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INVESTIGATING STRESS RELATED TO BEGINNING TEACHER STANDARDS

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ABSTRACT

Investigating Stress Related to Beginning Teacher Standards

by

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The purpose of this study was to investigate the levels of stress experienced by novice special education teachers related to The Council for Exceptional Children national standards for beginning teachers. The Participants in this study were novice resource room and novice self-contained teachers in the Clark County School District. Data were collected using the *Teacher Stress Survey.* This survey measured levels of stress experienced by novice special education resource room and self-contained teachers at the beginning and end of the first semester.

There was no statistically significant difference in total reported stress between self-contained and resource room teachers. There was a statistically significant difference in reported stress between resource room and self-contained teachers in the communication stress scale. The resource room participants reported a lower level of stress. There was no statistically significant difference between participants in the Alternative Route to Licensure (ARL), the Specialized Teacher Education Program

(STEP), and the Teach for America (TFA) on the total scale of reported stress. There was a statistically significant difference between the Specialized Teacher Education Program (STEP) participants and the Teach for America (TFA) participants on the communication stress subscale. The Specialized Teacher Education Program (STEP) participants reported a higher level of communication stress. There was a statistically significant difference in reported stress between the Alternative Route to Licensure (ARL) and Specialized Teacher Education Program (STEP) and also between the Alternative Route to Licensure (ARL) and the Teach for America (TFA) on the collaboration subscale. The participants in the Alternative Route to Licensure (ARL) reported lower levels of stress. There was no statistically significant difference reported between the beginning and end of the semester. There was a statistically significant difference among the seven subscales. There was a statistically significant difference in reported stress levels between Instructional Strategies and Learning Environment, Professional/Ethical Practice, and Collaboration. Instructional Strategies caused a significantly higher level of stress than Learning Environment, Professional Practices, and Collaboration. There was a statistically significant difference in reported stress between Professional/Ethical Practice and Learning Environment, Communication, Instructional Planning, and Assessment. Learning Environment, Communication, Instructional Planning, and assessment caused higher levels of stress than Professional/Ethical Practice. There was a statistically significant difference in reported stress between Collaboration and Instructional Planning and Assessment. Instructional Planning and assessment caused higher levels of stress than Collaboration.

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CHAPTER 1

INTRODUCTION

The United States is experiencing a national teacher shortage. The nation's schools will need an unprecedented number of teachers over the next ten years (Chaika, 2000). According to the National Center for Education Statistics (1998), approximately 2.2 million teachers will be needed nationally in the next decade. The need stems from increased enrollment, teacher retirement, and teacher attrition. Only about 60% of university students who complete teacher preparation programs actually enter the profession after graduation (Chaika, 2000). There is a discrepancy between the number of certified teachers and the number of teachers working. National public school enrollment will exceed 54 million by the year 2008 (National Center for Education Statistics, 1998). The population of students increases yearly while the number of qualified teachers stays the same. Rural and high poverty districts will need more than 700,000 new teachers in the next ten years (National Center for Education Statistics, 1998). The demand for teachers in these districts is particularly high. The unique challenges found in rural and high poverty districts make it difficult to fill the available positions. Included among these challenges are student enrollment booms and low teacher salaries (Murphy & DeArmond, 2003).

Another area of particular concern is the shortage of highly qualified personnel within the field of special education. Special education teachers are in high demand nationwide. Students with disabilities need teachers with specialized preparation to meet their unique needs. According to the National Center for Education Statistics (1992), approximately 50,000 special education teaching positions were left vacant or filled by teachers who lacked full state certification. Personnel from the Department of Education reported to Congress that the shortage of special education teachers is "chronic." Specifically, they reported an estimated 27,000 positions for teachers of students ages 3 to 5 unfilled or filled by teachers not fully certified (Special Education News, 1999). They also reported the need for an additional 28,000 special education teachers for ages 6 to 12 (Special Education News, 1999). The shortage of early childhood and elementary special education teachers is of particular concern because they provide instruction on developmental skills that students with disabilities need as they progress through middle and high school. The foundation for success in school and life after school is largely dependent on early educational experiences.

Rural school districts and urban school districts are experiencing chronic difficulty filling special education positions (Rosen, Koetler, Irwin, & Saceda, 2004). A variety of creative solutions have emerged in an attempt to meet the critical demand in these areas. In some cases, special education teachers who have not yet finished their teaching degrees are in classrooms as full time teachers (Chaika, 2000). Some districts are using aides and paraprofessionals for teachers (Chaika, 2000). District personnel are placed in compromising situations when hiring teachers to fill these positions. About 10% of the special education teachers hired lack special education expertise (Rotherham,

2003). The demand for teachers of students with disabilities has great implications for school districts across the country. Incentive programs have been developed involving increased pay for teachers of students with disabilities, exemption from mandatory school site committees, exemption from extra meetings that only benefit teachers of students without disabilities, and staff development opportunities to increase knowledge of researched strategies for teaching students with disabilities. The bulk of the teacher shortages occur in schools in poor communities and in special education, math, and science (Rotherman, 2003).

Concurrent to this national teacher shortage is an educational reform movement that emphasizes raising educational standards and emphasizes the need for highly qualified teachers as articulated in the No Child Left Behind Act (2001). The No Child Left Behind mandate requires that all teachers be "highly qualified" in the subjects they teach by the year 2006 (Rotherman, 2003). This deadline has not been met. Education personnel are still struggling to meet this provision of the law. The No Child Left Behind law sets federal guidelines for teacher accountability (Delisio, 2002). Under this law, district personnel are under pressure to require strict criteria for new hires from the already small pool of applicants. The act states that all teachers teaching core subjects must be "highly qualified" (Green, 2003). This applies to both general education and special education teachers. The term "highly qualified" for a teacher who is new to the profession refers to someone who holds at least a bachelor's degree and demonstrates core subject knowledge in the area hired to teach (Green, 2003). Teachers demonstrate this knowledge through state tests. Not only does this law affect teachers, but educational assistants as well. Each state that receives funds under Title I, Part A, must develop a

plan for educational assistants hired after January 8, 2002, who are working in a program supported with Title I funds. The educational assistant must meet at least one of the following requirements: complete at least two years of post-secondary study, obtain an associate's degree, or meet a rigorous "standard of quality" (Hill, 2003). After meeting these strict guidelines, it is hoped that educational assistants will be better qualified for the role of instructional assistant. These requirements will challenge state education personnel to examine teacher certification processes, create high standards for both teachers and educational assistants, and promote professional development (Hill, 2003).

The combination of the teacher shortage and No Child Left Behind presents critical challenges within the education profession. Research has been conducted to better understand factors influencing the teacher shortage. An analysis of this research revealed that teacher attrition is the largest single factor contributing to the teacher shortage (McCreight, 2000).

Teacher Attrition

Schools in the United States are experiencing widespread teacher shortages because of the high rates of teacher attrition (Howard, 2003; Ingersoll, 2001). This is an annual problem experienced by many school districts across the nation. For the first time, in the 1990s, the number of teachers leaving the profession was higher than the number of teachers entering (Stern, 2003). In 1990, there were almost 200,000 teachers entering the profession and about 175,000 teachers leaving the profession (Stern, 2003). In 1999, there were about 230,000 teachers entering the profession and about 290,000 teachers leaving the profession (Stern, 2003). These figures included the retirees.

Consequently, the number of teachers in the profession is no longer commensurate with the growing student population. The national attrition rate in the 1993-1994 school year was 212,908 (Ingersoll, 2001). Thus, the overall teacher attrition rate was 13.2% (Ingersoll, 2001). The rate for high poverty public schools was 14.4% (Ingersoll, 2001). The rate in small private schools was 22.8% (Ingersoll, 2001). Even more shocking is that estimates show that 9.3% of public school teachers leave before finishing their first year (Recruiting New Teachers, inc., 1999) and that 30 to 50% of all teachers leave the profession within their first three to five years of teaching (Ballinger, 2000). In many cases, long-term substitutes have to be hired to replace the teachers mid-year. Students become confused and frustrated because the consistency and stability is gone. Teachers leave the profession for varied reasons, but leaving prior to finishing the first year or within the first few years of teaching is a clear indicator that problems exist. Something immediate and effective has to be done. Students can not afford to keep losing what often is the most stable person in their lives – their teachers.

Teacher attrition creates a significant staffing problem. District personnel are challenged to find ways to keep teachers in the profession. This challenge appears to be the greatest with regard to special education teachers. These teachers leave the field at higher rates than their general education counterparts (Nichols & Sosnowsky, 2002). In one study, Boe, Cook, Bobbitt, and Weber (1996) found that the attrition for special education teachers was significantly higher than the attrition of general education teachers. They also found that 28% of novice special education teachers left at the end of their first year of teaching. In a longitudinal study, Singer (1992) reported that after five years, 43% of novice teachers were no longer teaching in special education. In 1993,

Singer reported that yearly attrition rates of new special education teachers average 10% for the first six years of teaching and Gran (2003) reported that teachers of students with special needs were twice as likely to quit than social studies teachers.

The expectations placed upon a first year teacher of students with disabilities are very challenging. In addition to meeting the general demands placed on all new teachers, teachers of students with disabilities must meet the additional expectations of ensuring appropriate service, staying in compliance with the laws governing special education, and completing significant amounts of paperwork for individual students. This is a lot of responsibility for someone new to the profession. Thus, it is not surprising that teachers of students with disabilities are in high demand.

Teacher stress and subsequent professional burn out has been cited as a primary reason for the high attrition among special education teachers (Nichols & Sosnowsky, 2002). This is not surprising given the inordinate amount of pressure associated with their daily responsibilities. Moreover, the recent increased emphasis on teacher accountability may be exacerbating the problem.

Historical Overview of Teacher Stress among Special Educators

The issue of stress and burnout among special education teachers first emerged in the literature in the early 1980s less than a decade after the passing of PL 94-142 the Education for Handicapped Children Act (i.e., the act mandating that students with disabilities receive a free and appropriate Public Education). At this time, researchers noted that stress and burnout existed and that it influenced the attrition rate among special education teachers (Weiskopf, 1980; Zabel & Zabel, 1982). In the late 1980s, perceived

role ambiguity and conflict were noted as concerns in the special education literature (Crane, & Ewanicki, 1986). Additionally, the need to investigate the specific factors associated with teacher stress and subsequent decisions to leave the profession was noted (Metzke, 1988).

