Summer 2011

An Analysis of the Occupational Stress Factors Identified by Certified Teachers

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AN ANALYSIS OF THE OCCUPATIONAL STRESS FACTORS IDENTIFIED BY CERTIFIED TEACHERS

by

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(Under the Direction of Linda M. Arthur)

ABSTRACT

Teacher attrition is a serious issue facing school administrators today. In order to implement effective educational programs, schools need experienced teachers who are equipped to deal with such challenges. In response to increased work demands, and the challenge of educating a diverse student population, many teachers are leaving the field of education, citing stress as a primary reason for leaving. Stress factors cited most often include inadequate salaries, work overload, curriculum concerns stemming from federal, state and local mandates, lack of shared decision making and unsatisfactory relationships with stakeholders.

The researcher sought to compare the stress factors experienced by teachers to determine if there is a link between gender, grade level taught, years of teaching experience and teacher perceptions of the work factors that contribute to stress. Understanding the specific factors that cause work-related stress among each group of certified teachers will provide appropriate direction in planning future professional development and induction programs to best meet the needs of all teachers.

Teacher responses to a survey regarding the factors that cause or mitigate occupational stress were analyzed. A correlation study identified no differences in stress based upon years of teaching experience and an Independent T Test showed no

differences in stress based on gender. An Analysis of Variance did detect a difference in the degree of teacher stress based on grade level taught.

The researcher has concluded from this study that teachers exhibit a moderate degree of occupational stress. Stress is present among teachers at all levels of experience, though differences exist in stress levels based on length of service or based on gender. Differences in stress levels were identified based on grade level taught, with elementary school teachers exhibiting higher levels of stress than did middle school or high school teachers.

INDEX WORDS: Teacher stress, Empowerment, Collegiality, Student discipline and motivation, Teacher salary, Workload

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A Dissertation Submitted to the Graduate Faculty of Georgia Southern University in Partial Fulfillment of the Requirements for the Degree

DOCTOR OF EDUCATION

STATESBORO, GEORGIA

2011

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Electronic Version Approved:
July, 2011

DEDICATION

In recognition of their love and patience throughout this lengthy process, I dedicate this dissertation to my children, Alexander, Kyle and Jaclyn Johannsen.

In recognition of their support and encouragement throughout all of my endeavors, I also dedicate this dissertation to my parents, Naomi and Arnold Fishbein.

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INTRODUCTION

"Holding schools accountable for their performance depends on having people in schools with the knowledge, skill, and judgment to make the improvements that will increase student performance."

- *Richard Elmore*

Harvard scholar Richard Elmore, in writing about school leadership, suggests that school reform is beset by the false perception that schools fail to perform due to a lack of commitment of teachers, administrators and students. Contrary to this belief, Elmore indicates the problem isn't getting stakeholders to work, but rather getting them to direct their attention to the issues and tasks that bring about positive change within a school. Students can improve their motivation to succeed, teachers can incorporate improved instructional strategies and develop more effective class room management techniques, and school administrators can create a positive school climate by promoting collegiality and professionalism among staff members, encouraging effective parent and community support and ensuring a safe and orderly school environment (Marzano, Waters, & McNulty, 2005).

Several of these issues which can inhibit school effectiveness can also be attributed to causing work related stress among teaching professionals. Stress can be defined 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). Studies generally agree that negative perceptions of key job factors such as administrative support, employee empowerment, collegiality among staff members, relationships among stakeholders, workload, salary, and student motivation and discipline can cause work related stress which manifests itself in a

variety of emotional and physical ways, frequently causing teachers to leave the profession (Crute, 2004; Sumsion, 2003; Plash and Piotrowski, 2006; Brown, Ralph, and Brember, 2002; Reig, Paquette, and Chen, 2007).

While causes of occupational stress will not go away, school systems can examine sources of stress among certified employees in order to determine commonalities and differences in order to provide professional support which will meet the needs of all teaching professionals, regardless of their educational path and experience level.

Background of the Study

Teacher attrition historically has been a critical issue and continues to be one facing public school administrators in the 21st century. In colonial times, teachers were typically men who tutored the sons of wealthy families in the home, or who taught in schools which charged a fee. Most used this experience as a springboard to a more prestigious career in law or the ministry (Bradley, 2000). By the mid to late 1800's the growth of public schools, especially in cities opened doors for young women to teach. Teaching was considered to be a respectable job for a woman prior to marriage. By 1870, approximately two thirds of the nation's teachers were women, and by 1900 that number rose to about 75% (Bradley). Regulations prohibited married women from working; consequently there was a constant turnover of teachers. Poor pay deterred men from entering the field of education because industrial jobs provided better pay and more status. These two factors contributed to teacher shortages throughout the first half of the 1900's. By the 1950's rules were relaxed allowing married women to retain their jobs in

order to fill the increased need for teachers created by the post World War II baby boom (Bradley).

Today, it is still a challenge to keep teachers in public education. For example, Hare and Heap (2001) found that approximately 50 % of new teachers leave the profession within the first five years. The National Commission of Teaching and America's Future (NCTAF) report that 14 % of new teachers resign after just one year (Colgan, 2004) , and according to data gathered by Luekens, Lyter, and Fox (2004) a greater proportion of public school teachers left the profession in the 1999-2000 and 2000- 2001 school years than did between 1987 and 1992.

The cost to replace departing teachers is very expensive (Reese, 2004). According to Chicago's Association of Community Organizations for Reform Now, the average cost to replace a teacher is $64,000 (Reese). Using a U.S. Department of Labor formula, the Alliance for Excellent Education (2005) estimates the cost of replacing public school teachers who leave the profession at $2.2 billion dollars annually.

Reasons for leaving the teaching profession in the 21st century are similar to those of teachers over the past 100 years; poor pay, difficult working conditions and lack of public support (Bradley, 2000; Wilhelm, Dewhurst-Savellis, & Parker, 2000). One additional factor that contributes to teacher attrition is occupational stress. Individuals enter the profession with expectations of making a positive difference in the lives of children but are often unprepared for the demands of the job. Studies conducted from 1970 to 2007 focus on the causes of occupational stress in teaching and the impact of those identified stress factors on teachers and the educational process (Kyriacou, 2001). Stress factors commonly cited include excessive workloads, the demand of meeting

federal and state mandates, lack of communication with the leadership team, lack of resources, little input in decision making, maintaining effective relationships with students, parents and other teachers and discipline (Brown et al.; Alliance for Excellent Education 2005; Anhorn, 2008; Smethem and Adey, 2005; Barmby 2006) .

While workloads cannot typically be lessened, and resources are not always readily available, developing effective relationships among stakeholders and creating a sense of empowerment can mitigate stress factors rather than being a source of such stress. According to Chan (2002), work related demands cause pre-service teachers to experience physical and emotional symptoms of stress. Social support is found to mitigate the symptoms, indicating the importance of collegial relations for new teachers (Chan). Jepson and Forrest (2006) conducted research which suggests that teachers who are characterized as having a strong achievement orientation often perceive a greater degree of job stress. It is suggested that such information is vital in determining why teachers, facing similar work situations, react in differing ways. Other studies demonstrate the relationship between teacher personality traits and classroom success. Evers, Brouwers, and Tomic (2002) conducted a study of teachers required to implement a new instructional plan. They found that those teachers who are willing to learn and implement new techniques, have a higher degree of self- efficacy and fewer feelings of stress and consequently develop better proficiency in delivering innovative instructional models, than do teachers who are reluctant to give up their tried and true methods of direct instruction. Harris, Halpin, and Halpin (2001) researched the relationship between student control, degree of authoritarian behavior of the teacher and level of teacher stress experienced by teachers in Kansas, Michigan and Alabama. They conclude that teachers

who embrace a more authoritarian style of classroom management exhibit higher levels of stress than do teachers who use a more humanistic approach with students. Yoon (2002) conducted a study which illustrates the relationship between teacher stress and student relationships. Higher levels of stress cause teachers to develop poor relationships with students who exhibit negative behaviors, which in turn may affect the performance level of those students.

Work related stress may become so burdensome that it can prevent teachers from carrying out their job responsibilities, reducing job effectiveness. Increased levels of stress may result in anxiety, avoidance behaviors and increased absenteeism. Stress related illnesses have been cited as a reason for teachers taking early retirement (Harris, Halpin, & Halpin, 2001). Kelly and Colquhoun (2005) suggest that it is the responsibility of school systems to provide institutional support to assist employees in managing work stress in order to ensure effective operations of schools.

Statement of the Problem

Teacher attrition is a serious issue facing school administrators today. In order to implement effective educational programs, schools need experienced teachers who are equipped to deal with such challenges. In response to increased work demands, and the challenge of educating a diverse student population, many teachers are leaving the field of education, citing factors which cause stress such as inadequate salaries, work overload, curriculum concerns stemming from federal, state and local mandates, lack of shared decision making and unsatisfactory relationships with stakeholders.

Lack of experience and training, low pay and difficult working conditions, combined with stressors that are inherent in the teaching profession may cause teachers to

perceive significant feelings of stress, which in turn may render them less effective in the classroom, or cause them to leave the teaching profession. Although the literature addresses stress factors in general, it is less known what stress factors are related to gender, grade level taught or years of experience. Therefore, the purpose of this study is to identify the occupational stress factors of teachers based on gender, grade level and work experience to determine similarities and differences in stress factors.

Research Questions

This study will address the following overarching research question: To what degree do teachers experience occupational stress? The following sub questions will also be considered:

1: What is the relationship between occupational stress of teachers and years of teaching experience?

2: To what degree does the level of occupational stress of teachers vary based on grade level taught?

3. To what degree does the level of occupational stress vary based on gender?

Significance of the Study

The issue of occupational stress does not just affect individual teachers, but also impacts the efficient management of school systems. Job related stress causes ineffectiveness in job performance characterized by unsatisfactory relationships with students, an unwillingness to implement new instructional strategies, higher rates of absenteeism and resignation of teaching positions. This researcher seeks to compare the stress factors experienced by teachers to determine if there is a link between gender, grade level taught, years of teaching experience and teacher perceptions of the work

factors that contribute to stress. Understanding the specific factors that cause work-related stress among each group of certified teachers will provide appropriate direction in planning future professional development and induction programs to best meet the needs of all teachers.

The researcher hopes to gain a better understanding of the different stressors that affect teachers, in hopes that school and system administrators will take a proactive approach in providing support to teachers. Often the unofficial task of supporting and mentoring new teachers falls to veteran educators, who in turn, increase their workloads by providing assistance to inexperienced colleagues. Mentoring and collaboration play an important role in the success of a school, however, school administrators must be cognizant of variations in the degree of job stressors among all teachers and the effect that may have on a teacher's ability to carry out the required job functions.

Procedures

Research Design

A causal- comparative research design was used for this study. Causal - comparative research designs are typically used when cause and effect relationships between a categorical independent variable and one or more dependent variables are analyzed. Unlike experimental research however, the independent variable is not manipulated (Gay & Airasian, 2003). Studying naturally occurring groups who differ in terms of the grade level taught and gender will provide the opportunity to determine whether these groups also differ in type and degree of occupational stress. The key advantage of a causal – comparative design is that it allows the researcher to explore

causal relationships in situations that are not suited to experimental designs. One primary disadvantage of causal – comparative designs is that participants are not randomly assigned to groups, rather the groups were already pre- established, and therefore it is possible that extraneous variables may account for variation across groups (Gay & Airasian).

Correlation research is useful in determining whether and to what degree a relationship exists between two or more variables. A correlation study was utilized to examine whether a relationship exists between occupational stress and the years of teaching experience.

Population

This study compared stress factors among teachers based on years of teaching experience, gender and grade level taught. The target population of participants was teachers who are employed in a school district in the south.

Instrumentation

After being granted permission to gather data, a survey instrument was administered to certified teachers employed by a school district in the south during regularly scheduled school faculty meetings The survey instrument used in this study was comprised of questions taken from two sources: The Schools and Staffing Survey which is administered through The National Center for Educational Statistics and The Teacher Stress inventory developed by Michael Fimian.. The 25 item survey addressing teacher stress was completed by individual teachers using a four point Likert scale.

Data Analysis

Descriptive and inferential statistics were used to analyze survey data using SPSS

Statistical software. The data was reported in both a text and tabular format.

Delimitations of the Study

This study was delimited to teachers who are employed by a school system in the state of Georgia and who have been either provisionally or fully certified to teach in the state of Georgia.

Summary

Occupational stress can cause physical, mental and emotional manifestations that contribute to teachers making the decision to leave the teaching profession (Crute, 2004). Stress, as well as other factors such as increased accountability, heavy workloads, challenging student populations and normal attrition due to retirement has created teacher shortages (Brown, Ralph, & Brember, 2002). A survey will be administered to the teachers of a school system in Georgia to determine if there is a difference in stress factors among teachers based on gender, years of teaching experience and grade level taught. Analysis of stress factors among teachers may provide direction for future induction and professional development programs.

CHAPTER II

REVIEW OF THE RESEARCH AND RELATED LITERATURE

INTRODUCTION

The daily regimen of teaching is a challenge. Teachers must produce lesson plans that address mandated educational standards, participate in a myriad of other school wide duties and responsibilities and effectively communicate with parents, students, colleagues and site level administrators. While research suggests that there are many factors which contribute to dissatisfaction with teaching, the key factors which are the focus of this study include low levels of pay, heavy workload, curricular concerns, discipline issues, unsatisfactory relationships with students and parents, lack of collegiality among teachers, limited opportunities for shared decision making and professional development ((Butt et al. 2005; Travers and Cooper, 1996; Pithers and Sodon, 1999). When the dissatisfaction outweighs the reward of teaching, many educators leave the field, creating shortages that can not always be filled by qualified educators.

Workload and Resources

Teachers must master multitasking to juggle all of the varied demands that accompany their jobs. Creating lesson plans, grading assignments, attending school wide meetings, conferencing with parents and sponsoring extra curricular clubs and athletics mean that teachers frequently must use time outside of the prescribed work day to complete required tasks.

According to Smethem and Adey (2005) new teachers who were part of a research study cited huge workloads that did not allow them time to experiment with differentiating instruction in an effort to improve the quality of their instructional

methods and that took a toll on their personal lives. All of the interviewed teachers expected to bring work home each evening, and most worked one day of each weekend. In an extreme case, one teacher indicated she had spent eight hours of Christmas Day grading papers. Teachers were concerned about developing strong relationships with their pupils and being equipped to effectively manage the classroom.

Anhorn (2008) conducted a qualitative study of first year teachers employed in central and western North Dakota to determine issues of concern in an attempt to provide recommendations that would help decrease the attrition rate of new teachers. Interview participants indicated time spent on required extracurricular assignments, committee membership and meetings left little time during the school day for instructional planning and grading work. Consequently, new teachers reported they were often the last to leave the school building at the end of the day and frequently brought work home to complete on their personal time. Respondents in a study conducted by Barmby (2006) cited excessive workload as not only a reason to not enter the teaching profession, but in response to a question regarding whether they were considering leaving the teaching profession within the next ten years, approximately 27 percent indicated they were considering leaving citing workload, and stress as two of the top four reasons. Surveyed teachers were additionally asked to identify factors which would help to improve teacher retention. Reduction of workload was among the top four of 21 responses (Barmby, 2006).

