindfulness and enabling school structure when controlling for SES. Pedhazur (1997) stated, “Collinearity may have devastating effects on regression statistics to the extent of rendering them useless, even highly misleading. Notably, this is manifested in imprecise estimates of regression coefficients” (p. 295).

The literature review offered very little explanation of the relationship between teacher flow experience and mindfulness, because teacher flow experience is a relatively new concept. Flow is a concept that has been studied by Csikszentmihalyi (1975a) since the early to mid-1970s. The origin of Csikszentmihalyi’s flow experience research dates back to the mid-1960s with Maslow’s study of peak experience. However, its evolution into the classroom as a phenomenon that teachers experience sparks a new trend in education as a means for teacher performance to be optimized. The reader is encouraged to recall that the flow experience is the holistic sensation that is present when a person acts with total involvement within a given activity (Csikszentmihalyi, 1975a, p. 43). Jackson and Csikszentmihalyi (1999), as well as Beard and Hoy (2010), depict nine dimensions composing the flow experience: 1) challenge-skill balance; 2) action-awareness merging; 3) clear goals; 4) clear feedback; 5) concentration; 6)
sense of control; 7) loss of self-consciousness; 8) transformation of time; and 9) autotelic experience.

The initial rationale of the relationship of mindfulness and teacher flow experience was that a continuous scrutiny of the organization would foster flow. Moreover, Weick and Sutcliffe’s five elements of mindfulness, including a school’s preoccupation with failure, reluctance to simplify interpretations, sensitivity to operations, commitment to resilience, and deference to expertise, were believed to be good predictors of teacher flow experience. Unfortunately, these elements were found to be poor predictors of teacher flow experience. Indeed, the constant scrutiny of the operations of a school had nothing to do with teacher flow experience. In the following sections, this unanticipated lack of relationship will be analyzed.

Teachers may experience flow for its own sake and for reasons having little to do with the school organization. Achieving a flow experience is so individualistic that it is relatively impervious to an organizational construct such as mindfulness. Flow is an experience that is difficult to achieve but when it is achieved, it stands free from the structural factors that run congruent with an organization. Csikszentmihalyi (1990) observed the following:

There is no question that to survive, and especially to survive in a complex society, it is necessary to work for external goals and to postpone immediate gratifications. But a person does not have to be jerked about by societal controls. The solution is to gradually become free of societal rewards and learn how to substitute for them rewards that are under one’s own powers. This is not to say that we should abandon every goal endorsed by society; rather, it means that, in addition to or instead of the goals others use to bribe us with, we develop a set of our own. (p. 19)

According to this study’s research findings, societal factors, including the characteristic of school mindfulness, must be set-aside for teachers to encounter a flow experience. This is not to say that a teacher should not be mindful or that a school should not have a mindful collective; however, it
does in fact mean that school mindfulness is an organizational characteristic that serves as a hindrance for teachers trying to achieve an individualistic flow experience.

The two dimensions of flow, including challenge-skill balance and the merging of action and awareness, have a negative impact on the patterns of a mindful school. For instance, a teacher who experiences flow has a balance between the challenge at hand and the skills that are necessary for the teacher to overcome the challenge. Teachers in effective schools probably maintain a mindful collective. Mindful schools tend to defer certain problems and decisions (challenges) to the expertise of the faculty. Weick and Sutcliffe (2001) agreed in observing that, “The decisions migrate around these organizations in search of a person who has specific knowledge of the event” (p. 16). When a teacher defers to the expertise of another, they lose the benefit of meeting the challenge to their skill, thus reducing flow.

Action-awareness, an important dimension of flow, may be at odds with mindfulness. Mindful schools intensely scrutinize the day-to-day operations of the school and carefully deliberate before taking action. Flow captures the automatic response, a response without reflection because it happens in the moment, instead of taking the slower response intrinsic to mindfulness. In work, flow speeds up response while mindfulness slows it down. Thus, they work at cross-purposes with little relation to each other. This may explain the lack of the relationship.

Finally, the relationship existing between teacher flow experience and school mindfulness could be a characteristic of the sample that was selected for the study. Data for this study states that its sample work in schools that have a mindful collective thus making teachers’ ability for experiencing flow more difficult to achieve. Also, flow in itself is a difficult phenomenon to achieve. Many teachers get bogged down with the day-to-day operations of the
school day so they may be incapable of experiencing flow. For example, recall that challenge-skill balance and action-awareness merging are two dimensions of flow that counteract with the essence of school mindfulness. Jackson and Csikszentmihalyi (1999) stated, “Flow is a positive state that most often occurs when a person perceives a balance between the challenge associated with a situation and his or her ability to meet those demands; however, experiencing flow is not easy” (p. 430).

