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# The Relationship of South Carolina Teachers' Work-Related Stress With Years of Experience, Feelings and Coping Strategy

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THE RELATIONSHIP OF SOUTH CAROLINA TEACHERS' WORK-RELATED  
STRESS WITH YEARS OF EXPERIENCE, FEELINGS AND COPING  
STRATEGY

by

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## **Dedication**

Dedicated to my mother, Sarah Blaney Collins, who taught elementary school for thirty-nine years and who is the best teacher I have ever had! Thank you mom for your unwavering support and encouragement.

## Acknowledgements

Thank you to everyone who was so supportive and encouraging during my doctoral work. Foremost, I want to thank God: “I can do all things through Christ which strengtheneth me” (Philippians 4:13, King James Version). I would also like to thank: my mentor, Fred Medway for all of his thoughtful assistance and continued encouragement; my husband, Bak, who reviewed my rewrites each time and was consistently helpful, especially with technical difficulties and deadlines, and was wonderfully supportive; my parents, Sarah and David, for always listening and helping with whatever was needed; and my children, Madison, Sydney, Mary Catherine and Alexander, for understanding that mommies have homework too, and for all of their help and love. Many thanks also to all the teachers who took time to participate in this research.

## Abstract

**Background.** Stress has been found to affect workers in various occupations, and teaching appears particularly stressful. Work-Related Stress (WRS) affects teachers and people with whom they interact. Previous research suggests WRS may be related to characteristics including teaching experience, feelings, and coping strategy. **Objective.** The purpose of this study was to investigate further the relationship of teacher stress, while expanding the investigation in several areas: utilizing a different geographic population, broadening the focus to generic WRS, and including teachers with less experience. Current model builds on Kyriacou and Sutcliffe's (1978) and Tolbert's (2007) teacher stress models. This study examined relationships between Individual Teacher Characteristics (Years of Teaching Experience, Hope, Locus of Control (LOC), and Non-Teaching Stress) and teacher's Perception/Appraisal of WRS and Experience of Negative/Positive Feelings of Stress and selection of Coping Strategy. Coping Strategy was examined in relation to outcome measures: Depression, Absences from Work, and Commitment to Teaching. It was hypothesized that teachers with less experience, and experiencing low levels of Hope, feelings of an external LOC, and more personal stress, would be more stressed and choose Unconstructive Coping Strategies. Increased WRS was hypothesized to predict Negative Feelings; while higher WRS and Negative Feelings should predict Unconstructive Coping Strategies. Constructive Coping Strategy choice was hypothesized to predict fewer Depression symptoms, fewer Absences, and increased

Commitment. Less Depression and fewer Absences should predict increased Commitment; less Depression predicts fewer Absences. **Methods.** Participants were 140 elementary-level teachers, from 25 South Carolina schools. Teachers anonymously completed self-report questionnaires. Regression equations were calculated to analyze relationships. **Results.** Results revealed significant relationships: WRS predicted Feelings ( $R^2=.26$ ,  $p<.0001$ ); Feelings predicted Coping Strategy ( $R^2=.10$ ,  $p<.001$ ); Hope and Non-Teaching Stress predicted Coping Strategy ( $R^2=.12$ ,  $p<.01$ ); Coping Strategy predicted Depression ( $R^2=.21$ ,  $p<.0001$ .); Depression predicted Absences ( $R^2=.15$ ,  $p<.0001$ ); Absences predicted Commitment ( $R^2=.05$ ,  $p<.05$ ). **Discussion.** Findings suggest teachers felt most stress is related to their occupation, not personal lives. Interventions to increase teacher well-being include: lowering perceived occupational stress, increasing positive feelings from stress, choosing positive coping strategies, and encouraging characteristics such as Hope. These changes may positively impact teachers, as well as their peers, students and family.

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## Chapter I

### Introduction

Stress is a commonly used term to describe psychological feelings of time pressure and work overload, resulting in a feeling of inadequacy in meeting the current demands which a person is experiencing. Many researchers have examined the role of stress in the lives of humans and animals. Hans Selye, for example, has studied stress since the mid 1930's, looking at both the physical and mental strain on the body, which in turn produce stress (Gross, 1958). Selye determined that stress actually exists in all living things and is inescapable. Stress is present regardless of the emotions being experienced or the activity one is participating in; stress exists when people are sad or laughing; angry or joyful; running or reading (Gross, 1958). Furthermore, stress is not strictly a negative concept. There is a difference between negative stress or 'distress', and positive stress or 'eustress'. Selye (1974) stated that we are in reality focused on the 'distress' someone is experiencing, when we discuss someone being in a state of stress. He suggested instead of focusing on the negative aspects of stress, that we look at stress as a challenge for coping and "...enjoy it by learning more about its mechanism and adjusting our philosophy of life accordingly." (p. 33).

Richard Lazarus has also conducted research in the field of stress for many years. He noted that stress began as an engineering term for systems, and then later became popular during World War II when conditions, such as shell shock and battle fatigue, were determined to result from psychological stress (Lazarus, 1966). Lazarus stated that

“stress conveys the idea that the person or animal is beset by powerful pressures which greatly tax the adaptive resources of the biological or psychological system.” (p. 10).

Lazarus, like Selye, focused on the way in which we view stress as important. According to Lazarus, the situation alone does not define whether something is stressful, rather the individual’s perceptions of the situation more often determine if a situation is viewed as distressful for that person or someone with a similar personality (Lazarus, 1966). Thus, personality characteristics specific to an individual are important in identifying potential stressors for that particular person.

### **1.1 Stress and the Workplace**

More recently, research work in the field of stress has examined the role of stress or more accurately, ‘distress’, in the workplace. Many negative characteristics of the current workplace environment, including the recent recession and poor economic conditions, have increased the levels of work stress for a variety of occupations (American Institute of Stress, 2012; Maslach & Leiter, 1997). This occupational stress affects employees and their employers as well. The American Institute of Stress (2012) stated that the estimated cost of stress for all employees in the United States workforce is over \$300 billion each year. This problem is not limited to the United States however, as one newspaper reported in Scotland recently, last year the schools’ cost of stress included thousands of days for teachers’ long-term absences (Thousands of Days, 2012).

Research in both the United States and in Great Britain, has shown that teaching is one of the most stressful occupations. Kyriacou and Sutcliffe (1979) reported that teaching is considered ‘very stressful’ or ‘extremely stressful’ for approximately 30% of the teachers they surveyed about the stress level of the teaching occupation. Travers and

Cooper (1998) compared the stressfulness of the teaching occupation to nurses, doctors and tax officers in the United Kingdom. Teachers were found to have a lower level of job satisfaction and more mental health issues than the other professionals. Cox and Brockley (1984) stated that “work appears as a major source of stress for working people, with teachers appearing to experience more stress through work than non-teachers,”(p.84).

The goal of the current study was to further examine the stressfulness of the teaching occupation by examining individual characteristics which may impact a teacher’s perception of stress, as well as their coping techniques. Additionally, this study examined several teacher outcomes of the stress that is experienced.

## **1.2 Distress and Teachers- A Lengthy Relationship**

Research groups such as the National Education Association began to study teacher happiness in the 1930’s and other researchers continued to study teacher job satisfaction and anxiety in the 1960’s (Adams, Heath-Camp & Camp, 1999). In the 1960’s and 1970’s the concept of teacher stress was identified and has become an increasingly popular topic of study since that time (Kyriacou, 2001). Kyriacou defined teacher stress as “...the experience by a teacher of unpleasant, negative emotions, such as anger, anxiety, tension, frustration or depression, resulting from some aspect of their work as a teacher.” (Kyriacou, 2001, p.28) He also developed a model of teacher stress depicting stress as negative, or distress, and incorporating the perceptions of the teacher in appraising the situation (Kyriacou & Sutcliffe, 1978). This is similar to the views of Selye and Lazarus described earlier, who noted the importance of looking at both the

situation and the person's perception of the situation, in order to determine if it is distressing to that person. Different people may interpret situations differently.

### **1.3 Outcomes of Teacher Stress**

#### **Outcomes for people interacting with highly-stressed teachers**

As the research described above indicates, teachers are experiencing high levels of stress in their professional lives. According to this research, they are also experiencing more stress than other occupations. Not only is the high level of stress impacting the individual teachers' lives, but it is also negatively impacting the lives of the people around them – their families, their coworkers and their students. Lazarus (1999) described this overlap between a teacher's stressful work life and personal life. Stress from a teacher's job can negatively impact his or her personal life, thus negatively affecting his or her personal relationships with family and friends. Hart (1994) found that a teacher suffering from distress may have poorer relationships with co-workers and administrative staff. Similarly, other research has found that highly stressed teachers may have substandard relationships with coworkers and distance themselves emotionally from students, such as treating them in a disparaging manner (Moracco & McFadden, 1982). This may negatively affect students emotionally and also affect the students' current and future academic achievement.

#### **Outcomes for highly-stressed teachers**

As a result of experiencing chronic, high levels of stress, some teachers may experience physical and mental health problems, and burnout, leading to increased absenteeism and a decrease in commitment. Hart (1994), in developing a model of occupational stress for teachers, stated that negative teaching experiences will then lead

to a higher level of psychological distress. Moracco and McFadden's (1982) research further suggested highly stressed teachers may experience emotional problems such as depression and relationship difficulties. If not corrected, these problems may continue to escalate, even eventually forcing a teacher to leave the teaching profession entirely. This increased exodus from teaching has serious consequences for school districts nationwide. Hornick-Lockard (2008) and Guarino, Santibanez and Daley (2006) and others note an urgent teacher shortage throughout much of the United States, especially in the areas of science, math and special education. Thornton, Peltier and Medina (2007) noted that the lack of special education teachers is at an 'epidemic' level. In addition, the current recession economy increases the need for schools to retain qualified teachers, which will contribute to saving dwindling funds and resources, as recruitment of new teachers is very costly. Qualified teachers are also critical in order to encourage positive student outcomes.

#### **1.4 Physical and Mental Health Problems**

There are numerous health problems that teachers may incur as a result of experiencing occupational stress. These health problems range from mental health problems, such as depression and anger, to physical ailments such as headaches and illnesses. Milstein and Golaszewski (1985) stated that stress may result in emotional, behavioral and /or physical difficulties. Teachers may display symptoms from one or more of these types of problems, which include anxiety, overeating, and fatigue. Other problems that appear, as a result of an inability to cope with too much stress, may be drug or alcohol abuse and increased absenteeism.

Chronic unhealthy levels of stress, or distress, can eventually lead to burnout (Iwanicki, 2001; Suh, 2008). Farber (1991, 2000) described the standard school teacher with burnout as being tired and “worn-out”, incapable of working hard any longer. Instead, he or she appears to have given up due to experiencing too much stress. Similarly, in one study of high school and community college teachers, the researchers found that teachers reported experiencing burnout symptoms in their seventh and tenth years of teaching (Byrne, 1998.) The author notes that, consistent with other research, the teachers he surveyed stated they feel hopeless, bored, depressed, anxious, frustrated, and feel a lack of power or control.

### **Depression**

Depression is a frequently cited mental health problem in the teacher stress literature. Kyriacou and Sutcliffe (1978) stated that “Teacher stress is primarily conceptualized as a response of negative affect, such as anger or depression, which is usually accompanied by other phenomena which may be regarded as response correlates of teacher stress,”(p.5). This mental health issue may also impact the individual’s perception of stress and his or her selection of a coping strategy to handle this stress. For example, Folkman & Lazarus (1986) found that depressed people have different appraisals of daily event stressors, than do non-depressed people. In a more recent study, Tolbert (2007) also discovered that more highly stressed teachers had more symptoms of depression. Folkman and Lazarus (1986) noted that the individuals suffering from depression, in their study, chose different coping methods. They found that individuals that were more depressed chose information gathering or emotional coping (palliative



coping techniques) rather than choosing problem solving techniques (direct-action coping techniques).

### **Absenteeism**

Absenteeism from work is another significant health problem associated with high levels of teacher stress in the literature. Research, such as that by Milstein and Golaszowski (1985), suggested that an inability to cope with increased stress levels may lead teachers to experience increased absenteeism rates. Therefore, teachers who experience higher levels of stress may subsequently have higher absenteeism from work. While the high stress levels may not affect all individuals in this manner, the effects on a few individuals can be significant.

In another study, Tolbert (2007) found that the majority of teachers surveyed reported only a few absences due to personal illness. However, nine percent of the teachers reported five or more absences and several participants reported between 10 and 35 absences. Moreover, Kyriacou and Sutcliffe (1978) found evidence of increased absenteeism as one of the behavioral responses evidenced by teachers under high levels of stress.

Other research suggests links between teachers with more symptoms of depression and increased levels of absenteeism. Hurrell (2005) stated that absenteeism and reduced productivity are typical indicators of depressive symptoms. Estimates of the cost of these absences due to depression, for all United States employees are calculated to be as much as \$31 billion (Stewart, Ricci, Chee, Hahn, & Morganstein, 2003). There are also additional costs comprised of decreased performance levels due to stressed employees, which are often uncalculated by organizations.

## **Teacher attrition and commitment**

The retention of qualified teachers is an important concern to the school system, the parents and the students (Darling-Hammond, 2003). In 1983, the problem of teacher attrition was an important focus in the publication which reported on the status of American schools, *A Nation at Risk* (Alliance for Excellent Education, 2004). High rates of teacher attrition can result in tremendous costs for the school districts, both in the funds required and the necessary time to recruit and train new teachers. The Alliance for Excellent Education (2004), for example, determined that overall, school districts lost 207,370 teachers in the 1999-2000 school year. For that year, over \$2.6 billion was the total expense for the school district due to attrition alone, and which does not address teachers that are retiring. This figure is computed with an estimated cost of \$12,546 per teacher that leaves his or her teaching position. Ingersoll (2003) noted that teacher attrition, also known as teacher turnover, consists of teachers that leave the profession, “leavers”. It does not include teachers that move between schools, which he denotes as “movers”, and it does not include retirees. Ingersoll summarized data from the U.S. Department of Education’s National Center for Education Statistics’ surveys, SASS (the Schools and Staffing Survey) and TFS (Teacher Follow-up Survey). He found that in the 1999-2000 school year almost one-third of the 2.38 million teachers in the United States were entering or leaving the schools. Of these, most new hires are to replace the “leavers”, not the retirees.

Similarly, the students and parents are also impacted by the high rate of teacher attrition. Not only is this problem causing a great deal of transition for the schools, but the Alliance for Excellent Education (2004) advised that there are also decreases in

student achievement because of the amount of teacher attrition in the schools. Dove (2004) suggested that teacher attrition leaves vacancies which may not be able to be readily filled with certified teachers in that particular curriculum area, thus disrupting student learning.

As a result of the significant problems created by high levels of attrition, some research has focused on the occupational commitment levels of teachers. Teachers with high job satisfaction and commitment to their jobs should be less likely to leave their jobs. In fact, teacher stress levels and occupational satisfaction or commitment are linked in many studies. For example, Kyriacou and Sutcliffe (1978) found that teachers under high levels of stress had accompanying psychological responses such as low occupational satisfaction. Similarly, in a more recent study, Jepson and Forrest (2006) found that occupational commitment to the teaching profession was the most significant indicator of low levels of work-related stress for the teachers participating in their survey. Therefore, the teachers in these studies who had lower stress levels were more satisfied and committed to the teaching profession.

### **1.5 Types of Stress: Work-Related Stress and Personal Stress**

#### **Work-related stress**

Work-Related Stress is that general stress which comes from the stressors in and around the work-life of an individual. Researchers have identified multiple potential sources of this work-related stress for teachers. Society is one source of work-related stress, as Iwanicki (2001) explained that teaching has become more stressful due to societal changes. There are demands for higher levels of productivity, while coping with decreased priority for education, and subsequently lower funding levels. Teachers are

also coping with a decrease in the positive public attitudes towards the teaching profession.

Other sources of work-related stress for teachers include role-related stresses such as the attitudes and behaviors of troublesome or unmotivated students, working with unsupportive parents, work overload and role ambiguity (Huston, 1989; Iwanicki, 2001; Soh, 1986; van Dick & Wagner, 2001). Time pressures, pupil misbehavior and poor working conditions were found to be sources of stress for both urban and rural teachers (Abel & Sewell, 1999; Travers & Cooper, 1998), as well as poor working relationships with coworkers, poor administrative support and low salary concerns (Brown & Ralph, 1998). Similarly, Kyriacou and Sutcliffe (1978) divided work-related stressors into those that potentially arise from physical sources, such as time demands and poor working conditions, and psychological sources, such as role-related stressors and poor working relationships.

Furthermore, as mentioned previously, research by Selye (1974) and Lazarus (1966) emphasized the importance of the appraisal of stress by each individual. Kyriacou and Sutcliffe (1978) incorporated this aspect of the perception and appraisal of stress by teachers into their research with work-related stressors. The researchers stated that only those potential stressors which an individual teacher assesses as a threat then constitutes a stressor. Therefore, a work-related stressor only becomes a stressor once an individual perceives a situation, experience or an event in his or her work life as being stressful for him or her.

## **Personal stress**

In addition to work-related stressors, there are also personal or individual stressors that teachers may experience. Personal stressors occur in the teacher's life outside of the classroom, and may include sickness or death of loved ones, and daily home life demands, including financial struggles or personal relationship difficulties with a family member such as his or her spouse, children, or the in-laws. Personal stressors may also involve a teacher's personal physical or mental health problems (Alschuler, 1984).

These personal stressors affect not only a teacher's time away from work, but may also impact a teacher's work and the stress levels experienced on the job. Lazarus (1999) emphasized the interaction of personal stressors with work-related stressors, which is also reflected in Kyriacou and Sutcliffe's (1978) work. In that study, the authors included non-occupational stressors as well as work stressors in their examination of teacher stress. Lazarus (1999) suggested that "work and family create the two most important sources of daily stress in modern adult life," (p. 132). He also described the interaction between these two sources of stress as having "spillover" between one another. This implies that high levels of stress in one's personal life can negatively impact stress levels in one's work life, and vice-versa. A teacher experiencing a high level of personal stress, for example, may subsequently experience a much higher level of stress at work, than may be expected, based merely on his or her particular work situation.

### **1.6 Individual Teacher Characteristics Which May Affect Stress**

#### **Teaching experience**

Some research has suggested that teachers with differing amounts of teaching experience may exhibit different behaviors, such as higher levels of attrition, different

perceptions of stress and selection of coping techniques. For example, teachers with fewer years of experience are more likely to leave the teaching profession (Alliance for Excellent Education, 2004). Ingersoll (2003) reports that nearly 50% of school teachers leave the teaching profession after the first five years they teach, over 33% leave after the first three years of teaching, and 14% leave after the end of their first year in the schools. Similarly, Guarino, Santibanez, and Daley (2006) in reviewing research, found that the first few years and the years close to retirement age resulted in the highest levels of teacher attrition. This trend, where attrition is compared with years of experience, creates a U-shaped plot that is typically seen in the teacher attrition data.