While a lighter workload would help decrease the feeling of being stressed, increased academic demands make it seem unlikely that teachers will see a reprieve in volume of required work. Teachers may need to seek ways to address the inevitable

stress they encounter due to extreme workloads rather than just wish the stress away. Austin, Shah, and Muncer (2005) examined the causes of work place stress among high school teachers, and further considered the coping strategies teachers use to reduce stress. Among the 50 survey respondents, frequently identified causes of stress were work related issues such as excessive workload, preparation, and hours worked outside of school. While purposeful problem solving was identified as a positive coping strategy used most frequently to deal with stress, results of the study could not ascertain whether this worked to reduce stress levels. Non effective coping strategies such as escape avoidance, accepting responsibility and aggressive activities such as throwing things had negative implications, as all were used by more highly stressed teachers yet none of these strategies appeared to help reduce stress.

Special Education teachers face additional pressure as they serve students who receive a broad range of services to address diverse educational needs, all under the scrutiny of local and federal government agencies. Billingsley, Carlson, and Klein (2004) sought to examine the working environment of early career special education teachers, focusing on the workplace conditions and induction support provided. The survey responses of about 1150 early career special education teachers nationwide indicated that limited access to necessary materials and excessive paperwork that interfered with teaching were causes of stress.

Curriculum Concerns

Governmental reforms in education have been introduced to counter concerns that students are leaving school ill prepared to enter the workplace. Rather than working in partnership with teachers to enact curricular changes, mandates are imposed, causing

experienced teachers as well as novices to endure performance anxiety when implementing new curriculum initiatives. Surveyed primary and secondary teachers suggested that the Educational reform act of 1998 dictated changes in the curriculum that were not accompanied by sufficient professional development, adequate funding, and a reasonable time frame in which to implement the changes (Brown et al ., 2002).

Curriculum changes have been accompanied by increased testing. In order to document academic improvement, greater numbers of norm and criterion referenced tests are being administered to students. Because many educators believe test results are a reflection of their teaching ability, the emphasis to improve upon prior years' test scores and to outperform other schools and school districts can cause undue stress, particularly to novice teachers (Reig, Paquette and Chen, 2007).

Hargrove, Bradford, Huber, Corrigan, and Moore (2004) suggested that educational reform movements would meet with greater acceptance and success if classroom teachers were afforded respect and trust to implement required changes. Hargrove et al. (2004) theorized that reform mandates are often the result of a lack of trust in the classroom teacher's ability to carry out the demands of his or her job. Affording teachers respect to perform as professionals may cause less anxiety over implementing reform initiatives and empower teachers to utilize a greater variety of instructional strategies while implementing such changes.

Relationships with Parents

Developing a rapport with parents is an integral part of creating a positive learning environment. Fostering good communication with parents requires time at the beginning of the school year to initiate contact, answering questions regarding academic

and behavioral expectations. Maintaining those relationships throughout the course of the school year can be equally difficult. According to Reig, Paquette, and Chen (2007) novice elementary school teachers cited parent interactions as a significant cause of stress. Teachers indicated that the time spent dealing with parents both at school open houses and via phone calls left them with less than adequate time for lesson planning and preparation.

As stressful as it may be to take the time to establish a relationship between the school and home, ignoring the relationship can create even greater stress. Westergard (2007) conducted a study to investigate whether teachers recognize complaints from parents, and if there is a relationship between teachers' perceptions of complaints from parents and teacher stress. Teachers and parents of students aged nine to sixteen enrolled in 20 schools in nine different municipalities were surveyed. Parents responded to questions regarding their disillusionment with schools, and teachers completed a questionnaire regarding their perception of parental complaints. According to Westergard, teachers' and parents' perspectives and priorities are different which can cause unproductive relationships to develop. Parents advocate for their children, and in communicating with teachers may appear single minded in pursuing the best educational outcome for their child. Teachers must balance the needs of all students, prioritizing instruction to ensure the best educational outcome for the class as a whole. When the priorities of the teacher and a parent do not match, it can cause conflict and stress for both parties

Student Discipline and Motivation

Teachers are held accountable at the system, state and federal level for students to achieve academic mastery. Despite the greatest effort on the part of the teacher, if students are not motivated to succeed and create disturbances in the classroom, not only do they prevent themselves from being successful, but they also create an environment in which other students are unable to learn. Liu and Meyer (2005) analyzed data from the National Center for Education Statistics Schools and Staffing Survey and Teacher Follow up Survey regarding teachers' perceptions of their jobs. Liu and Meyer specifically sought to examine the reasons teachers choose to stay in their positions, move to different positions or leave the profession entirely. A leading cause of teacher dissatisfaction second only to low pay, was concern regarding student discipline. The researchers also examined differences in job satisfaction between private and public school teachers. The data suggested that despite receiving lower pay, private school teachers were more satisfied with their jobs. Liu and Meyer theorized that private schools typically have fewer and less severe student discipline issues. Private schools are able to screen students during the admission process and have the ability to expel troublesome students. Better communication typically exists between parents and the school thus addressing student behavior issues more quickly. In contrast, inner city public schools that often have significant student behavior problems experience high teacher turnover despite the fact that such schools often offer higher salaries than do other school districts.

While discipline issues can be challenging to veteran teachers, they are often overwhelming to new hires that lack the experience in managing difficult behaviors. Gold and Batchelor (2001) sought to examine the issues that cause novice teachers to

experience burnout; a stress related syndrome that may include physical and emotional exhaustion, negative self concept and attitude. The researchers conducted a study to determine if factors such as age, sex, marital status and grade level taught were determinants in causing burnout among student teachers. Gold and Batchelor (2001) also examined the role teacher education programs play in mitigating or increasing perceived feelings of stress which can lead to burnout. This study found no relationship between sex, marital status or grade level taught and perceived feelings of stress. The study did suggest that student teachers who did not feel their teacher education courses had adequately prepared them for the rigors of the classroom in general and had not prepared them to effectively manage discipline issues reported greater levels of burnout than did those respondents who felt well prepared as they embarked on their practicum experience. Similarly, respondents who felt well prepared reported greater personal accomplishment than did those student teachers who perceived they were inadequately prepared to handle the rigors of the classroom (Gold & Batchelor, 2001) .

Brown, Ralph, and Brember (2002) conducted qualitative research involving 100 teachers to determine the sources of stress for primary and secondary school teachers. Dealing with escalating student problems, poor motivation and a lack of discipline in the classroom were cited as daily factors that contributed toward feelings of stress.

It is not always disruptive student behavior that causes increased levels of stress in teachers, but rather the interaction between both students and teachers. Geving (2007) sought to determine which types of student behavior caused teacher stress and which types of teacher behaviors evoked unacceptable student behaviors. A qualitative study was conducted analyzing data from two separate surveys; one regarding stressful student

behaviors and one regarding stress provoking teacher behaviors. The data was combined to form an analysis of the interaction of each set of behaviors. The data suggested that while certain student behaviors such as hostility toward others, mistreatment of school property, noisiness and breaking school rules did create stress, the greatest predictor of teacher stress emanated from a lack of effort on the part of students. Geving suggested that teachers may feel powerless to compel students to come to class prepared and to put forth effort in the learning process. Lacking the control over environmental issues can cause greater feelings of stress. According to Geving, teachers often base their self efficacy on the performance of their students; therefore unmotivated students who do not meet expected performance goals could cause feelings of stress in the teacher.

Developing positive relationships with students is a vital step in creating a supportive classroom environment which will motivate students to succeed and serve to decrease or eliminate many classroom disturbances. Yoon (2002) investigated the relationship between teacher stress and student –teacher relationships and suggests that cyclical patterns develop when teachers become stressed due to unacceptable student behavior, and provide mostly negative feedback to those specific students. The students continue to demonstrate inappropriate behavior which in turn continues to create classroom disturbances and cause teachers to experience additional stress.

Teaching style also plays a role in creating classroom climate and can impact the degree of stress perceived by teachers. Harris, Halpin, and Halpin (2001) examined the relationship between pupil control orientation and teacher stress. Pupil control orientation or classroom management style can range from authoritarian to humanistic. Harris et al. (2001) characterize authoritarian type teachers as those who emphasize maintaining

order, utilize a direct style of instruction with little interaction encouraged between teacher and students, exhibit a distrust of and display a punitive attitude toward students. In contrast, humanistic teachers are considered trusting and accepting of students' abilities to be responsible in regard to their learning. Harris et al. (2001) suggest that teachers with a stronger authoritarian style experience greater stress than do more humanistic teachers when managing group instruction. Because authoritarian teachers are more comfortable in highly structured settings, planning learning activities to meet a diverse range of learners and allowing students to be more active learners is more stress producing than it is for humanistic teachers who may favor a more interactive style of instruction.

The teachers in a study conducted by Smethem and Adey (2005) were concerned about developing strong relationships with their pupils and being equipped to effectively manage the classroom. Giving students some autonomy in their learning may help to foster more positive interactions as the students feel they have input in the learning process. When discipline issues do occur, teachers need to feel they are supported by school administrators. Survey respondents suggest that a perceived lack of administrative support with discipline exacerbates the issue of discipline and serves to increase stress caused by unacceptable student behaviors (Barmby, 2006).

Salary

Individuals do not enter the field of education to become rich. It is commonly accepted that teacher salaries are less than those of professionals in business and industry, however insufficient financial compensation in conjunction with other job concerns can leave teachers feeling stressed. Frederick Herzberg introduced a two factor theory in

1959 to explain the role salary plays in job satisfaction. According to the Motivation – Hygiene theory, a large salary is not a key determinant of job satisfaction; other more intrinsic factors such as opportunities for achievement, recognition for a job well done, the work itself, being able to assume responsibilities, and being provided with advancement and growth opportunities determine a sense of connection with the work. A low salary can however be a source of job dissatisfaction. In order for workers to perform more efficiently, they must believe they are at least being paid a fair wage for their effort (Owens, 2004). Several studies suggest that salary concerns are one of many issues that contribute to work related stress in teaching. The National Commission on Teaching and America's Future suggested that a key reason that teachers leave the field of education is low pay (Leimann, Murdock, & Waller, 2008). Barmby (2006) conducted a study examining the issue of recruitment and retention of English, math and science teachers. These subjects are considered high priority and often face teacher shortages. Two Hundred forty six teachers who taught these subjects in England and Wales were surveyed to examine the reasons for choosing to enter, not enter or leave the teaching profession. All of the teachers surveyed had two years or less of teaching experience. Salary concerns, along with excessive workload and student behavior were the most common factors respondents cited for dissuading them from entering teaching. Wilhelm, Dewhurst-Savellis and Parker (2000) conducted a fifteen year longitudinal study between 1979 and 1994 and sought to identify the reasons teachers chose to remain in the profession or to leave. Of the 156 participants who completed the study, 70 (45%) individuals left the teaching field, and 52 (74%) resigned within the first five years.

Wilhelm et al. (2000) found that those who chose to leave teaching did so for a variety of reasons including financial concerns.

Collegiality

Job related stress occurs not only due to excessive workloads, less than satisfactory financial compensation and concerns related to student behavior, but also due to inadequate relationships with colleagues and administrators. Schlichte, Yssel, and Merbler (2005) sought to identify the degree of collegial and administrative support and related stress factors experienced by first year special education teachers. Using data obtained from a qualitative study, the researchers determined that limited or poor relationships with other school professionals lead to feelings of isolationism that in turn cause novice teachers to leave the profession. Opportunities to network with other teaching professionals, continual interaction with teachers at the building level, an effective mentoring system, and consistent administrative support were identified as protective factors that help to alleviate workplace stressors (Schlichte et al.)

In a study of primary and secondary teachers, Brown et al. (2002) suggested that breakdowns in working relations among teachers create dissatisfaction in the workplace and may lead to poor organizational health. Teachers who participated in the study specifically cited poor communication and interpersonal relations with colleagues, uneven distributions of workloads, lack of a sense of community and insufficient support of new staff members as direct causes of stress. Study participants cited not only concerns between teachers, but also poor relationships between teachers and administrators (Brown et al.)

While limited communication among staff members can inhibit effectiveness in a school, developing strong interpersonal relationships among peers can serve as a protective factor in reducing stress. Chan (2002) conducted a study and sought to determine the impact self-efficacy and social support played in reducing the degree of occupational stress of pre-service and new teachers. According to Chan, the issue of teacher stress gained attention in the late 1990's due to the introduction of several governmental based educational reforms. Upon completion of a four week student teaching experience, 83 pre-service teachers completed questionnaires assessing sources of teacher stress, perceived degree of self efficacy, perceived social support from family and friends, and experience of psychological symptoms. Results suggest that while self efficacy could be a protective factor that reduces feelings of workplace stress, social support is a greater moderator in alleviating the symptoms of work related stress. Chan concluded that social support in schools played an important role in reducing the negative effects of stress experienced by teachers

New teachers have the same achievement requirements to fulfill as do veteran educators, but do not have the same experience to manage the day to day stressors related to the position. Smethem and Adey (2005) conducted a qualitative study comparing the experiences of new teachers who had the benefit of a mandated induction program which was begun in 1999, with those who began teaching prior to the inception of the support program. Teachers in both groups cited similar work concerns, but their confidence in their ability to be successful varied based upon the degree of administrative support they received. Both groups of teachers were worried about the performance of their students on mandated tests. The emphasis on school improvement and increased standards caused

the teachers to worry about professional repercussions if student performance failed to match expectations (Smethem & Adey).

Differences occurred between the two groups in their perceived relationships with colleagues. Those teachers who benefited from the mandated induction program were provided a mentor who was a senior level administrator, were allowed the opportunity to observe several veteran teachers, as well as being observed several times themselves, and took part in professional review meetings. In contrast, the teachers who did not have access to such a program had inconsistent support which varied from school to school (Smethem & Adey, 2005). The teachers taking part in the formal induction program expressed greater ease in eliciting help from more experienced colleagues, implementing new instructional strategies, and developing greater feelings of competence due to opportunities afforded them to observe others, receive feedback and reflect on their professional development (Smethem & Adey) .

Anhorn (2008) underscored feelings of isolation that many teachers face. Alone in a closed classroom with students all day, study participants indicated there were few opportunities to interact with more experienced colleagues on an informal basis. Coupled with a reluctance to ask questions of veteran teachers or administrators for fear of appearing incompetent or unprepared, many new teachers often give up and leave rather than seek out assistance that would enable them to gain competence in their positions (Anhorn).

Kelly and Colquhoun (2005) and Griffith, Steptoe, and Cropley (1999) researched the role social support can play in reducing the effect of stressors and their impact on job satisfaction. A survey of 780 primary and secondary school teachers

indicate that a lack of social support at work caused teachers to cope by disengaging themselves from the workplace.

Wilhelm, Dewhurst-Savellis and Parker (2000) conducted a fifteen year longitudinal study between 1979 and 1994, and sought to identify the reasons teachers chose to remain in the profession or to leave. Of the 156 participants who completed the study, 70 (45%) individuals left the teaching field, and 52 (74%) resigned within the first five years. The authors found through analysis of surveys and anecdotal evidence that many teachers who remained in the profession had a strong social network at their school, support from administrators and positive feedback from students.

Billingsley et al. (2004) found in a national survey of early career special education teachers that feelings of not being included in their schools and dealing with principals who did not understand what they do contributed to job dissatisfaction and stress. While 61 percent of those surveyed participated in formal mentoring programs, many did not find them useful, partly because they were geared to general education teachers, and did not address concerns specific to special education. Informal support provided by other teachers in the school was thought to be more beneficial.