There could also be a school district characteristic that is pertinent to the school systems comprising the sample making them different than other school systems throughout the state of Alabama. Beard and Hoy (2010) sampled 260 elementary school teachers across 14 schools in central Ohio. Again, the current research sampled 51 schools with 566 participants from city and county schools including western, northeastern, and southeastern areas of Alabama. Also, since the current study sampled elementary, middle, and high school teachers, there could be some characteristic different from that of Beard and Hoy’s study in which only elementary teachers were surveyed.

**Teacher Flow Experience and Enabling School Structure Applications**

The second research question asked what the relationship was between teacher flow experience and enabling school structure. The answer to that question anticipated a positive relationship between these two variables. However, in the hypothesis tested, the variables were not related. In the regression model (Table 4), the predictors comprised 25% of the variance for mindfulness and enabling school structure when controlling for SES. Again, collinearity was found to be a problem with the relationship existing between mindfulness and enabling school structure.
The initial rationale of the relationship of enabling school structure and teacher flow experience was that a school’s structure that contained lower levels of centralization and formalization would lead to a higher opportunity for a teacher to experience flow. According to Hoy and Sweetland (2001), a prototype of an enabling bureaucracy “is a hierarchy that helps rather than hinders and a system of rules and regulations that guides problem solving rather than punishes failure” (p. 318). In essence, enabling structure was believed to be good predictor for teacher flow experience. In fact, structure was found to be a poor predictor of teacher flow experience.

The literature offered very little explanation of a potential relationship between teacher flow experience and enabling school structure. There was little literature linking flow to structure, especially enabling structure. A school’s structure tends to vary based upon the types of procedures for following rules and regulations as well as decision-making processes. But like mindfulness, the data did not support structure’s influence on a teacher’s ability to experience flow. One may conclude that achieving flow experience is so individualistic that it is relatively impermeable to organizational constructs such as school structure. Indeed, Csikszentmihalyi (1999) may well agree with this conclusion given his observation:

The most important step in emancipating oneself from social controls is the ability to find rewards in the events of each moment. If a person learns to enjoy and find meaning in the ongoing stream of experience, in the process of living itself, the burden of social controls automatically fall from one’s shoulders. Power returns to the person when rewards are no longer relegated to outside forces. It is no longer necessary to struggle for goals that always seem to recede into the future, to end each boring day with the hope that tomorrow, perhaps, something good will happen. Instead of forever straining for the tantalizing prize dangled just out of reach, one begins to harvest the genuine rewards of living. But it is not by abandoning ourselves to the instinctual desires that we become free of social controls. We must also become independent from the dictates of the body, and learn to take charge of what happens in the mind. (p. 19)
Again, societal factors such as those that contribute to a school’s structure, including its hierarchy and rules and procedures, must be set aside for teachers to experience flow. This is not to say that school structure should not be enabling or hindering; consequently, the existence of structure in general makes the achievement of flow more difficult.

How might one interpret the lack of relationship of structure to flow? It would seem illogical to assume a hindering structure would help flow; yet, there was no relationship between enabling structure and flow. That is, flow did not vary with structure. It may be the case that there are variables that intervene in the relationship of structure and flow, but we do not know what they are.

As with mindfulness, the two dimensions of flow, including challenge-skill balance and the merging of action and awareness, might have a negative impact on the patterns of school structure. Teachers experiencing flow maintain a balance between the challenge and skills needed to effectively meet the given challenge. In an enabling school structure, “principals and teachers work cooperatively across recognized authority boundaries while retaining their distinctive roles. Similarly, rules and regulations are flexible guides for problem solving rather than constraints that create problems” (Hoy & Sweetland, 2001, p. 318). The emerging challenge and the necessary skills needed for the challenge is a necessary dimension of a flow experience. Enabling structures offer flexibility in rules and regulations as well as shared decision-making processes. Teachers have a difficult time experiencing flow because they have more freedoms to experience different teaching methods as rules and regulations are more relaxed. Again, the structure of a school, whether it be enabling or hindering, interferes with teachers’ ability to reach a flow experience because it simply exists.
Apparently, action-awareness merging is yet another component of flow difficult to achieve within a school structure. Enabling structure, which offers a flexibility to rules and procedures as well as a shared decision making within the hierarchy of the school, should probably be a goal of all schools. During the teacher flow experience dimension of action and awareness merging, the flow activity becomes so intense that a teacher responds spontaneously. This action is not necessarily a good response to either an enabling or hindering structure but it would not be theoretically consistent to find enabling structure depresses flow. Rather, the relationship is probably more complex.