This tendency where high attrition levels are observed for teachers with less teaching experience may be due in part to higher levels of stress among the newer teachers (Kyriacou, 2001; Tolbert, 2007). Kyriacou (2001) reported that teachers with fewer years of experience may have higher levels of stress due to whether they perceive the stress as a threat. This perception or appraisal of threat depends on the individual's personality characteristics.

The number of years of teaching experience may also play a role in a teacher's choice of coping techniques. In a study by Glickman and Tamashiro (1982), fifth-year teachers scored higher in problem solving skills than did the newer teachers, with one or two years of experience. Furthermore, the teachers who left teaching completely, scored significantly lower in problem solving skills than any of the teachers who are still employed in the teaching profession. Thus, years of experience in teaching may indicate differences in problem solving abilities and subsequent selection of coping methods for dealing with stressors.

## Hope

Hope is a personality characteristic which may affect how an individual teacher perceives and appraises a stressor, and the particular coping strategies that the individual teacher chooses. Nieto (2003) surveyed varied groups of school teachers with differing school experiences, and determined some of the reasons why teachers continue to remain in the teaching profession include the teachers' belief in the power and importance of education, love for the students and teaching, and hope, for their students, other teachers, themselves and education. She states that "hope is the essence of teaching..." (p. 16).

McDermott & Snyder (1999) described multiple elements that comprise the stable and enduring trait of hope: goals, willpower and waypower. Each of the elements is necessary in order to become a "high-hope" person. First, a goal should be specific, concrete, divided into achievable amounts, and important to the individual. Willpower, another element, is defined as the "driving force in hopeful thinking... the sense of mental energy that over time helps to propel the person (at point A) toward the goal (Point B)" (Snyder, 1994, p.6). Waypower, the final element, is reflected by the ability to find multiple paths towards the goal that has been set.

An individual's dispositional level of hope is a consistent feeling of hope across various events and experiences, and throughout different life periods (Snyder et al., 1996a). Snyder, et al. (1996b) stated that dispositional hope levels can provide insight into an individual's coping mechanisms. Other studies, such as Tolbert's (2007) study, have also examined the relationship between hope, as a personality characteristic, and the effect on the perception of stress and the choice of coping mechanisms.

Park, Peterson and Seligman (2004) defined hope, in their Values in Action (VIA) Classification of Strengths, as one of twenty-four distinct character strengths. They operationalized hope as: “Expecting the best in the future and working to achieve it; believing that a good future is something that can be brought about.” (p. 606). In their study, they found that hope was one of the top five character strengths. Thus, hope may be seen as a measure of a person’s psychological strengths and it may indicate his or her coping skills (Snyder, 2000). Snyder (2000) further suggested that hope may even encourage the ability to cope with stress by those in the teaching profession. In addition, Kumarakulasingam’s (2002) research suggested that high levels of hope co-exist with low levels of teacher stress and feelings of burnout. These results are also confirmed by Tolbert (2007) and Byrne (1998) that teachers with high hope levels were associated with lower stress levels. However, Kumarakulasingam (2002) and Tolbert (2007) stated there is a noticeable scarcity of research studying the potentially important relationship between teacher stress and the characteristic of hope. Therefore, there appears to be a need for additional research in the area of teacher stress and the teacher’s experience of hope.

### **Locus of Control**

A teacher’s Locus of Control may be indicative of his or her stress perceptions and the coping strategies the teacher selects to manage this stress. For instance, an individual’s perception of the control he or she exerts over his or her environment affects the perception of what constitutes a stressor due to the relative importance to the individual. Rotter’s Social Learning Theory of Personality is the basis for the concept of Locus of Control, which addresses how much control an individual believes that he or



she has in situations. Therefore, a person with an internal Locus of Control believes that his or her own actions determine their circumstances, whereas a person with an external Locus of Control believes that fate or chance, the environment or other outside forces determines what transpires in their life (Armor et al., 1976; Mearns, 2012; Rotter, 1975). Teachers with an external Locus of Control (that is, feelings of little control over the environment) have been found to experience more stress, based on a more negative view of their environment (Kyriacou & Sutcliffe, 1979). Similarly, Tolbert (2007) found that a teacher with an external Locus of Control experienced more stress in a study of teacher stress and No Child Left Behind Legislation. Byrne (1998) found there were associations found between teachers' high stress levels and feelings of a lack of control or power.

## **1.7 Responses to Stress**

### **Feelings of Stress**

Lazarus (1966) explained that the interpretation of a situation is determined by an individual's perception of a stressor. Therefore, for different people, stress may be experienced through different types of feelings, depending on their appraisal of the stressor. Stressful feelings may be positive, as in eustress, or negative, as in distress, as described earlier in Selye's (1976) work. Consequently, a teacher who experiences positive feelings from a stressful teaching situation might have increased energy to solve a problem, increased pride in contributing to the teaching profession, or an increase in determination to learn a new skill. In contrast, a teacher who experiences negative feelings from a stressful teaching situation might have increased symptoms of nervousness, anger, or even increased illness.

Tolbert (2007) found that teachers experiencing stress had a decrease in positive feelings and an increase in negative feelings, such that their feelings were predominantly negative. This suggests that a teacher experiencing negative feelings of stress may believe that the more stress they experience, the worse they feel, such as increased fear, tension and strain. In contrast, a teacher experiencing positive feelings of stress may believe that the more stress they experience, the better they feel; having more energy and feeling challenged, for example. In addition, negative and positive feelings were found to predict type of coping strategy (Tolbert, 2007).

### **Selection of a coping strategy**

Some research supports the interaction of perceived stress and an individual's subsequent selection of a coping strategy (Monat and Lazarus, 1985). For example, Kyriacou and Sutcliffe's model of teacher stress demonstrated that the teacher's personality characteristics and the stressors interact to affect the coping mechanisms utilized by a teacher to counteract stress (Kyriacou and Sutcliffe, 1978). Similarly, Tolbert (2007) also found that the coping methodology the teachers chose was related to experienced levels of stress and the experience of feelings of stress.

Folkman and Lazarus (1986) stated that "Coping refers to the thoughts and acts that people use to manage the internal and /or external demands posed by a stressful encounter," (p. 108). In Lazarus and Folkman's Transactional Model of coping, individuals first appraise the stressful event's importance to them, and then review the coping strategies they will utilize: either direct-action or palliative coping techniques. Lazarus (1998) further described these categories as "problem-focused coping" (constructive) and "emotion-focused coping" (unconstructive). Therefore, in order to

help relieve stress due to general teaching stress, some teachers may use either constructive or unconstructive coping strategies. These two types of coping strategies, constructive and unconstructive, are commonly used to distinguish types of coping an individual selects when experiencing stress. The constructive, or problem-focused strategies, focus on direct action strategies whereby the individual takes action to change either the environment or the problem. In contrast, the unconstructive, or emotion-focused strategy, focus on palliative strategies whereby the individual changes his or her emotional perspective of the stressor (Folkman & Lazarus, 1986; Lazarus, 1998).

Examples of constructive coping strategies include taking action to change the situation by seeking support from other teachers, or other professionals; seeking support from family and friends; or attending professional development activities. Examples of unconstructive coping strategies include emotional responses such as denial or getting angry or frustrated; displacing anger onto someone else; or increasing alcohol intake or ignoring self-care. Tolbert (2007) found that of the teachers choosing palliative or unconstructive coping strategies, almost half coped with stressors through anger and nearly 40% coped by not taking proper care of themselves, such as poor health, exercise, and diet. As stated earlier, the selection of a coping strategy may be related to years of experience, feelings of hope, feelings of control, and levels of stress.

## **1.8 Teacher Stress Models**

### **Kyriacou and Sutcliffe's model**

Kyriacou and Sutcliffe's (1978) model of teacher stress, although one of several models focusing on teacher occupational stressors, is one of the most frequently cited in research (Tolbert, 2007). In their model, which has been utilized for thirty years,

Kyriacou and Sutcliffe (1978) described teacher stress, "...as being directly related to the degree to which the coping mechanisms are unable to deal with actual stressors, and the degree to which the teacher appraises threat," (p. 4). This teacher stress model examines the relationships between characteristics of the individual teacher, stressors, the appraisal of threat, coping mechanisms, and resulting negative affects to the teacher.

Much of the research in the area of teacher stress can be subsumed under Kyriacou and Sutcliffe's (1978) model. For example, the relationship between teacher personality characteristics and teacher stress, is depicted in Kyriacou and Sutcliffe's (1978) model as well as Byrne's work (1998). Byrne found associations between teachers' high stress levels and low-hope levels; and between lack of control or power, and stress. Another example is Milstein and Golaszowski (1985), who reported the same categories of difficulties which may result from teacher stress as Kyriacou and Sutcliffe. Both focus on the results or outcomes of stress, which may be psychological, physiological or behavioral. Milstein and Golaszowski (1985) suggested teachers may experience symptoms from anxiety, overeating, fatigue and even increased absenteeism and drug abuse. This research ties into Kyriacou and Sutcliffe's model's negative affect of teacher stress and the resulting chronic symptoms. Hart's (1994) research supports this model as well, in the findings of stress leading to higher levels of psychological distress. Similarly, chronic levels of stress may lead to burnout and teacher attrition, according to many researchers (Farber, 1991, 2000; Iwanicki, 2001; Suh, 2008).

### **Components of Kyriacou and Sutcliffe's model**

Kyriacou and Sutcliffe's (1978) model contained multiple components of the experience of teacher stress. First, a teacher determines if a potential stressor is an actual

threat, at which time this stressor would become an actual occupational stressors.

Occupational stressors may be categorized as either physical (e.g. classroom noise) or psychological (e.g. time demands). These stressors are those experiences viewed by the teacher as “exceeding his or her coping ability” (Kyriacou & Sutcliffe, 1978).

A second model component is the coping mechanism, which is utilized by a teacher to reduce a stressor. The characteristics of the individual teacher affect both the appraisal of threats or stressors, and the choice of coping mechanisms. The authors noted that the teacher characteristics that are significant include biographical information, such as teaching experience; personality traits, such as level of anxiety; perception of his or her ability to cope with hassles or difficulties; and beliefs and values that the teacher embraces (Kyriacou & Sutcliffe, 1978).

Another important component of Kyriacou and Sutcliffe’s model is the potential non-occupational stressor, which consists of anything not directly connected with the teaching occupation, such as illness or personal life activities. The non-occupational stressors may impact the appraisal of threat, or the occupational stress level. This suggests that there may be an impact from non-occupational or personal stressors on the appraisal of occupational or work-related stressors which a teacher experiences.

Kyriacou and Sutcliffe (1978) further stated that “teacher stress is primarily conceptualized as a response of negative affect, such as anger or depression, which is usually accompanied by other phenomena which may be regarded as response correlates of teacher stress,”(p.5). These responses to the stress are evidenced by, for example: absenteeism (behavioral response), poor health (physiological responses), or low occupational satisfaction (psychological response), according to the authors.

### **Tolbert's model**

Numerous studies have conducted research utilizing similar components to Kyriacou and Sutcliffe's teacher stress model. Tolbert's (2007) study was one of the most recent adaptations of their research, and looked at many of the same components. For example, both Tolbert (2007) and Kyriacou and Sutcliffe examined the relationship of individual teacher characteristics with multiple variables: appraisal of threat or stressor and choice of coping mechanism or strategy. The teacher characteristics identified for both studies included demographic information, personality characteristics and beliefs or attitudes. Both studies also examined the impact of appraisal of stress on the experience of stress and subsequent choice of coping strategies. Finally, Tolbert's study also examines responses resulting from the stress the teacher experiences.

However, there are also important differences between Kyriacou and Sutcliffe's teacher stress model and Tolbert's (2007) study. First, Tolbert (2007) investigated two specific personality characteristics: hope and locus of control, within the larger category of individual teacher characteristics. This is significant because only a few of the studies have focused on hope, in order to specifically investigate the interaction of hope and teacher stress (Kumarakulasingam, 2002; Snyder et al., 1991). A second difference between the studies was that Tolbert specifically focused on attitudes and beliefs about No Child Left Behind (NCLB) legislation and the stress felt by teachers due to this legislation. Finally, Tolbert's investigation differed from Kyriacou and Sutcliffe's study by focusing on four specific teacher stress outcome variables. This is important, as Tolbert (2007) confirmed that prior to her study, there were no known research studies examining the impact of hope on specific teacher stress outcome variables. Finally, the

effects of coping strategies were examined in regards to four stress outcome measures: depression, absences due to illness, enjoyment with teaching, and occupational commitment levels.

### **Findings of Tolbert's investigation**

Demographically, the population of Tolbert's (2007) study consisted of 238 female elementary-level school teachers, first through fifth grades, from multiple schools within a single Texas school district. The researcher excluded Kindergarten teacher responses as these teachers did not participate in state-wide standardized achievement testing. The mean age of the participants was 40 years, with a range of 23-63 years; 81% were married; 95% were Caucasian, 1% African American and 4% were of other ethnic background. Furthermore, most teachers in the sample (95%) had six or more years of teaching experience, and only 5% had five or fewer years of teaching experience. The survey response rate in this study was 33.8%.

Tolbert (2007) found several significant relationships while investigating teacher stress.. The results indicate that among the teachers' personality characteristics, hope and years of experience did not predict perception of occupational stressors associated with the No Child Left Behind (NCLB) Act. However, locus of control, agreement with NCLB and non-occupational stressors did predict perception of NCLB stressors. Interestingly, only hope, of all the teachers' personality characteristics, was a significant predictor of choice of coping strategies. These findings suggest higher hope teachers select more productive coping strategies.

Furthermore, as stress levels increased, Tolbert found that the experience of negative feelings greatly increased and the experience of positive feelings decreased.

Experience of negative and positive feelings predicted coping strategies. In addition, coping strategies were found to be predictive of two of the outcome measures, depression and enjoyment with teaching. This suggests that teachers using more productive coping strategies reported fewer depression indicators and a higher level of enjoyment with teaching. There was also a significant relationship between depression and absences due to illness. This indicates that teachers scoring higher in depression levels also had more absences due to illness. Finally, enjoyment with teaching was significantly correlated to commitment to teaching, suggesting that teachers who enjoy teaching are also more committed to the teaching profession.

### **Limitations**

Tolbert's (2007) study significantly contributed to the body of teacher stress research; however there are three areas which may be construed as limitations: the sample population, a narrow focus on NCLB stressors, and a sample that included few teachers with less teaching experience. Given that only teachers from a single district within one state were included, it is important to expand the sample population to include another region or state, thus increasing the generalizability of the results to a larger population of elementary-level school teachers. Similarly, enlarging the surveyed sample, by adding teachers from a different region or state, may increase the reliability of the results, through decreasing sampling error.

Second, Tolbert's study examined teacher characteristics as specifically impacting the perception or appraisal of stressors associated with the No Child Left Behind Act (NCLB Act). This is a limitation in that it is a narrow focus of the appraisal of work-related stressors affecting teachers. Additional research is needed in the area of the

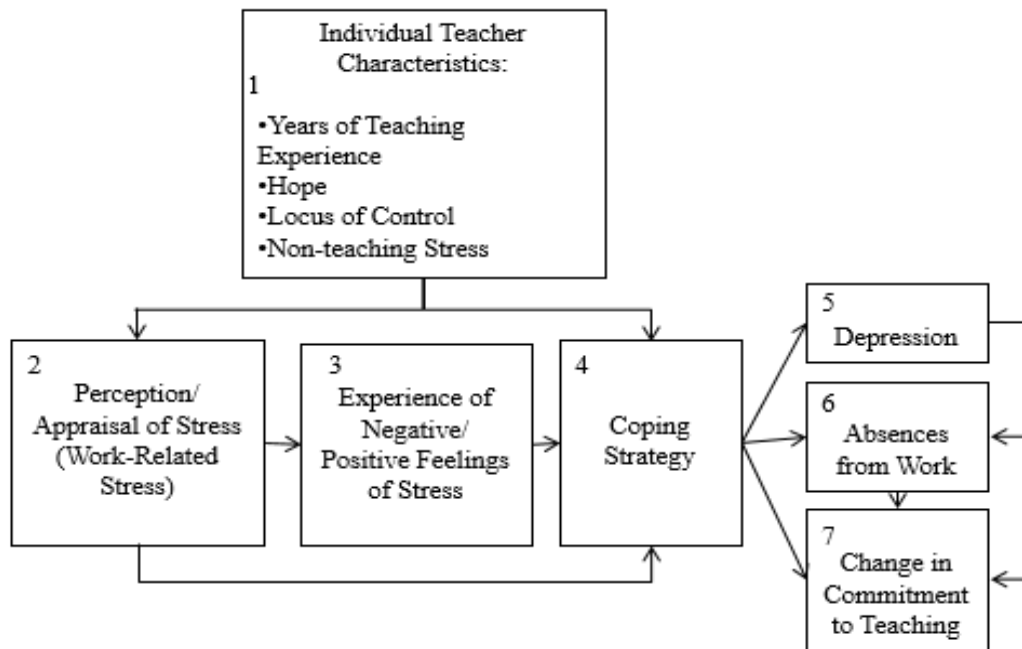


impact of teacher characteristics, such as years of teaching experience, on the perception or appraisal of generic work-related stressors. These generic work-related stressors could include time demands or pressures due to having too much work (high work load) and insufficient time to accomplish all of the tasks that are necessary. Broadening the area of focus to generic work-related stressors may affect the relationships with coping strategies and outcome measures of depression level, absenteeism, and occupational commitment levels.

Third, Tolbert noted that a limitation to the study was that most teachers in the sample (95%) had six or more years of experience (Tolbert, 2007). Thus teachers with less experience, that is five or fewer years of experience, were not well represented in the study. These teachers may exhibit a differing level of stress and coping strategy, so including additional teachers with fewer years of experience may affect these variables.

### **1.9 Current Study- Purpose and Predictions**

The current study sought to add to the knowledge of teacher stress through examining the variables of individual teacher characteristics, work-related stress levels, feelings of stress, coping strategy and stress outcome variables. The model used was based on Kyriacou and Sutcliffe's (1978) model, and Tolbert's (2007) model, with some modifications and expansions (Figure 1.1). The purpose of this study was to investigate further the relationship of teacher stress, while expanding the investigation in several areas: utilizing a different geographic population, broadening the focus to generic work-related stressors, and including teachers with fewer years of teaching experience.



Footnote: The following demographic variables are only used to analyze the sample.