In the 1990s, researchers attempted to identify some of the factors that contribute to teacher stress and burnout among special education teachers. Researchers documented teacher frustration related to the range of student diversity in their classrooms (Billingsley, 1993; Billingsley & Cross, 1991). They also noted that teachers of students with emotional and behavioral disorders had particularly high levels of stress and higher rates of attrition than other special education teachers (Platt & Olson, 1990). Several researchers also reported that teachers assigned to self-contained settings are likely to experience higher levels of stress than other teachers (Brownell & Smith, 1993; Singer, 1993). Research in the 1990s also revealed that organizational factors contribute to the stress that special educators experience. Specifically, researchers found that lack of administrative support and lack of social support networks within the school and/or district contribute to teacher stress and burnout (Billingsley & Cross, 1991; Brownell & Smith, 1993).

Limited research has been conducted in the 2000s related to teacher stress and yet the need to understand the specific teacher stressors is greater than ever given the tremendous need to retain special education teachers in the profession. There has been limited work done related to teacher burnout in self-contained, cross-categorical classes. Researchers (Nichols & Sosnowsky, 2002) investigated the impact of numbers of heterogeneous disability categories, size of caseload, and proportion of students with

emotional/behavioral disorders on the degree of burnout among special education teachers. Neither number of heterogeneous disability categories nor size of caseload increased degree of burnout. Teachers with higher proportions of students with emotional/behavioral disorders did experience an increase in levels of depersonalization and distant attitudes towards students.

Historical Perspective Related to Induction Programs Support

To date, the primary response to teacher stress and attrition has been the development of novice teacher induction programs. It is hoped that these programs will result in the provision of support that new teachers need. It also is hoped that this support will help address the concerns surrounding the attrition rate among new teachers. The programs vary in structure and content. Different states develop and/or adopt different induction programs to fit the needs of their particular teachers. Exemplary programs offer several days of activities for new teachers before the beginning of the school year (Feaster, 2002). Practical activities may include practice using the computer grading program, taking attendance, unlocking and pulling the fire alarm, requesting a substitute, and ordering supplies. These things seem trivial to veteran teachers, but new teachers benefit tremendously from knowing the procedures prior to needing to use them. Feelings of isolation due to lack of knowledge negatively affect perceptions and increase stress levels for new teachers (Billingsley, 1993).

Fortunately, over the previous two decades, educators and researchers have acknowledged the need for new teacher support. Prior to 1984, only eight states in the country had formal policies related to beginning teacher induction programs (Doerger,

2003). Ideas for the development of teacher induction programs emerged from observing employers in the business field. These employers seemed to realize the importance of orienting new employees. Business owners helped build a strong foundation for their business through investing time and energy into their employees beginning with the first day on the job. Novice employees were placed on a production team and given every necessary opportunity for training and advancement. Educational leaders realized this effective model was not being used with teachers. In fact, teachers were expected to begin the school year with a multitude of responsibilities without site-based training and with limited opportunities for advancement. Support systems were absent and consequently teachers lacked confidence, experienced feelings of isolation, and were confused about job expectations. Educators decided to adopt the business model in the form of creative teacher induction programs.

Since the mid-1980s, increasing numbers of induction programs have been developed to provide assistance and mentoring to new teachers. Mentors help beginners learn the philosophy, cultural values, and established behaviors expected by the schools (Little, 1990).

In 1991, there were 31 states that had a plan to initiate, approve, or implement an induction program (Gold, 1996). The number continued to rise because more people were beginning to realize that high attrition rate for teachers was partially the result of job dissatisfaction. Teachers were entering the profession to enhance and improve the lives of young students, but the expectations and uncertainties seemed to outweigh the resources and support. Educational leaders viewed induction programs as a potential solution and began widespread implementation of various plans across the country.

By the mid-1990s, 34 state Departments of Education had implemented formal teacher induction policies. The programs in these states ranged from voluntary programs to pilot programs to state-mandated programs (Furtwengler, 1995). The voluntary programs allowed personnel in each district of the state to determine whether their new teachers would participate in the state induction program. The pilot programs allowed district personnel to choose several schools to participate in the induction program to evaluate its effectiveness prior to expanding to more schools. The state-mandated programs required districts to involve new teachers in the induction program.

In 1998, only 11 states reported that state-mandated teacher induction programs were in place (Sweeney & Debolt, 2000). Perhaps some states had less difficulty with teacher attrition and did not see a need for such programs. Another explanation for the low number of state-mandated programs may have been lack of clarity related to program structure and/or the specific needs of novice teachers. Finally, induction programs cost money and funding may be an issue for many districts.

By the year 2000, a couple more states (i.e., Indiana and Ohio) moved from piloted programs to state-mandated plans (Ohio Department of Education, 2001; Indiana Professional Standards Board, 2003). Perhaps this increase occured because of data showing the success of the pilot induction programs or because of the rising attrition rates in those particular states. A current challenge associated with state-mandated induction programs involves funding for the programs.

The variation in funding across states ranges from $20,000 in Mississippi and New Hampshire to $17.5 million in California (Weiss & Weiss, 1999). California has many school districts and may require more money to implement induction programs to

such a large population of new teachers each year. The districts in California are growing rapidly as a result of the growing population of students. States with more stable population growth do not hire as many new teachers each year.

Inconsistencies related to induction program implementation between states as well as inconsistencies between districts within the same state contribute to the funding challenges. Local school districts within the states are not always required to offer induction programs for beginning teachers and not all teachers are required to participate (Weiss & Weiss, 1999). Consequently, novice teachers who need support may not have access to an induction program or may choose to avoid participating in such a program. Consistency among districts within a state could prove beneficial. Teachers who switch jobs within a state would know what to expect upon entering a new district. Also, consistency across states regarding new teacher induction programs might gain attention at the federal level and result in increased funding for these programs.

In addition to inconsistencies related to the availability of teacher induction programs and whether they are required or voluntary, there also are inconsistencies related to specific program characteristics (e.g., length of program, who qualifies for participation, amount of program structure). Although induction programs vary from one school district to the next, typical components include information dissemination, staff development sessions, and mentoring. Researchers and educators view mentoring as one of the most promising components of teacher induction programs (Odell, Huling, & Sweeney, 2000) and hope that this support will result in highly qualified teachers who choose to stay in the profession.

Mentors are typically more accessible than a building administrator or people who work in the various district offices. Induction programs with a mentoring component can be used by a district for recruitment or retention of teachers (Feaster, 2002). Mentoring provides new teachers access to instructional knowledge and expertise from experienced colleagues (Feaster, 2002). Most induction programs lack specificity with regard to the type of support mentors should provide. Thus, the responsibility for setting the mentoring agenda is frequently left to the novice teacher who may be hesitant to ask for assistance or who may not clearly understand what he or she needs. It seems that mentoring relationships would be more productive if mentor teachers had an increased understanding of novice teacher stress. Systematic mentoring directly related to areas of high stress has the potential to prevent unnecessary burnout.

Statement of the Problem

The field of education is experiencing a critical shortage of highly qualified teachers. Shortages are particularly evident in special education. This problem has intensified over the past 20 years.

Researchers and educators have begun to investigate the variables associated with the teacher shortages. Teacher attrition has emerged as one of the most significant contributors to the teacher shortage. Thus, it is extremely important for researchers to investigate the various issues involved in teacher attrition. Literature related to teacher attrition reveals that novice teachers are the most vulnerable (Ballinger, 2000). Researchers indicate that the first few years of teaching are the most challenging and result in high levels of stress (Nichols & Sosnowsky, 2000). In response to these findings,

teacher induction programs have been developed to help address the needs of beginning teachers. Most of these programs include a mentoring component to provide support for new teachers, but there appears to be lack of specificity related to the type of support to provide. In the current era of educational accountability and the strong emphasis on employing highly qualified teachers, it seems that the support provided to novice teachers should address areas of high teacher stress that are specifically related to the beginning teacher standards they are expected to meet. Although such an approach is needed for all teachers, it seems particularly important for novice special education teachers because they are leaving the profession at the highest rates. Without a clear understanding of teacher stress related to performance expectations and the conditions under which this stress is experienced, it is difficult to provide appropriate and systematic support that will result in more teachers staying in the profession.

The purpose of this study was to investigate the levels of stress experienced by novice special education teachers related to The Council for Exceptional Children national standards for beginning teachers. The following research questions were answered:

1. Are there differences in levels of stress among novice special education resource room teachers and novice special education self-contained teachers?
2. Are there differences in levels of stress among novice special education teachers based on type of teacher preparation program?
3. Are there differences in levels of stress among novice special education teachers at the beginning and end of the first semester of the school year?

4. Are there differences in levels of stress among novice special education teachers based on specific skill areas of the beginning teacher standards?

Significance of the Study

Researchers and educators report that the first years of teaching are the most critical in determining whether or not a new teacher will remain in the profession (Whitaker, 2000). Thus, additional knowledge and understanding of stress among novice teachers is needed especially among special education teachers because of their high attrition rate. This study will add to the literature on this topic and will specifically add new information related to teachers involved in alternative licensure programs as well as new information related to national standards for beginning teachers and associated stress levels. It is hoped that this study will result in information that will assist both university and school district personnel in their quest to reduce attrition among special education teachers.

Limitations

The study was limited to teachers who have chosen to take an alternative route to licensure to secure employment in the Clark County School District. Therefore, caution must be used in terms of generalizing the findings to teachers who have taken traditional routes to licensure. Caution also must be taken with regard to generalizing the findings to other school districts. Survey research presents another limitation because the results are dependent on the willingness of the participants to respond honestly and in this case admit feelings of stress.

Definition of Terms

ARL. alternative route to licensure program developed to allow individuals who have at least an undergraduate degree in an area other than education to become special education teachers with the Clark County School District (Clark County School District Human Resources Division Licensure Information for the State of Nevada). Participants have completed 120 hours of staff development classes with Clark County School District and four classes in special education prior to being hired. Participants receive mentoring from Clark County School District mentors.

Attrition. the number of teachers in one year who are no longer teaching in the following year. (Texas Education Agency Public Education Information Management System, 1993)

Induction. a comprehensive, coherent, and sustained professional development process that is organized by a school district to train, support, and retain new teachers and seamlessly progress them into a lifelong learning program. (Wong, 2004)

Mentor. a single person whose basic function is to help a new teacher and serve as a component of the induction process. (Wong, 2004).

Novice teacher. a person who is new to the profession or who has accepted a new teaching assignment.