Empowerment

Teacher empowerment, allowing educators the opportunity to share in the educational decision making process, may be a predictor of job satisfaction (Hoy & Miskel, 2001). According to Marks and Louis (1997), studies on teacher empowerment suggest that empowerment increases teacher self esteem and job satisfaction, improves job productivity fosters collegiality among staff members and increases teachers' content area knowledge. Research conducted by Barmby (2006) indicates that child oriented

motivations and intrinsic rewards are more important than extrinsic rewards and job flexibility in the decision to enter the field of education. Approximately 97 percent of teachers surveyed indicated helping children succeed was the top reason for teaching, while about 91 percent cited sharing knowledge with children and approximately 95 percent suggested having job satisfaction and being involved in mentally stimulating work were key reasons for teaching (Barmby).

Zembylas and Papanastasiou (2005) examined the relationship between teacher job satisfaction and empowerment among 449 teachers and suggest that professional growth, status, decision making opportunities and promotion potential are key determinants in the correlation between empowerment and job satisfaction. Teachers who were satisfied with professional growth opportunities afforded to them believed that they were asked to provide input based on their expertise, which in turn increased their perceived status among co workers and contributed to a stronger sense of empowerment.

Inman and Marlow (2004) surveyed beginning teachers, those with ten years or less of experience, to examine current attitudes about the teaching profession, and to identify perceived positive attributes of teaching which may encourage better teacher retention. The researchers administered the Professional Attitude Survey to a random sample of 500 teachers in the state of Georgia. The ten item survey measures responses to questions regarding teacher background, job satisfaction and reasons for remaining in the teaching profession (Inman & Marlow). Job satisfaction was analyzed based on a combination of extrinsic factors, employment factors and expected professional prestige. Professional prestige was identified as worse than expected by approximately 52 percent of those surveyed. Many factors contributed to this perception including the manner in

which education is portrayed in the media, a perceived lack of support from parents and other community stakeholders, and a lack of autonomy within the school setting. Professionals in private industry are usually afforded the opportunity to organize their time, be self directed in their work and participate in the decision making process. In a school setting however, teaching professionals frequently must sign in and or out of the workplace, are assigned to duties with little input, and have little time to confer with colleagues (Inman & Marlow, 2004).

Kelly and Colquhoun (2005) analyzed the responsibility the school system administration bears in helping teachers maintain emotional, physical and mental health. School systems respond to changes in educational policies set forth by governmental agencies by restructuring curriculum and teaching practices. The process of implementing such changes often induces greater feelings of stress among teaching professionals. While school administrators can not eliminate the causes of workplace stress, Kelly and Colquhoun raised the question of what responsibility school administrators have in helping teachers develop greater self efficacy. The more empowered teachers are in the workplace, the better able they should be to manage the stressors of the workplace, and in turn contribute to greater school wide effectiveness. The researchers suggested school based administrators should provide opportunities for teachers to come together in small teams to work together develop positive interactions and build self esteem among employees (Kelly & Colquhoun).

According to Evans (2003) the management style embraced by school administrators and department heads is a predictor of degree of stress among site staff members. Based on an inquiry of the effectiveness of various leadership styles, teachers

working in ambiguous or autocratic environments perceived higher levels of stress than did those teachers who enjoy collegial relations with administrators. Ambiguous environments were characterized as being disorganized with a high degree of conflict. Teachers were unsure of their role within the school and department while those in authority did not effectively facilitate the decision making process; consequently, little was accomplished. At the other end of the spectrum, autocratic environments were considered equally stressful. Teachers working in such departments or schools felt undervalued, as though their opinions were of no consequence. In contrast to these findings, Evans indicated that teachers who work in a more collegial or subjective environment believe their opinions matter, and therefore perceived their stress levels to be lower. Evans suggested that subjective environments focus on the wellbeing and beliefs of teachers, while collegial settings encourage the collaboration among and empowerment of employees to achieve desired goals.

Teacher empowerment may also help mitigate stress caused by not only the work environment but also due to individual characteristics. Jepson and Forrest (2006) conducted research to identify the role that individual factors contribute to work related stress. Factors examined included length of teacher service, grade level taught and achievement orientation, which the researchers defined as the "tendency to work hard to achieve goals "(Jepson & Forrest, p. 187). The results of their study suggest that length of service and grade level were not strong predictors of job stress, however there is a correlation between achievement striving and stress. Teachers who have a strong achievement orientation and high degree of occupational commitment often perceive a greater degree of job stress when confronted by situations or environmental stressors

which they have no control over. It is suggested that such information is vital in determining why teachers, facing similar work situations, react in differing ways. Understanding the differing ways individuals react to stressful situations has implications for human resource managers in job selection and position allocation. Such information is also useful in ensuring that adequate support is provided to teachers based upon individual characteristics and needs (Jepson & Forrest, 2006).

According to a study done by Evers, Brouwers, and Tomic (2002) teachers' self efficacy beliefs are related to their level of stress and also determine the degree to which they are willing to implement new instructional strategies. The researchers surveyed approximately 500 secondary teachers who were in the midst of implementing a new and innovative study home instructional program. The researchers sought to determine the role self efficacy played in the reduction of teacher stress and in turn the successful implementation of the new program. Because of a rapid program implementation, in service training and instruction were very limited, yet teachers were expected to incorporate new and differentiated teaching strategies with little support. Evers, Brouwers, and Tomic (2002) indicate that those teachers with a high degree of self efficacy were more willing and able to embrace a new instructional method and did so with less degree of stress than did those teachers with a lower degree of self efficacy.

This study also highlighted the importance of collaboration within the workplace. According to Evers, Brouwers, and Tomic (2002) teachers who did not embrace the program changes may have demonstrated greater negativity due to a lack of collaborative planning. The required changes were seen as an administrative mandate, and teachers who were not comfortable varying their teaching style were more resistant to the

implementation, and either experienced greater stress due to the required changes, or avoided such stress by not introducing the innovation when behind the closed doors of the classroom.

Resiliency, or the ability to adapt to changing situations, is an important attribute for teachers to possess. Managing student behavior and adjusting planned lessons to meet the needs of the class requires flexibility. Patterson, Collins, and Abbott (2004) sought to identify the attributes of resiliency present among successful urban school teachers and administrators. Through a qualitative study, the researchers compiled a list of commonly employed strategies that enabled the educational professionals to produce high levels of student achievement despite adverse economic and environmental conditions. According to Patterson et al. (2004) commonalities that support resiliency include teachers placing a high priority on professional development, and seeking ways to obtain additional learning. The teachers surveyed identified themselves as problem solvers who were interested in exploring new instructional methods to better support student learning, and who also consistently sought and provided mentoring to other teachers. Research participants also stressed the importance of garnering intellectual and emotional support from colleagues and friends.

Hargrove, Bradford, Huber, Corrigan, and Moore (2004) suggested that educational reform movements would meet with greater acceptance and success if classroom teachers were afforded respect and trust to implement required changes, which in turn would reduce teacher stress. Hargrove et al. theorized that reform mandates are often the result of a lack of trust in the classroom teacher's ability to carry out the demands of his or her job. Affording teachers respect to perform as professionals may

cause less anxiety over implementing reform initiatives and empower teachers to utilize a greater variety of instructional strategies while implementing such changes.

Teacher Attrition Issues

The school based concerns which cause teacher stress; work related stressors, professional distress, student discipline and motivation and professional investment can become so unmanageable that teachers leave the profession. Along with normal attrition from teacher retirement, the nation's schools are faced with a retention crisis. Hare and Heap (2001) found that approximately 50 % of new teachers leave the profession within the first five years. The National Commission of Teaching and America's Future (NCTAF) report that 14 % of new teachers resign after just one year (Colgan, 2004) , and according to data gathered by Luekens, Lyter, and Fox (2004) a greater proportion of public school teachers left the profession in the 1999-2000 and 2000- 2001 school years than did between 1987 and 1992. A 2003 survey published by the National Education Association indicated that 30 percent of suburban teachers and 50 percent of urban teachers will leave within three years of entering the teaching profession (Patton, 2007). In order to meet increasing student enrollments and to replace departing teachers, staffing needs in U.S. public schools is approximately 1.7 to 2.7 million teachers (Patton, 2007). The need for special education teachers continues to rise as well. It is estimated that there will be a need for over 600,000 special education teachers by the year 2010; however the annual attrition is approximately thirteen percent, with about six percent of special education teachers leaving the field completely, and about seven percent transferring to general education positions (Plash & Piotrowski, 2006). The cost to replace departing teachers is very expensive (Reese, 2004). According to Chicago's

Association of Community Organizations for Reform Now, the average cost to replace a teacher is $64,000 (Reese). Using a U.S. Department of Labor formula, the Alliance for Excellent Education (2005) estimates the cost of replacing public school teachers who leave the profession at $2.2 billion dollars annually.

Not calculated into this equation is the cost of replacing teachers who are "voluntary movers"; individuals who typically have entered teaching as a career change and are willing to take the initiative to leave unsatisfying teaching positions to find jobs in schools that provide a more positive work environment (Johnson & Birkeland, 2003). The authors cite cases of teachers who, dissatisfied with a lack of collaboration, unsatisfactory school culture and ineffective leadership styles, sought and obtained positions in schools that better met their needs and expectations. While this transition does not impact district wide retention, it does create gaps within the schools that experience frequent teacher turnover. Johnson and Birkeland suggest that many study participants indicated a desire to leave schools in impoverished areas, not because of difficulty in dealing with the students, but rather to seek improved working conditions. Difficulties cited included teaching subjects out of field, managing unreasonable workloads, lacking administrative support in discipline issues and lacking a sense of collegiality among staff members.

Ingersoll (2001) conducted an analysis of the issue of teacher shortages and concluded that it is neither a result of an increase in the student population nor due to a vast number of teachers reaching retirement age, but rather is a result of teacher dissatisfaction caused by both individual teacher characteristics and institutional deficiencies. Individual factors which account for turnover include subject area taught

and years of teaching experience. Using data from the National Council of Educational Statistics' School and Staff Survey, Ingersoll suggested that special education, math and science are fields that have traditionally encountered high levels of turnover. Another finding from this data indicates that the decision to leave the teaching profession also relates to age or experience. Younger or less experienced teachers have a high rate of attrition, which tends to decline for teachers who reach the midpoint of their careers. The level then rises again as teachers approach retirement age (Ingersoll). Institutional causes of attrition include lack of administrative support, student discipline problems, lack of shared decision making and low salary (Ingersoll).

Teacher attrition creates not only a financial burden, but also impacts educational achievement. High turnover can be an indicator of an underlying problem in the day to day operations of a school, and can disrupt the effectiveness of school performance (Ingersoll, 2001).

Summary

In this chapter, the researcher has presented a review of the literature pertaining to teacher stress due to the following sources: (a) salary, (b) workload and resources, (c) curricular concerns, (d) relationships with parents, (e) student discipline and motivation, (f) collegiality, and (g) empowerment.

The review of the literature has shown that stress not only impacts individual teachers, but also affects the efficient operation of the school. Teachers who experience stress due to extrinsic factors such as low salary or excessive workload must find coping strategies or see the benefit of intrinsic factors of teaching to offset the causes of stress. Developing positive relationships with parents, teachers and administrators can provide a

sense of community that not only encourages excellence in teaching but also helps to mitigate the feelings of stress. Alternatively, a limited sense of collegiality among colleagues, and unsatisfactory relationships with parents and students can contribute to further job dissatisfaction and stress. Feeling empowered in the workplace may provide the needed sense of purpose and value that can also alleviate the stressors of the job, or at least make teacher contributions seem to outweigh the negative aspects of the work.

The cited causes of work stress are often the reasons given by teachers for either leaving their current positions in favor of other teaching assignments, or leaving the field of education altogether. Research has shown that it is very costly to replace such teachers and there is not an unlimited supply of qualified teachers to serve as replacements. .

While there has been a great deal of research conducted on work related stress among teachers, there has been little focus on the relationship between work experience and degree of teacher stress, and possible differences in stress based on gender and grade level taught. Understanding the issues that create stress for each category of teacher may provide information that will be useful for school systems when considering professional development opportunities, induction or mentoring programs for teachers.

CHAPTER III

METHODS

INTRODUCTION

Educational professionals today face a variety of challenges that test them mentally, emotionally and physically. In addition to the problems of poor pay and lack of recognition by the public, teachers now face increased accountability due to high stakes testing at the local, state and federal level. Educators also must balance the need to complete required tasks associated with the daily routine with the ability to foster productive relationships with stakeholders and colleagues (Hargrove, Bradford, Huber, Corrigan, & Moore, 2004). The resulting pressures from these demands are causing higher levels of stress in teachers which can manifest itself in a variety of emotional and physical ways, which in many cases cause teachers to leave the profession (Crute, 2004). While causes of occupational stress will not go away, school systems can examine sources of stress among certified employees in order to determine commonalities and differences in order to provide professional support which will meet the needs of all teaching professionals, regardless of their educational path and experience level.

Research Questions

This study addressed the following overarching research question: To what degree do teachers experience occupational stress? The following sub questions were also considered:

1: To what degree does the level of occupational stress of teachers vary based on years of teaching experience?

2: To what degree does the level of occupational stress of teachers vary based on grade level taught?

3: To what degree does the level of occupational stress of teachers vary based on gender?

Research Design

A causal- comparative research design was used for this descriptive quantitative study. Causal -comparative research designs are typically used when cause and effect relationships between a categorical independent variable and one or more dependent variables are analyzed. Unlike experimental research however, the independent variable is not manipulated (Gay & Airasian, 2003). The independent variables were gender and grade level, which was defined as elementary, middle or high school. Studying naturally occurring groups who differ in terms of the grade level of students taught, and gender provided the opportunity to determine whether these groups also differed in type and degree of occupational stress. The key advantage of a causal – comparative design was that it allowed the researcher to explore causal relationships in situations that are not suited to experimental designs. One primary disadvantage of causal – comparative designs was that participants were not randomly assigned to groups, rather the groups were already pre- established, and therefore it is possible that extraneous variables may have accounted for variation across groups (Gay and Airasian).

Population

"Alpha" is a school district in the Southeastern region of the United States. In 2009, 12, 759 students were enrolled in nine elementary schools, four middle schools and two high schools within this district (First District RESA, 2010). Of those enrolled,

approximately 49 % qualified for free and or reduced lunch. Approximately 54% of the students are Caucasian, 36 % black, 7% Hispanic, 1 % Asian, 1% multi racial and less than 1 % Native American. The population for this study was the approximately 1000 certified teachers employed by the district, 18 % of whom are male and 82 % of whom are female. Approximately 15 % are black and 85 % are Caucasian (Georgia Department of Education, 2007).

Sample

Based on demographic information obtained from the surveys, a random sampling procedure was employed among teachers who are employed at elementary, middle and high schools (De Vaus, 2002). Based on a population of 1000 teachers, an adequate sample size of 238 provided a confidence interval of 5 % with a confidence level of 95 % (National Statistical Service, 2008).

Instrumentation

The survey instrument used in this study was developed using questions from The Schools and Staffing Survey (SASS), (National Center for Educational Statistics, 2007) and the Teacher Stress Inventory (Fimian, 2000). The original survey instrument utilized questions derived from three sources; the SASS, A Work Related Stress Survey (Association of Colleges and Trade Unions of the National Joint Forum, 2009) and a survey created by the Staffordshire County Council.