Finally, the findings of the current study could be a characteristic of the sample. Faculty members working in schools that have an existing enabling or hindering structure may have a difficult time experiencing flow. Flow is also a difficult phenomenon to achieve. If teachers cannot reach the dimensions of action-awareness merging or challenge-skill balance, they will be incapable of reaching flow. Beard and Hoy (2010) stated, “If goals are either too difficult or too easy, teachers give up or lose focus and interest” (p. 454).

**Mindfulness and Enabling School Structure**

The third research question asked if mindfulness would be positively related to enabling school structure? The third hypothesis argued that mindfulness would be positively related to enabling school structure. The findings supported the hypothesis; the bivariate relationship between the two variables was \( r = .91, p < .01 \) when controlling for socioeconomic status. However, this strong relationship was seen to be a problem of collinearity. Pedhazur (1997) suggests that a correlation of .90 or better would be considered collinear (p. 295).
The conceptual framework of Chapter 2 discusses the relationship history between mindfulness and enabling school structure. Certainly schools with hindering structures are less likely to be mindful just as schools with enabling school structures are more likely to be mindful. However, Hoy (2003) found that both mindfulness and enabling school structures are complementary concepts for each other. “Both require trust, openness, flexibility, cooperation, and organizational learning. Both are concerned with problem solving, collaboration, and anticipating the unexpected” (p. 99).

Theoretically and empirically, mindfulness and enabling school structure are strongly related. Both mindfulness and enabling structure describe “dynamic structures that shift leadership and problem-solving strategies in ways that match expertise with the problem at hand” (Hoy, 2003, p. 100). The only differences that are associated between the two constructs are that “mindful organizations have a preoccupation with failure, a resiliency, and a sensitivity to the unexpected that some enabling structures lack” (Hoy, 2003, p. 100). For instance, mindful schools with enabling structure monitor attendance, test data, behavior, and classroom grades as a general measure of student achievement. If students have low achieving academic status, it is not simply attributed to students’ inability to comprehend or teachers’ inability to teach. Specific measures are applied to alleviate these negative attributes. Home visits are made to improve attendance if need be, behavior plans are developed for student disciplinary infractions, formative assessments are administered for improving test scores, and data rooms are formed to increase academic performance. None of these behaviors appear to be directly related to flow.
Teacher Flow Experience, Mindfulness, and Enabling School Structure

The fourth research question asked what the relationship was between teacher flow experience, mindfulness, and enabling school structure and suggested that enabling school structure would make a larger contribution to mindfulness. The answer to that question anticipated a positive relationship between these three variables. However, in the hypothesis test, the variables were not related. In the regression model (Table 4), the predictors comprised 25% of the variance for mindfulness and enabling school structure when controlling for SES. According to Pedhazur (1997), a strong relationship existing between variables is a sign of collinearity. (p. 295). Certainly, the bivariate relationship of .91 between mindfulness and structure would qualify as collinear.

Socioeconomic status and teacher flow experience. Socioeconomic status and teacher flow experience were not related at the bivariate or multivariate levels.

Practical Applications

Teacher flow experience, mindfulness, and enabling school structure were not significantly related. Moreover, mindfulness and enabling school structure do not make a joint contribution to teacher flow experience. Teacher flow experience is a phenomenon that is not easy to achieve on a daily basis, but most teachers report flow at one time or another. This study is beneficial to school administrators because the descriptive data confirm that teacher flow experience is present.