Retention. proportion of teachers in one year who are still teaching in the following year. (Texas Education Agency Public Education Information Management System, 1993)

STEP (Specialized Teacher Education Program) Program. alternative route to licensure program developed to staff special education self-contained classrooms with

licensed teachers (Clark County School District Human Resources Division Licensure Information for the State of Nevada). It is designed to prepare novice teachers who will teach in self-contained settings for students with mental retardation, autism, or students who qualify for early childhood special education or the KIDS program(i.e. early childhood autism program). Participants teach full time in Clark County School District while simultaneously completing coursework. Participants in this program hold a generalist license in the state of Nevada. Participants receive mentoring from project coordinators who are teachers on special assignment.

Teach for America. alternative route to licensure program developed to build the national movement to end educational inequity in the United States (Clark County School District Human Resources Division Licensure Information for the State of Nevada). It is designed to prepare first year teachers who hold a bachelor's degree from ivy league universities but not in special education. Participants are not required to complete coursework prior to being placed in the classroom and receive minimal mentoring.

Teacher stress. anxiety or feelings of uncertainty experienced as a direct result of experiences in the teaching profession.

Veteran teacher. a person who has been teaching for more than four years.

Summary

Increased research regarding stress levels for new teachers is needed. Lack of attention given to retention of teachers has resulted in enormous efforts on the parts of school districts for recruitment. These efforts are expensive and sometimes ineffective. The problem of attrition still exists and is steadily increasing.

The intent of this study was to contribute new information related to stress levels of novice special education teachers specifically related to the Council for Exceptional Children beginning teacher standards. The results of this study may have direct implications for new teacher job satisfaction and the subsequent decision related to remaining in the profession.

Although research exists supporting the use of mentoring programs as part of teacher induction, reliance on human mentors as an intervention for new teachers has limitations. Foremost among these is the time and effort required for mentoring. Thus, it is critically important for the available mentoring time to be used effectively and efficiently. One way to facilitate this is to gain additional information related to stress levels among novice teachers directly related to their job-related standards. This information can be used to improve the quality of mentoring provided during the induction years.

Details related to this study are discussed in subsequent chapters. A review of the literature relevant to this study is presented in Chapter 2. Methodology used for implementation of the study is discussed in Chapter 3. The results and discussion of their implications are reported in Chapters 4 and 5.

CHAPTER 2

REVIEW OF LITERATURE

There are three purposes for this chapter. The first is to summarize and analyze existing professional literature related to attrition, reasons for leaving individual schools or the profession, and the retention of beginning teachers. The second purpose is to summarize and analyze existing professional literature related to successful mentoring or induction programs. The third purpose is to summarize and analyze existing professional literature related to teacher stress. Knowledge of these three literature bases is needed to understand the national need for strategies or practices designed to reduce teacher stress and subsequently increasing the number of teachers who remain in the profession for more than five years. The chapter begins with a discussion of the literature review procedures used to locate experimental studies involving attrition rates, mentoring within the induction programs, and teacher stress are described. Then, the selection criteria used in this review are provided. Next, experimental studies related to attrition, reasons for leaving individual schools or the profession, retention of beginning teachers, mentoring or induction programs and teacher stress are summarized and analyzed. Finally, a chapter summary is provided.

Literature Review Procedures

A systematic search through databases including Educational Resources Information Clearinghouse (ERIC), Educational Abstracts, Psychological Abstracts, and Dissertation Abstracts was conducted. The following descriptors were used: teacher stress, teacher burnout, mentoring programs for new teachers, teacher attrition rates, teacher induction, teacher retention, teacher retention surveys, and teacher induction surveys. A search through reference lists of the articles obtained in the computer search was conducted. Next, a manual search was conducted on the recent issues of Teacher's College Record, Educational Leadership, and Teacher Education and Special Education.

Selection Criteria

Studies were included in this review if: (a) the procedures and data-based results were published between 1998 and 2004, (b) the subjects were certified beginning teachers or teachers who were no longer teaching, (c) the purpose of the study related to teacher stress, burnout, attrition, or the effectiveness of induction practices. Studies were excluded from this review if: (a) the subjects chose to leave the teaching profession after ten years, (b) no quantitative data were recorded.

Review and Analysis of Studies Related to Attrition

Henke and Carroll (2001) conducted a study to examine whether graduates with bachelor's degrees who were teaching in 1994 were still teaching in 1997. Data were taken from the 1993 Baccalaureate and Beyond Longitudinal Study. The National Center for Education Statistics (NCES) surveyed students who received Bachelor's degrees in

1993, 1994, and 1997. The sample of 9,300 graduates was taken from a national sample of 11,200 students who were involved in the longitudinal study. The 9,300 people participated in all three NCES surveys nationally.

Composites of answers were taken to summarize activities and occupation between 1994 and 1997. Of the 1992-1993 graduates, 80% were working. The rest of the graduates were students, not enrolled in classes, or unemployed. Most graduates were still working in 1997.

Among the teachers who were still working in 1997, K-12 teachers reported that their jobs were related to what they studied in college. Multiple regression analysis was used to determine whether occupation in 1994 was still associated with occupation in 1997. Graduates in no other occupation were more stable than teachers.

The study has several strengths. The researchers controlled for many variables including perceptions, age, gender, college entrance exam scores, undergraduate GPAs, and professional status. The sample size was large and included participants across the nation because the data were taken from another study called the Baccalaureate and Beyond Longitudinal Study. The study is weak in terms of practical implications. The data collected limits the researchers' ability to provide recommendations for school district programs and/or suggestions for future research.

The National Center for Education Statistics (1993) conducted a study to make predictions about how long teachers are likely to stay in the profession in Texas. Participants included 831 teachers who started teaching in the Texas public schools during the 1988-1989 school year. Nineteen percent of the new teachers left after the first

year, and of the remaining, twelve percent left after the second year. By the fifth year, almost half of the 10,381 teachers in the study had left.

The National Center for Education Statistics has collected national data using surveys. The data for this study and other longitudinal data on teachers from other states were used. Discrete-time survival analysis was used to examine the relationship between Texas teacher characteristics and the length of the teaching careers. The analysis also provides a hazard probability, which shows the probability that the teacher will quit in a particular year.

The results show that male teachers (9%) left at slightly higher rates than female teachers (8%) in 1992-1993. Teachers under thirty (over 10%) were more likely to leave. Out of 17,843 teachers who left after the 1992-1993 school year, 2,553 or 14.3% moved to other fields in education the next year. In 1988-1989, 26% of Texas teachers in the lowest salary group left after the first year compared to 17% in higher salary groups. Teachers with doctoral degrees left at higher rates than other teachers. Subject taught did not influence attrition. The main reason for leaving was to retire and pregnancy/child rearing was second. Teachers who taught in the smallest schools in Texas had the highest rate of leaving after the 1992-1993 school year. The researchers concluded that attrition rates do not vary much by gender or ethnicity, teachers with lower salaries are more likely to leave, teachers with advance degrees are more likely to leave, and contrary to data from other states, Texas teachers with higher scores on the certification exams are no more likely to leave than those with low or average scores. The researchers also concluded that school size and type are not related to attrition, the percent of minority students who are economically disadvantaged was not related to attrition, teachers with

the fewest years of experience in Texas and nationally leave at the highest rates, and induction programs have been implemented to provide support for beginning teachers.

The study had several strengths. The data from several surveys were used instead of just one. The comparison between national teacher attrition and Texas attrition was helpful. The sample size was very large. The data were divided into categories and compared to national data. A weakness of the study was the researchers failed to provide data related to the difference in attrition after the induction programs were mandated in 1991.

The Tennessee Tomorrow, Inc., the Department of Education, the State Board of Education, the Tennessee Higher Education Commission, and the P-16 Council conducted a study to investigate new teacher attrition in Tennessee because 42% of the new teachers who started in Tennessee schools in 1995 left within five years (Tennessee Tomorrow, Inc., 2002). The purpose of this study was to gain a better understanding of how to build a supportive environment for teachers, and to identify factors that contribute to a healthy teacher environment. A total of 487 teachers who were employed in Tennessee public schools after the Spring 2000 semester, but who left their positions with ten or fewer years experience were involved in the study.

Questionnaires were sent to the teachers to measure the effectiveness of teacher preparation, teacher development, and reasons for leaving. Questions were modeled after items from a previous report. The survey had fifteen questions. Descriptive statistics were used to analyze the data.

Results showed that nearly 68% of the participants were no longer teaching. The remaining 32% were teaching outside Tennessee public schools. Almost 63% of the 68%

indicated that they would more than likely teach again. Almost 93% rated their preparation courses as effective. Respondents rated professional development and mentoring as less effective than teacher preparation. Former teachers were dissatisfied with prestige, salary, and benefits. The most popular reasons for leaving included childrearing/pregnancy, lack of administrative support, and dissatisfaction with benefits and salary.

The large sample size was a strength of this study. Also, more than one important topic was addressed. It would have been interesting to compare the responses from those who were still teaching outside of Tennessee Public Schools to those who left the teaching profession altogether.

Review and Analysis of Studies Related to Reasons for Leaving Individual Schools or the Profession

Johnson and Birkeland (2003) conducted a study to examine the career paths of new teachers. They were particularly interested in exploring the reasons teachers leave their initial teaching positions. The participants were from Massachusetts. There were 50 new teachers who were involved in the study and the researchers examined their career paths over a period of four years.

The results showed that by the third year of the study, three teachers had been involuntarily transferred, eight teachers left for other careers, three teachers left to teach in private schools, and eight teachers transferred to other schools. The teachers who decided to move to another school expressed the reasons they were moving. Reasons focused on concerns related to appropriate course assignments, curriculum guidelines,

systems for discipline, communication with parents, and smooth transitions between classes. The teachers listed other problems including teaching subjects that they were not qualified to teach, feeling isolated from peers, and dealing with a chaotic environment. The teachers wanted consistency and explicit discipline procedures for inappropriate behavior from students. The teachers were dissatisfied the most with the administrators. They expressed displeasure with lack of administrative support and inaccessibility. The researchers concluded that school site factors need to support good teaching. These factors include appropriate assignments, sufficient resources, cooperative colleagues, and fair-minded principals.

The study had two primary strengths. First, the researchers identified important variables related to why teachers leave a site. The second strength involves the longevity of the research. The researchers tracked the teachers for four years. The study also had some weaknesses. There was no comparison group. The thoughts of teachers who were not finishing the first year would have revealed differences between those who stayed and those who left. There were no quantitative data collected to show the difference between the years. Finally, there may have been weaknesses related to instrumentation. The researchers failed to describe what instruments were used to gather and analyze data. This study would be extremely difficult to replicate.