- Grade Taught
- Specialization
- Gender
- Age
- Ethnic Background
- Marital Status
- Number of Children

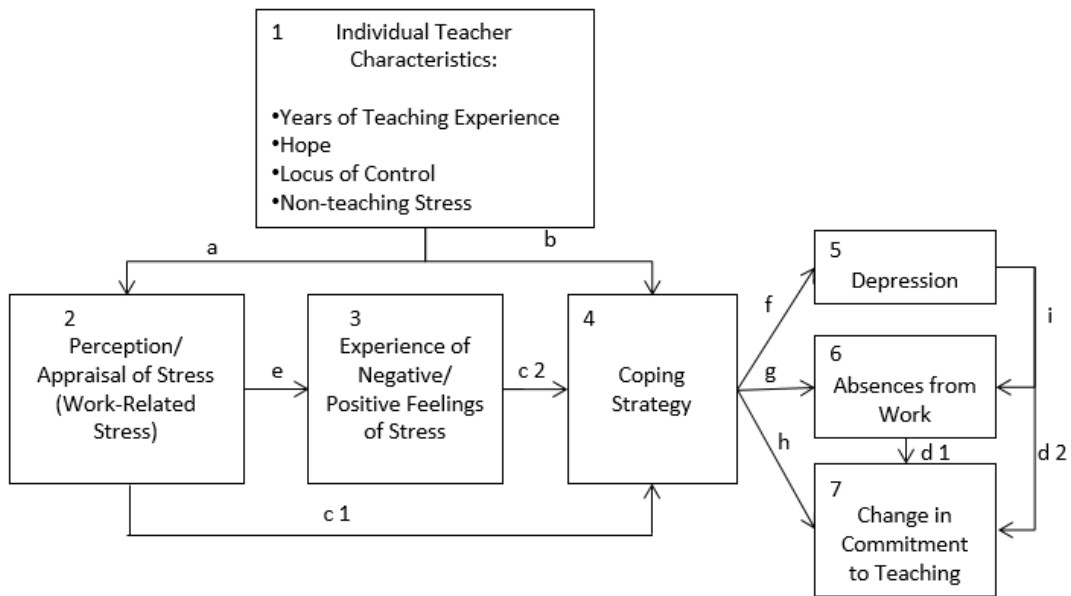
Figure 1.1. Current Study's Investigation of Teacher Stress

First, the population for this study, in order to utilize a different geographic population, consisted of a sample of elementary-level teachers from five school districts within the South Carolina area. In this study, the South Carolina teacher responses were predicted to replicate Tolbert's (2007) findings in regards to teacher stress of the teachers in Texas. Secondly, this study did not focus on the NCLB act and perceptions of stress related to this legislation, rather, the work-related stressors were broadened to generic stressors, including time demands and pressures. These stressors were predicted to be highly correlated with levels of teacher locus of control and personal stressors, similar to the results found by Tolbert (2007).

Finally, the current study included teachers with varying levels of years of experience in teaching, including a larger proportion of teachers with fewer years of experience. Within Tolbert's study, most teachers in the sample (95%) had six or more years of experience, and only 5% had five or fewer years of teaching experience. High levels of teacher stress (or distress) were predicted to be positively related with fewer years of school teaching experience. Thus, teachers with fewer years of teaching experience were expected to experience more stress, similar to the results found by Kyriacou (2001). Furthermore, it was predicted that teachers with fewer years of experience would choose different coping strategies than teachers with more experience. These results were also found by Glickman and Tamashiro (1982), in a study where fifth year teachers scored higher in problem solving skills than did the teachers with only one or two years of experience.

### 1.10 Research Questions and Their Expected Relationships

There are multiple research questions which were examined in this study. They are described in the following section, along with the expected relationships between the variables (Figure 1.2). The letters in the figure, a through i, correspond to the relationships examined in this study, and described below.



Footnote: The following demographic variables are only used to analyze the sample.

- Grade Taught
- Specialization
- Gender
- Age
- Ethnic Background
- Marital Status
- Number of Children

Figure 1.2. Expected Direction of Relationships Amongst Variables

## **Research question 1: Individual Teacher Characteristics and Work-Related Stress**

The first research question examined the effects of four Individual Teacher Characteristics (Years of Teaching Experience, Hope, Locus of Control, and Non-Teaching Stress), the independent variables, on the Perception /Appraisal of Stress (Work-Related Stress, the dependent variable (Figure 1.2, a). Years of Teaching Experience, which is an Individual Teacher Characteristic, was expected to be a predictor variable for Work-Related Stress. The number of Years of Teaching Experience for a teacher was predicted to be negatively related to teacher stress. Therefore, teachers with less teaching experience were expected to experience more Work-Related Stress. Hope, another Individual Teacher Characteristic which was examined as a predictor variable was also expected to be negatively related to Work-Related Stress, in this study. Therefore, teachers with higher levels of Hope were expected to have lower levels of Work-Related Stress. Similarly, Locus of Control is a third Individual Teacher Characteristic which was expected to have a negative relationship with Work-Related Stress. Teachers who possess more feelings of control were expected to have lower levels of Work-Related Stress. In contrast, Non-teaching Stressors, the final Individual Teacher Characteristic, was expected to display a positive relationship with Work-Related Stress. Teachers, who were experiencing higher levels of Non-Teaching Stress or personal stress, were expected to also perceive that they were experiencing higher levels of Work-Related Stress.

## **Research question 2: Individual Teacher Characteristics and Coping**

### **Strategy**

This research question examined the effects of the four Individual Teacher Characteristics (Years of Teaching Experience, Hope, Locus of Control, and Non-Teaching Stress), the independent variables, on the selection of a Coping Strategy, the dependent variable (Figure 1.2, b). The number of Years of Teaching Experience for a teacher was predicted to be positively related to Coping Strategy. Therefore, teachers with less teaching experience were expected to select unconstructive Coping Strategies, whereas teachers with more experience were expected to select more constructive Coping Strategies. The teacher's level of Hope was also expected to be positively related to Coping Strategy, in this study. Therefore, teachers with higher levels of Hope were expected to select more positive or constructive Coping Strategies.

Similarly, Locus of Control is a third Individual Teacher Characteristic which was expected to have a positive relationship with the selection of Coping Strategies. Teachers who possessed more feelings of control over their environment were expected to utilize more positive or constructive Coping Strategies. In contrast, Non-teaching Stressors, the final Individual Teacher Characteristic, was expected to display a negative relationship with Coping Strategies. Teachers, who were experiencing higher levels of Non-Teaching Stress or personal stress, were expected to also utilize more negative or unconstructive Coping Strategies.

### **Research question 3: Work-Related Stress and Experience of Feelings of Stress**

The next research question examined the effects of the Perception /Appraisal of Work-Related Stress, the independent variable, on the Experience of Negative/Positive Feelings of Stress, the dependent variable (Figure 1.2, e). The Work-Related Stress for a teacher was predicted to be negatively related to the Experience of Feelings of Stress. Teachers who were experiencing higher levels of Work-Related Stress were expected to experience more negative Feelings of Stress. Alternately, teachers who were experiencing lower levels of Work-Related Stress were expected to experience more positive Feelings of Stress.

### **Research question 4: Work-Related Stress and Coping Strategy**

This next research question examined the effects of the Perception /Appraisal of Work-Related Stress, the independent variable, on the selection of a Coping Strategy, the dependent variable (Figure 1.2, c1). The Work-Related Stress for a teacher was predicted to be negatively related to the selection of a Coping Strategy. Teachers who were experiencing higher levels of Work-Related Stress were expected to utilize more negative or unconstructive Coping Strategies, whereas teachers who were experiencing lower levels of Work-Related Stress were expected to utilize more positive or constructive Coping Strategies.

### **Research question 5: Experience of Feelings of Stress and Coping Strategy**

This research question examined the effects of the Experience of Negative/Positive Feelings of Stress, the independent variable, on the selection of a Coping Strategy, the dependent variable (Figure 1.2, c2). The Experience of Feelings of

Stress for a teacher was predicted to be positively related to the selection of a Coping Strategy. Teachers who were experiencing higher or more positive Feelings of Stress were expected to utilize more positive or constructive Coping Strategies, whereas teachers experiencing more negative Feelings of Stress were expected to utilize more negative or unconstructive Coping Strategies.

### **Research question 6: Coping Strategy and Depression, Absences, and Commitment**

This next research question examined the effects of Coping Strategy selection, the independent variable, on three outcome or dependent variables: Depression, Absences from Work, and Change in Commitment to Teaching (Figure 1.2: f, g, and h). The selection of a Coping Strategy was expected to be negatively related to Depression levels. Therefore, a teacher utilizing more positive or constructive Coping Strategies was expected to have lower levels of Depression. Similarly, the selection of a Coping Strategy was expected to be negatively related to the number of Absences from work. Therefore, a teacher who was utilizing more positive or constructive Coping Strategies was expected to have lower numbers of Absences. In contrast, a positive relationship was expected between the selection of a Coping Strategy and Change in Commitment to Teaching. Therefore, a teacher who was utilizing more positive or constructive Coping Strategies was also expected to have higher levels of Commitment to being a teacher, over time, and thus a positive change (or increase) in commitment levels.

### **Research question 7: Depression, Absences, and Commitment**

The final research question examined the relationships between three outcome variables: Depression, Absences from Work, and Change in Commitment to Teaching



(Figure 1.2: d1, d2, i). Depression levels were expected to be positively related to the number of Absences from Work. A teacher who experienced lower levels of Depression was expected to also have a low number of Absences (Figure 1.2, i). In contrast, a negative relationship was expected between Depression levels and Change in Commitment to Teaching. Therefore, a teacher who experienced lower levels of Depression was expected to have higher levels of Commitment to continue teaching (Figure 1.2, d2), and a positive change or increase in commitment levels over time. Similarly, a negative relationship was expected between Absences from Work and Change in Commitment to Teaching. A teacher who had a lower number of Absences was expected to have higher levels of Commitment to continue teaching (Figure 1.2, d1), demonstrated by a positive change or increase in commitment levels.

## Chapter II

### Method

#### 2.1 Introduction

The purpose of this study was to examine the relationships between Individual Teacher Characteristics (Years of Teaching Experience, Hope, Locus of Control, and Non-Teaching Stress) and a teacher's Perception/Appraisal of Work-Related Stress and subsequent Experience of Negative/Positive Feelings of Stress and the selection of a Coping Strategy. The Coping Strategy selection was also examined in relation to several outcome measures: Depression, Absences from Work, and Change in Commitment to Teaching. The current level of generic work-related stress that a teacher is experiencing was measured and how this stress is impacted by non-teaching related or personal stressors (those that are not related to their job of teaching).

The research was expected to demonstrate that the teachers' perception of work-related stress is affected by Individual Teacher Characteristics, such as hope, locus of control, and non-teaching stressors, which may also impact the selection of a coping strategy. Teachers experiencing lower levels of hope, feelings of more of an external locus of control, and experiencing more non-teaching stressors were expected to experience more work-related stress and choose more unconstructive coping strategies. In addition, years of experience in teaching were examined as an Individual Teacher Characteristic as well. Less experienced teachers were expected to display higher levels of stress and to choose more unconstructive coping strategies.

School teachers at multiple elementary schools within several school districts in South Carolina were surveyed anonymously and the data compiled. Self-report questionnaire data was gathered from teachers in these participating school districts. Many of the school districts have a large proportion of certified teachers. There were 147 total participants who returned questionnaires; of these, 140 were completed, while 7 were incomplete and therefore not included in the results.

## **2.2 Participants**

Teachers from 25 different schools within five South Carolina school districts were asked to complete anonymous questionnaires (see Table 2.1). However, for this study, participation was limited to school teachers at the elementary level. Jepson and Forrest (2006) found that in a study of teachers experiencing work-related stress that the stress levels of elementary school teachers were significantly higher than the stress levels of secondary school teachers. Therefore, in this study the target teacher population consisted of elementary level teachers who taught within the primary grades, which ranges from Kindergarten through fifth grades. Teachers specializing in General Education comprised 91% of the participants, while 9% are in Special Education.

Table 2.1. Location of Participating Teachers

School District	Number of Schools	Number of Participants (N=140)	Percentage
Chester	4	11	8.03%
Clover	1	1	0.73%
Fort Mill	3	15	10.95%
Rock Hill	11	45	30.66%
York	6	56	40.88%
Unknown	0	12	8.76%
Total	25	140	100.00%

Demographic characteristics of the teachers who participated include: 91% (128) are female and they ranged in age from 22 to 65. Teacher's ages are well distributed over 10 year periods, with approximately 19% between 20-29 years of age, 30% are 30-39, 24% are 40-49, 21% are 50-59, and 6% are 60-65. The mean age of the participants is 41 years of age. The teachers' reported ethnic background is: 86% Caucasian, 6.4% African American, 1.4% Hispanic, 1.4% Asian, 0.7% Native American, and 3.6% indicated "Other"- one of which specified they are of Middle Eastern background (0.7%); no-one indicated "Bi-Racial". Of the personal characteristics of the participating teachers, nearly 78% are married, 18% are single, 4% divorced, and less than 1% widowed. Teachers reported that approximately 26% did not have any children, 21% have one child, 31% have two children, 11% have three, 9% have four, and 3% have five or six children. The mean number of children is 1.6, the median is 2 and the mode is 2. Teachers also described the current number of children living at home with them: 38% have no children living at home, 26% have one child living at home, 24% have two, 6% have 3, and over 6% have either four, five, or six children living at home. The mean number of children living at home is 1.2, median is 1 and mode is 0.

In addition, this study also looked at the relationship between stress and teaching experience. As mentioned earlier, there is a significant amount of research showing that the attrition rates are very high for teachers in their first year through fifth year of teaching (Alliance for Excellent Education, 2004; Guarino, Santibanez, & Daley, 2006; Ingersoll, 2003). Therefore, teachers with varying amounts of teaching experience were included in the proposed study. The range of years of teaching experience was very diverse, with teachers reporting 1 year experience to 45 years of teaching experience. The mean is 14.3 years, the median is 12 and the mode is 5 years. Nearly 24 % of the participating teachers in this study have five or fewer years of experience in the teaching profession. Overall, 76% of the teachers have six or more years of teaching experience: 17.9% have 6-10 years, 20.7% have 11-15, 13% have 16-20 and 25% have over 20 years of teaching experience.

### **2.3 Procedures**

Permission for conducting this research was first obtained through the University of South Carolina Institutional Review Board (USC IRB). Next, appropriate school district officials for the potential population of participating teachers were contacted to obtain their consent as well. Once the necessary permissions were obtained, questionnaire packages were distributed to elementary school teachers either at their school, or distributed via an email invitation from the principal or a lead teacher. Each teacher received a questionnaire package which included a cover letter and the questionnaire. Teachers completing a hard copy of the questionnaire also received a sealable envelope which could be used by the participants to return the completed questionnaire, to ensure anonymity of each participant's information.

The cover letter (Appendix A) describes the nature of the study, benefits of the study and requests the participant's assistance by completing the questionnaire. Other information includes informed consent details, advising the participant that questionnaire participation is completely voluntary, with no negative consequences if someone chooses to not participate or to stop participating at any time. Participants were advised of the confidentiality of the data, and that all responses are anonymous. Finally, directions for returning the questionnaires were given, and contact information for the researchers involved in this study was provided to the participants to use if they had questions about the questionnaire, their participation, or the results of the research. Participants could keep a copy of this cover letter for their records. Similarly, teachers who completed the questionnaire online read a description of the questionnaire, once they accessed the web-based questionnaire site. This explanation could be printed out by the individual teacher if they wanted to keep a copy.

The contents of the questionnaire package also included the questionnaire (Appendix B) which is three pages (double-sided) in length, and takes approximately ten to fifteen minutes to complete. The questionnaire consists of multiple choice and short answer questions. Questionnaires were completed and submitted by participants utilizing their choice of one of the following three methods. The first method was for the participant to complete the questionnaire immediately and return it to the researcher. A second method was for the participant to take the questionnaire packet with them and complete it, then mail it or contact the researcher to collect the questionnaire. The third method was to complete the questionnaire on-line, and send an email to the researcher to add his or her name for the drawing. Of the three methods, the on-line method was used

most frequently, by 94 % of the sample (138 participants), four % (six participants) returned their questionnaire to the researcher immediately, and two % of the sample (three participants) mailed their questionnaire to the researcher. All seven of the incomplete questionnaires were submitted on-line.

Once completed questionnaires were received, they were stored securely in a locked file cabinet in the researcher's office, so that only the researcher had access to the information. The questionnaire data were compiled to ensure individual responses were not identified and only group data are available to participating school administrators. As an incentive, teachers were eligible for a \$50 gift card drawing to a regional retail superstore, to purchase school supplies for their classroom. The gift cards were awarded to randomly selected teachers who returned completed questionnaires. Each teacher had a one in thirty chance of winning a gift card, based on an estimated sample size of 120 participants. A total of four gift cards were awarded with a combined value of \$200, and were sent anonymously through the mail to maintain confidentiality.

## **2.4 Measures**

Self-report questionnaires are one of the most common methods for gathering data on teacher stress (Kyriacou, 2001). In a study similar to the current study, Tolbert (2007) utilized questionnaires to compile data on elementary-level school teachers' stress levels and external stressors such as legislation for the No Child Left Behind Act. Therefore, the questionnaire used in this study was a modified version of the questionnaire used by Tolbert in order to compile data on school teachers and the stress levels they experience. Some modifications were made to Tolbert's original

questionnaire, such as eliminating several questions specifically focused on the No Child Left Behind Legislation.

A pilot study was conducted using a similar version of the proposed questionnaire “Views of Educational Experiences”. The purpose of the pilot study was to test the questionnaire’s design and user acceptance. Thirty teachers teaching various grades in one elementary school in South Carolina were asked to complete the questionnaire. This was a brief, two-page, double-sided questionnaire consisting of multiple choice and short answer questions. Teachers took approximately ten minutes to complete the questionnaire. The questionnaires were distributed during staff meetings and completed questionnaires were returned. Each teacher returning a questionnaire received a numbered ticket and the matching ticket stub was entered in a drawing for a free lunch awarded at the school.

Based upon the responses obtained from the pilot study questionnaire for this study, slight modifications were made to the questionnaire, such as altering the wording of an item to increase the item’s clarity. For example, the commitment to teaching item was altered. The item previously asked: “How much has your commitment to the teaching profession changed, if at all, as a result of the No Child Left Behind Act? (e.g. Has your commitment increased or decreased?)”. For this study, the level of commitment to the teaching profession was measured by two items comparing each individual teacher’s occupational commitment feelings at two points in time: today and when each teacher began his or her teaching career. The new items ask, “As of your first year of teaching, how committed were you to the teaching profession?”, and “As of today, how committed are you to the teaching profession?” The resulting responses were



utilized to determine the change in occupational commitment over each individual teacher's career. Other questions were altered or added to obtain appropriate scores for analysis. The modified questionnaire was utilized in the current study.

Multiple measures were included in the self-report questionnaire, which consists of multiple-choice and short answer questions (Appendix B). The twelve-section questionnaire contains some previously created measures, such as the Adult Dispositional Hope Scale, along with some more recent measures added by Tolbert (2007) and some items created specifically for this study. Each measure found in the questionnaire is listed in Table 2.2.

### **1. Demographic information**

In the first section of the questionnaire, each teacher responded to several questions about his or her personal life and current teaching situation. Questions required selecting one of several choices listed, or responding to short-answer questions where appropriate (Appendix B, Section I). Questions included topics such as gender, age, and ethnicity, as well as questions pertaining more to a teacher's personal life, such as family characteristics that may identify potential personal life stressors. These questions involved marital status, number of children in the family, and number of children currently living at home.