A field test of the survey was administered in January 2011 to determine if the survey directions and questions were understandable, and to determine if the survey could be completed in a timely manner. Validity and reliability of the survey items were examined as well. The survey instrument was administered to 25 elementary, middle and

high school teachers, for a combined total of 75 participants. According to De Vaus (2004) too few respondents may yield unreliable results due to non response and variation; therefore an adequate pilot test consists of between 75 and 100 participants.

The survey instrument consisted of a total of 24 questions; 21 Likert scale items related to occupational stress factors and three demographic items. The item scores ranged from a one strongly disagree to a four, strongly agree. The questions related to stress were divided into three scales; work related issues that cause stress; concerns related to student discipline and motivation, and factors that mitigate stress. Question number two, five, six, eight, eleven, thirteen, and fifteen comprised the factors of the work related scale. This scale had a Chronbach's alpha coefficient of .4960. When question five was removed, Chronbach's alpha increased to .7192. According to De Vaus (2004) a score above .70 indicates reliability. Questions one, four, seven, nine, ten, sixteen, seventeen, eighteen, nineteen, twenty, and twenty one comprised the scale of factors that mitigated stress. Chronbach's Alpha for this scale was .7765. Only two questions, three and fourteen addressed the issues of student discipline and motivation, and produced a Chronbach's Alpha of -.0943, indicating that there was no reliability. Too few items in a scale will not provide adequate information regarding the variable being examined (De Vaus, 2004).

Based upon the results of the pilot study, the questionnaire was revised to better address the variables being examined. Questions three, five and twelve were eliminated. Remaining items were developed from questions from the Schools and Staffing Survey, (SASS). The SASS, administered by The National Center for Educational Statistics provides questions related to parent support, collaboration among teachers and

administrative support. The School and Staffing survey is conducted to examine issues regarding teacher demand and shortages, teacher and administrative characteristics, school programs and general school conditions among public, private, Bureau of Indian Affairs and public charter schools. The most recent SASS survey used data obtained from the 2003-2004 school year. Validity was established using a survey sample derived from the 2001-2002 Common Core of data; a file that includes all United States' elementary and secondary schools (National Center for Educational Statistics, 2007). The SASS was first administered during the 1987-1988 school year, and has been administered four subsequent times. Prior to the first test administration, a pretest was distributed by mail to 2300 teachers in 220 public schools in 10 states. A systematic sample of 127 teachers was selected for telephone re-interviews by U. S. Census Bureau field representatives to determine any recommendations for survey improvement (National Center for Educational Statistics, 2007). Prior to the 1990-1991 test administration, a field test was issued to 420 public school teachers and 480 private school teachers , with a response rate of 96 % for both sectors. Test items were revised, added or deleted based upon the results of the field test (National Center for Educational Statistics). Prior to the 1999-2000 test, cognitive interviews were conducted with 20 teachers at the U.S. Census Bureau cognitive laboratory. The teachers differed in teaching experiences and work settings. Fifteen were trained through traditional education programs while were alternatively certified. Based upon these interviews, test formatting issues were addressed as well as changes made to test instructions (National Center for Educational Statistics).

Four questions addressing student discipline and motivation were added to the survey instrument. The questions were taken from The Teacher Stress Inventory. Michael

Fimian (2000) provided detailed support for the validity and reliability of the TSI. Fimian (2000) researched and found 135 sources and manifestations of stress and categorized them into 13 different factors.

The test was distributed to 365 special education teachers in Connecticut, and a second survey was distributed to special education and regular teachers in Vermont. Validity was determined in a variety of ways. First, teacher TSI scores were correlated with ratings made independently by a person who knew the teacher well. Second, total TSI scores were correlated with the presence of certain personal and professional characteristics which were hypothesized to correlate very little with the TSI score. Third, TSI scores were correlated with measures of various physiological, psychological and organizational samples of 3401 teachers (Fimian, 2000). From the data obtained, 7 factors resulted in 70% of strength and 64% of frequency variance associated with item inter-relationships. Twelve items were added to the factors whose reliability estimates proved lower, for a total of 42 items. Based on later feedback from 226 stress experts, one additional factor with 8 items relating to time management was added. This resulted in a 49 item survey which is currently in use (Fimian, 2000).

Data Collection

Approval to conduct this study was granted by the Superintendent of Schools of the surveyed district and the Georgia Southern University Institutional Review Board prior to implementation. The survey was administered to certified teachers at regularly scheduled faculty meetings. Participants were given a cover letter explaining the purpose of the survey and assurance of confidentiality. Surveys were coded based on grade level; elementary, middle and high school. The researcher or designee was present to

administer the survey, and upon completion, surveys were placed in an envelope. The survey took approximately ten minutes to complete.

Data Analysis

Data analysis was conducted using the Statistical Package for the Social Sciences (SPSS) version 18.0. The analysis began with descriptive measures. Separate analyses were then conducted assessing the effect of the independent variable on each of the dependent variables using an alpha level of .05. For research question 1, the stress scores within the sample were analyzed by calculating a correlation between scale scores and years of teaching experience. For research question 2, an Analysis of Variance was used to determine if there was a difference in stress levels among teachers based upon the dependent variable, grade level taught. An Analysis of Variance can detect differences among two or more means through the use of one test, which allows the alpha level to remain constant (Sprinthall, 2003). A significance level for this study was an alpha of .05. For research question 3, a T Test was used to determine if there was a variance in stress levels among teachers based on grade level taught. For the overarching research question, a correlation was used to analyze the degree of occupational stress factors (administrative support, collegiality, empowerment, discipline, relationships with parents and students, workload, salary, student motivation, professional development opportunities, and testing concerns)

Reporting the Data

Upon completion of the analysis, data was reported by research question. For research question 1 the results were reported in both text and graphic format, using a

scatter plot. For questions 2 and 3 the results were reported in both text and tabular format.

Summary

In this chapter, the researcher presented the research study design and methodology. The researcher's intent was to provide data examining the impact of specific work related stress factors that may impact the effectiveness of classroom teachers. The data provided insights into causes of work stress that decision makers at the school or system level may use to better plan professional development opportunities to assist teachers in managing job stress and maximizing organizational effectiveness.

The researcher administered a survey and the resulting data was analyzed according to the different categories of stress found in the review of literature. Using the Statistical Package for the Social Sciences (SPSS), the data was analyzed using descriptive and inferential statistical methods.

Quantitative Item Analysis

Item	Research	Research Question
1 Administrative Support	Schlichte, Yessel, Merbler, 2005; Brown, Ralph and Brember, 2002; Wilhelm, Dewhurst-Savellis, and Parker, 2000; Kelly and Colquhoun, 2005	1
2. Salary	Leimann, Murdock, and Waller, 2008; Barmby, 2006, Owens, 2004; Wilhelm, Dewhurst-Savellis and Parker, 2000	1
3. Student Behavior	Liu and Meyer, 2005, Gold and Batchelor, 2001; Brown, Ralph and Brember,2002; Geving, 2007, Yoon, 2002	1,2
4. Relationship with Parents	Westergard, 2007; Inman and Marlow, 2004	1
5. Student Behavior	Liu and Meyer, 2005; Gold and Batchelor, 2001; Brown, Ralph and Brember, 2002; Geving, 2007; Yoon, 2002	1
6. Duties and paperwork	Smethem and Adey, 2005; Barmby, 2006; Austin, Shah and Muncer, 2005	1,2
7. Administrative Support of teacher in discipline issues	Barmby, 2006; Smethem and Adey, 2005	1
8. Anxiety about student performance on tests	Brown, Ralph and Brember, 2002; Reig, Paquette and Chen, 2007; Hargrove, Bradford , Huber, Corrigan and Moore, 2004	1,2
9. Professional Recognition	Zembylas and Papanastasiou, 2005; Inman and Marlow, 2004; Hargrove, Bradford, Huber and Moore, 2004	1,2
10. Cooperative effort among staff	Schlichte, Yessel and Merbler, 2005; Brown, Ralph and Brember, 2002; Chan, 2002; Kelly and Colquhoun, 2005; Griffith, Steptoe and Cropley, 1999	1,2
11. Student Assessment	Brown, Ralph and Brember, 2002; Reig, Paquette and Chen, 2007; Hargrove, Bradford, Huber and Moore, 2004	1,2
12. Student Behavior	Liu and Meyer, 2005; Gold and Batchelor, 2001; Brown, Ralph and Brember, 2002; Geving, 2007	1,2
13. Workload	Smethem and Adey, 2004; Barmby, 2006; Austin, Shah and Muncer, 2005	1,2

14. Student Motivation	Brown, Ralph and Brember, 2002; Geving, 2007	1
15. Workload	Smethem and Adey, 2004; Anhorn, 2008; Austin, Shah and Muncer, 2005	1
16. Professional Development	Zembylas and Papanastasiou, 2005; Patterson, Collins and Abbott, 2004	1,2
17. Collegial Opportunities	Schlichte, Yessel and Merbler, 2005; Brown, Ralph and Brember, 2002; Chan, 2002; Smethem and Adey, 2005; Kelly and Colquhoun, 2005; Griffith, Steptoe and Cropley, 1999; Anhorn, 2008; Wilhelm, Dewhurst-Savellis and Parker, 2000; Billingsley, Carlson and Klein, 2004	1,2
18. Decision Making Power	Zembylas and Papanastasiou, 2005; Evan, 2003; Evers, Brouwers and Tomic, 2002; Hargrove, Bradford, Huber, Corrigan and Moore, 2004	1
19. Professional Development Opportunities	Kelly and Colquhoun, 2005; Patterson, Collins and Abbott, 2004	1
20. Empowerment	Barmby, 2006; Smethem and Adey,2005	1
21. Decision Making Power	Zembylas and Papanastasiou, 2005; Evan, 2003; Evers, Brouwers and Tomic, 2002; Hargrove, Bradford, Huber, Corrigan and Moore, 2004	1

CHAPTER IV

REPORTING THE DATA AND DATA ANALYSIS

INTRODUCTION

Work stress is often the reason given by teachers for either leaving their current positions in favor of other teaching assignments, or leaving the field of education altogether. Research has shown that it is very costly to replace such teachers and there is not an unlimited supply of qualified teachers to serve as replacements. Research has also shown that stress factors can impede the performance of teachers in the classroom.

The researcher's intent was to obtain data examining the effect of specific work related stress factors that may impact the effectiveness of classroom teachers. The data provided insights into causes of work stress that decision makers at the school or system level may use to better plan professional development opportunities to assist teachers in managing job stress and maximizing organizational effectiveness.

The researcher administered a survey and the resulting data was analyzed and compared to the different categories of teacher stress found in the review of literature. Using the Statistical Package for the Social Sciences (SPSS), the data was analyzed using descriptive and inferential statistical methods.

Research Questions

This study addressed the following overarching research question: To what degree do teachers experience occupational stress? The following sub questions were also considered:

1: To what degree does the level of occupational stress of teachers vary based on years of teaching experience?

2: To what degree does the level of occupational stress of teachers vary based on grade level taught?

3: To what degree does the level of occupational stress of teachers vary based on gender?

Research Design

A causal- comparative research design was used for this descriptive quantitative study. The independent variables were years of teaching experience, gender and grade level, which was defined as elementary, middle or high school. Studying naturally occurring groups who differ in terms of job experience, the grade level of students taught, and gender provided the opportunity to determine whether these groups also differed in type and degree of occupational stress. The key advantage of a causal – comparative design was that it allowed the researcher to explore causal relationships in situations that are not suited to experimental designs. One primary disadvantage of causal – comparative designs was that participants were not randomly assigned to groups, rather the groups were already pre- established, and therefore it is possible that extraneous variables may have accounted for variation across groups (Gay and Airasian).

Findings

This study was designed to provide the researcher with data regarding the factors that cause or mitigate the degree of stress experienced by teachers. Responses to a survey administered to public school teachers were used to evaluate the sources of stress and were analyzed based upon the research questions.

Demographic Profile of Respondents

The respondents of this study consisted of 239 public school teachers employed by a school district in the southeastern region of the United States. There were 55 respondents or 23 percent who were male and 184 respondents, or 77 percent who were female. Table one illustrates the frequencies of respondents by gender.

Table 1

Gender of Respondents

Gender	Frequency	Percent
Male	55	23.0
Female	184	77.0
Total	239	100.0

The respondents to this survey are employed at elementary, middle and high schools. Of the 239 respondents, 75 or 31.4 percent teach at elementary schools, 94, or 39.3 percent are educators at middle schools, and 70, or 29.3 percent of the respondents teach at high schools. Table two illustrates the frequencies of respondents by grade level taught.

Table 2

Grade Level Taught of Respondents

Grade level	Frequency	Percent
Elementary	75	31.4
Middle School	94	39.3
High School	70	29.3
Total	239	100.0

The respondents to this survey vary based on years of teaching experience. There were 22 respondents or 9.2 percent who have zero to three years of teaching experience, while 31 respondents or 13.0 percent have taught for four to seven years. There were 48

respondents or 20.1 percent who have eight to eleven years of teaching experience, while 46 respondents or 19.2 percent have taught for twelve to fifteen years. There were 25 respondents or 10.5 percent who have sixteen to nineteen years of teaching experience, and sixty seven respondents or 28.0 percent who have taught for twenty or more years. Table 3 illustrates the frequencies of respondents based on years of teaching experience.

Table 3

Years of Experience of Respondents

Experience	Frequency	Percent
0-3 Years	22	9.2
4-7 Years	31	13.0
8-11 Years	48	20.1
12-15 Years	46	19.2
16-19 Years	25	10.5
20 + Years	67	28.0
Total	239	100.0

Overall Degree of Teacher Stress

The overarching research question was this: To what degree do teachers experience work related stress? The researcher sought to determine this by analyzing responses to a survey regarding sources of stress and factors that help mitigate stress. Total stress scores were determined by adding the factor scores of each of the four scales on the administered survey; empowerment, workload, salary and student discipline/motivation and dividing by the number of items in each scale. The scale scores for workload, salary and student discipline/motivation were then combined and subtracted from the empowerment scale score for a total stress score.

Calculated descriptive statistics indicated a range of 1.90, with a minimum stress score of 1.75 and a maximum score of 3.65. The mean stress score for respondents was

2.8002, with median score of 2.54 and a standard deviation of .25052. Table 4 illustrates the descriptive statistics of total stress scores.

Table 4

Descriptive Statistics of Total Stress Scores of Respondents

	N	Range	Minimum	Maximum	Mean	Median	Standard Deviation
Stress Scores	239	1.90	1.75	3.65	2.8002	2.54	.25052

Research Question 1: To What Degree Does the Level of Occupational Stress of Teachers Vary Based on Years of Experience?

The researcher sought to determine if there was a relationship between the degree of occupational stress experienced by surveyed teachers and the number of years of job related experience. Years of teaching experience were divided into six equal intervals; 0-3 years, 4-7 years, 8-11 years, 12-15 years, 16-19 years and 20 or more years. Years of experience were recorded as intervals ranging from one to six. The calculated descriptive statistics produced a mean total stress score of 2.8002 with a standard deviation of .25052 and a mean of years of experience of 3.9289 with a standard deviation of 1.66752. Table 5 shows the descriptive statistics of degree of stress and years of teaching experience.