Ingersoll and Smith (2003) conducted a study to examine the reasons for new teacher attrition. The population was drawn from respondents to the Schools and Staffing Survey (SASS) and the Teacher Follow-up Survey (TFS) conducted from 1999-2003. The sample consisted of 6,733 elementary and secondary teachers. A multivariate regression analysis was used.

The results show that between 40% and 50% of all beginning teachers left the profession. The respondents were new teachers who had left after the first year. They were asked to name up to three main reasons for leaving. 19% left because of staffing actions such as termination, reorganization, or closing. 42% of the teachers left because of personal reasons such as pregnancy, health problems, or family moves. 39% of the teachers left for better jobs. 29% of the teachers were just dissatisfied with their jobs. Out of the 29%, more than three-fourths of the teachers were quitting because of low salaries. Other reasons for leaving included student discipline problems, lack of administrative support, and little involvement in decision making.

The authors suggest that recruiting more teachers will not help the problem. They suggest increasing administrative support in schools and improving working conditions.

A major strength of this study is that a national population was used rather than a single school district or single state. The researchers focused on first year teachers and provided detailed information related to why teachers leave the profession after only one year.

Review and Analysis of Studies Related to Retention of Teachers

Kirby and LeBude (1998) examined the relationship between the impact of retention strategies and the level of concern among beginning teachers. The study population of 167 teachers included beginning vocational teachers with five or fewer years of teaching experience in North Carolina. Included among this sample were agricultural teachers, exploring biotechnology teachers, and health occupation teachers.

The researchers used descriptive techniques including surveys and a focus group to obtain quantitative information. The Strategies for Retaining Teachers Questionnaire was divided into five parts. Part I contained 4 questions about beginning teachers' levels of concern. Part II contained 36 questions designed to determine the impact of retention strategies on teachers. Part III measured level of job satisfaction. Part IV was designed to gather qualitative data about the nature of induction programs. Part V consisted of demographic information (gender, licensure area, type of school) related to the sample. Twelve of the teachers volunteered to participate in a focus group. They answered a 10-item questionnaire about the challenges facing beginning teachers.

Data from the concerns questionnaire were divided into three stages of concern; self concerns, task concerns, and impact on students concern. A five point Likert-type scale was used to rate concern levels and strategy impact. The researcher identified retention strategies and used the Strategies for Retaining Teachers Questionnaire to see if any had occurred and their impact. The data were reported as descriptive statistics. A Pearson-Product moment correlation was used to examine the relationship between impact of retention strategies and level of concern.

The results showed that a variety of retention strategies were being used. The five highest rated strategies were flexible licensure requirement deadlines, reimbursement for continuing education, a beginning teacher's handbook, developing friends in the teaching profession, and planning time before school starts. Primary strategies ranged from orientation on school policies to salary supplements. The type of assistance respondents received most frequently was emotional support. The levels of concern increased when new teachers moved from the Self-stage to the Impact stage. A moderate level of concern

existed at the Task stage. The focus group ranked these concerns in the following order of importance beginning with the most important: time management, equipment and budget, desire to leave teaching, discipline, accountability, evaluation, and tenure. The group also expressed frustration with administrative evaluations and the fact that there was no quality feedback following evaluations.

The researchers concluded that induction programs provided emotional support and procedural information, but neglected to address, planning time, and clerical issues. They concluded that concerns of teachers changed with more years teaching and that beginning teachers are concerned about the impact they are having on students rather than themselves. They found that teachers leave because of concerns about their own safety, inadequate materials and facilities, resources, and unnecessary tasks. Lastly, they concluded that different teachers benefit from different interventions for retention.

The study had several strengths. First, the sample size was large. Second, a focus group was included in the study to minimize some of the limitations of survey methodology. Third, the researchers identified 36 strategies that had the highest impact on teacher retention and linked these strategies to the appropriate stages of teacher concern. There were many components in this study and the discussion related to each component lacked clarity. Thus, it is difficult to determine whether there were problems with the study itself or simply problems with the explanation of the study. Because of this lack of clarity, it would be difficult to replicate this study.

Holloway (2003) examined strategies for maintenance of highly qualified teachers. He used the Fast Response Survey System of the National Center for Education Statistics and surveyed more than 5,000 teachers. The results showed that there is a link

between the amount of professional development received and teacher competence. The teachers were asked how well prepared they felt about certain items. 45% of teachers felt very well-prepared to implement new methods of teaching. 44% of the teachers felt prepared to use performance assessment. 32% of the teachers felt prepared to address needs of students with diverse backgrounds. 27% of the teachers felt prepared to integrate technology into subjects taught. Teachers who spent more than eight hours on professional development for a particular category felt they were more prepared than teachers who spent less or no professional development in that area.

The strength of the study was the very large sample size. Also, the study provides insight as to what strategies help retain highly qualified teachers. The researcher failed to report the analysis procedures that were used in the study. If the researcher used statistics to compare teachers who received more than eight hours of professional development to those who received less than eight hours, it would be helpful to know what procedure and level of confidence was used.

Klostermann, Presley, Peddle, Trot, and Bergeron (2003) researched professional development activities and the effect those activities had on teacher retention in the Illinois public schools. The participants included newly certified teachers and teachers who had one to five years experience. A total of 400 teachers from both groups were interviewed. There was also a follow-up focus group of 35 teachers who were newly certified or had one to five years experience.

Data were collected using telephone interviews with general and special education teachers. Descriptive statistics were used to analyze the data.

More than 80% of the participants from each group (i.e., general education and special education) reported their teacher preparation was adequate or more than adequate for working collaboratively, knowing subject matter, readiness, instructional techniques, and assessment techniques. Less than 70% reported low ratings related to working with students with special needs, implementing learning standards, and using technology. Both groups reported receiving helpful induction activities related to technology, mentors, and training on discipline.

The researchers concluded that most participants felt adequately prepared for the first year of teaching. The teachers' intentions to continue teaching were related to participation in specific induction activities such as release time, workshops, reduced duties, and technology training. They found that teacher satisfaction was higher among teachers who were involved in more induction activities. The researchers suggested that strategies for retaining teachers include reducing duties, release time, free workshops, lesson plan training, discipline training, and technology training.

The study included several strengths. First-year teachers as well as teachers with two to five years experience were interviewed. The focus group was paid a small stipend for participation. This may have increased the number of participants. It may also have influenced some participants to take the work seriously since they were receiving money. The researchers identified some specific strategies that correlated with teacher satisfaction and desire to continue teaching. There also were some weaknesses in this study. The sample was not controlled for interfering variables. People who volunteer may naturally have a better attitude about teaching. There was no longitudinal component or assessment over time in this study.

Mimbs (2000) conducted a study to examine the issues related to retention of certified teachers in Missouri including: characteristics of teachers who are not teaching, why they choose not to teach, and facilitating retention programs. The participants were certified family and consumer science teachers listed in state certification files as not currently teaching in Missouri. A mail survey was used to collect data. A total of 107 certified teachers who were not teaching responded. The survey instrument contained three sections. The first section addressed personal, employment, and education demographics. The second section addressed possible reasons for not currently teaching. The third section consisted of open-ended questions for participants to write reasons for not teaching and to offer suggestions for recruitment and retention of teachers.

Descriptive statistics including frequency distributions and percentages were used for analysis of demographics and reasons for not teaching. QSR NUD*IST Vivo (NVIVO) software for qualitative analysis was used for the open-ended questions. The software is used to examine respondent's text entries for themes or nodes and similar responses. Responses were recorded based on frequency and appearance.

The results showed the most frequent reasons for not currently teaching were other employment opportunities, low pay rate, inability to find teaching position in an area close to home, too many extra responsibilities for family and consumer science teachers, and desire to be full-time homemakers. Other reasons for leaving included frustration, stress of teaching, lack of administrative support, and elimination of positions. Teachers were concerned about support for students who behave inappropriately in class. Participants suggested that more experience in the classroom prior to teaching was needed. The author concluded that teacher preparation programs

cannot control for some teacher concerns. Based on the participant responses, Mimbs (2000) concluded that teachers need higher salaries, more part-time positions, mentor teachers, and more administrative support in the classroom if teacher retention is to occur.

The instrumentation in this study was a primary strength. The open-ended questions allow respondents to offer suggestions for improvement. A limitation of the study was that the survey was completed voluntarily. The people who choose to fill out a survey may have better attitudes about things in general than people who choose not to. The specific suggestions for recruitment and retention of new teachers that the respondents wrote were not shared. Thus, it is difficult to determine the quality and/or feasibility of the acquired data.

Fuller (2003) investigated the effectiveness of the Texas Beginning Educator Support System (TxBESS) to improve retention in Texas. 15% of the new teachers in Texas took part in the study. A survey questionnaire was mailed annually for three years. The questions asked about participation in the TxBESS and about the relationship between mentors and mentees. Teacher retention data were gathered from a state personnel database. The researcher compared retention rate with support system participation. Descriptive statistics were used to analyze data.

Fuller (2003) found that teachers who were involved in support systems the first year left at lower rates than teachers who did not participate. After the first year, 89.1% of the teachers in the support program returned the second year and 81.2% of the non-participating teachers returned. After the second year, 82.7% of participating teachers returned and 74.3% of non-participants returned. After the third year, 75.7% of

participants returned and 67.6% of non-participants returned. All three years showed statistically significant differences between teachers who participated in TxBESS and those who did not.

The study had several strengths. The results were similar across all school levels. The program was found to be helpful to teachers who did not have full certification. The sample was sufficient because the researcher had access to the state personnel database. The primary weakness in this study was that the school district personnel had the opportunity to choose who could or could not be involved in the study. This raises questions about respondent bias.

Review and Analysis of Studies Related to Mentoring or Induction Programs

Slaybaugh, Evans, and Byrd (2000) conducted a study to determine whether the attitudes of teachers enrolled in a Louisiana induction program changed from year one to the end of year two of teaching and to determine whether the teachers were still committed to teaching. A total of 74 second-year teachers who were traditionally certified or alternatively certified participated in this study. The teachers completed a survey during their first year of teaching and again at the end of their second year of teaching. Standard deviations and means were calculated for each item on the survey. The researchers compared the results of the second survey to the answers from the first year using analysis of variance and follow-up Scheffe procedures.

The results demonstrated that satisfaction with teaching performance and assessment of the induction program increased significantly from the first year to the second year. 97% of the teachers at the end of the second year planned to keep teaching.