Table 2.2 Measures Contained in the Views of Educational Experiences Questionnaire

Measure	Author
1. Demographic Information	Tolbert, 2007; Howe, Grierson & Richmond, 1997
2. Years of Teaching Experience	Item created for this study
3. Adult Dispositional Hope Scale (DHS)	Snyder et al., 1991
4. Locus of Control	Armor et al., 1976; Reyes, 1992
5. Non-teaching Stress	Tolbert, 2007; items created for this study
6. Perception/Appraisal of Stress: Work-Related Stress	Kyriacou & Sutcliffe, 1979; Tolbert, 2007; items created for this study
7. Experience of Negative/Positive Feelings of Stress	Tolbert, 2007; items created for this study
8. Coping Strategies	Tolbert, 2007; items created for this study
9. Depression: Center for Epidemiological Studies Depression Scale (CES-D)	Radloff, 1977
10. Absences from Work	Item created for this study
11. Teacher Occupational Level	Tolbert, 2007; items created for this study
12. Comments	Item created for this study

Other demographic questions included current grade level the teacher is teaching, number of years teaching this grade level (Howe, Grierson & Richmond, 1997) and current teaching specialization area, as well as the name of the school where his or her college degree was obtained. Howe et al. (1997) utilized five specific categories for identifying years of teaching experience for a particular grade level, in a study examining the effects of teaching experience on use of content area reading strategies for elementary school teachers. These same categories of five-year intervals were used in this study for teachers to respond to the number of years teaching their current grade level: for example, beginning with “5 years of experience or less”, “6-10 years of experience”, and increasing up to “over 20 years of experience”. All of the demographic information from this section was used strictly to describe the sample characteristics of the teachers who are participating in this study.

## **2. Years of Teaching Experience**

This section of the questionnaire examined the first Individual Teacher Characteristic of Years of Teaching Experience. There is one item within this section, where teachers were asked to record the total number of years of Kindergarten through 12<sup>th</sup> grade teaching experience that he or she has altogether, including the current year (Appendix B, Section II). This item was selected for this study to measure the number of years of teaching experience, in order to determine the effects on perception of work-related stress and the selection of coping strategies. Responses were in a numeric format for analysis, such that each teacher responded that he or she had one year, or thirteen years, or 25 years of experience, for example.

### 3. Hope

The second Individual Teacher Characteristic of Hope was examined in this next section of the questionnaire (Appendix B, Section III). The Adult Dispositional Hope Scale (DHS) (Snyder et al., 1991) was chosen in order to measure the levels of hope, experienced by the teachers participating in this study. The DHS, more typically referred to as the Hope Scale, was designed to measure an individual's dispositional level of hope, which is a consistent feeling of hope across various events and experiences, and throughout different life periods (Snyder et al., 1996b). Therefore, the Hope Scale was selected for use in this study to determine how the characteristic of hope affects how an individual teacher perceives and appraises a stressor. The Hope Scale was also selected to examine how each teacher's level of hope affects the particular coping strategies that the individual teacher chooses. This use of the Hope Scale is verified by Snyder et al. (1996b) who state that the Hope Scale measures dispositional hope levels, which can then provide insight into an individual's coping mechanisms. Other studies, such as Tolbert's (2007) study, have also utilized the Hope Scale in order to examine the relationship between hope, as a personality characteristic, and the effect on the perception of stress and the choice of coping mechanisms.

The Hope Scale was developed originally as a much longer measure, and then reduced to eight items which were most related to the two components of hope in Snyder's theory: agency and pathways. Currently, the Hope Scale consists of a total of twelve items: four items identifying an individual's goal determination in the past, present and future, comprising an Agency subscale score; four items identifying perception of ability to meet one's goals, comprising a Pathways subscale score; and four

filler items, which are not scored (Snyder et al., 1991). In his earlier work, Snyder's model utilized the terms agency for willpower, and pathways instead of waypower (Snyder, 1994).

Participants in this study responded on a four-point Likert scale: *1 – Definitely False, 2 – Mostly False, 3- Mostly True, 4 – Definitely True*. In addition to two subscale scores, the Hope Scale also yields a total scale score, which ranges from 8 to 32, with a lower score reflecting “low hope”, as evidenced in a “dispositionally low hope person”, versus a higher score reflecting “high hope” as evidenced in a “dispositionally high hope person” (Snyder et al., 1996b). The total scale score was utilized in this study to determine whether a teacher has low hope levels, evidenced by a low score, or whether a teacher has high hope levels, as evidenced by a high score.

Multiple studies have shown evidence of construct and discriminant validity for the Hope Scale (Snyder et al., 1991). The internal consistency of the Hope Scale is in the acceptable category, ranging from 0.74 to 0.84 for the total scale, from 0.71 -0.76 for the Agency subscale and from 0.63-0.80 for the Pathways subscale. In this study, the Cronbach's alpha coefficient (n = 140) was found to be equal to 0.82 for the total Hope scale, 0.78 for the Agency subscale, and 0.69 for the Pathways subscale. These scores are well within the acceptable range and are also consistent with previous studies such as Tolbert (2007) who reported Cronbach's alphas of 0.80 for the total Hope scale, 0.73 for the Agency subscale, and 0.71 for the Pathways subscale. Similarly, the test-retest reliability of the Hope Scale is also acceptable, with correlations from 0.73 to 0.82; and convergent validity with similar scales has been documented as well (Snyder et al., 1991).

#### 4. Locus of Control

This section of the questionnaire examined the third Individual Teacher Characteristic of Locus of Control (Appendix B, Section IV). In this study, seven items were used to measure an individual teacher's overall feelings of locus of control. The first two items consisted of the two-item Rand measure which is frequently utilized in order to examine Rotter's concept of locus of control (Armor et al., 1976; Rotter, 1975). The two items created a sum score which indicates the teacher's feelings of control within his or her classroom environment and the level of influence on students. This measure was also included in similar research examining teacher stress and the possible impact of locus of control on the perceptions of teacher stressors, such as Tolbert (2007). The Rand measure items state: (1) "When it comes right down to it, a teacher really can't do much because most of a student's motivation and performance depends on his or her home environment." (2) "If I try really hard, I can get through to even the most difficult or unmotivated students." Teachers rated their opinions on a five-point Likert scale, ranging from "1- Strongly Disagree" to "5-Strongly Agree". Item one is reverse scored, and the total sum score ranges from 2 to 10.

In addition, five other items were utilized in this study to measure the sense of control the teachers have over their classroom practices. Reyes (1992) developed this brief measure for examining teacher locus of control in the classroom activities of planning and teaching. Teachers were asked how much control they feel that they have over five areas of planning and teaching, in an average week. The five areas were: selecting textbooks and other instructional materials; selecting content, topics and skills to be taught; selecting teaching techniques; disciplining students; and determining the

amount of homework to be assigned. Responses were on a five-point Likert scale, ranging from 1- “No Control”, to 3 – “Moderate Amount of Control”, to 5- “Complete Control”. These five items were summed together, with a range of 5 to 25. Reyes (1992) noted that this measure has high internal consistency ( $\alpha = .74$ ).

An overall score of Locus of Control was generated from all of the items in this section, to determine if a teacher has more of an Internal or External Locus of Control in the area of teaching and classroom activities. The overall score ranged from 7 to 35, with a low score indicating that an individual has feelings of less control and therefore he or she has more of an External Locus of Control, and a higher score indicating that an individual has feelings of more control and therefore he or she has more of an Internal Locus of Control. Therefore, a teacher with an External Locus of Control would feel that he or she does not have much of an influence on students and classroom practices, and would be more likely to feel that his or her actions have little effect on others. In contrast, a teacher with an Internal Locus of Control would feel that he or she could have more of an influence on students and classroom practices, and would be more likely to feel successful and be planful or action oriented.

### **5. Non-Teaching Stress**

The next section of the questionnaire examined a fourth Individual Teacher Characteristic: Non-Teaching Stress (Appendix B, Section V). The Non-Teaching Stress questions focused on the stressors within each teacher’s personal life, such as, his or her home life demands and the personal relationships which exist outside of the classroom. In the first question, teachers were asked to rate their opinion on a five-point Likert scale, ranging from “1- Not At All Stressful” to “3- Somewhat Stressful” to “5-Very Stressful”,

in response to the question: “Working in schools can be demanding and stressful. How stressful is your home life outside the classroom?”. This question was effectively utilized as a single item measure within Tolbert’s (2007) study of teacher personal stressors. Kyriacou and Sutcliffe’s (1978, 1979) work has also demonstrated the usefulness of a single item measure for teachers’ general stressors.

Next, each teacher was questioned about the stressfulness they may feel from family relationships and other personal relationships they have outside of the teaching profession. Teachers rated their opinion of the level of stressfulness on a five-point Likert scale, ranging from “1- Not At All Stressful” to “3- Somewhat Stressful” to “5- Very Stressful”. Responses from these two questions were combined to yield a score for each respondent’s Non-Teaching Stress level, ranging from 2 to 10. A low Non-Teaching Stress level score indicates that the individual teacher believes that his or her personal life outside of teaching is not very stressful. On the other hand, a high Non-Teaching Stress level score indicates that a teacher believes his or her personal life away from school is very stressful.

## **6. Perception/Appraisal of Stress – Work-Related Stress**

The next series of questions were utilized to measure the Perception and Appraisal of Stress of the individual teachers surveyed, by examining the teacher’s overall Work-Related Stress level, for the teaching profession in general. Each teacher responded to these general Work-Related Stress questions, which focus on the stressors in the work life of a teacher (Appendix B, Section VI).

Teachers were first asked to review a list of areas of occupational stressors specifically addressing the teaching profession, which Soh (1986) adapted from the



Wilson Stress Profile for Teachers (Truch, 1980). These stressors included: student behavior, relationships with other teachers and parents, relationships with the principal and administration, intrapersonal conflicts, as well as work demands and time constraints. Teachers were then asked, “Now that you have examined this list, in general, how stressful do you find teaching?” Possible responses were on a five-point Likert scale, ranging from: “1- Not at All Stressful, to 3- Somewhat Stressful, to 5- Very Stressful”. A similar single item measure was used within Tolbert’s (2007) study of teacher work stressors, and was also used in Kyriacou and Sutcliffe’s (1978, 1979) work, which inquired about the general stressfulness of teaching: “At this point in your career, in general, how stressful do you find the teaching profession?” Kyriacou and Sutcliffe used this single item to measure teacher stress within the schools and they have demonstrated the item’s concurrent validity.

Although a single item measure of Work-Related Stress has been successfully utilized in the research, the current study also examined the feelings of demands and pressure experienced by the teachers, in order to develop an overall score of general work-related stress levels. The second question in this section asked, “How demanding and stressful do you perceive the general stresses of teaching to be?”. Teacher responses were on a five point Likert scale, ranging from: : 1- Not at All Stressful, to 3- Somewhat Stressful, to 5- Very Stressful. A final item in this section was an open-ended question which asked for each teacher to identify the primary stressor within his or her work life. The question asked which single factor was the most stressful for the participant, within the teaching profession. Each teacher could respond by typing or writing in the answer,

with a choice of leaving the question blank, answering with a short phrase, or describing his or her answer in a short description of the particular Work-Related stressor.

Responses on both of the Likert scale questions were combined to yield a score for each respondent's Work-Related Stress level, ranging from 2 to 10. This score indicates whether the individual teacher believes that the general aspects of teaching constitute a stressor (or work-related stressor) for him or her. A high score, representing a high level of Work-Related Stress, therefore indicates that the teacher perceives or appraises his or her teaching job as stressful. A low score, representing a low level of Work-Related Stress, indicates the teacher perceives his or her job as not stressful.

### **7. Experience of Negative/Positive Feelings of Stress**

This section of the questionnaire examined the frequency of an individual teacher's Experience of Negative or Positive Feelings of Stress, which are due to his or her teaching occupation. Teachers responded to two items concerning the feelings of stress they may experience because of general pressure from teaching and time constraints in completing their job (Appendix B, Section VII). For this section, negative feelings or emotions were described as being potentially experienced through feelings such as: distress, anger, nervousness or shame. In contrast, positive feelings or emotions were described as being potentially experienced through feelings such as: attentiveness, inspiration, pride or determination. Similar questions were also used within Tolbert's (2007) study of teacher work stressors.

The first question asks, "How frequently does the general pressure from teaching and the specific time constraints you experience in getting this job done, cause you to experience negative feelings or emotions, such as feeling distressed, upset, irritable,

angry, fearful, ashamed or nervous?”. The next question asks, “How frequently does the general pressure from teaching and the specific time constraints you experience in getting this job done, cause you to experience positive feelings or emotions, such as feeling attentive, interested, enthusiastic, inspired, proud, determined, or strong?” Possible responses were on a five-point Likert scale, ranging from: “1- None of the Time, to 3- Part of the Time, to 5- All of the Time”.

Responses on both of the questions were combined to yield a score for the individual teacher’s Experience of Negative/Positive Feelings of Stress. Item one was reverse scored, and the total sum score ranges from 2 to 10. This score indicates whether the individual teacher believes the general aspects of teaching constitute an experience of more negative feelings or more positive feelings of stress for him or her. A low Feelings of Stress score signifies that a teacher is experiencing more Negative Feelings of Stress due to his or her teaching position. Whereas a high Feelings of Stress score signifies that a teacher is experiencing more Positive Feelings of Stress due to his or her teaching position. As a result, a teacher experiencing Negative Feelings of Stress may believe that the more stress they experience, the worse they feel, such as increased tension and strain. In contrast, a teacher experiencing Positive Feelings of Stress may believe that the more stress they experience, the better they feel; having more energy and feeling challenged, for example.

#### **8. Coping Strategy: Constructive versus Unconstructive**

This section of the questionnaire measured an individual teacher’s choice of Coping Strategy through six questions (Appendix B, Section VIII). Teachers were first informed that in order to help relieve stress due to general teaching demands and to time

restraint pressures, some teachers may use primarily either Constructive or Unconstructive Coping Strategies. These two types of Coping Strategies, Constructive and Unconstructive, are commonly used to distinguish types of coping an individual selects when experiencing stress. Therefore, two questions each address one particular type of Coping Strategy. Similar questions to the ones in this section, concerning coping methods, were used within Tolbert's (2007) study of teacher work stressors and the coping methodology the teachers chose.

There are two items which measured the selection of a type of Coping Strategy in this section. The first item asked the teacher to rate the extent to which he or she uses Constructive Coping Strategies. A list of examples of Constructive Coping Strategies were given: "Constructive Coping Strategies include: seeking support from other teachers, my principal, and other professionals in my school (such as the guidance counselor or school psychologist); seeking support from family and friends; or learning through professional development activities (such as reading professional journals or attending a workshop)." Similarly, the second item asked the teacher to rate the extent to which he or she uses Unconstructive Coping Strategies. A list of examples of Unconstructive Coping Strategies were given: "Unconstructive Coping Strategies include: getting angry or frustrated; taking my feelings out on someone who is not responsible for the situation; putting the stress out of my mind as if it doesn't exist; not taking care of my own health, exercise or diet like I know I should; or using more alcohol or medications than I am comfortable using." Responses were on a five-point Likert scale, ranging from: "1 = None of the Time, to 3 = Part of the Time, to 5 = All of the Time".

Responses on the questions were combined to yield a score for the individual teacher's Coping Strategy. Item two was reverse-scored, and the total sum score ranges from 2 to 10. This score indicates whether the individual teacher chooses mainly Constructive or mainly Unconstructive Coping Strategies in order to cope with general teaching stress. A low Coping Strategy score indicates that a teacher is choosing mostly Unconstructive Coping Strategies, or emotion-focused strategies. Whereas a high Coping Strategy score indicates that a teacher is choosing mostly Constructive Coping Strategies or problem-focused strategies. As a result, a teacher who chose Unconstructive Coping Strategies may believe that the best way to cope with stress is to ignore it or react emotionally, such as with anger or denial. In contrast, a teacher who chose mostly Constructive Coping Strategies may believe that the best way to cope with stress is to take action, such as trying to change the situation or gathering information and support from peers, other professionals, or family members.

Four additional questions were included in the questionnaire to further examine an individual teacher's choice of Coping Strategy. These questions allowed participants to clarify the answers given about a personal Coping Strategy and to provide details on what they believe are the most significant Coping Strategies. Two items are open-ended questions which asked respondents to list up to three Constructive Strategies and up to three Unconstructive Strategies he or she uses to deal with stress. Participants could choose to leave the question blank, to give short answers, or to answer with a brief description of their Coping Strategy. The author of this study subjectively categorized the responses into comprehensive themes or clusters. Two other items are close-ended statements, stating either that the participant does not use any Constructive Coping

Strategies or does not use any Unconstructive Coping Strategies, with an answer choice of true or false.

## **9. Depression**

The next section of the questionnaire examined the first outcome variable, level of Depression. The Center for Epidemiological Studies Depression Scale (CES-D; Radloff, 1977) was selected for this study to measure the participating teachers' depressive symptoms (Appendix B, Section IX). The CES-D was developed for use with the general population and purports to measure an individual's current level of depressive symptoms, based on his or her responses to a short, self-report depression scale (Radloff, 1977). Current symptoms are assessed in response to the scale's instructions to rate "...about how often you feel or behave this way in an average week ...". There are 20 items, four of which are framed in a positive manner, in order to determine whether or not the individual exhibits positive affect (Radloff, 1977).

The participant rated his or her feelings on a four-point Likert scale: *"1- rarely or none of the time, 2- some of the time (1-2 days), 3-occasionally (3-4 days), 4-most of the time (5-7 days)"*. Four items are reverse-scored, and each item was lowered by one point, so as to correspond to the CES-D scoring scale of 0 to 3. The scale points were placed at 1 through 4 in this study in order to ensure consistency with the answer choices for the other items within this questionnaire. The overall total Depression scores ranged from 0 to 60, with lower scores signifying fewer depressive symptoms, and higher scores signifying a greater number of depressive symptoms (Radloff, 1977). Therefore, a teacher who had a lower score is experiencing fewer symptoms of depression and a more

positive affect or mood. This is in contrast to a teacher with a higher score who is experiencing more symptoms of depression and has a more negative affect or mood.

According to research, the CES-D has adequate reliability and validity. Internal consistency of items is approximately 0.85 to 0.90, depending on the population; test-retest reliability is in the “moderate range” or higher, depending on the samples, as some samples reported more recent major life event stressors at the time of one of the responses. Cronbach’s alpha coefficient was determined to be equal to 0.90 (n = 140) in the current study, which is quite high. This is consistent with previous studies such as Tolbert (2007), who reported a Cronbach’s alpha of .78 (n = 220). High concurrent validity and construct validity were also demonstrated for the CES-D (Radloff, 1977).

#### **10. Absences from Work**

This section of the questionnaire examined the second outcome variable, level of Absences from Work. This section consisted of two items which requested data about each individual teacher’s recent absences from work, due to work-related stress (Appendix B, Section X). The first item in this section asked the respondent to recall if he or she missed some days of work within the past six-months, because of teaching stress. The second item asked the respondent to recall whether “teaching stress, due to work-related stressors causes me to miss at least one day of work per month.” Teachers rated their opinions on a five-point Likert scale, ranging from: “1- Strongly Disagree” to “5-Strongly Agree”.