If teacher flow experience is occurring in schools, it should be embraced as a mechanism that could lead to higher levels of teacher effectiveness and student achievement. Teacher flow
experience is a phenomenon that can be identified by the faculty members of a school who experience it. Beard and Hoy (2010) identified nine fundamental elements of flow: challenge-skill balance, action-awareness merging, clear goals, clear feedback, concentration, sense of control, loss of self-consciousness, transformation of time, and autotelic experience. In this study, these given elements were not found to have a relationship to mindfulness and its five hallmarks: preoccupation with failure, reluctance to simplify interpretations, sensitivity to operations, commitment to resilience, and deference to expertise. The elements of flow were also found to be unrelated to the two components of enabling structure: formalization and centralization. Data suggest that teacher flow is so individualistic in nature, that the very existence of organizational characteristics including mindfulness and enabling school structure were found to be independent of flow. Practical applications for a school setting are identified in the following discussion of teacher flow experience, mindfulness, and enabling school structure.

*Teacher Flow Experience and Mindfulness Applications*

Teacher flow experience was not related to mindfulness. But mindfulness has been related to trust (Tarter, Gage, & Hoy, 2006) and trust has been related to both academic optimism and school performance. Similarly, Beard and Hoy (2010) found teacher flow to be related to academic optimism. So, there are organizational variables that intervene between teacher flow experience, mindfulness, and enabling school structure. The only problem that exists is determining which constructs are useful for fostering teacher flow without fostering school mindfulness. Administrators could refrain from increasing school mindfulness by offering professional development opportunities for individual teachers. Professional development may be considered an individualistic feature of a school as every teacher experiencing it gets
something different. This, in turn, could increase academic optimism which has been linked to teacher flow. School administrators may create data rooms in which data including national test scores, formative assessment scores, class grades, and attendance rates are kept for every student. Some students are taught differently than others, requiring teachers to try individual teaching methods in order to reach them. These individualized teaching methods could foster a flow experience without an increase of a mindful collective within the school. Finally, administrators should collaborate through round table discussions and determine the most successful ways for implementing innovative strategies for fostering flow without achieving a mindful collective. Like individualized teaching methods, innovative strategies take the best practices of individual teachers and make them effective. This, in turn, could foster teacher flow experience without enhancing mindfulness within a school.

**Teacher Flow Experience and Enabling School Structure Applications**

Teacher flow experience was found to be unrelated to enabling school structure. Similarly to mindfulness, structure has been found to be related to collective efficacy (Hoy & Sweetland, 2001). Again, teacher flow (Beard and Hoy, 2010) has been related to academic optimism, which is also related to collective efficacy (Hoy, Tarter, & Hoy, 2006). So, again, there are organizational variables that intervene between teacher flow experience and school structure. Determining which constructs are useful for fostering teacher flow remains the problem. Because school structure is not related to teacher flow experience, promoting schools with trust, academic optimism, and collective efficacy may be the answer. Although school structure is not the answer, schools that contain high levels of collective efficacy and academic optimism may perhaps increase teacher flow experience. If this is the case, school administrators
should devise ways that limit structure yet increase opportunities for individual teacher involvement. This can be accomplished by developing principal advisory or leadership committees. Committee members should be comprised of at least one representative for every facet of the school including certified and classified employees. Committee members should be given an opportunity to offer their opinion on ways that would make daily transition of the school day more efficient. Certified personnel (teachers) should be offered an opportunity to voice their opinion about how to improve teacher effectiveness and student achievement.

School Mindfulness and Enabling School Structure

The five dimensions of mindfulness are a preoccupation with failure, a reluctance to simplify interpretations, a sensitivity to operations, a commitment to resilience, and a deference to expertise. The current study found these hallmarks to be interrelated with the two elements of school structure: formalization and centralization. They are both important features of a school in order to promote high levels of teacher effectiveness and student achievement.

Schools with enabling structure that maintain a mindful collective are committed to resilience. They promote risk-taking and problem-solving activities. Mindful schools learn to bounce back from mistakes. For example, a school with enabling structure and a mindful collective that fails to meet adequate yearly progress finds a way to overcome this mistake. Administrators should work to increase teacher effectiveness by professional development or through the analysis of student data to promote higher achievement levels.

There is also a deference of expertise in schools with enabling structure that maintain a mindful collective. Faculty members are aligned with solving problems based on levels of expertise rather than through experience or status. The reliance on hierarchies to solve problems
is not enabling or mindful but rather hindering and mindless. (Hoy, 2003). Through deference of expertise, methods for increasing teacher effectiveness and student achievement can be connected to those faculty members who have valuable skills. School administrators should work to have these faculty members disseminate information to the rest of the faculty.