100% of the teachers at the end of the first year had planned to continue teaching. The lowest mean responses were calculated for classroom management, discipline, relations with parents, teacher support, and assessment of school induction programs. The researchers concluded that the teachers valued the two-year induction program. They noted, however, that other interventions should be available to help new teachers succeed.

A strength of the study was the large sample size. Also, the survey only had fifteen items. This may have increased the response rate. There were a couple of weaknesses. There was no comparison group. The data from a group of teachers who did not receive the induction program would have been beneficial to compare results across two years. Also, a description of the intervention and induction program would have been helpful if a researcher desired to replicate based on the information provided.

Ingersoll and Smith (2004) conducted a study to examine how widespread induction programs are across the nation, whether there has been an increase in programs, what components the programs include, and the effects that these programs have on likelihood that teachers will stay or leave the profession. The National Center for Education Statistics School and Staffing Survey and the Teacher Follow-up Survey were used for data collection. The United States Census Bureau collected the data from random schools. A total of 3, 235 elementary and secondary teachers participated in the survey. A multinominal logistic analysis was used.

The data revealed that the percentage of teachers who receive induction or mentorship has increased from 40% in 1991 to 80% in 2000. Most new teachers are involved in some kind of induction program, but the programs vary from school to

school. 90% of the mentees found the mentor helpful. The researchers found an association between whether teachers received induction and mentoring support and likelihood they would leave the profession. The significance of the association depends on how many supports and which types were received. The strongest factors were having common planning time, having regularly scheduled collaboration, and being part of an external network of teachers. The weakest factors included a reduced teaching schedule, reduced number of preparations, and extra classroom assistance. As the number of components to a program increased, the probability of teacher turnover decreased.

Included among the study strengths was the tight control of many variables. Specifically, the authors controlled for race, gender, age, whether full time teacher, subject of teaching, school-related earnings, school level, urbanicity of the community, school sector, and poverty level of students. The sample represented teachers across the nation. The weakness of the study was that the specific causes for teachers leaving were not determined. Also, some of the questions were vague or general. For example, participants were asked if their mentors were helpful.

Pan (2000) examined the status of teacher mentoring activities in Texas school districts. The subjects were district superintendents. A total of 358 completed surveys were returned to represent different districts in Texas.

The survey addressed issues of state policies for induction and mentoring programs. The survey included forced choice, scale, and open-ended questions. It was available online as well as hard copy. The researcher used simple descriptive and comparative statistics. SPSS was used for data analysis.

Results were broken down into six categories including perception of teacher shortages, motivation for providing mentoring, mentor program structure, program characteristics, needs and barriers, and program results. 72% of district superintendents expressed that programs were needed to improve skills of new teachers and 62% expressed that the most important reason for mentoring programs was to improve student success. 28% of the superintendents provided incentives or stipends to mentors, but only 5% provided incentives or stipends for beginning teachers. With regard to mentor training, 31% of the districts represented in this study provide short term training of less than one day to one week and nearly one quarter of the districts provide no training for their mentors.

A strength of this study was that the researcher sent the survey to district superintendents instead of teachers. Thus, the opinions of those responsible for program implementation were acquired. Also, there was a large sample size. The weakness of this study related to interpretation of the open-ended questions. There may have been researcher bias.

Eberhard, Reinhardt-Mondragon, and Stottlemyer (2000) conducted a study to examine the effects of mentoring on beginning teachers in South Texas. A total of 228 new teachers were involved in the study. New teacher was defined as having three years of teaching experience or less. A survey questionnaire was sent to all new teachers. The questions were about aspects of mentoring. The researchers were interested in whether the first-year teachers intended to remain in the teaching profession. Simple descriptive statistics were used.

Findings of positive effects for mentored teachers decreased after the second year. The first or second year teachers with mentors reported that they were more likely to continue teaching than those who did not have a mentor teacher. Third year teachers with mentors were just as likely as those without mentor teachers to return. 90% of the first year teachers who had a mentor planned to continue teaching, but only 61% of the teachers without mentors planned to continue teaching. Teachers who spent more than one hour per week with the mentor (90%) were more likely to say that they planned on continuing teaching than those who spent less than one hour per week with the mentor (76%).

The study contributed to the existing literature on the effects of mentor teachers on first or second year teachers' attitudes about staying in the profession. Another strength of the study was the large sample size. The study has some weaknesses. The participants volunteered for the survey and that could have an effect on the results. The authors neglected to report any statistical significance found in the data. The intent to return to teaching was recorded, but the data related to whether the participants followed through with their intent is missing.

Cheng and Brown (1992) conducted a study to evaluate the effects of a mentor program in Toronto. The mentors and mentees were paired if they taught similar grade levels or programs. The mentor program lasted for two years. The first year, there were 17 teachers in the experimental group (had mentors) and 17 in the control group (no mentors). The second year, there were 29 teachers in the experimental group and 43 in the comparison group.

Questionnaires were sent to the principals, and mentors, as well as to mentees, and to non-mentored teachers. The questionnaires included questions regarding teaching experience, decision to become a teacher, whether they would choose teaching again, plans to stay in teaching, and difficulties the first year. The researchers examined the data without using a statistical analysis. The authors found that the mentees rated a more positive overall experience than the non-mentored group (88% compared to 53%) for the year one cohort. The second year the results were 86% to 76% respectively. 100% of the teachers who were mentored expressed that they made the right decision to teach while 73% of the non-mentored agreed. The second year the results were 90% to 88% respectively. The survey question about choosing teaching again as a career appeared to be redundant because the results were the same as making the right decision to teach. The question about planning to stay in teaching resulted in affirmative answers for 76% of those who were mentored and 60% of those who were not mentored during the first year. The second year the results were 97% to 91% respectively. The authors concluded that the Teacher Peer Support Program showed positive effects.

The strengths of this study include sending questionnaires to teachers and principals and collecting data for two years. The comparison between the first and second year was particularly informative demonstrating that the first year is more difficult. The weaknesses of this study include not using a statistical analysis to determine significance, not using a systematic approach for choosing subjects, and not controlling for differences in participants.

Odell and Ferraro (1992) conducted a study in New Mexico to improve retention of beginning teachers who had been mentored. Eighty-one beginning elementary teachers participated the first year and 79 elementary teachers participated the second year.

Nine mentors were selected to provide support for all of the teachers inside and outside the classroom. The teachers were sent a questionnaire four years after the mentoring experience to see if retention occurred. Teachers were considered retained if they were still teaching four years later.

The data were analyzed using descriptive statistics. 96% of the two groups of teachers who had been mentored were still teaching four years later. The researchers compared the retention rates of the study participants to all statewide beginning teachers. The turnover rate for the state was more than 9%, but the mentored beginning teachers' rate was 4%. The authors concluded that a mentoring program can positively effect retention rates in schools.

The longitudinal nature of this study is a strength. The researchers used beginning teachers two different years. The researchers waited four years to check to see if participants were still teaching. Another strength was noted related to mentor selection. The selection was a collaborative effort involving university personnel as well as site administrators. Although the retention rate of mentored teachers was compared to overall state rate of retention, there were no specific control groups identified while the mentoring intervention was taking place. Another weakness of this type of study was the lack of control for other variables (e.g. money, site induction programs) that could have influenced the retention rates for the participants.

Review and Analysis of Studies Related to Teacher Stress

Vance, Miller, Humphreys, & Reynolds (1989) researched the strongest and most frequently occurring sources and manifestations of stress for teachers working on an Indian Reservation. The participants included 30 full-time teachers teaching on an Indian Reservation in Arizona.

Data were collected using The Teacher Stress Inventory. The participants responded using a five-point Likert-type scale. The inventory measured six factors of stress that included personal/professional stressors, professional distress, discipline and motivation, emotional manifestation, biobehavioral manifestations, and physiological-fatigue manifestations.

The primary sources of stress for the teachers were items dealing with inadequate salary and lack of recognition. Teachers also felt frustrated by their lack of involvement in decision making, professional involvement, and not having opportunities to voice opinions regarding school policies. Major sources of stress included time management issues. Teachers reported they were unable to find time to relax. They also reported not having enough time to get the job done, and that too many demands were placed on teachers. The lack of teaching experience was not a major factor regarding perceived stress.

The authors concluded that teachers who perceived that they received little administrative support appeared to have significantly more stress than did those who perceived they received a lot of administrative support.

The sample used in this study was a strength. The participants were diverse. The ages ranged from 20 to over 50 years of age. The grade levels taught were from first to

eighth. The weakness of the study is that it was conducted in a rural environment with one school district.

Adams (1999) conducted a study to examine the relationship between identified teacher internal characteristics (role preparedness, job satisfaction, life satisfaction, illness symptoms, locus of control, and self-esteem) and stress in vocational teachers. The researcher was specifically interested in identifying variables emanating from teacher internal characteristics that explain stress. Additionally, Adams hoped to build and test a model to explain relationships among variables and stress. The participants included 235 vocational teachers in public schools in Virginia.

Data were collected using the Teacher Stress Measure including 70 items with a six-point Likert-type scale. A Personal Behavior Inventory was used to measure locus of control. This measure involved self-report using a five-point Likert-type scale. The Self-Esteem Scale was used to assess self-esteem levels. It consisted of ten items that were measured on a four-point Likert-type scale. The Tennessee Stress Scale-R was used to measure stress levels. It included 60 statements requiring answers of yes or no.

Results showed that vocational teachers having the least amount of preparation had the greatest stress levels. Lack of job or life satisfaction increased stress. Teachers experiencing illness reported greater stress. Role preparedness, illness symptoms, and self-esteem were found to be significant contributors to stress.

Adams drew several conclusions from the research results. First, the less control teachers believe they have over events occurring in their lives, the more stress they feel. Second, teachers having lower self-esteem have higher stress scores. Third, teachers who feel unprepared or incompetent in their occupations encounter stress. Fourth, teachers

who are unable to adapt quickly to changes in the work environment exhibit higher levels of stress than teachers who adapt quickly. Finally, teachers who are well prepared and competent in their teaching roles experience less occupational stress.

The strength of the study is the large sample size. The weakness of the study is that the participants were all vocational teachers. Thus, the ability to generalize the findings is limited.

Adams (2001) conducted another study to examine the effects of school systems, teacher internal characteristics and students on vocational teacher stress. The participants included 235 vocational teachers in public schools in Virginia.

Data were collected using the Teacher Stress Measure including 70 items with a six-point Likert-type scale. A Personal Behavior Inventory was used to measure locus of control. This measure is a self-report using a five-point Likert-type scale. The Self-Esteem Scale was used to assess self-esteem levels. It consisted of ten items that were measured on a four-point Likert-type scale. The Tennessee Stress Scale-R was used to measure stress levels. This instrument included 60 statements requiring answers of yes or no.