Responses on both of the questions were combined to yield a score for an individual teacher’s Absences from Work. The total sum score ranged from 2 to 10, with a lower score indicating that an individual teacher missed fewer days of work due to

work-related stress, and a higher score indicating more days of work missed due to work-related stress. A lower score for Absences from Work would therefore indicate the teacher has a low level of absenteeism due to occupational stress, whereas a higher score would indicate the teacher has a high level of absenteeism due to occupational stress.

### **11. Change in Teacher Occupational Commitment**

This section examined the third outcome variable, level of Change in Teacher Occupational Commitment, as related to experienced occupational stress (Appendix B, Section XI). Change in Teacher Occupational Commitment was measured in this study by comparing beginning commitment with current commitment levels. For this study, the level of commitment to the teaching profession was measured by two items comparing each individual teacher's occupational commitment feelings at two points in time: today and when each teacher began his or her teaching career. The items asked, "As of your first year of teaching, how committed were you to the teaching profession?", and "As of today, how committed are you to the teaching profession?" Participants may respond on a five-item Likert scale from: "1 – Not Committed, to 5- Very Committed".

A Change in Commitment score was computed by subtracting current commitment responses from beginning commitment responses, and utilizing a multiplier of -1 to convert the directionality of responses. This yielded a score for the change in an individual teacher's level of occupational commitment, over their career. The scores ranged from -4 to +4, indicating whether the individual teacher has had a decrease in his or her commitment level or an increase in his or her commitment level, to the teaching profession. A negative number indicates a decrease in commitment level, a positive number indicates an increase in commitment level, and a score of zero indicates there is



no change in commitment between the two points in time. A lower score would therefore indicate a decrease in the level of occupational commitment for a teacher since he or she began a teaching career, whereas a higher score would indicate an increase in the level of commitment to the teaching profession, since a teacher began a career in teaching.

## **12. Comments**

This final section asked participants if there were any questions in the questionnaire that he or she did not understand (Appendix B, Section XII). Responses to this item could be in short answer format, or left blank.

## Chapter III

### Results

#### 3.1 Overview of Results

Data analyses of each of the ten variables described in the teacher stress model were conducted to describe each variable and to determine the relationships between the variables. The types of analysis utilized include: descriptive statistics, inferential statistics, Pearson Product and Spearman correlations, and regression analysis.

Descriptive statistics, including measures of central tendency, such as mean, median and mode; and measures of dispersion, such as range and standard deviation, were calculated for each of the variables. Inferential statistics, such as statistical power and effect size were also calculated. A-priori calculation of power for multiple regression analysis was also calculated to estimate the sample size needed for this study. Pearson Product or Spearman correlations were calculated with each of the variables within this study, utilizing SAS procedures. A chart of the correlation coefficients is included as well.

Regression analyses were conducted to answer seven research questions. Four multiple regression equations were calculated to determine if the sets of predictor or independent variables are predictive of the criterion or dependent variable. These regression analyses were utilized to analyze the statistical significance of the relationship between multiple predictor variables (independent variables), and the criterion or dependent variables. Next, simple linear regression analyses were conducted to answer

the remaining research questions and enable the prediction of the criterion variable based on a single predictor variable.

### 3.2 Descriptive Statistics

Descriptive statistics, including measures of central tendency, such as mean, median and mode; and measures of dispersion, such as range and standard deviation, were calculated for each of the variables. The data in Table 3.1 describes the results of each of the measures within the questionnaire.

*Table 3.1. Descriptive Statistics for All Variables*

Variables	N	Range	Min	Max	Mean	SD	Median	Mode
YTE	140	1-45	1	45	14.31	10.21	12	5
Hope	140	8-32	22	32	27.08	2.79	27	24
LOC	140	7-35	15	35	26.28	4.95	27	28
Non - Teaching Stress	140	2-10	2	10	4.41	1.80	4	4
Work Related Stress	140	2-10	2	10	7.51	1.94	8	8
Feelings of Stress	140	2-10	4	10	6.86	1.47	7	8
Coding Strategy	140	2-10	4	10	7.62	1.21	8	8
Depression	140	0-60	0	34	8.07	7.63	6	2
Absences	140	2-10	2	10	3.04	2.01	2	2
Commitment	140	-4 to +4	-3	4	-0.19	1.14	0	0

#### 1. Demographic characteristics of participating teachers

Demographic information was compiled about the questionnaire participants concerning the teachers' personal life and current teaching situation. Information on a teacher's gender, age, ethnic background, family characteristics such as marital status and number of children, as well as current grade level the teacher is teaching, number of years teaching this grade level and current teaching specialization area was gathered. All of the

demographic information was then used strictly to describe the sample characteristics of the teachers who are participating in this study, as previously discussed (see Tables 3.2, 3.3 and 3.4).

*Table 3.2. Demographic Characteristics of Participating Teachers*

Characteristic	Frequency	Percentage
<b>Age:</b>		
20-29	27	19.29%
30-39	42	30.00%
40-49	33	23.57%
50-59	29	20.71%
60-65	9	6.43%
Total	140	100.00%
<b>Gender:</b>		
Female	128	91.43%
Male	12	8.57%
Total	140	100.00%
<b>Ethnicity:</b>		
Caucasian	121	86.43%
African American	9	6.43%
Hispanic	2	1.43%
Asian	2	1.43%
Native American	1	0.71%
Bi Racial	0	0.00%
Other	5	3.57%
Total	140	100.00%

Table 3.3. Personal Characteristics of Participating Teachers

Characteristic	Frequency	Percentage
<b>Marital Status:</b>		
Single	25	17.86%
Married	109	77.86%
Divorced	5	3.57%
Widowed	1	0.71%
Total	140	100.00%
<b>Number of Children:</b>		
0	36	25.71%
1	29	20.71%
2	44	31.43%
3	15	10.71%
4	12	8.57%
5	1	0.71%
6	3	2.14%
Total	140	100.00%
<b>Number of Children at Home:</b>		
0	53	37.86%
1	36	25.71%
2	34	24.29%
3	8	5.71%
4	7	5.00%
5	0	0.00%
6	2	1.43%
Total	140	100.00%

Table 3.4. Occupational Characteristics of Participating Teachers

Characteristic	Frequency	Percentage
<b>Current Grade Teaching:</b>		
K	20	14.29%
1	13	9.29%
2	24	17.14%
3	15	10.71%
4	13	9.29%
5	13	9.29%
Other - Multiple Grades	42	30.00%
Total	140	100.00%
<b>Years of Teaching Experience in Current Grade Level:</b>		
1 to 5 years	33	23.57%
6-10 years	25	17.86%
11-15 years	29	20.71%
16-20 years	18	12.86%
Over 20 years	35	25.00%
Total	140	100.00%
<b>Teaching Specialization:</b>		
General Education	127	90.71%
Special Education	13	9.29%
Total	140	100.00%
<b>Education Level:</b>		
Bachelor's Degree Only	56	40.00%
Advanced Degree	84	60.00%
Total	140	100.00%

## 2. Years of Teaching Experience

In this study, Years of Teaching Experience was the first Individual Teacher Characteristic examined. Teachers reported the total number of years of experience in teaching grades Kindergarten through 12<sup>th</sup> grade. The average number of years of teaching experience is 14.31 years (N= 140), the median is 12 and mode is 5 (see Table 3.1). This characteristic is comparable to the average number of years of teaching experience, 13.49 years, which Tolbert (2007) found in her study.

In addition, this study sampled a larger percentage of teachers with fewer years of teaching experience. In the current study, 33 teachers, or 23 % of the sample, had between one and five years of experience (see Table 3.5). Therefore, 77 % of the teachers participating have six or more years of teaching experience. In contrast, Tolbert's (2007) sample consisted of only five % of teachers with five or less years of experience, and 95 % of the teachers had six or more years of teaching experience. Thus, overall this sample would appear to be normal, comparable to previous studies, such as Tolbert's, in years of teaching experience, and to sample proportionately, teachers with various years of experience.

*Table 3.5. Years of Teaching Experience*

<b>Characteristic Range</b>	<b>Group</b>	<b>Frequency</b>	<b>Percentage</b>
1 to 5 years	1	33	23.57%
6-10 years	2	25	17.86%
11-15 years	3	29	20.71%
16-20 years	4	18	12.86%
Over 20 years	5	35	25.00%
Total		140	100.00%

The years of experience variable responses were aggregated into five categories, for ease of comparison between different levels of experience. For example, teachers in category 1, having five or fewer years of teaching experience, could be compared with teachers in category 5, having 20 or more years of teaching experience. These categories correspond to the five categories utilized in a prior item in the questionnaire, to determine the number of years of teaching experience for the current grade level. These same specific five-year categories were utilized in a study by Howe et al. (1997), described previously.

### **3. Hope**

The second Individual Teacher Characteristic of Hope was examined through the use of the DHS (Snyder et al., 1991). Hope Scale Scores were computed for each teacher, with a mean of 27.08 ( $n = 140$ ), and a standard deviation of 2.79, on a scale of 8 to 32. On average, the participants had high scores, which reflect high Hope. This suggests that overall the participants are dispositionally hopeful, that is feeling hopeful consistently across different events and over time (Snyder et al., 1996b). The overall Hope Scale scores found in this sample are comparable to the results of Tolbert's (2007) study, as that sample of teachers had a mean score of 25.89 ( $n=236$ ,  $SD = 2.82$ ). On a scale of 4 to 16, the teachers also scored high in both of the subscales: Agency (mean of 13.23, standard deviation of 1.54) and Pathways (mean of 13.85, standard deviation of 1.58). These scores suggest that the teachers in this sample have both a high goal determination and a perception that they are able to meet goals.



Table 3.6. Variables Value Interpretation

Variable	Range	Low Score	High Score
Years of Teaching Experience	1-45	Fewer years of teaching experience	More years of teaching experience
Hope	8-32	Lower level of Hope	Higher level of Hope
Locus of Control	7-35	Less control / External Locus of Control	More control / Internal Locus of Control
Non-Teaching Stress	2-10	Low level of personal-life stress	High level of personal-life stress
Work-Related Stress	2-10	Low level of work-place stress	High level of work-place stress
Feelings of Stress	2-10	Negative Feelings of Stress	Positive Feelings of Stress
Coping Strategy	2-10	Unconstructive Coping Strategy	Constructive Coping Strategy
Depression	0-60	Few symptoms of Depression/ positive mood	More symptoms of Depression/negative mood
Absences from Work	2-10	Fewer Absences	More Absences
Change in Commitment	-4 to +4	Decrease in Commitment level	Increase in Commitment level

#### 4. Locus of Control

The third Individual Teacher Characteristic of Locus of Control was examined through the use of items indicating a teacher's feelings of control. Teachers reported that overall they had feelings of more control, and therefore more of an Internal Locus of Control, as evidenced by a high score on this measure. Teachers had high scores on the overall measure, mean of 26.28 and standard deviation of 4.95, within a range of scores from 7 to 35. Similarly, they had high scores on both of the subscales. The Rand measure scores obtained in this sample have a mean of 7.88 (range 2 to 10), and are comparable to Tolbert's (2007) sample which had a mean score of 7.36 (n= 237, SD= 1.81). Teachers scored a mean of 18.40 on the Reyes measure (range of 5 to 25). Collectively, these

scores suggest the teachers in this sample feel that they have a significant influence on both their students and on their classroom practices.

### **5. Non-Teaching Stress**

The fourth Individual Teacher Characteristic, Non-Teaching Stress, was examined through the use of items focusing on stressors within each teacher's personal life.

Overall, the participating teachers reported that both their home life and their personal relationships are between "*A Little Stressful*" and "*Somewhat Stressful*", with a mean of 2.34 and 2.07, respectively. These ratings are on a scale of 1 to 5, with 1 being "*Not at all Stressful*" and 5 being "*Very Stressful*". The average of these scores yielded a mean of 4.41 (SD = 1.80) for the Non-Teaching Stress characteristic, on a scale of 2 – 10. This suggests that overall, teachers describe their personal lives as having low to moderate stress levels.

### **6. Work-Related Stress**

The Perception and Appraisal of Stress of the individual teachers surveyed was measured by examining the teacher's overall Work-Related Stress level. Teachers responded that they in general, they find teaching and the demands of teaching to be between "*Somewhat Stressful*" and "*Moderately Stressful*", with a mean of 3.71 and 3.80, respectively. These ratings are on a scale of 1 to 5, with 1 being "*Not at all Stressful*" and 5 being "*Very Stressful*". The average of these scores yielded a mean of 7.51 (SD = 1.94) for the Work-Related Stress level, on a scale of 2 – 10, and 6 as the midpoint. This suggests that overall, the teachers find their work lives to have a moderately high level of stressfulness.

## 7. Feelings of Stress

The Experience of Negative or Positive Feelings of Stress was examined to determine the frequency of the feelings of stress due to general pressures from teaching and time constraints. Teachers reported experiencing Negative feelings or emotions between “*Some of the Time*” and “*Part of the Time*”, mean of 2.49. They also experienced Positive feelings or emotions between “*Part of the Time*” and “*Most of the Time*”, mean of 3.35. The overall score for Feelings of Stress yielded a mean of 6.86, SD = 1.47, on a scale of 2 to 10, with 6 as the midpoint. This score suggests that the teachers feel slightly more Positive Feelings of Stress than Negative Feelings.

## 8. Coping Strategies

The choice of Coping Strategy was measured to rate the extent of each teacher utilizing Constructive or Unconstructive Coping Strategies. Overall, teachers chose Constructive Coping Strategies much more than Unconstructive Coping Strategies, with an overall mean score of 7.62 (SD = 1.21), on a scale of 2 to 10, with 6 as the midpoint. Teachers rated the extent of their use of Constructive Strategies between “*Part of the Time*” and “*Most of the Time*”, mean of 3.65. They rated the extent of their use of Unconstructive Strategies as “*Some of the Time*”, with a mean of 2.03. The teachers in this questionnaire preferred to utilize mostly Constructive Coping Strategies or problem-focused strategies. Of the Constructive Coping Strategies cited by the respondents, over 60 % of the strategies included seeking support from others: other teachers (30 %), family and friends (23 %), and administration or other professional support (seven %) (see Table 3.7). Nearly 17 % turn to God and prayer to help with stress, and 10% seek professional development for assistance. In contrast, Unconstructive Coping Strategies

included: anger and/or frustration (30 %). While 47 % of the respondents chose more self-destructive strategies, such as poor health habits (not enough sleep, smoking) or poor diet choices (29 %); not exercising (14 %); and alcohol or medications (four %). In addition, the frequency of the participants' number of Constructive Coping Strategy responses that they listed (from zero to three), are in Table 3.7

*Table 3.7. Coping Strategy Categories*

<b>Constructive Coping Strategies by Category</b>	<b>Frequency</b>	<b>Percentage</b>
Seek Support from Other Teachers	106	32.22%
Seek Support from Admin/Other Professionals	23	6.99%
Seek Support from God and Prayer	27	8.21%
Professional Development	35	10.64%
Seek Support from Family and Friends	74	22.49%
Hobbies	25	7.60%
Exercise	32	9.73%
Positive Thinking	7	2.13%
Total	329	100.00%

<b>Unconstructive Coping Strategies by Category</b>	<b>Frequency</b>	<b>Percentage</b>
Anger / Frustration	80	30.08%
Not Exercising	38	14.29%
Poor Health Habits/ Diet	77	28.95%
Taking It out on Others	36	13.53%
Ignoring (Putting Stress out of my Mind Like it Doesn't Exist)	24	9.02%
Alcohol/Medications	11	4.14%
Total	266	100.00%

*Note:* There are multiple responses per teacher.

<b>Number of Constructive Coping Strategy Responses</b>	<b>Frequency</b>
Zero Responses	8
One	13
Two	43
Three	76

## 9. Depression

This first outcome variable, level of Depression, is based on the participant's feelings within an average week. The measure of each teacher's current level of depressive symptoms was on a scale of 0 to 60. The resulting mean score was 8.07 (SD = 7.63), with a median of 6 and mode of 2. This suggests that the sample of teachers had an overall low score signifying few depressive symptoms. Therefore these teachers had a very positive affect or mood.

## 10. Absenteeism

The second outcome variable, level of Absenteeism, is based on each teacher missing days from work due to work-related stress. The Absenteeism level is measured on a scale of 2 to 10, with a mean score of 3.04 (SD = 2.01), where 6 is the midpoint. This low score indicates a low level of absenteeism due to occupational stress. Teachers rated that they "*Slightly Disagree*" that they have missed some days of work in the past 6 months due to teaching stress (mean of 1.71 on a scale of 1 to 5). Similarly, they rated that they "*Strongly Disagree*" that they have missed at least one day of work per month due to teaching stress (mean of 1.34 on a scale of 1 to 5).

## 11. Occupational Commitment Level

Finally, the third outcome variable, level of Change in Teacher Occupational Commitment as related to experienced occupational stress, was measured. Teachers reported that they were "*Very Committed*" (mean 4.69) in their first year of teaching, versus "*Fairly Committed*" to "*Very Committed*" (mean 4.50) as of today. Thirty-eight participants (27 %) indicated a decrease in occupational commitment; 87 (62 %) indicated no change; and 15 participants (11 %) indicated an increase in commitment

level. Comparing each individual teacher's occupational commitment feelings at two points in time: today and when each teacher began his or her teaching career, resulted in a score from -4 to +4. The mean score is -0.19 (SD = 1.14), with a mode of 0. This indicates that overall the teachers have had only a slight decrease in their occupational commitment level over time.

### **3.3 Inferential Statistics**

Inferential statistics, such as statistical power and effect size were also calculated. A-priori calculation of power for multiple regression analysis was calculated to estimate the sample size needed for this study. Utilizing an alpha level of .05, the number of predictors variables (4), an anticipated effect size ( $f^2$ ) of .15 (medium effect size), and a desired statistical power size of .8, then the resulting minimum sample size is calculated to be 84 participants (Soper, 2009). Other experts recommend using between 15 and 30 participants per predictor variable when utilizing multiple regression in order to obtain reliable results, resulting in a calculation of between 60 and 120 participants (Hatcher & Stepanski, 1994). There were a total of 147 questionnaires received, of which 140 questionnaires were complete and utilized in this study. Therefore, this sample size is well within the recommended statistical range needed for this particular study.

### **3.4 Correlation Relationships**

Pearson Product correlations were calculated with nine of the ten variables within this study, utilizing SAS procedures. Hatcher and Stepanski (1994) recommend calculating Pearson correlations between variables in order to comprehend the overall results of the data, through an examination of the bivariate relationships, with interval or ratio data. The remaining variable, Years of Teaching Experience, was examined as

categories, and thus Spearman correlations were utilized. A chart of the correlation coefficients reveals that none of the four Individual Teacher Characteristics are significantly related, as depicted by their low correlation coefficients (see Table 3.8). This demonstrates that each of the characteristics is a unique variable. Significant correlations were found amongst several of the other variables. Some of these correlations are described later within the Research Question section, and so are not specifically mentioned here.