Enabled schools that are mindful are reluctant to simplify interpretations and are sensitive to the day-to-day operations of the school. Mindful schools take close notice of the daily operations of the school including policies and procedures as well as the decision-making processes. Of course, they become aware that unexpected events may occur. But, rather than fearing these unexpected events, they embrace them. By positioning themselves in such ways as to see as much as possible, mindful schools with enabling structures pay close attention to the smallest activities or deviations from the norm (Hoy, 2003). Again, enabling schools that are mindful analyze student attendance rates, formative assessment data, student behavior, and grades to gain a finer picture of student performance. Administrators should host monthly grade level meetings in which all students are individually counseled by teachers with the expertise needed to determine strengths and weaknesses within each given subject area.

Preoccupation with failure is a dimension of a mindful school that need not be associated with a school’s enabling structures. Occasionally, schools with enabling structures have administrators who attribute student achievement to their own leadership abilities or to teacher effectiveness rather than by chance or through luck (Hoy, 2003). Rules and procedures may become the school’s first option when facing unexpected factors or potential problems. However, the shortcomings of the school are usually ignored as confidence is built based on the successes of the school. Administrators should never become complacent with the current status of a school’s success. They should always expect the unexpected and be preoccupied with failure.
Involving the faculty in decision-making processes as well as encouraging the questioning of current policies and procedures is a way that administrators can prevent falling victim to complacency. This may be accomplished through principal advisory or leadership committees.

**Teacher Flow Experience Applications**

Beard and Hoy (2010) offer some strategies to school administrators for enhancing teacher flow experience within a school. Initially, administrators can “facilitate professional learning communities through such activities as critical friends, lesson study, collaborative projects; professional communities enhance individual performance” (p. 454). They may also increase teacher effectiveness by matching teachers of complementary expertise. They create forums through which teachers may learn from each other without a specific rank or status by avoiding “the error of embracing standard rules and rigid structures” (Hoy, Gage, & Tarter, 2007, p. 319).

Administrators may further promote teacher flow experience in schools by challenging experienced teachers to create new courses, advance professional development, mentor responsibilities, and revise curriculum; “the leadership of experienced teachers needs to be harnessed” (Beard & Hoy, 2010, p. 454). As teachers learn innovative styles and techniques, it motivates them to become more effective thus leading to an increase in teacher effectiveness and student achievement. Beard and Hoy (2010) admonished administrators to “be mindful of the skills of teachers, including outside abilities and interests; teachers have many untapped talents” (p. 454). For example, many teachers may have an interest in curricula that they do not teach. If a history teacher, for example, has some expertise in English literature gained through travel to the United Kingdom, that teacher might be a guest lecturer in an English teacher’s literature course.
Again this could lead to an increase in teacher effectiveness and student achievement. Administrators should also “match those skills with the difficulty and challenge of the task; appropriate matching is a key to success” (p. 454). For example, if a middle school girl’s softball coach is needed, it is important to match a faculty member with this position if she has the experience necessary for being successful as well as the experience needed for maintaining her teaching position. Administrators should also “provide support for new teachers (e.g., mentors, limited number of preparations, access to needed resources); new teachers can be overwhelmed by the challenge. It is not uncommon for a first-year science teacher to be overwhelmed by teaching three or more curricula. An administrator should place the upper-level science courses with veteran teachers who have the experience, the knowledge, and the skills needed for teaching upper level courses.

Administrators should also “provide safety valves in cases in which teachers are mismatched in the task-skills challenge (e.g., support-teachers, formative supervision, scaffolding); mistakes need to be addressed quickly and positively” (Beard & Hoy, 2010, p. 454). All teachers need support or motivation at some point. In order to promote intrinsic motivation, which, in turn, could lead to a flow experience, administrators should constantly promote their faculty. This can be done through professional development opportunities in which motivational speakers are brought into the school.

Finally, Beard and Hoy (2010) stated that administrators should “welcome teacher innovations; teachers are often the source of creative ideas” (p. 454). This can be accomplished by developing principal advisory or leadership committees.
Recommendations for Future Research

This study did not correlate teacher flow experience, mindfulness, and enabling school structure. However, it is possible that teacher flow experience could lead to student achievement and teacher effectiveness. Hoy, Tarter, and Hoy (2006) found that academic optimism was shown to be a strong factor for an increase in student achievement. Kurtz, Hoy, and Hoy (2007) found academic optimism to be strongly related to student academic performance. Beard and Hoy (2010) were able to establish a strong relationship existing between academic optimism and flow. Consequently, it might well be the case that academic optimism is a variable that intervenes in the relationship of mindfulness and structure to flow. Given the relative newness of flow as a research variable, further studies seem appropriate.