Table 5

Descriptive Statistics of Stress and Years of Experience

Statistic	N	Mean	Standard Deviation
Total Stress Score	239	2.8002	.25052
Years of Experience	239	3.9289	1.66752

The researcher used inferential statistics to calculate a Pearson Correlation to determine if there was a relationship between the degree of occupational stress among teachers and years of job related experience. Total stress scores were determined by adding the factor scores of each of the four scales on the administered survey; empowerment, workload, salary and student discipline/motivation and dividing by the number of items in each scale. The scale scores for workload, salary and student discipline/motivation were then combined and subtracted from the empowerment scale score for a total stress score. Years of teaching experience were divided into six equal intervals; 0-3 years, 4-7 years, 8-11 years, 12-15 years, 16-19 years and 20 or more years. The calculation indicated that there was no correlation between the independent variable years of experience and the dependent variable teacher stress when $\underline{R} = .046$, $p < .05$. The researcher's findings are illustrated in Table 6.

Table 6

Correlation between stress and years of work experience

		Total Stress	Years of Experience
Total Stress	Pearson Correlation	1	.046
	Sig. (2 tailed)		.475
	N	239	239
Years of Experience	Pearson Correlation	.046	1
	Sig. (2 tailed)	.475	
	N	239	239

A scatter plot illustrated the relationship between the independent variable years of experience and the dependent variable teacher stress. No correlation existed, but rather, teachers experienced a range of stress at all levels of experience.

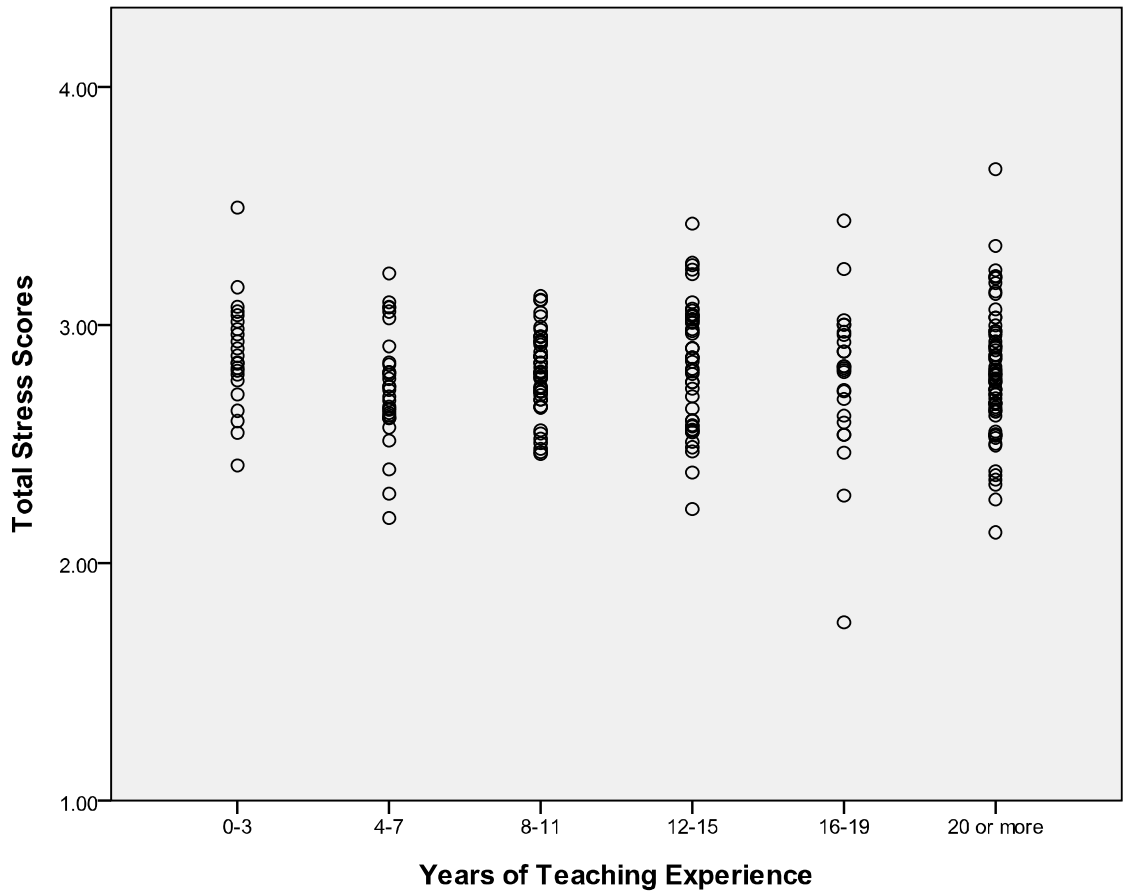

Figure 1. Total Stress Score Based on Years of Teaching Experience

Table 7 shows the mean scores of each category of years of experience according to the four scales of empowerment, workload, student discipline/motivation and salary.

Table 7

Mean Scale Scores by Years of Experience

	Empowerment	Workload	Discipline/Motivation	Salary
0-3 Years of Experience	2.8306	2.89091	2.9318	2.909
4-7 Years of Experience	2.8035	2.5677	2.9358	2.5161
8-11 Years of Experience	2.8939	2.8667	3.0417	2.3542
12-15 Years of Experience	2.9032	2.8348	2.8804	2.711
16-19 Years of Experience	2.8836	2.7120	2.7502	2.560
20 Years or More	2.8915	2.6866	2.9701	2.4776

The researcher sought to determine if there was a relationship between the degree of empowerment perceived by surveyed teachers and the number of years of job related experience. The calculated descriptive statistics produced a mean total empowerment score of 3.0088 with a standard deviation of .48930 and a mean of years of experience of 3.9289 with a standard deviation of 1.66752. Table 8 shows the descriptive statistics of degree of empowerment and years of teaching experience.

Table 8

Descriptive Statistics of Empowerment and Experience

Statistic	N	Mean	Standard Deviation
Empowerment Score	239	3.0088	.48930
Years of Experience	239	3.9289	1.66752

The researcher used inferential statistics to calculate a Pearson Correlation to determine if there was a relationship between the degree of empowerment experienced by teachers and years of job related experience. The calculation indicated that there was no correlation between the independent variable years of experience and the dependent variable teacher empowerment when $\underline{R} = .032$, $p < .05$. The researcher's findings are illustrated in Table 9.

Table 9

Correlation between Empowerment and Years of Work Experience

		Empowerment	Years of Experience
Empowerment	Pearson Correlation	1	.032
	Sig. (2 tailed)		.620
	N	239	239
Years of Experience	Pearson Correlation	.032	1
	Sig. (2 tailed)	.620	
	N	239	239

The researcher sought to determine if there was a relationship between the degree of stress caused by work requirements and the number of years of job related experience. The calculated descriptive statistics produced a mean total workload score of 2.7498 with a standard deviation of .58682 and a mean of years of experience of 3.9289 with a standard deviation of 1.66752. Table 10 shows the descriptive statistics of degree of work load and years of teaching experience.

Table 10

Descriptive Statistics of Workload and Experience

Statistic	N	Mean	Standard Deviation
Workload Score	239	2.7498	.58682
Years of Experience	239	3.9289	1.66752

The researcher calculated a Pearson Correlation to determine if there was a relationship between the degree of stress caused by work requirements experienced by teachers and years of job related experience. The calculation indicated that there was no correlation between the independent variable years of experience and the dependent variable workload when R= -.033, $p < .05$. The researcher's findings are illustrated in Table 11

Correlation between Workload and Years of Work Experience

		Workload	Years of Experience
Workload	Pearson Correlation	1	-.033
	Sig. (2 tailed)		.613
	N	239	239
Years of Experience	Pearson Correlation	-.033	1
	Sig. (2 tailed)	.613	
	N	239	239

The researcher sought to determine if there was a relationship between the degree of stress caused by student discipline and motivation issues and the number of years of job related experience. The calculated descriptive statistics produced a mean total discipline and motivation score of 2.9362 with a standard deviation of .50767 and a mean of years of experience of 3.9289 with a standard deviation of 1.66752. Table 12 shows the descriptive statistics of degree of stress caused by student discipline and motivation concerns and years of teaching experience.

Table 12

Descriptive Statistics of Discipline/Motivation and Experience

Statistic	N	Mean	Standard Deviation
Discipline/Motivation Score	239	2.9362	.50767
Years of Experience	239	3.9289	1.66752

The researcher calculated a Pearson Correlation to determine if there was a relationship between the degree of stress caused by student discipline and motivation experienced by teachers and years of job related experience. The calculation indicated that there was no correlation between the independent variable years of experience and the dependent variable student discipline and motivation when $\underline{R}$= -.024, $p < .05$. The researcher's findings are illustrated in Table 13.

Table 13

Correlation between Discipline/Motivation and Years of Work Experience

		Discipline/Motivation	Years of Experience
Discipline/Motivation	Pearson Correlation	1	-.024
	Sig. (2 tailed)		.712
	N	239	239
Years of Experience	Pearson Correlation	-.024	1
	Sig. (2 tailed)	.712	
	N	239	239

The researcher sought to determine if there was a relationship between salary concerns and the number of years of job related experience. The calculated descriptive statistics produced a mean total salary score of 2.5504 with a standard deviation of .73747 and a mean of years of experience of 3.9289 with a standard deviation of 1.66752. Table 14 shows the descriptive statistics of degree of stress caused by salary concerns and years of teaching experience.

Table 14

Descriptive Statistics of Salary Concerns and Experience

Statistic	N	Mean	Standard Deviation
Salary Score	239	2.5504	.73747
Years of Experience	239	3.9289	1.66752

The researcher calculated a Pearson Correlation to determine if there was a relationship between the degree of stress caused by salary concerns of teachers and years of job related experience. The calculation indicated that there was no correlation between the independent variable years of experience and the dependent variable salary when R= -.074, $p < .05$. The researcher's findings are illustrated in Table 15.

Table 15

Correlation between Salary Concerns and Years of Experience

		Salary	Years of Experience
Salary	Pearson Correlation	1	-.074
	Sig. (2 tailed)		.255
	N	239	239
Years of Experience	Pearson Correlation	-.074	1
	Sig. (2 tailed)	.255	
	N	239	239

Research Question 2: To What Degree Does the Occupational Stress Experienced by Teachers Vary Based on Grade Level Taught?

The researcher analyzed the effect of grade level taught in terms of the degree of occupational stress experienced by teachers and the impact of grade level on factors that contribute to or mitigate the sources of stress. An Analysis of Variance (ANOVA) was conducted to determine the effect of grade level on perceived levels of stress. For purposes of identifying each group, a one represented elementary teachers, two represented middle school teachers and three denoted high school teachers. The calculated descriptive statistics found a mean stress score for 75 elementary teachers of 2.1412, with a standard deviation of .41649. The mean stress score for 94 middle school teachers was 2.0828, with a standard deviation of .32992. The mean stress score for 70

high school teachers was 1.9601 with a standard deviation of .44372. Table 16 illustrates the descriptive statistics of data of total stress scores for elementary, middle and high school teachers.

Table 16

Descriptive Statistics of Stress by Grade Level

Statistic	N	Mean	Standard Deviation
Elementary	75	2.1412	.41649
Middle	94	2.0828	.32992
High School	70	1.9601	.33503
Total	239	2.0652	.36633

The researcher used inferential statistics and calculated an Analysis of Variance (ANOVA) to detect any significant differences at a 95% confidence interval of stress based on grade level taught. The mean stress score of elementary teachers (M=2.1412) produced a significant difference from that of middle school teachers (M= 2.0828) and high school teachers (M= 1.9601). The researcher's findings are presented in Table 17.

Table 17

Analysis of Variance of Stress Score by Grade Level

Source of Variation	Df	Sum of Squares	Mean Square	F
Between Groups	2	1.236	.618	4.750
Within Groups	236	30.704	.130	
Total	238	31.940		

$F(2,236) = 4.750, p < .05$

$M^1=2.1412, M^2=2.0828, M^3=1.9601$

Table 18 shows the mean scores for each category of grade level taught according to the four scales of empowerment, workload, student discipline/motivation and salary.

Table 18

Mean Scale Scores by Grade Level Taught

	Empowerment	Workload	Discipline/Motivation	Salary
Elementary School	2.9333	2.8347	2.6633	2.7867
Middle School	2.9120	2.7915	3.1489	2.3763
High School	2.7675	2.6029	2.9429	2.5286

The researcher evaluated the effect of grade level taught in terms of the degree of empowerment identified by teachers. An Analysis of Variance (ANOVA) was conducted to determine the effect of grade level on the identified levels of empowerment. The

calculated descriptive statistics found a mean empowerment score for 75 elementary teachers of 2.9697, with a standard deviation of .38608. The mean empowerment score for 94 middle school teachers was 2.9120, with a standard deviation of .25832. The mean empowerment score for 70 high school teachers was 2.7675 with a standard deviation of .29311. Table 19 illustrates the descriptive statistics of data of empowerment scores for elementary, middle and high school teachers.

Table 19

Descriptive Statistics of Empowerment by Grade Level

Statistic	N	Mean	Standard Deviation
Elementary	75	2.9697	.38608
Middle	94	2.9120	.25832
High School	70	2.7675	.29311
Total	239	2.8878	.32238

The researcher calculated an Analysis of Variance (ANOVA) to detect any significant differences at a 95% confidence interval of empowerment based on grade level taught. The mean empowerment score of high school teachers (M=2.7675) produced a significant difference from that of elementary school teachers (M= 2.9697) and middle school teachers (M= 2.9120). The researcher's findings are presented in Table 20.

Table 20

Analysis of Variance of Empowerment Score by Grade Level

Source of Variation	Df	Sum of Squares	Mean Square	F
Between Groups	2	1.571	.785	8.001
Within Groups	236	23.164	.098	
Total	238	39.380		

$F(2,236) = 8.001$, $p < .05$

$M^1=2.967$, $M^2=2.9120$, $M^3=2.7675$

Eleven factors comprised the empowerment scale on the survey administered to teachers. The researcher calculated an Analysis of Variance for each factor and identified seven which produced significant differences at the 95 % confidence interval. Table 21 illustrates the descriptive statistics of data for the responses to the question, *I receive support from parents for the work that I do.* The mean score for 75 elementary teachers was 2.0400, with a standard deviation of .66658. The mean score for 94 middle school respondents was 2.3830, with a standard deviation of .65757. The mean score for 70 high school respondents was 2.1714, with a standard deviation of .65875.

Table 21

Descriptive Statistics of Survey Question 4 by Grade Level

Statistic	N	Mean	Standard Deviation
Elementary	75	2.0400	.66658
Middle	94	2.38307	.65757
High School	70	2.1714	.65874
Total	239	2.2134	.67400

The researcher calculated an ANOVA to detect differences in survey question four based upon grade level taught. The mean empowerment score of elementary school teachers (M=2.0400) produced a significant difference from that of middle school teachers (M= 2.3830) at the 95 % confidence interval. The researcher's findings are presented in Table 22.

Table 22

Analysis of Variance of Survey Question 4 Score by Grade Level

Source of Variation	Df	Sum of Squares	Mean Square	F
Between Groups	2	5.082	2.541	5.820
Within Groups	236	103.036	.437	
Total	238	108.117		

F (2,236) = 5.820 p< .05

M^1=2.0400, M^2=2.3830,M^3=2.1714

The researcher evaluated the effect of grade level taught in terms of the responses to survey question 9, *in this school, staff members are seldom recognized for a job well done*. The mean score for 75 elementary teachers was 3.000, with a standard deviation of .77110. The mean score for 94 middle school respondents was 2.7766, with a standard deviation of .72073. The mean score for 70 high school respondents was 2.5571, with a standard deviation of .84503. Table 23 illustrates the calculated descriptive statistics of the data.