The effect of student on teacher stress was not found to be significant. The effect of internal teacher characteristics on stress was found to be significant. The researcher concluded that when explaining teacher stress, it is important to evaluate system-related stressors. These stressors include role conflict, school stress, nonparticipation, role overload, task stress, management style, role ambiguity, supervisory support, and peer support. The researcher also concludes that it is important to consider internal characteristics when investigating teacher stress. These characteristics include life

satisfaction, illness symptoms, job satisfaction, self-esteem, role preparedness, and locus of control.

A strength of the study was the use of many instruments to measure stress. Also, the sample size was large. The weakness of the study is that all of the participants were vocational teachers.

McCormick (2000) conducted a study to examine views of teachers toward educational authority figures and associated occupational stress. The participants included 120 teachers from six Catholic secondary schools in New South Wales, Australia.

Data were collected using a questionnaire with three sections. The first section measured information on gender and number of years teaching. The second section measured potentially stressful aspects of teaching which was scored on a five-point Likert-type scale. The third section included nine items related to persons or institutions who may be responsible for occupational stress. Teachers in group one were required to read contrived text portraying the Catholic Education Office as successful, group two read contrived text portraying the Catholic Education Office as unsuccessful, and control group three did not read any text prior to completing the questionnaire.

The results revealed that teachers who believe that an education authority is successful will attribute less occupational stress to that authority figure than teachers who believe that the educational authority is unsuccessful. The researcher's hypothesis, teachers who believe that an education authority to which they attribute responsibility for occupational stress is successful will report less stress associated with that authority than teachers who believe that the authority is a failure, was not supported. There was

significance related to gender interaction. McCormick concluded that females tend to make more internal attributions for failure than males.

The large sample size was a strength of this study. The weakness was that all of the participants worked in Catholic schools. It is possible that teachers in these settings differ from public school settings. Thus, generalization is limited.

Jarvis (2003) conducted a study to explore social representations of occupational stress and stress management among teachers at a College of Further Education. The study was conducted two years after the participants received a stress management intervention persuading teachers to take individual responsibility for stress and abandon their organizational attributions. The participants included ten teachers in a College of Further Education.

Data were collected using a hybrid interview/questionnaire design. The measure included a word association task, a Likert-type scale, and an interview. The participants were verbally cued to recall stress management training they received. Then they were asked to list ten words that came to mind when cued. Next, participants filled out the questionnaire. The questionnaire used a Likert-type format designed to assess beliefs about the locus of stress and of responsibility for stress management. Finally, participants were given a short interview about stress management training and perceptions of stress management.

Results showed that time pressure, symptoms, and accountability were significant factors in teachers' beliefs about occupational stress. Results suggested that teachers believe that stress is located in organizations rather than the individual. The teachers

believe that responsibility for dealing with stress was located with employers rather than employees.

The strength of the study was the different measures used for stress. The weakness of the study was the small sample size.

Tuettemann (1991) conducted a study examining the levels of dissatisfaction and stress among teachers. The participants included 574 teachers in Western Australia. They were all full-time classroom teachers in secondary schools. Their teaching experience ranged from zero to 38 years.

Data were collected using a 30 page questionnaire called the Teacher Stress Survey with 360 items. The questionnaire addressed biographical and demographic factors, contextual factors, environmental factors, student factors, staff-staff and staff-administrator relations, and professional conditions.

Results showed that the less tangible rewards are important to teachers (e.g., success of students). There were significant differences between responses for males and females. Male teachers were more likely than female teachers to say that the curriculum was irrelevant to students, that students did not seek help from them, and that they could not be on close terms with students. Teachers found it important to receive acknowledgement, praise, and recognition for their work.

The researcher concluded that the majority of secondary teachers consider success with students and recognition from students and administrators important to job satisfaction. These factors were more highly rated than salary or promotion especially for female teachers. Of the teachers who participated in this study, 19% felt unable to handle severely disruptive students.

The strength of the study was the large sample size. The weakness of the study was the instrument. The questionnaire included 30 pages. Thus, some of the participants may have answered the questions without much thought due to the lengthiness.

Ritvanen, Laitinen, and Hanninen (2004) conducted a study to evaluate the profile of autonomic control of the circulatory system in high school teachers. The participants included nine healthy teachers with a mean age of 42. The teachers were screened for good health and no medication.

Data were collected using autonomic function tests during the work days, weekends, and the holidays. The participants did 5-minute controlled breathing, deep breathing, and active orthostatic test. Systolic and diastolic pressures were measured.

Results showed that on work days teachers were more stressed. Teachers were a little stressed on the weekends. None of the teachers felt stressed after the holidays. The authors concluded that weekend rest was not enough. Work for a teacher is mentally stressful.

The strength of the study was the use of medical measures. They may be more valid than teacher self-reports of stress. The weakness of the study was the small sample size and the fact that there were no controls for diet and/or activities within the personal lives of the participants.

Summary

Based on this review of literature, information was obtained related to teacher attrition and reasons teachers choose to leave their individual schools or the profession.

Researchers in the area of teacher attrition indicate that attrition is a problem particularly in the initial years of teaching. Specifically, researchers have reported 40%-50% attrition rates in the teaching profession within the first five years (The Tennessee Tomorrow, Inc., 2002). However, Henke and Carroll (2001) reported that 80% of the teachers who were teaching at the beginning of the study were still teaching three years later which represents a 20% attrition rate.

Researchers reported that there were varied reasons for teachers to leave the school or the profession within the first five years. Some of the reasons included involuntary transfer, other careers, termination, schools closing, low salary, student discipline problems, lack of administrative support, and personal reasons such as pregnancy, health reasons, or family moves (Ingersoll & smith, 2003;Johnson & Birkeland, 2003).

This review of literature also resulted in information related to the use of retention and induction programs to assist in teacher retention. Researchers reported several positive strategies for retention of novice teachers. Included among these were flexible licensure requirements and deadlines, reimbursement for continuing education, beginning teacher handbook, networking, planning time before school starts, professional development, release time during induction, reduced duties, and administrative support (Kirby & LeBude, 1998; Holloway, 2003; Klostermann, Presley, Peddle, Trot, & Bergeron, 2003; Mimbs, 2000; Fuller, 2003).

Researchers also reported that induction programs and mentors for novice teachers help with retention of teachers (Slaybaugh, Evans, & Byrd, 2000; Ingersoll & Smith, 2004; Pan, 2000; Eberhard, Reinhardt-Mondragon, & Stottlemeyer, 2000; Cheng

& Brown, 1992; Odell & Ferraro, 1992). This body of literature revealed that new teachers who were involved in induction programs with or without mentors reported feeling more prepared than teachers who did not receive any mentoring or induction type programs.

The final component of this review of literature specifically addressed research related to teacher stress. Researchers reported varied sources of stress for novice teachers. Some of the sources include inadequate salary, lack of recognition, lack of job satisfaction, role overload, success of the organization, time pressure, lack of praise, and inadequate days off (Vance, Miller, Humphreys, & Reynolds, 1989; Adams, 1999; Adams, 2001; McCormick, 2000; Jarvis, 2003; Tuettemann, 1991; Ritvanen, Laitinen, & Hanninen, 2004).

Although researchers note that teacher stress contributes to the problem of teacher attrition and that there are various general sources of the stress novice teachers experience, no research was found related to the stress levels of novice teachers related to the Council for Exceptional Standards for Beginning Teachers. Competency with these standards is expected and required for novice teachers to be successful. Thus, it is important to acquire information related to the stress teachers experience related to these standards. This information may be useful for both teacher educators and school district personnel responsible for novice teacher induction programs.

CHAPTER 3

METHODOLOGY

The purpose of this study was to investigate the levels of stress experienced by novice special education teachers related to the Council for Exceptional Children standards for beginning teachers. This study addresses the following questions:

1. Are there differences in levels of stress among novice special education resource room teachers and novice special education self-contained teachers?
2. Are there differences in levels of stress among novice special education teachers based on type of teacher preparation program?
3. Are there differences in levels of stress among novice special education teachers at the beginning and end of the first semester of the school year?
4. Are there differences in levels of stress among novice special education teachers based on specific skill areas of the beginning teacher standards?

Methods and procedures will be outlined in this chapter. The chapter is divided into five sections. First, there will be a description of the participants involved in the study. Second, the setting will be described. Third, the instrumentation used in the study will be explained. Fourth, the design and procedures will be outlined. Last, there will be a description of the treatment of data.

Participants

A total of 43 teachers participated in the study. These teachers were enrolled in three different alternative licensure programs. The first group of participants consisted of 22 first-year teachers who were enrolled in the Alternative Route to Licensure (ARL) program at the University of Nevada Las Vegas. The ARL students are first year teachers who have Bachelor's Degrees in areas other than special education. They must complete 120 inservice hours with Clark County School District and four classes in special education at the University of Nevada Las Vegas prior to being hired. They receive mentoring from five Clark County School District mentors. The second group, consisting of 7 participants, was enrolled in the STEP program. They were assigned to teach in self-contained settings. This was their first year of teaching in these settings. The STEP participants received mentoring from two mentors. The third group, consisting of 14 participants, was enrolled in the Teach for America program and were all first year teachers who received very little mentoring. They were required to take three classes at the University of Nevada Las Vegas prior to being hired to teach. Demographic information is provided in Table 1 (e.g., setting, gender, highest degree earned, grade level teaching, and type of school) for each of the three groups.

Setting

The study took place within special education classes at the University of Nevada Las Vegas. The Department of Special Education is accredited through the National Council for Accreditation of Teacher Education (NCATE) and in full compliance of the Council for Exceptional Children (CEC) standards.

Table 1

Demographic Information for Participants

Participants	ARL	STEP	TFA
Gender			
Male	11	0	5
Female	11	7	9
Highest Degree Earned			
Bachelors	13	7	12
Masters	9	0	2
Ed Specialist	0	0	0
Grade Level Teaching			
High School	7	0	1
Middle School	9	0	6
Elementary School	6	7	7
Teaching Setting			
Resource Room	20	0	14
Self-Contained	2	7	0
Type Of School			
Urban	15	3	13
Suburban	7	4	1

Note. ARL = Alternative Route to Licensure; STEP = Specialized Teacher Education Program; TFA = Teach for America

The University of Nevada Las Vegas is a metropolitan university with enrollment of over 28,000 graduate and undergraduate students. The University of Nevada Las Vegas offers more than 200 Degree programs ranging from the Bachelor's to the Doctorate levels. There are approximately 850 faculty members.