Socioeconomic status was not a good predictor of teacher flow experience, mindfulness, or enabling school structure. Still, it would be important to establish the relevance of socioeconomic status as a factor into student achievement and teacher effectiveness levels when teacher flow experience and academic optimism are emphasized as variables within the research. Currently, there is not a single study linking all of these variables. While the current study did not find socioeconomic status to be related to the variables of flow, mindfulness, and enabling school structure, it is possible that SES is an intervening variable in this mix that leads to academic optimism and thus is worthy of further research. Hoy, Tarter, and Hoy (2006) saw academic optimism removing some of the effects of socioeconomic status on student achievement and performance. As well, Smith and Hoy (2007) found similar relationships among optimism, SES, and student performance. Beard and Hoy (2010) stated, “Academic optimism emphasizes sense of the possible--the faculty believes that it can make a difference,
students can learn, and high academic performance can be achieved” (p. 435). These findings offer insight to the development of teacher flow experience within schools.

Conclusion

Teacher flow, mindfulness, and enabling structure were not correlated in the current research. Teacher flow is probably an individual characteristic free from the organizational elements of mindfulness and enabling school structure. Csikszentmihalyi (1990) described flow as “the state in which people are so involved in an activity that nothing else seems to matter; the experience itself is so enjoyable that people will do it even at great cost, for the sheer sake of doing it” (p. 4). Teachers find a flow experience to be an epiphany or a moment of enlightenment followed by feelings of intrinsic motivation. The flow experience does not occur in all teachers. But by applying the practical applications that were identified by Beard and Hoy, it may be possible that administrators can enhance teacher flow experience within their schools. Administrators may then develop a practice guide and apply the design that has been created in these findings to implement any necessary changes needed for creating teacher flow experience.
REFERENCES


APPENDIX A

SCHOOL MINDFULNESS SCALE (SHORT FORM)
SCHOOL MINDFULNESS SCALE (SHORT FORM)

DIRECTIONS: The following are statements about your school. Please indicate the extent to which you agree with each statement along a scale from strongly disagree (1) to strongly agree (6). There are no correct or incorrect answers so please give candid and anonymous judgment.

<table>
<thead>
<tr>
<th>Rating Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Strongly disagree</td>
</tr>
</tbody>
</table>

1.) Teachers negotiate differences among each other without destroying the diversity of opinions.

2.) The principal welcomes challenges from the teachers.

3.) In this school, teachers welcome feedback about ways to improve.

4.) Too many teachers in my building give up when things go bad.

5.) My principal negotiates differences among faculty without destroying the diversity of opinions.

6.) My principal is an expert on teaching and learning.

7.) Most teachers in this building are reluctant to change.

8.) When things go badly, the teachers bounce back quickly.

9.) Teachers in my building learn from their mistakes and change so they do not happen again.

10.) Teachers do not trust the principal enough to admit their mistakes.

1 2 3 4 5 6
<table>
<thead>
<tr>
<th>Rating Scale</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Somewhat disagree</th>
<th>Somewhat agree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>11.) The principal of this school does not value the opinions of the teachers.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>12.) When a crisis occurs, the principal effectively deals with it so we can get back to teaching.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>13.) My principal often jumps to conclusions.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>14.) People in this school respect power more than knowledge.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
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</table>
APPENDIX B

FLOW STATE SCALE
Flow State Scale

**DIRECTIONS:** Please answer the following questions in relation to your experience in the event you have just completed. These questions relate to the thoughts and feelings you may have experienced during this event. There are no right or wrong answers. Think about how you felt during the event and answer the questions using the rating scale below. Circle the number that best matches your experience from the options to the right of each question.