Table 23

Descriptive Statistics of Survey Question 9 by Grade Level

Statistic	N	Mean	Standard Deviation
Elementary	75	3.000	.7710
Middle	94	2.7766	.72073
High School	70	2.5571	.84503
Total	239	2.7824	.79040

The researcher calculated an ANOVA to detect differences in survey question nine based upon grade level taught. The mean empowerment score of elementary school teachers (M=3.000) produced a significant difference from that of high school teachers (M= 2.5571) at the 95 % confidence interval. The researcher's findings are presented in Table 24.

Table 24

Analysis of Variance of Survey Question 9 Score by Grade Level

Source of Variation	Df	Sum of Squares	Mean Square	F
Between Groups	2	7.106	3.553	5.923
Within Groups	236	141.580	.600	
Total	238	148.686		

F (2,236) = 5.923 p< .05

M^1=3.000, M^2=2.7766,M^3=2.5571

The researcher evaluated the effect of grade level taught in terms of the responses to survey question 16, *I am dissatisfied with the amount of training available to me at my job.* The mean score for 75 elementary teachers was 2.9333 with a standard deviation of .62240 The mean score for 94 middle school respondents was 3.1290, with a standard deviation of .62945. The mean score for 70 high school respondents was 2.7714, with a standard deviation of .66314. Table 25 illustrates the calculated descriptive statistics of the data.

Table 25

Descriptive Statistics of Survey Question 16 by Grade Level

Statistic	N	Mean	Standard Deviation
Elementary	75	2.9333	.62240
Middle	94	3.1290	.62945
High School	70	2.7714	.66314
Total	239	2.9622	.65171

The researcher calculated an ANOVA to detect differences in survey question 16 based upon grade level taught. The mean empowerment score of middle school teachers (M=3.1290) produced a significant difference from that of high school teachers (M= 2.7714) at the 95 % confidence interval. The researcher's findings are presented in Table 26.

Table 26

Analysis of Variance of Survey Question 16 Score by Grade Level

Source of Variation	Df	Sum of Squares	Mean Square	F
Between Groups	2	5.199	2.599	6.399
Within Groups	235	95.461	.406	
Total	237	100.660		

$F(2,235) = 6.399$ $p < .05$

$M^1=2.9333$, $M^2=3.1290$, $M^3=2.7714$

The researcher evaluated the effect of grade level taught in terms of the responses to survey question 18, *I would like more input regarding decisions made at my school.* The mean score for 75 elementary teachers was 2.400 with a standard deviation of .73521 The mean score for 94 middle school respondents was 2.7766, with a standard deviation of .57087. The mean score for 70 high school respondents was 2.8857, with a standard deviation of .62654. Table 27 illustrates the calculated descriptive statistics of the data.

Table 27

Descriptive Statistics of Survey Question 18 by Grade Level

Statistic	N	Mean	Standard Deviation
Elementary	75	2.4000	.73521
Middle	94	2.7766	.57087
High School	70	2.8857	.62654
Total	239	2.6904	.67078

The researcher calculated an ANOVA to detect differences in survey question 18 based upon grade level taught. The mean empowerment score of elementary school teachers (M=2.400) produced a significant difference from that of middle school teachers (M= 2.7766) and high school teachers (M= 2.8857) at the 95 % confidence interval. The researcher's findings are presented in Table 28.

Table 28

Analysis of Variance of Survey Question 18 Score by Grade Level

Source of Variation	Df	Sum of Squares	Mean Square	F
Between Groups	2	9.694	4.847	11.745
Within Groups	236	97.394	.413	
Total	238	107.088		

$F(2,236) = 11.745$ $p < .05$

$M^1=2.400$, $M^2=2.7766$, $M^3=2.8857$

The researcher evaluated the effect of grade level taught in terms of the responses to survey question 19, *I am satisfied with the amount of professional development opportunities available to me at work.* The mean score for 75 elementary teachers was 3.0133 with a standard deviation of .50653 The mean score for 94 middle school respondents was 2.9255, with a standard deviation of .57248. The mean score for 70 high school respondents was 2.7429, with a standard deviation of .62983. Table 29 illustrates the calculated descriptive statistics of the data.

Table 29

Descriptive Statistics of Survey Question 19 by Grade Level

Statistic	N	Mean	Standard Deviation
Elementary	75	3.0133	.50653
Middle	94	2.9255	.57248
High School	70	2.7429	.62983
Total	239	2.8996	.57828

The researcher calculated an ANOVA to detect differences in survey question 19 based upon grade level taught. The mean empowerment score of elementary school teachers (M=3.0133) produced a significant difference from that of high school teachers (M= 2.7429) at the 95 % confidence interval. The researcher's findings are presented in Table 30.

Table 30

Analysis of Variance of Survey Question 19 Score by Grade Level

Source of Variation	Df	Sum of Squares	Mean Square	F
Between Groups	2	2.753	1.377	4.228
Within Groups	236	76.837	.326	
Total	238	79.590		

$F(2,236) = 4.228$ $p < .05$

$M^1=3.0133$, $M^2=2.9255$, $M^3=2.7429$

The researcher evaluated the effect of grade level taught in terms of the responses to survey question 20, *I feel frustrated when my authority is rejected by students and /or administration.* The mean score for 75 elementary teachers was 2.8533 with a standard deviation of .56217 The mean score for 94 middle school respondents was 3.1915, with a standard deviation of .60954. The mean score for 70 high school respondents was 2.9143, with a standard deviation of .65370. Table 31 illustrates the calculated descriptive statistics of the data.

Table 31

Descriptive Statistics of Survey Question 20 by Grade Level

Statistic	N	Mean	Standard Deviation
Elementary	75	2.8533	.56217
Middle	94	3.1915	.60954
High School	70	2.9143	.65370
Total	239	3.0042	.62509

The researcher calculated an ANOVA to detect differences in survey question 20 based upon grade level taught. The mean factor score of middle school teachers (M=3.1915) produced a significant difference from that of high school teachers (M= 2.7429) and elementary school teachers (M=2.8533) at the 95 % confidence interval. The researcher's findings are presented in Table 32.

Table 32

Analysis of Variance of Survey Question 20 Score by Grade Level

Source of Variation	Df	Sum of Squares	Mean Square	F
Between Groups	2	5.570	2.785	7.518
Within Groups	236	87.426	.370	
Total	238	92.996		

F (2,236) = 7.518 p< .05

M^1=2.8533, M^2=3.1915,M^3=2.9143

The researcher evaluated the effect of grade level taught in terms of the responses to survey question 21, *I am satisfied with my involvement in important decisions made at my school.* The mean score for 75 elementary teachers was 2.9867 with a standard deviation of .50653 The mean score for 94 middle school respondents was 2.6452, with a standard deviation of .71696. The mean score for 70 high school respondents was 2.5143, with a standard deviation of .68304. Table 33 illustrates the calculated descriptive statistics of the data.

Table 33

Descriptive Statistics of Survey Question 21 by Grade Level

Statistic	N	Mean	Standard Deviation
Elementary	75	2.9867	.50653
Middle	94	2.6452	.71696
High School	70	2.5143	.71714
Total	239	2.7143	.68304

The researcher calculated an ANOVA to detect differences in survey question 21 based upon grade level taught. The mean factor score of elementary school teachers (M=2.9867) produced a significant difference from that of middle school teachers (M= 2.6452) and high school teachers (M=2.5143) at the 95 % confidence interval. The researcher's findings are presented in Table 34.

Table 34

Analysis of Variance of Survey Question 21 Score by Grade Level

Source of Variation	Df	Sum of Squares	Mean Square	F
Between Groups	2	8.809	4.404	10.171
Within Groups	235	101.763	.433	
Total	237	110.571		

F (2,235) = 10.171 p< .05

M^1=2.9867, M^2=2.6452,M^3=2.5413

The researcher evaluated the effect of grade level taught in terms of the responses to survey question 10, *There is a great deal of cooperative effort among the staff members at my school*, and question 17,*There are not enough opportunities for my colleagues and me to assist and support one another.* The mean score for 75 elementary teachers was 2.9800 with a standard deviation of .48935 The mean score for 94 middle school respondents was 2.8830, with a standard deviation of .59760. The mean score for 70 high school respondents was 2.8571, with a standard deviation of .53258. No significant difference in collegiality was detected based on grade level.

The researcher evaluated the effect of grade level taught in terms of the degree of stress caused by workload. An Analysis of Variance (ANOVA) was conducted to determine the effect of grade level on the workload scale. The calculated descriptive statistics found a mean workload score for 75 elementary teachers of 2.8347, with a standard deviation of .59400. The mean workload score for 94 middle school teachers was 2.7915, with a standard deviation of .54074. The mean workload score for 70 high

school teachers was 2.6029 with a standard deviation of .61902. Table 35 illustrates the descriptive statistics of data of workload scores for elementary, middle and high school teachers.

Table 35

Descriptive Statistics of Workload by Grade Level

Statistic	N	Mean	Standard Deviation
Elementary	75	2.8347	.59400
Middle	94	2.7915	.54074
High School	70	2.6029	.61902
Total	239	2.7498	.58682

The researcher used inferential statistics and calculated an Analysis of Variance (ANOVA) to detect any significant differences at a 95% confidence interval of stress caused by workload based on grade level taught. The mean stress score of elementary teachers (M=2.8347) produced a significant difference from that of high school teachers (M= 2.6029). The researcher's findings are presented in Table 36

Table 36

Analysis of Variance of Workload Score by Grade Level

Source of Variation	Df	Sum of Squares	Mean Square	F
Between Groups	2	2.215	1.108	3.278
Within Groups	236	79.742	.338	
Total	238	81.957		

$F(2,236) = 3.278$, $p < .05$

$M^1=2.8347$, $M^2=2.7915$, $M^3=2.6029$

Five factors comprised the workload scale on the survey administered to teachers. The researcher calculated an Analysis of Variance for each factor and identified three which produced significant differences at the 95 % confidence interval. Table 37 illustrates the descriptive statistics of data for the responses to the question; *Routine duties and paperwork interfere with my job of teaching.* The mean score for 75 elementary teachers was 3.000, with a standard deviation of .9153. The mean score for 94 middle school respondents was 3.0426 with a standard deviation of .80208. The mean score for 70 high school respondents was 2.6667, with a standard deviation of .83431.

Table 37

Descriptive Statistics of Survey Question 6 by Grade Level

Statistic	N	Mean	Standard Deviation
Elementary	75	3.000	.91533
Middle	94	3.0426	.80208
High School	70	2.6667	.83431
Total	239	2.9202	.80649

The researcher calculated an ANOVA to detect differences in survey question 6 based upon grade level taught. The mean factor score of middle school teachers (M=3.0426) produced a significant difference from that of high school teachers (M= 2.6667) at the 95 % confidence interval. The researcher's findings are presented in Table 38.

Table 38

Analysis of Variance of Survey Question 6 Score by Grade Level

Source of Variation	Df	Sum of Squares	Mean Square	F
Between Groups	2	6.320	3.160	4.390
Within Groups	235	169.163	.720	
Total	237	175.483		

F (2,235) = 4.390 p< .05

M^1=3.000, M^2=3.0426,M^3=2.6667

The researcher evaluated the effect of grade level taught in terms of the responses to survey question 11, *Staff or district content assessments have had a positive influence on my satisfaction with teaching.* The mean score for 75 elementary teachers was 2.5493 with a standard deviation of .73268 The mean score for 94 middle school respondents was 2.8370, with a standard deviation of .63380. The mean score for 70 high school respondents was 2.9492, with a standard deviation of .68036. Table 39 illustrates the calculated descriptive statistics of the data.

Table 39

Descriptive Statistics of Survey Question 11 by Grade Level

Statistic	N	Mean	Standard Deviation
Elementary	75	2.5493	.73268
Middle	94	2.8370	.63380
High School	70	2.9492	.68036
Total	239	2.7748	.69497

The researcher calculated an ANOVA to detect differences in survey question 11 based upon grade level taught. The mean factor score of elementary school teachers (M=2.5493) produced a significant difference from that of middle school teachers (M= 2.8370) and high school teachers (M= 2.9492) at the 95 % confidence interval. The researcher's findings are presented in Table 40.

Table 40

Analysis of Variance of Survey Question 11 Score by Grade Level

Source of Variation	Df	Sum of Squares	Mean Square	F
Between Groups	2	5.759	2.880	6.245
Within Groups	235	100.979	.461	
Total	237	106.739		

F (2,235) = 6.245 p< .05

M^1=2.5493, M^2=2.8370,M^3=2.9492

The researcher evaluated the effect of grade level taught in terms of the responses to survey question 15, *I often must bring work home to complete it.* The mean score for 75 elementary teachers was 3.3867 with a standard deviation of .71458 The mean score for 94 middle school respondents was 2.9894, with a standard deviation of .93320. The mean score for 70 high school respondents was 3.1286, with a standard deviation of .94672. Table 41 illustrates the calculated descriptive statistics of the data.

Table 41

Descriptive Statistics of Survey Question 15 by Grade Level

Statistic	N	Mean	Standard Deviation
Elementary	75	3.3867	.71458
Middle	94	2.9894	.93320
High School	70	3.1286	.94672

The researcher calculated an ANOVA to detect differences in survey question 15 based upon grade level taught. The mean factor score of elementary school teachers (M=3.3867) produced a significant difference from that of middle school teachers (M= 2.9804) at the 95 % confidence interval. The researcher's findings are presented in Table 42.

Table 42

Analysis of Variance of Survey Question 15 Score by Grade Level

Source of Variation	Df	Sum of Squares	Mean Square	F
Between Groups	2	6.653	.327	4.347
Within Groups	235	180.619	.765	
Total	237	187.272		

F (2,235) = 4.347 p< .05

M^1=3.3867, M^2=2.9894,M^3=3.1286

The researcher evaluated the effect of grade level taught in terms of the degree of stress caused by student discipline/motivation concerns. An Analysis of Variance (ANOVA) was conducted to determine the effect of grade level on the discipline/motivation scale. The calculated descriptive statistics found a mean discipline score for 75 elementary teachers of 2.6633, with a standard deviation of .44927. The mean discipline score for 94 middle school teachers was 3.1489, with a standard deviation of .47564. The mean discipline score for 70 high school teachers was 2.9429 with a standard deviation of .47429. Table 43 illustrates the descriptive statistics of data of student discipline/motivation scores for elementary, middle and high school teachers.

Table 43

Descriptive Statistics of discipline/ motivation by Grade Level

Statistic	N	Mean	Standard Deviation
Elementary	75	3.3867	.71458
Middle	94	2.9894	.93320
High School	70	3.1286	.94672
Total	239	3.1548	.88705

The researcher calculated an Analysis of Variance (ANOVA) to detect any significant differences at a 95% confidence interval of stress caused by student discipline and motivation concerns based on grade level taught. The mean discipline/ motivation score of middle school teachers (M=3.1489) produced a significant difference from that of elementary school teachers (M= 2.6633) and middle school teachers (M2.9429). The researcher's findings are presented in Table 44.