One interesting finding was that Feelings of Stress had significant correlations with many variables. Three of the Individual Teacher Characteristics: Hope ( $r = .34$ ,  $p < .001$ ), Locus of Control ( $r = .26$ ,  $p < .01$ ), and Non-Teaching Stress ( $r = -.19$ ,  $p < .05$ ), were all significantly correlated with Feelings of Stress. Of these three variables, Non-Teaching Stress was negatively correlated with experiences of Feelings of Stress, indicating that teachers with higher personal life stress also experience more negative Feelings of Stress. While those teachers with higher Hope and a more Internal Locus of Control experience more positive Feelings of Stress. Likewise, Absences from Work ( $r = -.29$ ,  $p < .001$ ) and Depression ( $r = -.55$ ,  $p < .001$ ) were both significantly correlated with Feelings of Stress. Both relationships were negative, indicating that a teacher with more Absences and more symptoms of Depression also experiences more negative feelings of stress.

Depression was found to have significant correlations with several other variables besides Feelings of Stress. For example, Hope ( $r = -.22$ ,  $p < .01$ ) and Locus of Control ( $r = -.23$ ,  $p < .01$ ) were significantly negatively correlated with Depression, while Non-Teaching Stress ( $r = .46$ ,  $p < .001$ ) demonstrated a positive correlation with Depression.

Table 3.8. Correlations Among Teacher Stress Model Variables

Measure	1	2	3	4	5	6	7	8	9	10
1. YTE	1.00									
2. Hope	0.05	1.00								
3. LOC	-0.01	0.14	1.00	0.06						
4. NTS	0.16	-0.09	0.06	1.00	0.16					
5. WRS	0.06	-0.16	-0.12	0.16	1.00					
6. Feeling	0.04	0.34***	0.26**	-0.19*	-0.51***	1.00				
7. Coping	-0.12	0.27**	0.10	-0.20*	-0.15	0.32***	1.00			
8. Absence	0.02	-0.04	0.19*	0.26**	0.12	-0.29***	-0.13	1.00		
9. Depress	0.07	-0.22**	0.23** 0.39**	0.46***	0.26**	-0.55***	-0.46***	0.39***	1.00	
10. Commit	0.07	0.07	*	-0.05	0.01	0.16	0.10	-0.22**	0.06	1.00

Note. \*p<.05, \*\*p<.01, \*\*\*p<.001

All correlations are Pearson Correlations, except YTE which uses Spearman Correlation.

Key: Years of Teaching Experience (YTE),

Locus of Control (LOC),

Non-Teaching Stressors (NTS),

Work-Related Stressors (WRS)



Therefore, teachers who were more hopeful and felt an Internal Locus of Control were less depressed. However, those teachers with more personal life stressors seem to experience more depressive symptoms. Similarly, Work-Related Stress and Depression were also significantly correlated ( $r = .26, p < .01$ ). This indicates that teachers who experience high levels of workplace stress also have more symptoms of Depression, or a more negative mood.

Absence from Work was found to have several significant correlations, in addition to Feelings of Stress mentioned previously. Locus of Control ( $r = -.19, p < .05$ ), and Non-Teaching Stress ( $r = .26, p < .01$ ), were both significantly correlated with Absences. Teachers with higher Locus of Control scores, or more of an Internal Locus of Control, have fewer Absences due to workplace stress. Furthermore, teachers with lower personal stress levels also have fewer Absences. In contrast, teachers with more of an External Locus of Control and higher personal stress levels, have more Absences due to workplace stress.

A final significant relationship was that Locus of Control ( $r = .39, p < .001$ ), was significantly correlated with Change in Commitment to Teaching. This suggests that teachers who have higher Locus of Control scores, or more of an Internal Locus of Control, have a more positive Change in Commitment to Teaching since they began teaching. Whereas teachers with a more External Locus of Control have decreased in their Commitment to Teaching, since they began their teaching career.

### **3.5 Regression Equations**

Four multiple regression equations were calculated to determine if the sets of predictor or independent variables are predictive of the criterion or dependent variable.

Hatcher and Stepanski (1994) recommend using multiple regression analysis with multiple predictor variables which are either categorical or continuous, including questionnaire scale data, and a single criterion variable, either categorical or continuous, and which are all assessed on an interval or ratio scale. First, a multiple regression equation was analyzed to determine the significance of the relationship between multiple predictor variables (independent variables) of the Individual Teacher Characteristics: Years of Teaching Experience, Hope, Locus of Control and Non-Teaching Stress, and the criterion or dependent variable of Perception/Appraisal of Work-Related Stress (Figure 3.1, a). A second multiple regression analysis was utilized to analyze the relationship between multiple predictor variables (independent variables) of the Individual Teacher Characteristics: Years of Teaching Experience, Hope, Locus of Control and Non-Teaching Stress, and the criterion or dependent variable of Coping Strategy (Figure 3.1, b). Third, the statistical significance of the relationship between multiple predictor variables of the Perception/Appraisal of Work-Related Stress and the Experience of Negative/Positive Feelings of Stress and the criterion variable Coping Strategy was investigated (Figure 3.1, c). Fourth, the relationship between Depression and Absences from Work (predictor variables) and the Commitment to Teaching (criterion variable) was examined (Figure 3.1, d).

Next, simple linear regression analyses were conducted to answer the remaining research questions and enable the prediction of the criterion variable based on the predictor variable. First, the relationship between the Perception/Appraisal of Work-Related Stress (predictor variable) and Experience of Negative/Positive Feelings of Stress (criterion variable) was examined (Figure 3.1, e). Next, the three relationships between

Coping Strategy (predictor variable) and each of the three criterion variables: Depression, Absences from Work, and Commitment to Teaching, was analyzed (Figure 3.1, f, g and h). Finally, the relationships between Depression (predictor variable) and Absences from Work (criterion variable) was examined as well (Figure 3.1, i).

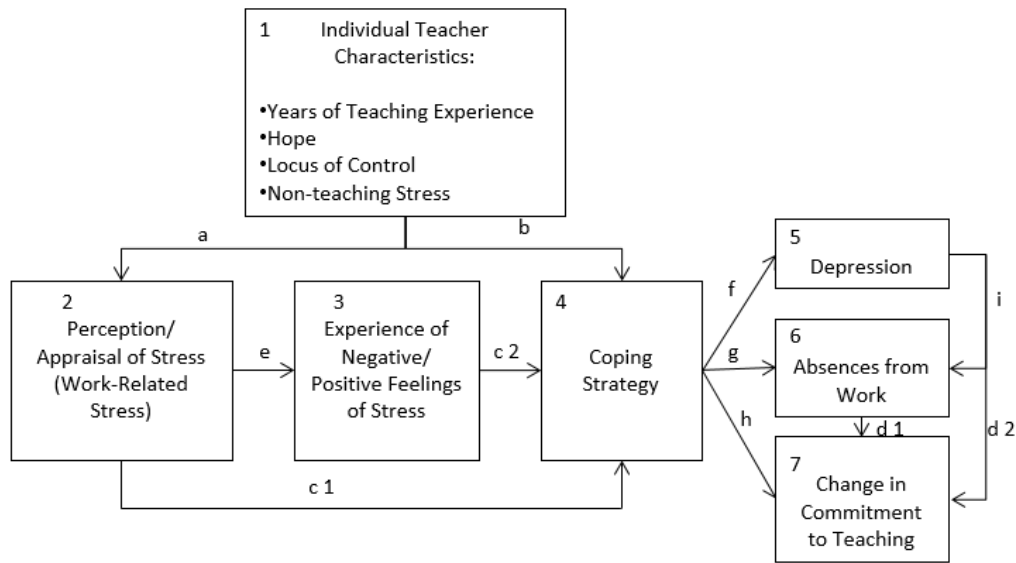


Figure 3.1. Analyses of Relationships

### 3.6 Research Questions

#### Research question 1: Individual Teacher Characteristics on Work-Related Stress

The first research question examined the effects of four Individual Teacher Characteristics (Years of Teaching Experience, Hope, Locus of Control, and Non-Teaching Stress), the independent variables, on the Perception /Appraisal of Stress or Work-Related Stress, the dependent variable (Figure 3.1, a). The correlations for the

Individual Teacher Characteristics of Hope, Locus of Control, and Non-Teaching Stress were in the expected direction; however Years of Teaching Experience was not in the expected direction. None of the Individual Teacher Characteristics demonstrated significant correlations with the perception of Work-Related Stress. The overall  $R^2$  for the multiple regression model was non-significant,  $R^2 = .06$  ( $p < .10$ ). Therefore, contrary to what we expected, none of the Individual Teacher Characteristics were found to be significant predictors of Work-Related Stress.

### **Research question 2: Individual Teacher Characteristics on Coping Strategy**

This research question examined the effects of the four Individual Teacher Characteristics (Years of Teaching Experience, Hope, Locus of Control, and Non-Teaching Stress), the independent variables, on the selection of a Coping Strategy, the dependent variable (Figure 3.1, b). The correlations for the Individual Teacher Characteristics of Hope, Locus of Control, and Non-Teaching Stress were in the expected direction. In contrast, the correlation for Years of Teaching Experience and Coping was negative, which was not expected. The correlations of Years of Teaching Experience and Locus of Control with Coping Strategy were not significant. Two characteristics were significant: Hope ( $r = .27$ ,  $p < .01$ ) and Non-Teaching Stress ( $r = -.20$ ,  $p < .05$ ) were both significantly correlated with Coping Strategy. These results indicate that teachers with higher Hope and lower personal life stress select more Constructive Coping Strategies.

The overall model for this multiple regression equation is significant ( $R^2 = .12$ ,  $p = .002$ ), accounting for 12 % of the variance in Coping Strategy. Of the four characteristics, the number of Years of Teaching Experience and Locus of Control were not significant predictors of Coping Strategy. This was counter to the results we

expected. However, as expected, the teacher's level of Hope was significantly positively related to Coping Strategy ( $p < .01$ ). Teachers with higher hope levels were expected to select more positive or Constructive Coping Strategies. Non-teaching Stressors also displayed a significant negative relationship with Coping Strategies, as expected ( $p < .05$ ). Teachers, who were experiencing higher levels of Non-Teaching Stress or personal stress, were expected to also utilize more negative or Unconstructive Coping Strategies. These results partially confirm the hypothesis.

### **Research question 3: Work-Related Stress on Experience of Feelings of Stress**

The next research question examined the effects of the Perception /Appraisal of Work-Related Stress, the independent variable, on the Experience of Negative/Positive Feelings of Stress, the dependent variable (Figure 3.1, e). As expected, the Work-Related Stress for a teacher was significantly negatively related to the Experience of Feelings of Stress. The Pearson correlations for Work-Related Stress and Feelings of Stress were in the expected direction ( $r = -.51, p < .001$ ). The simple regression equation resulted in  $R^2 = .26, p < .0001$ , indicating that the overall model is significant, and Work-Related Stress accounts for 26 % of the variance in Feelings of Stress. Therefore, teachers who were experiencing higher levels of Work-Related Stress were experiencing more negative Feelings of Stress. Alternately, teachers who were experiencing lower levels of Work-Related Stress experienced more positive Feelings of Stress. These results confirm the hypothesis.

#### **Research question 4: Work-Related Stress on Coping Strategy**

This next research question examined the effects of the Perception /Appraisal of Work-Related Stress, the independent variable, on the selection of a Coping Strategy, the dependent variable (Figure 3.1, c1). The Work-Related Stress for a teacher was not found to be significantly negatively related to the selection of a Coping Strategy. The correlation was in the expected direction, but not significant ( $r = -.15, p = .08$ ). Likewise the multiple regression equation yielded an  $R^2 = .10, p < .001$ , which is significant for the overall model, but Work-Related Stress individually was not significant. This was counter to the results we expected.

#### **Research question 5: Experience of Feelings of Stress and Coping Strategy**

This research question examined the effects of the Experience of Negative/Positive Feelings of Stress, the independent variable, on the selection of a Coping Strategy, the dependent variable (Figure 3.1, c2). As predicted, the Experience of Feelings of Stress for a teacher was significantly positively related to the selection of a Coping Strategy. The correlation was in the expected direction, and significant ( $r = .32, p < .001$ ). Likewise the multiple regression equation yielded an  $R^2 = .10, p < .001$ , which was significant for the overall model, and Feelings of Stress individually was also significant ( $p < .001$ ), accounting for ten % of the variance in Coping Strategies. Therefore, teachers experiencing more positive Feelings of Stress utilized more positive or Constructive Coping Strategies, whereas teachers experiencing more negative Feelings of Stress utilized more negative or Unconstructive Coping Strategies. These results confirm the hypothesis.

### **Research question 6: Coping Strategy on Depression, on Absences, and on Commitment**

The next research question examined the effects of Coping Strategy selection, the independent variable, on three outcome or dependent variables: Depression, Absences from Work, and Change in Commitment to Teaching (Figure 3.1: f, g, and h). Three single regression equations were computed for these variables. All three relationships were in the expected direction: negative relationships between Coping Strategy and both Depression and Absences; and a positive relationship between Coping Strategy and Commitment to Teaching. Contrary to expectations, Absences and Commitment to Teaching are not significantly related to Coping Strategy. However, the selection of a Coping Strategy was also predicted to be negatively related to Depression levels. This relationship was found to be significant, with a Pearson Correlation of  $r = -.46$  ( $p < .001$ ), and simple regression model  $R^2 = .21$  ( $p < .0001$ ). These results indicate that Coping Strategy has a significant negative effect on Depression, accounting for 21 % of the variance in Depression. Therefore, a teacher utilizing more positive or Constructive Coping Strategies has lower levels of Depression, and a more positive mood. These results partially confirm the hypothesis.

### **Research question 7: Absences and Depression on Commitment; and Depression on Absences**

The final research question examined the relationships between three outcome variables: Depression, Absences from Work, and Change in Commitment to Teaching. Significant negative relationships were expected between Absences and Commitment

(Figure 3.1, d1) and between Depression and Commitment (Figure 3.1, d2), while a positive relationship was expected between Depression and Absences (Figure 3.1, i).

First a multiple regression analysis looked at the effects of both Depression and Absences from Work on Change in Commitment to Teaching (Figure 3.1, d1 and d2). The overall model was significant ( $R^2 = .05, p < .05$ ). Depression levels were not found to significantly predict Change in Commitment to Teaching, contrary to our expectations. However, as predicted, a significant negative relationship was found between Absences from Work and Change in Commitment to Teaching ( $p < .01$ ). This significant effect means that a teacher who had a lower number of Absences has higher levels of Commitment to continue teaching (Figure 3.1, d1), demonstrated by a positive change or increase in commitment levels. Likewise, the correlation for both predictors with commitment, was in the expected direction, but not significant for Depression. Although Absences were significantly correlated with commitment ( $r = -.22, p < .01$ ).

For the second model however, as expected, Depression is a significant predictor of Absences from Work. A simple regression analysis revealed that Depression accounts for 15 % of the variance in Absences ( $R^2 = .15, p < .0001$ ). Similarly, the correlation between these two variables is .39 ( $p < .0001$ ). Therefore, a teacher who experienced lower levels of Depression also has a low number of Absences (Figure 3.1, i). Overall, these results partially confirm the hypothesis.



## **Chapter IV**

### **Conclusion**

#### **4.1 Overview of Conclusion**

The purpose of this study was to add to the knowledge of teacher stress through examining the variables of individual teacher characteristics, work-related stress levels, feelings of stress, coping strategy and stress outcome variables. This was accomplished by investigating further the concept of teacher stress, while expanding the investigation in several areas: utilizing a different geographic population, broadening the focus to generic work-related stressors, and including teachers with fewer years of teaching experience. This research builds on the recent study of Tolbert (2007), which is based on the earlier work of teacher stress in Kyriacou and Sutcliffe's (1978) model. The significant results revealed relationships amongst many of the variables. These relationships point to implications that may assist teachers and administrators in the future. Limitations to the current study, barriers to participation and suggestions for future research are also discussed.

#### **4.2 Significant Relationships**

Several significant findings were revealed through assessing the relationships amongst the variables, thereby confirming six of the eleven hypotheses in the current study. In this section, the confirmed hypotheses will be reviewed individually, in conjunction with the implications of each finding. Specifically, strong relationships were

found with the variables of Work-Related Stress and Feelings of Stress, Coping Strategy and Depression, Depression with Absences, and some Individual Teacher Characteristics with Coping Strategy. The non-significant relationships will be discussed in the next section.

### **Feelings of Stress**

The strongest relationship in this model was found between perception or appraisal of Work-Related Stress predicting Feelings of Stress, where over one-quarter of the variance in Feelings was accounted for by the Work-Related Stress levels (Figure 3.1, e). These results confirmed our hypothesis by demonstrating that teachers, who were experiencing higher levels of Work-Related Stress, also experienced more negative Feelings of Stress. Therefore a teacher, who appraised his or her work situation as being stressful, also responded to this stressful teaching situation with negative feelings. These negative feelings may include increased fear, tension, anger or increased illness. Alternately, teachers who were experiencing lower levels of Work-Related Stress appraised the work situation as less stressful, and responded to the working situation with more positive Feelings of Stress. The positive feelings may include increased pride in teaching, or an increase in determination and energy. Research by Tolbert (2007) and Kyriacou and Sutcliffe (1978), indicates similar results, and this finding has also been seen in other occupations. For example, Segal, Smith, Robinson and Segal (2012) note that excessive stress levels can change a person's view of their work, to be viewed as less satisfying.

In addition to these findings, three of the Individual Teacher Characteristics were significantly correlated with the Experience of Negative/Positive Feelings of Stress.

Therefore, teachers who were more hopeful, felt they had more control of their work environment, and had less personal life stress, also responded to their teaching situation with more positive Feelings of Stress.

### **Constructive and Unconstructive Coping Strategy**

These results lead to another significant relationship where a teacher's experience of Negative or Positive Feelings of Stress predicts his or her selection of a Coping Strategy (Figure 3.1, c2) confirming a second hypothesis in the current study. Other research, such as Tolbert (2007) and Kyriacou and Sutcliffe (1978), supports this finding that negative and positive feelings of stress were found to predict selection of coping strategy. These results suggest that teachers who are experiencing more negative Feelings of Stress such as nervousness, anger, fear or tension, will also choose more Unconstructive Coping Strategies. These emotion-focused coping strategies are utilized by a teacher to change his or her emotional perspective of the stressors (Folkman & Lazarus, 1986; Lazarus, 1998). The coping strategies that were selected by the current study's participants include over half selecting anger and frustration, one-quarter of the teachers stated that they take their feelings out on others, and choose self-destructive behaviors such as not exercising (one-quarter), poor eating habits (one-half) and ignoring stress (17 %) or using alcohol (7 %). Tolbert's (2007) results were similar whereby 42 % of participants used anger or frustration, 38 % ignored their health, or ignored the stress (24 %), and 12 % took their feelings out on others or used drugs and alcohol (7 %).