<table>
<thead>
<tr>
<th>Rating Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly disagree 1</td>
</tr>
</tbody>
</table>

1.) I was challenged, but I believed my skills would allow me to meet the challenge.  1  2  3  4  5

2.) I made the correct movements without thinking about trying to do so.  1  2  3  4  5

3.) I knew clearly what I wanted to do.  1  2  3  4  5

4.) It was really clear to me what I was doing well.  1  2  3  4  5

5.) My attention was focused entirely on what I was doing.  1  2  3  4  5

6.) I felt in total control of what I was doing.  1  2  3  4  5

7.) I was not concerned of what others may have been thinking of me.  1  2  3  4  5

8.) Time seemed to alter (either slowed down or speeded up).  1  2  3  4  5

10.) My abilities matched the high challenge of the situation.  1  2  3  4  5

11.) Things just seemed to be happening automatically.  1  2  3  4  5

12.) I had a strong sense of what I wanted to do.  1  2  3  4  5

13.) I was aware of how well I was performing.  1  2  3  4  5
<table>
<thead>
<tr>
<th>Rating Scale</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neither agree nor disagree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.) It was no effort to keep my mind on what was happening.</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
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<tr>
<td>15.) I felt like I could control what I was doing.</td>
<td>1 2 3 4 5</td>
<td></td>
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<tr>
<td>16.) I was not worried about my performance during the event.</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
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<td>17.) The way time passed seemed to be different than normal.</td>
<td>1 2 3 4 5</td>
<td></td>
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<td>18.) I loved the feeling of that performance and want to capture it again.</td>
<td>1 2 3 4 5</td>
<td></td>
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<tr>
<td>19.) I felt I was competent enough to meet the high demands of the situation.</td>
<td>1 2 3 4 5</td>
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<td>20.) I performed automatically.</td>
<td>1 2 3 4 5</td>
<td></td>
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<td>21.) I knew what I wanted to achieve.</td>
<td>1 2 3 4 5</td>
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<tr>
<td>22.) I had a good idea while I was performing about how well I was doing.</td>
<td>1 2 3 4 5</td>
<td></td>
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<td>23.) I had total concentration.</td>
<td>1 2 3 4 5</td>
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<td>24.) I had a feeling of total control.</td>
<td>1 2 3 4 5</td>
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<td>25.) I was not concerned with how I was presenting myself.</td>
<td>1 2 3 4 5</td>
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<tr>
<td>26.) It felt like time stopped while I was performing.</td>
<td>1 2 3 4 5</td>
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<tr>
<td>27.) The experience left me feeling great.</td>
<td>1 2 3 4 5</td>
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<tr>
<td>28.) The challenge and my skills were at an equally high level.</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Rating Scale</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
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<tr>
<td>Strongly disagree</td>
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<tr>
<td>Disagree</td>
<td></td>
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<tr>
<td>Neither agree nor disagree</td>
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<tr>
<td>Agree</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Strongly agree</td>
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<tr>
<td>29.) I did things spontaneously and automatically without having to think.</td>
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<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>30.) My goals were clearly defined.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>31.) I could tell by the way I was performing how well I was doing.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>32.) I was completely focused at the task at hand.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>33.) I felt in total control of my body.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>34.) I was not worried about what others might have been thinking about me.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>35.) At times, it almost seemed like things were happening in slow motion.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>36.) I found the experience extremely rewarding.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>
ENABLING SCHOOL STRUCTURE SCALE

**DIRECTIONS:** The following statements are descriptions of the way your school is structured. Please indicate the extent to which each statement characterizes behavior in your school from never to always.

<table>
<thead>
<tr>
<th>Rating Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never 1</td>
</tr>
</tbody>
</table>

1. Administrative rules in this school enable authentic communication between teachers and administrators.
   - 1 2 3 4 5

2. In this school red tape is a problem.
   - 1 2 3 4 5

3. The administrative hierarchy of this school enables teachers to do their jobs.
   - 1 2 3 4 5

4. The administrative hierarchy obstructs student achievement.
   - 1 2 3 4 5

5. Administrative rules help rather than hinder.
   - 1 2 3 4 5

6. The administrative hierarchy of this school facilitates the mission of the school.
   - 1 2 3 4 5

7. Administrative rules in this school are used to punish teachers.
   - 1 2 3 4 5

8. The administrative hierarchy of this school obstructs innovation.
   - 1 2 3 4 5

9. Administrative rules in this school are substitutes for professional judgment.
   - 1 2 3 4 5

10. Administrative rules in this school are guides to solutions rather than rigid procedures.
    - 1 2 3 4 5
<table>
<thead>
<tr>
<th>Rating Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly disagree 1</td>
</tr>
</tbody>
</table>

11.) In this school the authority of the principal is used to undermine teachers.

12.) The administrators in this school use their authority to enable teachers to do their jobs.