Table 44

Analysis of Variance of Discipline/Motivation Score by Grade Level

Source of Variation	Df	Sum of Squares	Mean Square	F
Between Groups	2	9.8451	4.921	22.550
Within Groups	236	51.498	.218	
Total	238	61.339		

$F(2,236) = 22.550$, $p < .05$

$M^1=2.6633$, $M^2=3.1489$, $M^3=2.9429$

Four factors comprised the student discipline/motivation scale on the survey administered to teachers. The researcher calculated an Analysis of Variance for each factor and identified three which produced significant differences at the 95 % confidence interval. Table 45 illustrates the descriptive statistics of data for the responses to survey question three; *I feel frustrated because of discipline problems in my classroom.* The mean score for 75 elementary teachers was 2.5200 with a standard deviation of .79458. The mean score for 94 middle school respondents was 3.0106 with a standard deviation of .78281. The mean score for 70 high school respondents was 2.6812 with a standard deviation cause of .1.0072.

Table 45

Descriptive Statistics of Survey Question3 by Grade Level

Statistic	N	Mean	Standard Deviation
Elementary	75	2.6633	.44927
Middle	94	3.1489	.47564
High School	70	2.9429	.47429
Total	239	2.9362	.50767

The researcher calculated an ANOVA to detect differences in survey question 3 based upon grade level taught. The mean factor score of middle school teachers (M=3.0106) produced a significant difference from that of elementary school teachers (M= 2.5200) and high school teachers (M=2.6812) at the 95 % confidence interval. The researcher's findings are presented in Table 46.

Table 46

Analysis of Variance of Survey Question 3 Score by Grade Level

Source of Variation	Df	Sum of Squares	Mean Square	F
Between Groups	2	10.654	5.327	7.249
Within Groups	235	172.695	.735	
Total	237	183.349		

$F(2,235) = 7.249$ $p < .05$

$M^1=2.5200$, $M^2=3.0106$, $M^3=2.6812$

The researcher evaluated the effect of grade level taught in terms of the responses to survey question 12, *I feel frustrated because some students would do better if they tried.* The mean score for 75 elementary teachers was 2.3067 with a standard deviation of .92959 The mean score for 94 middle school respondents was 3.1064, with a standard deviation of .97791. The mean score for 70 high school respondents was 2.6857, with a standard deviation of 1.07059. Table 47 illustrates the calculated descriptive statistics of the data.

Table 47

Descriptive Statistics of Survey Question 12 by Grade Level

Statistic	N	Mean	Standard Deviation
Elementary	75	2.3067	.92959
Middle	94	3.1064	.97791
High School	70	2.6857	1.07059
Total	239	2.7322	1.04291

The researcher calculated an ANOVA to detect differences in survey question 12 based upon grade level taught. The mean factor score of middle school teachers (M=3.1064) produced a significant difference from that of elementary school teachers (M= 2.3067) and high school teachers (M=2.6857) at the 95 % confidence interval. The researcher's findings are presented in Table 48.

Table 48

Analysis of Variance of Survey Question 12 Score by Grade Level

Source of Variation	Df	Sum of Squares	Mean Square	F
Between Groups	2	26.893	13.447	13.680
Within Groups	235	231.969	.983	
Total	237	258.862		

F (2,235) = 13.680 p< .05

M^1=2.3067, M^2=3.1064,M^3=2.6857

The researcher evaluated the effect of grade level taught in terms of the responses to survey question 14, *I feel frustrated attempting to teach students who are poorly motivated.*. The mean score for 75 elementary teachers was 2.8800 with a standard deviation of .73448. The mean score for 94 middle school respondents was 3.3936, with a standard deviation of .62593. The mean score for 70 high school respondents was 3.4493, with a standard deviation of .52960. Table 49 illustrates the calculated descriptive statistics of the data.

Table 49

Descriptive Statistics of Survey Question 14 by Grade Level

Statistic	N	Mean	Standard Deviation
Elementary	75	2.8800	.73448
Middle	94	3.3936	.62593
High School	70	3.4493	.52960
Total	239	3.2479	.68243

The researcher calculated an ANOVA to detect differences in survey question 14 based upon grade level taught. The mean factor score of elementary school teachers (M=2.880) produced a significant difference from that of middle school teachers (M= 3.3936) and high school teachers (M=3.4493) at the 95 % confidence interval. The researcher's findings are presented in Table 50.

Table 50

Analysis of Variance of Survey Question 14 Score by Grade Level

Source of Variation	Df	Sum of Squares	Mean Square	F
Between Groups	2	14.945	7.473	18.402
Within Groups	235	95.429	.406	
Total	237	110.374		

F (2,235) = 18.402 p< .05

M^1=2.8800, M^2=3.3936,M^3=3.4493

The researcher evaluated the effect of grade level taught in terms of the degree of stress caused by salary concerns. An Analysis of Variance (ANOVA) was conducted to determine the effect of grade level on the salary factor. The calculated descriptive statistics found a mean salary score for 75 elementary teachers of 2.7867, with a standard deviation of .74059. The mean salary score for 94 middle school teachers was 2.3763, with a standard deviation of .69021. The mean salary score for 70 high school teachers was 2.5286 with a standard deviation of .73665 Table 51 illustrates the descriptive statistics of data of total stress scores for elementary, middle and high school teachers.

Table 51

Descriptive Statistics of Salary by Grade Level

Statistic	N	Mean	Standard Deviation
Elementary	75	2.7867	.74059
Middle	93	2.3763	.69021
High School	70	2.5286	.73665
Total	239	2.5504	.73747

The researcher calculated an Analysis of Variance (ANOVA) to detect any significant differences at a 95% confidence interval of stress caused by salary concerns based on grade level taught. The mean salary score of elementary teachers (M=2.7867) produced a significant difference from that of middle school teachers (M= 2.3763). The researcher's findings are presented in Table 52

Table 52

Analysis of Variance Salary Score by Grade Level

Source of Variation	Df	Sum of Squares	Mean Square	F
Between Groups	2	7.037	3.519	6.786
Within Groups	235	121.857	.519	
Total	237	61.339		

$F(2,235) = 22.550$, $p < .05$

$M^1=2.7867$, $M^2=2.3763$, $M^3=2.5286$

Research Question 3: To What Degree Does the Occupational Stress of Teachers Vary Based on Gender?

The researcher analyzed the effect of gender in terms of the degree of occupational stress experienced by teachers and the impact of gender on factors that contribute to or mitigate the sources of stress. Independent T tests were conducted to determine the effect of gender on perceived levels of stress. The calculated descriptive statistics found a mean stress score for 55 males of 3.0713, with a standard deviation of .25277. The mean stress score for 184 females was 3.1171, with a standard deviation of .28733. Table 53 illustrates the descriptive statistics of data of total stress scores for male and female teachers.

Table 53

Descriptive Statistics of Total Stress Scores by Gender

Statistic	N	Mean	Standard Deviation
Total Stress for Males	55	3.0713	.25277
Total Stress for Females	184	3.1171	.28733

The researcher calculated an independent T-test to determine any significant differences at a 95% confidence interval of total stress scores of teachers based on gender. The mean stress score of male teachers (M=3.0713) did not differ significantly from that of female teachers (M= 3.1171). The researcher's findings are presented in Table 54.

Independent T Test of Total Stress by Gender

	T	Sig.(2-tailed	Mean Difference	Std. Error Difference
Stress by Gender	-1.065	.288	-.04582	.04300

t(237) = -1.065,n.s.

Table 55 shows the mean scores of the each category of gender according to the four scales of empowerment, workload, discipline/motivation and salary.

Table 55

Mean Scale Scores by Gender

	Empowerment	Workload	Discipline/Motivation	Salary
Male	2.8364	2.6473	2.9955	2.4909
Female	2.8883	2.7804	2.9185	2.5683

The researcher sought to examine the effect of gender on the degree of empowerment reported by teachers by calculating an Independent T Test using data obtained from administered surveys. The calculated descriptive statistics of the ten items comprising the empowerment scale produced a mean score for males of 2.9152, with a standard deviation of .34873, and a mean score for females of 3.0368, with a standard deviation of .52160. The researcher's findings are illustrated in Table 56.

Table 56

Descriptive Statistics of Empowerment by Gender

Statistic	N	Mean	Standard Deviation
Male Empowerment	55	2.9152	.34873
Female Empowerment	184	3.0368	.52160

The researcher calculated an independent T-test to determine any significant differences at a 95% confidence interval of empowerment scores of teachers based on gender. The mean empowerment score of male teachers (M=2.9152) did not differ significantly from that of female teachers (M= 3.0368). The researcher's findings are presented in Table 57.

Table 57

Independent T Test of Empowerment Scale by Gender

	T	Sig.(2-tailed	Mean Difference	Std. Error Difference
Empowerment by Gender	-1.624	.106	-.12168	.07494

t(237) = -1.624,n.s.

The researcher evaluated the degree of stress caused by workload, and sought to determine if there was a difference based upon gender. An Independent T Test was calculated using data obtained from administered surveys. The calculated descriptive statistics of the five factors comprising the workload scale produced a mean score for males of 2.6473, with a standard deviation of .56825, and a mean score for females of 2.7804, with a standard deviation of .59031. The descriptive statistics are presented in Table 58.

Table 58

Descriptive Statistics of Workload by Gender

Statistic	N	Mean	Standard Deviation
Male Workload	55	2.6473	.56825
Female Workload	184	2.7804	.59031

The researcher calculated an independent T-test to determine any significant differences at a 95% confidence interval of workload scores of teachers based on gender. The mean workload score of male teachers (M=2.6473) did not produce a significant difference from that of female teachers (M= 2.7804). The researcher's findings are presented in Table 59.

Table 59

Independent T Test of Workload Scale by Gender

	T	Sig.(2-tailed	Mean Difference	Std. Error Difference
Workload by Gender	-1.480	.140	-.13316	.08996

t(237) = -1.480,n.s.

The researcher examined the sources of teacher stress caused by student discipline issues and a lack of student motivation to identify whether there were differences in perceived stress levels due to gender. An Independent T Test was calculated using data obtained from administered surveys. The calculated descriptive statistics of the four factors comprising the discipline and motivation scale produced a mean score for males of 2.9955, with a standard deviation of .49181, and a mean score for females of 2.91854, with a standard deviation of .51229. The descriptive statistics are presented in Table 60.

Table 60

Descriptive Statistics of Discipline/Motivation by Gender

Statistic	N	Mean	Standard Deviation
Male Discipline	55	2.9955	.49181
Female Discipline	184	2.91854	.51229

The researcher calculated an Independent T Test to detect any significant differences at a 95% confidence interval of concerns regarding student discipline and motivation based on gender. The mean student discipline and motivation score of male teachers (M=2.9955) did not produce a significant difference from that of female teachers (M= 2.9185). The researcher's findings are presented in Table 61.

Table 61

Independent T Test of Student Discipline/Motivation Scale by Gender

	T	Sig.(2-tailed	Mean Difference	Std. Error Difference
Discipl./Motivation by Gender	.987	.325	.07698	.07802

t(237) = .987,n.s.

The researcher evaluated the degree of stress caused by salary concerns, and sought to determine if there was a difference based upon gender. An Independent T Test

was calculated using data obtained from administered surveys. The calculated descriptive statistics comprising the salary factor produced a mean score for males of 2.4909, with a standard deviation of .74219 and a mean score for females of 2.5683, with a standard deviation of .73715. The descriptive statistics are presented in Table 62.

Table 62

Descriptive Statistics of Salary Scale by Gender

Statistic	N	Mean	Standard Deviation
Male Discipline	55	2.4909	.74219
Female Discipline	184	2.5683	.73715

The researcher calculated an Independent T Test to detect any significant differences at a 95% confidence interval of concerns regarding salary based on gender. The mean salary score of male teachers (M=2.4909) did not produce a significant difference from that of female teachers (M= 2.5683). The researcher's findings are presented in Table 63.

Table 63

Independent T Test of Salary Factor by Gender

	T	Sig.(2-tailed	Mean Difference	Std. Error Difference
Salary by Gender	-.682	.496	.07740	.11353

t(237) = -.682,n.s.

Summary

The researcher investigated the sources of occupational stress experienced by teachers. Surveys were administered to public school teachers employed by a school system in the southeastern region of the United States. The data obtained from the surveys examined specific sources of job stress; salary, workload, student discipline and motivation and empowerment and collegiality concerns. Descriptive statistics were calculated to evaluate the mean and standard deviation of teacher scores obtained that

related to total degree of stress and stress due to four identified scales; empowerment, workload, student discipline and motivation, and salary . Each research question was analyzed using inferential statistical methods.

The first research question pertained to teacher stress and how it varied based on years of teaching experience. A Correlation study was conducted to determine if there was a relationship between stress and work experience. The data did not support a significant relationship between the independent and dependent variables. Teachers experienced varying degrees of stress at all levels of work experience.

The second research question evaluated how teacher stress varied based upon grade level taught. Grade level was identified as elementary, middle and high school. Inferential statistics were calculated using an Analysis of Variance (ANOVA). The data obtained indicated there was a significant difference in overall degree of stress based on grade level. The data also indicated a significant difference in all survey scales; empowerment, workload, discipline/motivation and salary.

The third research question pertained to the relationship between teacher stress and gender. Inferential statistics were calculated using an independent T Test to determine if occupational stress among teachers varied based on gender. The data did not support a significant difference in stress levels based on gender.

CHAPTER V

SUMMARY, CONCLUSIONS AND IMPLICATIONS

Stress not only impacts individual teachers, but also affects the efficient operation of the school. Teachers who experience stress due to extrinsic factors such as low salary or excessive workload must find coping strategies or see the benefit of intrinsic factors of teaching to offset the causes of stress. Developing positive relationships with parents, teachers and administrators can provide a sense of community that not only encourages excellence in teaching but also helps to mitigate the feelings of stress. Alternatively, a limited sense of collegiality among colleagues, and unsatisfactory relationships with parents and students can contribute to further job dissatisfaction and stress. Causes of work stress are often the reasons given by teachers for either leaving their current positions in favor of other teaching assignments, or leaving the field of education altogether. Research has shown that it is very costly to replace such teachers and there is not an unlimited supply of qualified teachers to serve as replacements.

The researcher's intent was to obtain data examining the effect of specific work related stress factors that may impact the effectiveness of classroom teachers. The data provided insights into causes of work stress that decision makers at the school or system level may use to better plan professional development opportunities to assist teachers in managing job stress and maximizing organizational effectiveness.

This study addressed the following overarching research question: To what degree do teachers experience occupational stress? The following sub questions were also considered:

1: To what degree does the level of occupational stress of teachers vary based on years of teaching experience?

2: To what degree does the level of occupational stress of teachers vary based on grade level taught?

3: To what degree does the level of occupational stress of teachers vary based on gender?

Upon receiving approval from the Superintendent of a school system in the southeastern region of the United States and the Georgia Southern University Institutional Review Board, The researcher administered a survey and the resulting data was analyzed according to the different categories of stress found in the review of literature. Using the Statistical Package for the Social Sciences (SPSS), the data was analyzed using descriptive and inferential statistical methods.

Analysis of Research Findings

The researcher examined sources of occupational stress among certified teachers to determine if there were commonalities or differences based on years of experience, grade level taught or gender. In response to the overarching question to what degree do teachers experience work related stress, the researcher detected an overall mean stress score of 2.0652, with a range of 4.02, a minimum score of .8 a maximum score of 4.82 and a standard deviation of .36633. These findings suggest that teachers in this study experienced moderate stress. Sources of stress were mitigated by factors that produced a sense of empowerment and collegiality.