In contrast, teachers experiencing positive Feelings of Stress, such as excitement over a challenge or pride in their work, chose more action-focused or problem-focused strategies to cope with stress, and take direct action against a problem (Folkman &

Lazarus, 1986). According to the current survey, three-fourths of these teachers were consulting with other teachers (76 percent), one-half were talking with friends and family members, or one-quarter were seeking out professional development opportunities such as reading about a specific issue. They also take care of themselves, through seeking support from prayer with God (19 %), exercise (23 %), and hobbies (18 %) (Table 3.6). These results are comparable to Tolbert's (2007) findings where most teachers chose support from other teachers (97 %), followed by professional development (92 %) and seeking support from family (78 %) and friends (75 %).

Similarly, the results of this study indicate that two of the Individual Teacher Characteristics, Hope and Non-Teaching Stressors, also predicted the selection of a Coping Strategy (Figure 3.1, b), thereby confirming a third hypothesis in the current study. As expected, Hope and Non-Teaching Stress were found to be significant predictors of teachers' choice of Coping Strategy. Research such as Snyder et al. (1996b) and Tolbert (2007) also suggests teachers high in Hope selected more positive or Constructive Coping Strategies. Thus teachers, who have a personality characteristic of high dispositional hope, or hope across different experiences and challenges, chose more action-focused coping strategies to change their situation. Likewise, teachers who experienced lower levels of Non-Teaching Stress, or stress in their personal lives, selected more action-focused coping strategies. These personal life stressors may include sickness or death of loved ones, and daily home life demands, including financial struggles or personal relationship difficulties (Alschuler, 1984; Johnson, 2005). In contrast, teachers who experience higher levels of personal life stress and have a personality characteristic of low Hope, then are predicted to select more negative or

Unconstructive Coping Strategies. These strategies include anger and neglecting self-care through poor eating habits or increasing alcohol intake.

### **Depression**

The second strongest relationship in the model was determined to be the selection of a Coping Strategy predicting levels of Depression (Figure 3.1, f), confirming the fourth hypothesis. The measure of Depression in this questionnaire was focused on the participating teacher's depressive symptoms, to indicate a negative or positive affect or mood. Over one-fifth of the variance in Depression was accounted for by Coping Strategy, in the study. These results suggest we can predict that a teacher who chooses more positive or Constructive Coping Strategies may be more likely to have fewer depressive symptoms. Therefore, teachers choosing more active or action-focused coping strategies to change their work situation may have fewer symptoms of depression, or rather a more positive mood.

Similarly, the outcome variable of Depression was significantly correlated with three of the Individual Teacher Characteristics of Hope, Locus of Control and Non-Teaching Stress. Based upon these findings, we would expect that teachers with the personality characteristics of high hope, feelings of more control over work conditions, or lower levels of personal life stress, would also have a more positive mood. Work-Related Stress and Feelings of Stress were significantly correlated to Depression as well. Therefore, a teacher who appraised his or her work situation as being stressful, or has negative feelings such as fear or anger about this stress, may also experience a more negative mood and some symptoms of Depression.

## **Absences**

Next, the analysis demonstrated the third strongest relationship, with level of Depression predicting Absences from Work (Figure 3.1, i). In the fifth hypothesis, Depression accounted for 15 % of the variance in Absences from Work. These results suggest that teachers with lower levels of depressive symptoms or more positive moods may also have fewer Absences. In contrast, teachers with more symptoms of depression may be predicted to be absent more often. Hurrell (2005) stated that absenteeism and reduced productivity are typical indicators of depressive symptoms. These findings are also supported by the estimated costs of depression, in terms of absences, which are costly to employers across the United States (Stewart, Ricci, Chee, Hahn, & Morganstein, 2003). Uncalculated costs may also include decreased performance levels, for employees that are stressed, but still come to the workplace.

Other relationships with Absences include Locus of Control and Non-Teaching Stress, two Individual Teacher Characteristics, which were significantly correlated with Absences. Teachers with personality characteristics of feelings of more control over work conditions and teachers who perceive that they have lower levels of personal life stress, may have fewer absences. Feelings of Stress were significantly correlated to Absences as well, suggesting that teachers with more positive Feelings of Stress, such as feelings of being challenged through work, may be absent less often.

## **Commitment to Teaching**

The final analysis, examining Absences from Work predicting Change in Commitment to Teaching (Figure 3.1, d1), was found to be significant. The sixth hypothesis is a weaker relationship within the model, with Absences only accounting for

five % of the variance in Commitment to Teaching. These results suggest that a teacher who has had fewer Absences has demonstrated a more stable commitment level since he or she began teaching. In addition, Locus of Control, an Individual Teacher Characteristic, is significantly correlated with Change in Commitment to Teaching. Therefore as a teacher had increased feelings of control over his or her work environment, there was an increase in commitment feelings to their current occupation. Together, these findings suggest that teachers, who are absent less often and feel more in control at work, may be expected to persevere in the teaching profession.

### **4.3 Non-Significant Relationships**

Five hypothesized relationships amongst the variables were found to be non-significant. However, the lack of confirmation could be due to limitations in the study, which are reviewed later. First, none of the Individual Teacher Characteristics were found to be significantly related to the Perception/Appraisal of Work-Related Stress (Figure 3.1, a). Hope and Non-Teaching Stress were significant at the  $p < .10$  level, perhaps signifying a trend for teachers with higher hope and low personal life stress to perceive their work life as low in stress also. Overall, although the sample of teachers in this study reported experiencing moderately high levels of stress in their work-life, the teachers were also highly hopeful, with high feelings of being in control of their work life. These teachers also reported low to moderate stress levels in their personal lives. These characteristics may indicate a more stress-protected group of teachers, where their personal characteristics help to buffer them from higher levels of work-place stressors.

Secondly, there was a non-significant relationship between Work-Related Stress predicting Coping Strategy (Figure 3.1, c1). The correlation between these two variables

was not strong either, with a p-value  $<.10$  ( $r = -.15$ ,  $p = .08$ ). These results indicate more of a trend rather than a predictor, for teachers who perceive their teaching position as being stressful, to perhaps also choose more negative or Unconstructive Coping Strategies, such as poor self-care or anger.

Next, there was not a significant relationship between either selecting a Coping Strategy and Absences from Work (Figure 3.1, g) or between Coping Strategy and Change in Commitment to Teaching (Figure 3.1, h). One explanation may be that teachers who use more positive coping strategies such as taking care of themselves, also take time off from work when they first feel poorly or utilize mental health days. These teachers may also believe that if their teaching job is affecting them negatively, a useful coping strategy would be to increase their detachment from work, thereby lowering their commitment level.

Finally, level of Depression did not significantly predict Change in Commitment to Teaching (Figure 3.1, d2). These results were also unexpected, and may suggest that the teachers with symptoms of Depression have had these symptoms since beginning teaching, and their commitment level was unaffected by these feelings. An alternative explanation may be that the Commitment Level has not changed, for example it started at a moderate level and remained moderate.

#### **4.4 Limitations and Suggestions for Future Research**

There are several possible limitations to the current study, two of which may affect the generalization of the study's findings. These limitations also lead to suggestions for future research areas, which are discussed below. One minor limitation is that the examples provided in the Coping Strategy items on the questionnaire were



frequently cited by respondents as one or more of their coping strategies. This could signify that answers to these two items may have been prompted by the example list. A second limitation, which could affect generalization, is that the questionnaires were completed by teachers who agreed to use personal time to complete a questionnaire. It is possible that teachers who decided not to complete a questionnaire are systematically different from those who did participate in the study, such as being extremely stressed and feeling too time-pressured to complete a survey.

A final and important limitation may also affect the generalization of the study. Although several large school districts were contacted to participate in the study, some did not want their teachers to participate. The reasons cited by these particular school administrators were that only currently employed district teachers could conduct research studies involving their peers. While teachers from five districts participated, the sample may have been enhanced by having teachers within an additional large district participating. This was a barrier to participation, such that teachers who may teach in one of these larger districts might have a different working environment (e.g. more stressful or less control). In actuality, because of the importance of this topic, it is hoped that all school districts would embrace and even encourage research in order to assist their teachers.

This study's limitations also advocate for possible areas of research in the future. Teacher stress has been demonstrated by numerous researchers to be a serious concern. Hopefully school districts can be encouraged to actively seek out and participate in research that may benefit teachers. This research could occur through School Psychologists within the school system itself, or through local universities' research

departments. Teachers should also be interviewed about which topics surrounding Work-Related Stress and Coping Strategies are relevant to both their professional and personal lives. This could help to further refine the focus of stress-related topics for future research. In addition, a wider variety of school districts participating in teacher stress research would be helpful. Both large and small districts, as well as schools with varying cultures such as those allowing teachers' different levels of control, may provide useful insights in this area.

#### **4.5 Implications**

The results from the current study point to several implications for improving teachers' wellbeing, both in the classroom and also carrying over into their personal lives. These findings address the stress-related skills and individual characteristics that appear necessary to remain in the teaching profession. Within the stress-related skills, one important focus for schools should be to help teachers decrease their levels of perceived work stress. This might be accomplished by altering the school culture to encourage peer support or initiating mentoring programs so that teachers can discuss work issues with peers in a non-threatening, supportive environment. This level of support could help to encourage teachers through sharing common problems and solutions that have worked for other teachers. This sharing of solutions and ideas may help with a second implication from this study: increasing positive feelings from stress. In this way, teachers can feel challenged or motivated to tackle the persistent issues they face in the classroom, rather than feeling fearful or anxious, or even angry about their stress. Kipps-Vaughan, Ponsart and Gilligan (2012) suggest conducting a needs assessment with the school to determine what to include in a stress management program and how to implement the

program. Administrator and teacher input is important, in order to encourage buy-in of all participants (Centers for Disease Control, 2012). Finally, an ongoing evaluation process, including feedback and adjustments, should also be established, prior to implementation of a wellness program.

The next implication, from the results of the study, is to encourage a teacher to choose more positive coping strategies. This can be accomplished through professional development workshops where school psychologists assist teachers in learning about stress and better strategies to cope with stress. Teachers could first learn to identify their particular stressors, which may be unique to an individual. Next a teacher could learn how to change their perception of a stressor into a more positive, action-oriented view of the situation. Finally, teachers would learn about options of more constructive methods of coping with their stress, in order to provide them with choices when faced with a stressor. These positive options could include seeking support from other teachers, school psychologists or other administrative personnel, or from family and friends. Other options schools can provide include offering professional development in-service meetings or providing research-based literature for teachers. Furthermore, engaging in activities outside of work, such as prayer or hobbies of activities outside of school, and good health practices are also constructive methods of coping with stress, that were utilized by this study's participants.

A final implication from the results of this study, addresses the individual characteristics that appear necessary to remain in the teaching profession. The results from these participants suggest that teachers' individual personalities need to be hopeful across situations. Similarly, teachers need to have a more positive mood in general and

thus less depressive symptoms. Teachers also need to have more feelings of control over their classroom teaching environment. These characteristics helped the teachers participating in this study to have more positive feelings towards stressors, better coping strategies, and better outcomes of more positive mood, lower absenteeism and more stable commitment levels.

#### **4.6 Summary**

Together, these findings suggest that teachers continue to experience high levels of stress as cited in the current research literature. This phenomenon is not limited to a few schools, rather teacher occupational stress is found throughout the United States and the world. In this study, teachers felt most of the stress in their life was related to their job, rather than their personal relationship and life outside of teaching. Thus, in contrast to their work stress levels, their personal or home-life seems fairly non-stressful. School psychologists can be instrumental in assisting teachers to lower their occupational stress and have a more positive perception of their work life. Hill and Robinson (2010) suggest a multi-tiered approach to effectively decrease teacher stress, which makes changes at the organizational, classroom and individual tiers. As discussed earlier, teachers need help from their schools to decrease the occupational stress levels through changing the school or organization climate to be less stressful, and encouraging more peer interaction and cooperation. At the classroom tier, teachers need to have more feelings of control over their classroom and teaching environment. Finally, at an individual tier, teachers also need assistance in learning to manage their own stress levels, and need training in order to select more positive coping strategies. The Centers for Disease Control (2012)

recommend changing an organization while simultaneously providing stress management programs for individuals, in order to develop a healthier, less-stressful work environment.

The consequences of lowering teacher stress can have far-reaching impacts. Teachers' stress levels affect not only themselves, but also impact the people around them. Research has demonstrated that students' academic achievement is affected, as well as their coping skills, by their teacher's behavior (Kipps-Vaughan et al., 2012; Maslach, 2002). A recent study by Merritt, Wanless, Rimm-Kaufman, Cameron, & Peugh (2012) found that a teacher's emotional support and behaviors affected all types of students, in the students' aggressiveness, social skills and self-control. Students spend a great deal of time observing and learning from their teachers, including observing the manner in which their teacher copes with stress. Lambert, McCarthy, O'Donnell, & Wang (2009) found that highly stressed teachers may provide negative social behavior modeling for students. Furthermore, one-half of the participants in the current study cope with stress using anger or frustration, and one-quarter takes stress out on others. Thus, the ripple effect of helping a teacher to be less stressed and therefore happier with their occupation can spread to positively affect not only their peers and administration, but also affect their students, and even their family and friends. There are so many things in life that we cannot change; however, working with teachers to reduce their stress, through changing our schools' strategies and teachers' strategies, is one thing we must do to make a positive change for all teachers and their students.

## References

- Abel, M. H., & Sewell, J. (1999). Stress and burnout in rural and urban secondary school teachers. *Journal of Educational Research, 92*(5), 287-293.
- Adams, E., Heath-Camp, B., & Camp, W. G. (1999). Vocational teacher stress and the educational system. *Journal of Vocational Education Research, 24* (3), 133-144.
- Alliance for Excellent Education. (2004). *Tapping the potential: Retaining and developing high quality new teachers*. Retrieved from <http://www.all4ed.org/files/TappingThePotential.pdf>
- Alschuler, A. S. (1984). *Teacher burnout*. Washington, DC: National Education Association.
- The American Institute of Stress (2012, October 24). *Workplace Stress*. Retrieved from <http://www.stress.org/workplace-stress/>
- Armor, D., Conroy-Oseguera, P., Cox, M., King, N., McDonnell, L., Pascal, A., Pauly, E., & Zellman, G. (1976). *Analysis of the school preferred reading programs in selected Los Angeles minority school*. (R-2007-LAUSD). Santa Monica, CA: Rand Corp.

- Brown, M., & Ralph, S. (1998). The identification of stress in teachers. In J. Dunham & V. Varma (Eds.), *Stress in teachers: Past, present and future*. (pp. 37-56). London, England: Whurr Publishers.
- Byrne, J. (1998). Teacher as hunger artist: Burnout: It's causes, effects and remedies. *Contemporary Education*, 69(2), 86-92.
- Centers for Disease Control and Prevention (2012). *Stress at work*.(DHHS NIOSH Publication No. 99-101). Retrieved from <http://www.cdc.gov/niosh/docs/99-101/pdfs/99-101.pdf>
- Cox, T., & Brockley, T. (1984). The experience and effects of stress in teachers. *British Educational Research Journal*, 10(1), 83-87.
- Darling-Hammond, L. (2003). Keeping good teachers: Why it matters what leaders can do. *Educational Leadership*, 60(8), 6-13.
- Dove, M. K. (2004, Fall). Teacher attrition: A critical American and international education issue. *Delta Kappa Gamma Bulletin*, 8-14.
- Farber, B. A. (1991). *Crisis in education: Stress and burnout in the American teacher*. San Francisco, CA: Jossey-Bass.
- Farber, B. A. (2000). Treatment strategies for different types of teacher burnout. *Journal of Clinical Psychology/ In Session: Psychotherapy in Practice*, 56(5), 675-689.
- Folkman, S., & Lazarus, R. S. (1986). Stress processes and depressive symptomatology. *Journal of Abnormal Psychology*, 95(2), 107-113.

- Glickman, C. D., & Tamashiro, R. T. (1982). A comparison of first-year, fifth-year, and former teachers on efficacy, ego development, and problem solving. *Psychology in the Schools, 19*, 558-561.
- Gross, N. E. (1958). *Living with stress*. New York, NY: McGraw-Hill.
- Guarino, C. M., Santibanez, L., & Daley, G.A. (2006). Teacher recruitment and retention: A review of the recent empirical literature. *Review of Educational Research, 76*(2), 173-208.
- Hart, P. M. (1994). Teacher quality of work life: Integrating work experiences, psychological distress and morale. *Journal of Occupational and Organizational Psychology, 67*, 109-132.
- Hatcher, L., & Stepanski, E. J. (1994). *A step-by-step approach to using the SAS system for univariate and multivariate statistics*. Cary, NC: SAS Institute Incorporated.
- Hill, K. & Robinson, A. (2010). Enhancing teacher well-being: Put on your oxygen masks! *Communique, 39*(4), 17-19.
- Hornick-Lockard, B. (2008, August). Recruiting, hiring and retaining highly qualified teachers. *EBSCO Research Starters Education: EBSCO/Great Neck Publishing*.
- Howe, M. E., Grierson, S. T., & Richmond, M. G. (1997). A comparison of teachers' knowledge and use of content reading strategies in the primary grades. *Reading Research and Instruction, 36*(4), 305-324.



Hurrell, J. (2005). Depression. In Levy, B. S., Wagner, G. R., Rest, K. M., & Weeks, J. L. (Eds.), *Preventing occupational disease and injury*. (pp. 184-187). Washington, D.C.: American Public Health Association.

Huston, J. (1989). Teacher burnout and effectiveness: A case study. *Education, 110*(1), 70-78. Retrieved from <http://search.ebscohost.com>.

Ingersoll, R. M. (2003). *Is there really a teacher shortage?* Seattle, WA: University of Washington, Center for the Study of Teaching and Policy.

Iwanicki, E. F. (2001). Toward understanding and alleviating teacher burnout. *Theory into Practice, 22*(1), 27-32.

Jepson, E., & Forrest, S. (2006). Individual contributory factors in teacher stress: The role of achievement striving and occupational commitment. *British Journal of Educational Psychology, 76*, 183-197.

Johnson, J. V. (2005). Stress. In Levy, B. S., Wagner, G. R., Rest, K. M., & Weeks, J. L. (Eds.), *Preventing occupational disease and injury*. (pp. 464-472). Washington, D.C.: American Public Health Association.

Kipps-Vaughan, D., Ponsart, T., & Gilligan, T. (2012, September). Teacher wellness: Too stressed for stress management? *Communique, 41*(1), 1-28.

Kumarakulasingam, T. M. (2002). *Relationships between classroom management, teacher stress, teacher burnout, and teachers' levels of hope*. (Doctoral dissertation). University of Kansas, Kansas.

Kyriacou, C. (2001). Teacher stress: Directions for future research. *Educational Review*, 53(1), 27-35.

Kyriacou, C., & Sutcliffe, J. (1978). A model of teacher stress. *Educational Studies*, 4(1), 1-6.

Kyriacou, C., & Sutcliffe, J. (1979). A note on teacher stress and locus of control. *Journal of Occupational Psychology*, 52, 227-228.