Instrumentation

The instrument used in this study was a survey titled the Teacher Stress Survey (See Appendix A). The survey consists of 71 questions designed to measure the level of stress related to the Council for Exceptional Children Standards for common core skills identified in the knowledge and skill base for all beginning special education teachers. There are seven Standards that describe skills that every teacher of students with exceptional needs should master. The seven Standards are as follows: instructional strategies, learning environments and social interactions, communication, instructional planning, assessment, professional and ethical practice, and collaboration. Each Standard consists of common core skills. The questions for the Teacher Stress Survey were developed using those skills. There are six questions related to instructional strategies. There are sixteen questions related to learning environments and social interactions. There are two questions related to communication. There are fourteen questions related to instructional planning. There are ten questions related to assessment. There are twelve questions related to professional and ethical practice. There are eleven questions related to collaboration.

The participants were asked to respond to the level of stress experienced related to each of the 71 common core skills. A four-point Likert Scale was provided on the survey

and participants indicated whether they felt no stress, mild stress, moderate stress, or severe stress. Attached to the Teacher Stress Survey is a demographic survey. Specific items on this survey include: gender, setting, highest degree earned, grade level teaching, instructional setting, and type of school (e.g. urban).

Design and Procedures

Phase One: Instrumentation Development

The Teacher Stress Survey was developed for this study. The instrument was reviewed by a panel of three experts who have experience in survey research. The survey was also pilot-tested with a group of 14 graduate students enrolled in a special education course at the University of Nevada Las Vegas. The instrument was revised based on feedback received from both the panel of experts and the graduate students. Specifically, a brief definition of stress was added and the cells corresponding to the headings were blacked out so participants would not be confused.

Phase Two: Study Preparation

The research protocol proposal, Teacher Stress Survey, and informed consent form were submitted to the University of Nevada Las Vegas Institutional Review Board for approval to conform to University and federal policies for ethical use of human subjects in research. See Appendix B for the approved Informed Consent Form.

Potential participants were identified through the ARL, STEP, and Teach for America programs at the University of Nevada Las Vegas. Project coordinators for each program were contacted to solicit assistance with administration of the survey and demographic page during preplanned mentoring sessions and scheduled classes in which

the participants were enrolled. Instructors for these university courses were contacted to secure permission to administer the survey during class time.

Phase Three: Data Collection

The study included two data collection periods. The first administration of the Teacher Stress Survey was completed at the beginning of the school year. Participants were asked to complete the informed consent forms. These forms were collected and then the Teacher Stress Survey was disseminated. The second and final administration of the Teacher Stress Survey was completed at the end of the University semester. The researcher and research assistants disseminated the surveys and collected them. Each set of surveys and demographic information were collected and placed in separate envelopes with the name of the teacher preparation program on the outside (i.e., ARL, STEP, or Teach for America). The SPSS program was used to enter the data including demographic information for each participant. The first administration took place at the beginning of the school year during the first two weeks of September. The last administration took place during the last week of November and the first week of December.

Treatment of Data

Data from the Teacher Stress Survey were analyzed to answer the four research questions in this study.

1. Are there differences in levels of stress among novice special education resource room teachers, novice special education self-contained teachers?

It is reasonable to assume that pre-existing stress is randomly distributed among all three groups of novice teachers. Therefore, an Analysis of Variance (ANOVA) was used to compare the grand mean scores of the first and second administrations of the Teacher Stress Survey for each group of teachers. A .05 confidence level was used to determine statistical significance.

2. Are there differences in levels of stress among novice special education teachers based on type of teacher preparation program?

It is reasonable to assume that pre-existing stress is randomly distributed among all three groups of novice teachers. Therefore, an Analysis of Variance (ANOVA) was used to compare the grand mean scores of the first and second administrations of the Teacher Stress Survey for the ARL, the STEP, and the Teach for America participants. A .05 confidence level was used to determine statistical significance.

3. Are there differences in levels of stress among novice special education teachers at the beginning and end of the first semester of the school year?

A repeated measures Analysis of Variance (ANOVA) was used to compare levels of stress across the two administrations of the Teacher Stress Survey. A .05 confidence level was used to determine statistical significance.

4. Are there differences in levels of stress among novice special education teachers based on specific skill areas of the beginning teacher standards?

An Analysis of Variance (ANOVA) was used to compare stress levels related to instructional strategies, learning environments and social interactions, communication, instructional planning, assessment, professional and ethical

practice, and collaboration. A .05 confidence level was used to determine statistical significance.

CHAPTER 4

RESULTS

The purpose of this study was to investigate the levels of stress experienced by novice special education teachers related to the Council for Exceptional Children standards for beginning teachers. The first group of participants consisted of 22 first-year teachers who were enrolled in the Alternative Route to Licensure (ARL) program at the University of Nevada Las Vegas. The ARL students are first year teachers who have bachelor's degrees in areas other than special education. They must complete 120 inservice hours with Clark County School District and four classes in special education at the University of Nevada Las Vegas prior to being hired. They receive mentoring from five Clark County School District mentors. The second group, consisting of seven participants, was enrolled in the Specialized Teacher Education Program (STEP) program. They were assigned to teach in self-contained settings. This was their first year of teaching in these settings. The STEP participants received mentoring from two mentors. The third group, consisting of 14 participants, was enrolled in the Teach for America (TFA) program and were all first year teachers who received very little mentoring and were not required to take coursework at the University of Nevada Las Vegas prior to being hired to teach.

A researcher-constructed survey was designed to measure stress levels of novice teachers enrolled in the ARL, STEP and Teach for America Programs. The survey was

carefully aligned to the Council for Exceptional Children (CEC) standards for beginning teachers. Prior to the study, the Teacher Stress Survey was reviewed by a panel of experts with experience in survey research and was pilot tested with teachers enrolled in a graduate class at the University of Nevada Las Vegas. The revised instrument was then administered to the three participant groups at the beginning of the school year and was readministered at the end of the first semester.

This study addressed four research questions. This chapter is organized according to these questions. After a restatement of each question, the data analysis procedures that were used to answer the questions as well as the results obtained are reported.

Research Questions and Related Findings

Question 1: Are there differences in levels of stress among novice special education resource room teachers and novice special education self-contained teachers?

To determine if there was a significant difference between the levels of stress among novice special education teachers in resource rooms and self-contained settings, a one-way between groups analysis of variance (ANOVA) was run comparing self-reported levels of stress on the total scale. Participants in self-contained classrooms (i.e., elementary and early childhood) were compared to participants in the resource room setting.

On the total scale, the difference in reported stress between the resource room (M=2.08, SD=.409) and the self-contained participants (M=2.30, SD=.529) was not statistically significant, $F(1,41)=1.767$, p=.191. Both groups experienced similar levels of stress.

Differences between resource room and self-contained participants on subscales of the stress scale are displayed in Table 2. To control for Type 1 error with multiple comparisons, the Bonferroni procedure (Lomax, 1992) was used to adjust the maximum *p* level for identification of statistical significance. For seven comparisons, the equivalent to the .05 level of significance is a *p* less than or equal to .007. With this adjustment, the only subscale on which there was a difference in reported stress between resource room teachers and self-contained teachers was the communication stress scale with resource room participants reporting a lower level of stress.

Question 2. Are there differences in levels of stress among novice special education teachers based on type of teacher preparation program?

To determine if there was a significant difference between the levels of stress contingent on the type of teacher preparation program, a one-way analysis of variance (ANOVA) was run comparing self-reported levels of stress on the total scale.

On the total scale, the difference in reported stress among the participants in the Alternative Route to Licensure (ARL) (M=1.98, SD=.426), the Specialized Teacher Education Program (STEP) (M=2.30, SD=.602), and the Teach For America (TFA) (M=2.26, SD=.305) preparation groups was not statistically significant, $F(2,40)=2.558$, p=.090.

Performance by the teacher preparation groups on the specific subscales of the Teacher Stress Survey are displayed in Table 3. With the Bonferroni correction,

Table 2

Summary of ANOVA Results Related to Stress Levels of Resource Room and Self-Contained Teachers

	Resource Room (N=34)	Self-Contained (N=9)	
Subscales	*M (SD)*	*M (SD)*	*P*
IS Scale	2.52 (.693)	2.57 (.800)	.85400
LE Scale	2.07 (.531)	2.35 (.647)	.19000
COM Scale	2.00 (.707)	3.00 (.750)	.0005*
IP Scale	2.487 (.553)	2.389 (.658)	.6500
AS Scale	2.291 (.563)	2.478 (.748)	.4140
PE Scale	1.505 (.488)	1.935 (.692)	.0370
COL Scale	1.786 (.564)	2.061 (.754)	.2340

Note. IS = Instructional Strategies; LE = Learning Environment; COM = Communication; IP = Instructional Planning; AS = Assessment; PE = Professional/Ethical Practice; COL = Collaboration
*Significant at the p<.007 level

statistically significant differences among the three groups were evident on the communication stress subscale and the collaboration stress subscale. The post hoc analysis of the communication stress subscale (Scheffe test) indicated a statistically significant difference between the Specialized Teacher Education Program (STEP) participants and the Teach for America (TFA) participants and also between the Specialized Teacher Education Program (STEP) participants and the Alternative Route to

Licensure (ARL) participants with higher level of communication stress reported by participants in the Specialized Teacher Education Program (STEP) preparation group.

The post hoc analysis of the collaboration subscale (Scheffe test) indicated a statistically significant difference between the Alternative Route to Licensure (ARL) and Specialized Teacher Education Program (STEP) groups and also between the Alternative Route to Licensure (ARL) and Teach for America (TFA) groups with lower levels of stress reported by participants in the Alternative Route to Licensure (ARL) group.

Question 3. Are there differences in levels of stress among novice special education teachers at the beginning and end of the first semester of the school year?

To determine if there was a significant change in self-reported stress among teachers between the beginning and end of the first semester, a repeated measures analysis of variance (ANOVA) was conducted comparing self-reported stress at the beginning and the end of the first semester. Data were available for 37 study participants. The difference between beginning (M=2.18, SD=.441) and the end of the semester (M=2.11, SD=.456) reports of stress was not statistically significant, $F(1,36)$=.49, p=.489.

Table 4 displays beginning and end of the semester reports for levels of stress for the subscales. No statistically significant differences were evident on the subscales between the beginning and the end of the semester self=reports.