The first sub question pertained to teacher stress and how it varied based on years of teaching experience. A correlation study was conducted to determine if there was a relationship between stress and work experience. The data did not support a significant

relationship between the independent and dependent variables. Teachers experienced varying degrees of stress at all levels of work experience.

The second research question evaluated how teacher stress varied based upon grade level taught. Grade level was identified as elementary, middle and high school. Inferential statistics were calculated using an Analysis of Variance (ANOVA). The data obtained indicated there was a significant difference in overall degree of stress based on grade level. The data also indicated a significant difference in all survey scales; empowerment, workload, discipline/motivation and salary.

The third research question pertained to the relationship between teacher stress and gender. Inferential statistics were calculated using an independent T Test to determine if occupational stress among teachers varied based on gender. The data did not support a significant difference in stress levels based on gender.

Discussion of findings

The researcher sought to determine if there were differences in the degree of teacher stress based on years of experience, grade level taught and gender. A study by Anhorn (2008) suggested that new teachers had inadequate time in the day to complete work and plan appropriate instruction, while Smethem and Adey (2005) suggested that excessive workloads did not allow time for novice teachers to differentiate instruction, develop strong relationships with pupils, manage the classroom and caused them to bring home excessive amounts of work. Reig, Paquette and Chen (2007) cited parent interactions as extremely stressful for novice teachers, and Schlichte, Yssel, and Merbler (2005) determined that limited or poor relationships with other school professionals

caused novice teachers to leave the profession. The results of the researcher's study contradicted those findings. The 9.1 percent of the sample who identified themselves as having taught from zero to three years did not produce total stress scores that significantly differed from those of more experienced teachers. No correlation was found to exist between total stress scores and years of job experience. Data analysis also did not indicate a correlation between the scale scores related to empowerment, workload, salary and student discipline and motivation and years of experience.

A study conducted by Gold and Batchelor (2001) sought to determine if factors such as gender and grade level taught were determinants in causing burnout among teachers. The study concluded that there was no relationship between genders or grade level taught and perceived feelings of stress. The findings of this study support Gold and Bachelor's research in relation to gender. Independent T Tests did not determine any significant differences among male and female teachers in total degree of perceived stress or among the individual factors that cause or mitigate stress. This study did however contradict Gold and Batchelor (2001) in terms of grade level taught. An Analysis of Variance did determine a significant difference in total stress as well as significant differences in the scales related to empowerment, salary, work load and student discipline and motivation among elementary, middle school and high school teachers.

Several factors contribute to a perception of work related stress. Austin, Shah and Muncer (2005) examined causes of workplace stress among high school teachers, and identified causes of stress such as excessive workload, preparation and hours worked outside of school. Additional studies identified the same sources of stress for regular education and special education teachers (Smethem and Adey, 2005; Anhorn, 2008;

Barmby, 2006; and Billingsley, Carlson, and Klein, 2004). The previous studies concur with the findings of this study. Teachers indicated high scores in survey responses to the workload scale. Teachers at all three grade levels in this study indicated that routine duties and paperwork impeded their ability to do their job, and teachers in all grade levels indicated that they often brought work home to complete. Additionally, the researcher found that elementary school teachers perceived themselves to have greater workloads than did high school teachers, and the corresponding stress scores were higher for elementary teachers than high school teachers who participated in this study.

Issues relating to mandated local and state testing have been associated with teacher stress in previous studies. Brown, Ralph and Brember (2002) indicated that teachers endure performance anxiety when implementing new curriculum initiatives due to lack of professional development, adequate funding and a reasonable time frame for implementation. Reig, Paquette and Chen (2007) asserted that an emphasis on improving upon prior years' test scores can cause undue stress particularly to novice teachers. In this study, the researcher's findings indicate that middle and high school teachers do experience moderate stress due to local and state testing requirements. A mean score of 2.77 out of a maximum value of four was obtained in response to two questions relating to concerns about local and state testing.

Being paid an adequate salary for performance is a determinant of satisfaction with one's job. This correspond s with Herzberg's Motivation-Hygiene Theory, which stated that a large salary may not be a key determinant of job satisfaction; however it can be a source of job dissatisfaction. Workers must believe they are being paid a fair wage for their effort in order to perform more efficiently (Owens, 2004). The researcher's

findings indicated that elementary teachers were less satisfied with their current salary than were middle or high school teachers Prior studies support the findings of this study that suggests low pay is a key source of stress as well as a determining factor for dissuading individuals from pursuing a career in teaching, or leaving the education field (Leiman, Murdock & Waller, 2008; Barmby, 2006, Wilhelm, Dewhurst-Savellis and Parker, 2000).

Issues relating to student behavior and motivation produced the highest stress scores of all individual factors in this study. When analyzing responses by grade level, middle school teachers identified the greatest degree of stress due to a lack of motivation by students. These findings support earlier studies by Liu and Meyer (2005) and Brown Ralph and Brember (2002) which suggested that poor motivation and a lack of discipline were factors that contributed to feelings of stress. These findings also support research conducted by Geving (2007) which indicated that unmotivated students who don't meet performance goals cause teachers to experience stress, and a study by Yoon (2002) that identified the importance of developing strong student teacher relationships in order to decrease the behavior problems in the classroom.

A sense of empowerment has been cited as a factor that mitigates stress. Jepson and Forrest (2006) examined the relationship between stress, length of teacher service, grade level taught, and achievement orientation, and determined that there was no correlation between stress length of service , and grade level taught. While this study supports the findings that length of service is not a strong predictor of stress, it contradicts Jepson and Forrest's findings regarding the relationship between stress and grade level taught. The researcher's findings indicate that elementary teachers scored

higher than did middle or high school teachers in terms of overall empowerment. Zembylas and Papanastasiou (2005) suggested that professional growth, status and decision making opportunities are key determinants in the correlation between empowerment and job satisfaction, while Inman and Marlow (2004) identified a relationship between professional prestige and support from parents and other stakeholders and workplace autonomy The researcher's findings indicate that elementary teachers scored higher than did middle or high school teachers in terms of overall empowerment, and indicated they were more satisfied with the degree of involvement in school decisions, felt better supported by administrators, and were most satisfied with professional opportunities afforded to them. Despite scoring higher on the empowerment scale, elementary teachers in this study demonstrated an overall higher stress score than did their middle or high school counterparts. This suggests that a feeling of empowerment is not enough to offset the factors that contribute to stress such as excessive workload, student discipline and motivation concerns and a salary that is not commensurate with the workload.

Conclusions

The researcher has concluded from this study that teachers exhibit a moderate degree of occupational stress. Stress is present among teachers at all levels of experience, and no differences exist in stress levels based on length of service or based on gender. Differences in stress levels were identified based on grade level taught, with elementary school teachers exhibiting higher levels of stress than did middle school or high school teachers.

The results of this study suggest that despite a greater sense of empowerment, a heavy workload is a key determinant in causing stress. The researcher believes that the daily demands placed on elementary teachers including greater physical care of students and very little time in the day to complete necessary lesson planning and preparation leave teachers feeling more stressed out. While middle school and high school teachers identified student discipline issues and concerns about mandated testing as key stressors, there is planning time during the day to prepare lessons, and there are far fewer duties and responsibilities as compared to elementary teachers. The researcher believes that having enough time during the work day to carry out required duties, thereby eliminating the need to take work home enables teachers to feel less stressed in their job.

Implications

Teacher education courses and professional development offerings often include topics such as the nature and need of learners, how to differentiate to meet the needs of all students, and why education must be equitable to all, but not necessarily equal. The researcher believes the same principles must be applied when considering how best to support the educational system's most valuable asset; the teacher workforce. The findings of this study suggest that teachers experience occupational stress. The fact that no differences exist based on years of experience and gender indicate that stress exists for both male and female teachers at all levels of experience. Differences in stress levels were observed among teachers based upon grade level taught. The researcher believes that this indicates that there is not a one size fits all approach that will work to help reduce stress among the workforce. The factors that may mitigate feelings of stress such as empowerment, collegiality and stakeholder support may have a varying effect based

on job demands. Administrators must take the time to really understand the concerns of their staff members in order to find ways to reduce the stressors that affect them. The researcher believes that school systems must support the needs of teachers in order to maintain an efficient and effective workforce who are up to the challenge of educating a diverse student population. In the current economic decline in which teachers are being asked to work harder, deal with increased class sizes and accept reduced salaries due to furlough days, it is even more imperative that school administrators address the needs of their teachers in order to maintain a healthy productive workforce that is able to meet the needs of their students.

Recommendations

1. Further research should be conducted to evaluate the effect of the economic downturn on issues such as salary and workload.

2. Further research should be conducted to examine stress factors of special education teachers as compared to general education teachers.

3. Further research should be conducted to examine the sources of stress among private and public school teachers.

Dissemination

The researcher plans to share the results of this study with the Superintendent of Schools of the surveyed school district. The researcher will also share this study with other educators who have expressed an interest in seeing the results of this study upon its completion. A copy of the dissertation will be available at the Georgia Southern

University Zach S. Henderson Library. The dissertation will also be accessible through the GALILEO Interconnected Library Universal Catalog in an electronic format.

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APPENDICES

Georgia Southern University
Office of Research Services & Sponsored Programs

Institutional Review Board (IRB)

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To:	Sue Johannsen Linda Arthur
Cc:	Charles E. Patterson Vice President for Research and Dean of the Graduate College
From:	Office of Research Services and Sponsored Programs Administrative Support Office for Research Oversight Committees (IACUC/IBC/IRB)
Date	February 24, 2011
Initial Approval Date:	November 16, 2010
Expiration Date:	November 16, 2011
Subject:	Status of Research Study Modification Request

After a review of your Research Study Modification Request on research project numbered **H11112** and titled **"An Analysis of the Occupational Stress Factors Identified by Certified Teachers"** your reque for modification appears that (1) the research subjects are at minimal risk, (2) appropriate safeguards are planned, and (3) the research activities involve only procedures which are allowable.

The Amendment is to alter the survey instrument by adding and deleting some of the survey questions to clarify the survey and enhance the results.

Therefore, as authorized in the Federal Policy for the Protection of Human Subjects, I am pleased to notify you that the Institutional Review Board has approved your project amendment.

The IRB approval is still in effect for one year from the date of your original application approval and will expire on November 16, 2011. If at the end of that time, there have been no further changes to the research protocol; you may request an extension of the approval period for an additional year. In the interim, please provide the IRB with any information concerning any significant adverse event, **whether not it is believed to be related to the study**, within five working days of the event. In addition, another change or modification of the approved methodology becomes necessary; you must notify the IRB Coordinator **prior** to initiating any such changes or modifications. At that time, an amended application for IRB approval may be submitted. Upon completion of your data collection, you are required to compl a *Research Study Termination* form to notify the IRB Coordinator, so your file may be closed.

Sincerely,

Eleanor Haynes

Eleanor Haynes
Compliance Officer

Teacher Stress

1. Teacher Stress

This survey is designed to assess the level of stress that you are under in your job as a teacher, and to help us understand the underlying causes. The results of this survey will help us determine how to better support teachers in the classroom. The survey is very brief and should only take a few minutes to complete.

1. The school administrations's behavior toward the staff is supportive and encouraging.

	Strongly Disagree	Disagree	Agree	Strongly Agree
To what extent do you agree or disagree?	◯	◯	◯	◯

2. I am satisfied with my teaching salary.

	Strongly Disagree	Disagree	Agree	Strongly Agree
To what extent do you agree or disagree?	◯	◯	◯	◯

3. I feel frustrated because of discipline problems in my classroom.

	Strongly Disagree	Disagree	Agree	Strongly Agree
To what extent do you agree or disagree?	◯	◯	◯	◯

4. I receive support from parents for the work that I do.

	Strongly Disagree	Disagree	Agree	Strongly Agree
To what extent do you agree or disagree?	◯	◯	◯	◯

5. I feel frustrated having to monitor student behavior.

	Strongly Disagree	Disagree	Agree	Strongly Agree
To what extent do you agree or disagree?	◯	◯	◯	◯

6. Routine duties and paperwork interfere with my job of teaching.

	Strongly Disagree	Disagree	Agree	Strongly Agree
To what extent do you agree or disagree?	◯	◯	◯	◯

7. My principal enforces school rules for student conduct and backs me up when I need it.

	Strongly Disagree	Disagree	Agree	Strongly Agree
To what extent do you agree or disagree?	◯	◯	◯	◯

8. I worry about the security of my job because of the performance of my students on state or local tests.

	Strongly Disagree	Disagree	Agree	Strongly Agree
To what extent do you agree or disagree?	◯	◯	◯	◯

Teacher Stress

9. In this school, staff members are seldom recognized for a job well done.

To what extent do you agree or disagree?

Strongly Disagree ○ Disagree ○ Agree ○ Strongly Agree ○

10. There is a great deal of cooperative effort among the staff members at my school.

To what extent do you agree or disagree?

Strongly Disagree ○ Disagree ○ Agree ○ Strongly Agree ○

11. Staff or district content assessments have had a positive influence on my satisfaction with teaching.

To what extent do you agree or disagree?

Strongly Disagree ○ Disagree ○ Agree ○ Strongly Agree ○

12. I feel frustrated because some students would do better if they tried.

To what extent do you agree or disagree?

Strongly Disagree ○ Disagree ○ Agree ○ Strongly Agree ○

13. I feel my workload is just about right.

To what extent do you agree or disagree?

Strongly Disagree ○ Disagree ○ Agree ○ Strongly Agree ○

14. I feel frustrated attempting to teach students who are poorly motivated.

To what extent do you agree or disagree?

Strongly Disagree ○ Disagree ○ Agree ○ Strongly Agree ○

15. I often must bring work home to complete it.

To what extent do you agree or disagree?

Storngly Disagree ○ Disagree ○ Agree ○ Strongly Agree ○

16. I am dissatisfied with the amount of training available to me at my job.

To what extent do you agree or disagree?

Strongly Disagree ○ Disagree ○ Agree ○ Strongly Agree ○

17. There are not enough opportunities for my colleagues and me to assist and support one another.

To what extent do you agree or disagree?

Strongly Disagree ○ Disagree ○ Agree ○ Strongly Agree ○

18. I would like more input regarding decisions made at my school.

To what extent do you agree or disagree?

Strongly Disagree ○ Disagree ○ Agree ○ Strongly Agree ○

Teacher Stress

19. I am satisfied with the amount of professional development opportunities available to me at work.

	Strongly Disagree	Disagree	Agree	Strongly Agree
To what extent do you agree or disagree?	◯	◯	◯	◯

20. I feel frustrated when my authority is rejected by students and/or administration.

	Strongly Disagree	Disagree	Agree	Strongly Agree
To what extent do you agree or disagree?	◯	◯	◯	◯

21. I am satisfied with my involvement in important decisions made at my school.

	Strongly Disagree	Disagree	Agree	Strongly Agree
To what extent do you agree or disagree?	◯	◯	◯	◯

22. I like being a teacher at this school.

	Strongly Disagree	Disagree	Agree	Strongly Agree
To what extent do you agree or disagree?	◯	◯	◯	◯

*** 23. What grade level do you teach?**

◯ elementary school ◯ middle school ◯ high school

*** 24. How many years have you been employed as a teacher?**

◯ 0-3 years
◯ 4-7 years
◯ 8-11 years
◯ 12-15 years
◯ 16-19 years
◯ 20 or more years

*** 25. Please specify your gender.**

◯ male
◯ female