Lambert, R. G., McCarthy, C., O'Donnell, M., & Wang, C. (2009). Measuring elementary teacher stress and coping in the classroom: Validity evidence for the classroom appraisal of resources and demands. *Psychology in the Schools*.

Retrieved from

<http://coedpages.uncc.edu/cwang15/PsychologyintheSchools09.pdf>

Lazarus, R. S. (1966). *Psychological stress and the coping process*. New York, NY: McGraw-Hill.

Lazarus, R. S. (1998). *Fifty years of the research and theory of R.S. Lazarus - An analysis of historical and perennial issues*. Mahwah, New Jersey: Lawrence Erlbaum Associates.

Lazarus, R. S. (1999). *Stress and emotion: A new synthesis*. New York, NY: Springer Publishing.

Maslach, C., (2002). School staff burnout. *Addressing Barriers to Learning*, 7(2), 1-5.

Maslach, C., & Leiter, M. P. (1997). *The truth about burnout: How organizations cause personal stress and what to do about it*. San Francisco, CA: Jossey-Bass.

- McDermott, D., & Snyder, C. R. (1999). *Making hope happen: A workbook for turning possibilities into reality*. Oakland, CA: New Harbinger Publications.
- Mearns, J. (2012). The social learning theory of Julian B. Rotter. Retrieved from <http://psych.fullerton.edu/jmearns/rotter.htm>
- Merritt, E. G., Wanless, S. B., Rimm-Kaufman, S. E., Cameron, C. & Peugh, J. L. (2012). The contribution of teachers' emotional support to children's social behaviors and self-regulatory skills in first grade. *School Psychology Review*, 41(2), 141-159.
- Milstein, M. M., & Golaszewski, T. J. (1985). Effects of organizationally based and individually based stress management efforts in elementary school settings. *Urban Education* 19(4), 389-409.
- Monat, A., & Lazarus, R. S. (1985). *Stress and coping: An anthology*. New York, NY: Columbia University Press.
- Moracco, J. C., & McFadden, H. (1982, May). The counselor's role in reducing teacher stress. *Personnel and Guidance Journal*, 549-552.
- Nieto, S. M. (2003). What keeps teachers going? *Educational Leadership*, 60(8), 14-18.
- Park, N., Peterson, C., & Seligman, M. E. P. (2004). Strengths of character and well-being. *Journal of Social and Clinical Psychology*, 23(5), 603-619.
- Radloff, L. S. (1977). The CES-D scale: A self-report depression scale for research in the general population. *Applied Psychological Measurement*, 1(3), 385-401.

- Reyes, P. (1992). *Preliminary models of teacher organizational commitment: Implications for restructuring the workplace*. (Contract R117Q0005-92). Madison, WI: Center on Organization and Restructuring of Schools.
- Rotter, J. B. (1975). Some problems and misconceptions related to the construct of internal versus external control of reinforcement. *Journal of Consulting and Clinical Psychology, 43*, 56-67.
- Segal, J., Smith, M., Robinson, L., & Segal, R. (2012). Stress at work: Tips to reduce and manage job and workplace stress. Retrieved from [http://www.helpguide.org/mental/work\\_stress\\_management.htm](http://www.helpguide.org/mental/work_stress_management.htm)
- Selye, H. (1974). *Stress without distress*. Philadelphia, PA: J. B. Lippincott.
- Selye, H. (1976). *The stress of life*. New York, NY: McGraw-Hill.
- Snyder, C. R. (1994). *The psychology of hope: You can get there from here*. New York, NY: Free Press.
- Snyder, C. R. (Ed.). (2000). *Handbook of hope: Theory, measures, and applications*. SanDiego, CA: Academic Press.
- Snyder, C. R., Harris, C., Anderson, J. R., Holleran, S. A., Irving, L. M., Sigmon, S. T., Yoshinobu, L., Gibb, J., Langelle, C., & Harney, P. (1991). The will and the ways: Development and validation of an individual-differences measure of hope. *Journal of Personality and Social Psychology, 60*(4), 570-585.

- Snyder, C. R., Hoza, B., Pelham, W. E., Rapoff, M., Ware, L., Danovsky, M., Highberger, L., Rubinstein, H., & Stahl, K. J. (1996a). The development and validation of the children's hope scale. *Journal of Pediatric Psychology, 22*(3), 399-421.
- Snyder, C. R., Sympson, S. C., Ybasco, F. C., Borders, T. F., Babyak, M. A., & Higgins, R. L. (1996b). Development and validation of the state hope scale. *Journal of Personality and Social Psychology, 60*(4), 321-335.
- Soh, K. (1986). Locus of control as a moderator of teacher stress in Singapore. *Journal of Social Psychology, 126*(2), 257-258.
- Soper, D. S. (2009). The free statistics calculators website, online software. Retrieved from <http://www.danielsoper.com/statcalc/>.
- Stewart, W.F., Ricci, J.A., Chee, E., Hahn, S.R., Morganstein, D. (2003) Cost of lost productive work time among US workers with depression. *Journal of the American Medical Association, 289*, 3135-3144.
- Suh, R. (2008, August). Teacher burnout. *EBSCO Research Starters Education: Great Neck Publishing*.
- Thornton, B., Peltier, G., & Medina, R. (2007). Reducing the special education teacher shortage. *The Clearing House, 80*(5), 233-38.
- Thousands of days lost to stressed-out teachers. (2012, February 19). *Deadline News*. Retrieved from <http://www.deadlinenews.co.uk/2012/02/19/thousands-of-days-lost>

- Tolbert, M. D. (2007). *No teacher left behind: A predictive model of teacher stress and coping*. (Doctoral dissertation). University of South Carolina.
- Travers, C. J., & Cooper, C. L. (1998). Increasing costs of occupational stress for teachers. In J. Dunham & V. Varma (Eds.), *Stress in teachers: Past, present and future*. (pp. 57-75). London, England: Whurr Publishers.
- Truch, S. (1980). *Teacher burnout and what to do about it*. Novato, CA: Academic Therapy Publications.
- Van Dick, R., & Wagner, U. (2001). Stress and strain in teaching: A structural equation approach. *British Journal of Educational Psychology*, 71, 2431-259.

## Appendix A: Survey Cover Letter

Dear Elementary School Teacher,

You are being asked to complete a survey of educational experiences conducted by Michelle Munnell for her dissertation in School Psychology from the University of South Carolina (USC). She is the primary investigator and is conducting a survey of Elementary School Teachers and their opinions about classroom teaching and their jobs. The purpose of this study is to collect information about your experiences with the responsibilities of teaching, such as how teachers approach goals and solve problems, and your opinions about classroom teaching. This information will be useful in helping to understand the current elementary school teaching environment and in developing future programs to assist teachers in their careers.

Participation in this survey is completely voluntary. Please read this letter and the Survey of Views of Educational Experiences Instruction form carefully and ask the researcher if you have any questions. You can choose not to complete the survey at any time, with no negative consequences. If you decide not to complete the survey, simply do not return it to the researcher.

This survey should take approximately 10-15 minutes to complete. Please try not to skip any of the items. Answer each of the questions honestly and to the best of your ability. Please do not place any identifying information on this survey, such as your name. All of your responses are anonymous and will be kept strictly confidential. Once you turn in your survey, it will be placed in a locked file cabinet which will only be accessible by the primary researcher, Michelle Munnell. After the research is completed, only general feedback will be provided to participating school district personnel by the USC researchers, and this information will not identify you or other individual participants in any way.

Please read the survey Instruction form and return your completed survey to the researcher. If you prefer to complete the survey on-line, the website link will be provided to you. Participants who return completed surveys will be eligible for a random drawing to receive one \$50 gift card, with ten total cards awarded. These gift cards are to thank you for your time in helping us with this research. You may keep this cover letter. If you have any questions about the survey, your participation or the results of this research, please contact the USC researchers Michelle Munnell, M.A. and Fred Medway, Ph. D.

Your participation is greatly appreciated and will help to further research which may assist teachers in their important role as educators. Thank you for your time!

Sincerely,  
Michelle Munnell, M.A.  
Graduate Student Researcher  
USC Department of Psychology

Fred Medway, Ph.D.  
Faculty Researcher  
USC Department of Psychology

## Appendix B: Survey of Views of Educational Experiences

**Section I:** The following questions have to do with you, your life, and your teaching experience. Please circle or write in the appropriate answers.

- 1) Name of the school where you are currently teaching:  
\_\_\_\_\_
- 2) Your age: \_\_\_\_\_
- 3) Your gender: 1) Female 2) Male
- 4) Ethnic background:
  - 1) Caucasian
  - 2) African-American
  - 3) Hispanic
  - 4) Asian/Pacific Islander
  - 5) Native American
  - 6) Bi-racial
  - 7) Other (please indicate: \_\_\_\_\_)
- 5) Marital Status:
  - 1) Single
  - 2) Married
  - 3) Divorced
  - 4) Widowed
- 6) Number of children you have: \_\_\_\_\_ (0 for none)
- 7) Number of children living with you: \_\_\_\_\_ (0 for none)
- 8) Grade you are teaching this school year: K 1st 2nd 3rd 4th 5th  
Other (please specify \_\_\_\_\_)
- 9) Total years of teaching experience, teaching current grade level in your current school (circle one):
  - 1) 5 years of experience or less
  - 2) 6-10 years of experience
  - 3) 11-15 years of experience
  - 4) 16-20 years of experience
  - 5) Over 20 years of experience
- 10) Teaching Specialization (circle current area of teaching):  
General Education  
Special Education
- 11) Name of the college from which you:
  - a. obtained your bachelor degree: \_\_\_\_\_
  - b. obtained an advanced degree(s): \_\_\_\_\_



## **Section II:**

12) How many total years of K-12 Teaching Experience do you have altogether, including this year? \_\_\_\_\_years

## **Section III:**

13) The next series of questions deals with how you approach goals and problem-solving. Read each item carefully. Using the scale shown below, please select the number that best describes YOU and how you feel about the statement, and then write that number in the blank provided.

*1 = Definitely False      2 = Mostly False      3 = Mostly True      4 = Definitely True*

- \_\_\_\_\_ 1. I can think of many ways to get out of a jam.  
\_\_\_\_\_ 2. I energetically pursue my goals.  
\_\_\_\_\_ 3. I feel tired most of the time.  
\_\_\_\_\_ 4. There are lots of ways around any problem.  
\_\_\_\_\_ 5. I am easily downed in an argument.  
\_\_\_\_\_ 6. I can think of many ways to get the things in life that are most important to me.  
\_\_\_\_\_ 7. I worry about my health.  
\_\_\_\_\_ 8. Even when others get discouraged, I know I can find a way to solve the problem.  
\_\_\_\_\_ 9. My past experiences have prepared me well for my future.  
\_\_\_\_\_ 10. I've been pretty successful in life.  
\_\_\_\_\_ 11. I usually find myself worrying about something.  
\_\_\_\_\_ 12. I meet the goals that I set for myself.

## **Section IV:**

14) The next series of questions deals with student motivation. Please circle the number that best describes how you feel about each statement.

1. When it comes right down to it, a teacher really can't do much because most of a student's motivation and performance depends on his or her home environment.

<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>
<i>Strongly Disagree</i>	<i>Slightly Disagree</i>	<i>Neither Agree or Disagree</i>	<i>Slightly Agree</i>	<i>Strongly Agree</i>

2. If I try really hard, I can get through to even the most difficult or unmotivated students.

<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>
<i>Strongly Disagree</i>	<i>Slightly Disagree</i>	<i>Neither Agree or Disagree</i>	<i>Slightly Agree</i>	<i>Strongly Agree</i>

15) How much control do you feel you have in your classroom over each of the following areas of your planning and teaching?

IN AN AVERAGE WEEK I feel that I have _____control in this area:	No Control	Some Control	Moderate Amount of Control	A Lot of Control	Complete Control
Selecting textbooks and other instructional materials.					
Selecting content, topics and skills to be taught.					
Selecting teaching techniques.					
Disciplining students.					
Determining the amount of homework to be assigned.					

**Section V:** 16) Please read each question, and then circle the answer for each one that best represents your feelings of stress for your life outside of teaching.

1. Working in schools can be demanding and stressful. How stressful is your home life outside the classroom?

*1*                      *2*                      *3*                      *4*                      *5*  
*Not at all*      *A Little*              *Somewhat*              *Moderately*              *Very*  
*Stressful*      *Stressful*              *Stressful*              *Stressful*              *Stressful*

2. When you think of life outside of teaching, do you think your family relationships and other relationships are stressful?

*1*                      *2*                      *3*                      *4*                      *5*  
*Not at all*      *A Little*              *Somewhat*              *Moderately*              *Very*  
*Stressful*      *Stressful*              *Stressful*              *Stressful*              *Stressful*

**Section VI:** 17) A number of areas of stress for teachers have been identified. In answering the following questions, please look over the following list of some areas of stressors for teachers:

- work demands,
- time restraints,
- organizational change,
- control over decision making and student performance,
- relationships with other teachers and parents.

1. Now that you have examined this list, in general, how stressful do you find teaching? Please circle your response.

*1*                      *2*                      *3*                      *4*                      *5*  
*Not at all*      *A Little*              *Somewhat*              *Moderately*              *Very*  
*Stressful*      *Stressful*              *Stressful*              *Stressful*              *Stressful*

2. How demanding and stressful do you perceive the general stresses of teaching to be?

*1*                      *2*                      *3*                      *4*                      *5*  
*Not at all*      *A Little*              *Somewhat*              *Moderately*              *Very*  
*Stressful*      *Stressful*              *Stressful*              *Stressful*              *Stressful*

18) What single factor associated with teaching is the most stressful to you?

**Section VII:** 19) Please read each question, and then circle the answer for each one that best represents your feelings of stress that you experience.

1. How frequently does the general pressure from teaching and the specific time constraints you experience in getting this job done, cause you to experience negative feelings or emotions, such as feeling distressed, upset, irritable, angry, fearful, ashamed, or nervous?

1	2	3	4	5
<i>None of the Time</i>	<i>Some of the Time</i>	<i>Part of the Time</i>	<i>Most of the Time</i>	<i>All of the Time</i>

2. How frequently does the general pressure from teaching and the specific time constraints you experience in getting this job done, cause you to experience positive feelings or emotions, such as feeling attentive, interested, enthusiastic, inspired, proud, determined, or strong?

1	2	3	4	5
<i>None of the Time</i>	<i>Some of the Time</i>	<i>Part of the Time</i>	<i>Most of the Time</i>	<i>All of the Time</i>

**Section VIII:** To help relieve stress due to general teaching demands and time restraints, some teachers mainly use constructive coping strategies, and some teachers mainly use unconstructive coping strategies.

20) **Constructive coping strategies** include: seeking support from other teachers, my principal, and other professionals in my school (such as the guidance counselor or school psychologist); seeking support from family and friends; or learning through professional development activities (such as reading professional journals or attending a workshop).

Please rate the extent to which you use these coping strategies.

1	2	3	4	5
<i>None of the Time</i>	<i>Some of the Time</i>	<i>Part of the Time</i>	<i>Most of the Time</i>	<i>All of the Time</i>

21) List up to 3 constructive coping strategies you use to deal with stress:

---

22) I don't use any constructive coping strategies. Circle one: *True* *False*

23) **Unconstructive coping strategies** include: getting angry or frustrated; taking my feelings out on someone who is not responsible for the situation; putting the stress out of my mind as if it doesn't exist; not taking care of my own health, exercise or diet like I know I should; or using more alcohol or medications than I am comfortable using.

Please rate the extent to which you use these coping strategies.

1	2	3	4	5
<i>None of the Time</i>	<i>Some of the Time</i>	<i>Part of the Time</i>	<i>Most of the Time</i>	<i>All of the Time</i>

24) List up to 3 unconstructive coping strategies you use to deal with stress:

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25) I don't use any unconstructive coping strategies. Circle one: *True* *False*

**Section IX:** The following statements describe different feelings and ideas that you may have in an average week. Think about how often you feel or behave this way in an average week, then circle the number that best represents how often you feel that way.

26) In an average week:	<i>Rarely or None of the Time</i>	<i>Some of the Time (1-2 days)</i>	<i>Occasionally (3-4 days)</i>	<i>Most of the Time (5-7 days)</i>
1. I am easily bothered by things.	1	2	3	4
2. I do not feel like eating; my appetite is poor.	1	2	3	4
3. I feel that I cannot shake off my blues even with the help of my family or friends.	1	2	3	4
4. I feel that I am just as good as other people.	1	2	3	4
5. I have trouble keeping my mind on what I am doing.	1	2	3	4
6. I feel depressed.	1	2	3	4
7. I feel that everything I do is an effort.	1	2	3	4
8. I feel hopeful about the future.	1	2	3	4
9. I think my life has been a failure.	1	2	3	4
10. I feel fearful.	1	2	3	4
27) In an average week:				
11. My sleep is restless.	1	2	3	4
12. I am happy.	1	2	3	4
13. I don't feel like talking.	1	2	3	4
14. I feel lonely.	1	2	3	4
15. People are unfriendly.	1	2	3	4
16. I enjoy life.	1	2	3	4
17. I have crying spells.	1	2	3	4
18. I feel sad.	1	2	3	4
19. I feel that people dislike me.	1	2	3	4
20. I cannot get going.	1	2	3	4

**Section X:** 28) The following questions have to do with absences due to work-related stress. Please circle the appropriate answers.

1. Because of teaching stress, I am sure that I have missed some days of work in the past 6 months.

<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>
<i>Strongly</i>	<i>Slightly</i>	<i>Neither Agree</i>	<i>Slightly</i>	<i>Strongly</i>
<i>Disagree</i>	<i>Disagree</i>	<i>or Disagree</i>	<i>Agree</i>	<i>Agree</i>

2. Teaching stress due to work-related stressors causes me to miss at least one day of work per month.

<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>
<i>Strongly</i>	<i>Slightly</i>	<i>Neither Agree</i>	<i>Slightly</i>	<i>Strongly</i>
<i>Disagree</i>	<i>Disagree</i>	<i>or Disagree</i>	<i>Agree</i>	<i>Agree</i>

**Section XI:** 29) Please read the following questions, and then circle the number that best describes you and your feelings.

1. As of your first year of teaching, how committed were you to the teaching profession?

<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>
<i>Not</i>	<i>Barely</i>	<i>Somewhat</i>	<i>Fairly</i>	<i>Very</i>
<i>Committed</i>	<i>Committed</i>	<i>Committed</i>	<i>Committed</i>	<i>Committed</i>

2. As of today, how committed are you to the teaching profession?

<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>
<i>Not</i>	<i>Barely</i>	<i>Somewhat</i>	<i>Fairly</i>	<i>Very</i>
<i>Committed</i>	<i>Committed</i>	<i>Committed</i>	<i>Committed</i>	<i>Committed</i>

**Section XII:** 30) Comments

Are there any questions you had difficulty understanding?

**Thank you for your time in completing this survey!!**

Thank you for your participation which will help to further research about the current elementary school teaching environment and may help in developing future programs to assist teachers in their careers.