Question 4. Are there differences in levels of stress among novice special education teachers based on specific skill areas of the beginning teacher standards?

Table 3

Summary of ANOVA Results Related to Teacher Stress and Type of Teacher Preparation Program

	ARL (N=22)	STEP (N=7)	TFA (N=14)	
Subscales	*M(SD)*	*M(SD)*	*M(SD)*	*p*
IS Scale	2.39(.798)	2.38(.685)	2.83(.476)	.158000
LE Scale	2.02(.637)	2.23(.652)	2.25(.348)	.424000
COM Scale	2.00(.724)	3.07(.838)	2.11(.712)	.00600*
IP Scale	2.40(.570)	2.32(.731)	2.65(.471)	.339000
AS Scale	2.25(.575)	2.53(.824)	2.36(.537)	.565000
PE Scale	1.48(.447)	2.02(.763)	1.56(.535)	.073000
COL Scale	1.48(.399)	2.27(.722)	2.20(.500)	.00008*

Note. IS = Instructional Strategies; LE = Learning Environment; COM = Communication; IP = Instructional Planning; AS = Assessment; PE = Professional/Ethical Practice; COL = Collaboration
*Significant at the p<.007 level

To determine if there was a significant difference between the levels of stress contingent on the seven subscales, a repeated measures analysis of variance (ANOVA) was run comparing self-reported levels of stress. Statistically significant differences were found among the seven subscales, $F(1,6)=21.438$, $p=.0000$.

Table 5 displays mean and standard deviations for the subscales. Post hoc analysis (Scheffe test) indicated statistically significant differences for stress levels reported

Table 4

Summary of Repeated Measures ANOVA Results Related to Stress Levels at the Beginning and End of the First Semester

	Beginning(N=37)	End(N=37)	
Subscales	*M (SD)*	*M (SD)*	*P*
IS Scale	2.60 (.674)	2.48 (.634)	.353
LE Scale	2.20 (.558)	2.10 (.616)	.476
COM Scale	2.26 (.863)	2.28 (.722)	.860
IP Scale	2.50 (.574)	2.26 (.548)	.069
AS Scale	2.40 (.598)	2.24 (.664)	.256
PE Scale	1.62 (.584)	1.72 (.536)	.345
COL Scale	1.89 (.642)	1.94 (.679)	.655

Note. IS = Instructional Strategies; LE = Learning Environment; COM = Communication; IP = Instructional Planning; AS = Assessment; PE = Professional/Ethical Practice; COL = Collaboration
*Significant at the $p<.05$ level

between Instructional Strategies and Learning Environment, Professional/Ethical Practice, and Collaboration. Instructional Strategies (M=2.53) caused higher stress levels than Learning Environment (M=2.13), Professional/Ethical Practices (M=1.59), and Collaboration (M=1.84).

Post hoc analysis (Scheffe test) also indicated statistically significant differences for stress levels reported between Professional/Ethical Practice and Learning Environment, Communication, Instructional Planning, and Assessment. Learning

Environment (*M*=2.13), Communication (2.21), Instructional Planning (*M*=2.47), and Assessment (*M*=2.33) caused higher stress levels than Professional/Ethical Practice (*M*=1.59).

Post hoc analysis (Scheffe test) indicated statistically significant differences for stress levels reported between Collaboration and Instructional Planning and Assessment. Instructional Planning (*M*=2.47) and Assessment (*M*=2.33) caused higher levels of stress than Collaboration (*M*=1.84).

Table 5

Summary of Repeated Measures ANOVA Related to Stress Levels Related to Standards

Stress Survey Subscales:	*M (SD)*
Instructional Strategies	2.53 (.707)
Learning Environment	2.13 (.561)
Communication	2.21 (.818)
Instructional Planning	2.47 (.570)
Assessment	2.33 (.601)
Professional/Ethical Practice	1.59 (.556)
Collaboration	1.84 (.609)

Summary of Findings

Based on the analysis of data related to the four research questions for this study, interesting findings emerged. First, the resource room and self-contained teachers

experienced similar overall stress levels. Self-contained teachers, however, experienced higher stress levels than resource teachers in the area of communication. Second, teachers enrolled in the ARL, STEP, and TFA preparation programs experienced similar overall stress levels. Individual subscale comparisons, however, revealed that STEP participants reported higher levels of stress than TFA participants as well as ARL participants related to communication. Individual subscale comparisons also revealed that TFA and STEP participants reported higher levels of stress than ARL participants related to collaboration. Third, novice teachers experienced similar levels of stress at the beginning and end of the first semester. Finally, it was determined that different levels of stress related to specific skill areas do exist. Significant differences related to the skill areas are as follows:

- The area of Instructional Strategies was more stressful than Learning Environment, Professional/Ethical Practice, and Collaboration.
- The areas of Learning Environment, Communication, Instructional Planning, and Assessment were more stressful than Professional/Ethical Practice.
- The areas of Instructional Planning and Assessment were more stressful than Collaboration.

CHAPTER 5

DISCUSSION

The number of teachers who leave the profession in their first five years is of great concern. The United States is experiencing a national teacher shortage. The nation's schools will need an unprecedented number of teachers over the next ten years (Chaika, 2000). According to the National Center for Education Statistics (1998), approximately 2.2 million teachers will be needed nationally in the next decade. The need stems from increased enrollment, teacher retirement, and teacher attrition.

Of particular concern is the shortage of highly qualified personnel within the field of special education (Rotherman, 2003). Special education teachers are in high demand nationwide, especially in rural and urban school districts (Rosen, Koetler, Irwin, & Saceda, 2004).

Research has been conducted to better understand factors influencing the teacher shortage. An analysis of this research revealed that teacher attrition is the largest single factor contributing to the teacher shortage (McCreight, 2000).

Teacher stress and subsequent professional burn out has been cited as a primary reason for the high attrition among special education teachers (Nichols & Sosnowsky, 2002). The recent increased emphasis on teacher accountability per the No Child Left Behind Act and the reauthorization of the Individuals with Disabilities Education

Improvement Act of 2004 may be exacerbating the problem, particularly among novice special education teachers.

Because many school districts across the country are developing alternative route to licensure programs to help meet the demand for special education teachers (Menlove, Garnes, & Salzberg, 2004). Because historically teacher stress has contributed to the high attrition rate among special education teachers within the first few years of teaching (Vance, Miller, Humphreys, & Reynolds, 1989) the current study was particularly timely.

The purpose of this study was to investigate the levels of stress experienced by novice special education teachers related to the Council for Exceptional Children standards for beginning teachers. The first group of participants consisted of 22 first-year teachers who were enrolled in the Alternative Route to Licensure (ARL) program at the University of Nevada Las Vegas. ARL students are first year teachers who have bachelor's degrees in areas other than special education. They must complete 120 inservice hours with Clark County School District and four classes in special education at the University of Nevada Las Vegas prior to being hired. They receive mentoring from five Clark County School District mentors. The second group, consisting of seven participants, was enrolled in the Specialized Teacher Education Program(STEP) program. They were assigned to teach in self-contained settings. This was their first year of teaching in these settings. The STEP participants received mentoring from two mentors. The third group, consisting of 14 participants, was enrolled in the Teach for America (TFA) program and were all first year teachers who received very little mentoring and were not required to take coursework at the University of Nevada Las Vegas prior to

being hired to teach. Participants from all three groups completed the Teacher Stress Survey at the beginning and end of their first semester as a special education teacher.

Findings related to each research question in this study are discussed in the subsequent section of this chapter. Next, conclusions are shared. Finally, implications are discussed and recommendations for future research are provided.

Discussion of Findings

Research Question 1. Are there differences in levels of stress among novice special education resource room teachers and novice special education self-contained teachers?

Data analysis revealed that there was no significant difference on the total scale between levels of stress among novice resource room teachers and novice self-contained teachers. Consideration of the roles and responsibilities of these two types of teachers may help explain this finding. Resource room teachers are expected to identify learning objectives, plan instruction, choose curriculum materials, provide access to the general education curriculum, and maintain academic grades for students with disabilities. Self-contained teachers are expected to do the same things on a daily basis. Resource room teachers as well as self-contained teachers are expected to complete individual education plans and stay in compliance with deadlines for completion. Both groups of teachers have job descriptions similar to general education teachers with the added responsibilities of scheduling services for students with disabilities and participation in individual education planning. The similarities among the roles and responsibilities associated with being a

resource room or self-contained special education teacher is a logical explanation for the similarities in reported stress levels.

Further analysis, revealed there was a significant difference between resource room teachers and self-contained teachers on the communication subscale. Self-contained teachers reported a higher level of stress than the resource room teachers related to standards associated with communication. There are several plausible explanations for this finding. First, self-contained teachers have students with more severe disabilities than the resource teachers. These students frequently need additional support to enhance their communication skills. The students with more severe physical disabilities may require assistive technology devices and services that teachers may not feel prepared to facilitate. The majority of the population of students in a resource room setting are students with learning disabilities. Several students who are placed in a self-contained setting may require equipment and materials from agencies affiliated with the school district. The teachers are responsible for acquisition and maintenance of these materials and devices.

A second plausible explanation could be that the nature of the physical disability related to delays with communication skills may have been the underlying cause for the large discrepancy between instructional level and grade level that resulted in the decision for placement in a self-contained setting. A self-contained setting inevitably includes students who have difficulty communicating with both teachers and peers. The teachers of students with a history of difficulty expressing ideas have to utilize a variety of strategies to comprehend and support attempts at communication.

A third plausible explanation for increased communication stress levels among self-contained teachers may involve the increased population of students with English as

a second language. Many students in a self-contained setting are more comfortable with sign language or Spanish because that is the language used in their homes. Resource room teachers may be more likely to have a population of students who are primarily verbal and speak English. Many of the participants in this study were teachers of students with autism. Many students diagnosed with autism are nonverbal or have limited communication skills. These self-contained novice teachers may feel unprepared to teach communication skills and content simultaneously. Earlier researchers (Brown & Smith, 1993; Singer, 1993) reported that teachers assigned to self-contained settings are likely to experience higher levels of stress than other teachers. Thus, the findings in the current study related to the total stress scale contradict these earlier researchers. The findings related to the communication subscale, however concur with the earlier reports.

Research question 2. Are there differences in levels of stress among novice special education teachers based on type of teacher preparation program?

Data analysis revealed that there was no significant difference on the total scale between the Alternative Route to Licensure, Specialized Teacher Education Program, and the Teach for America programs. One reason for this finding may be that teachers share similar experiences and expectations when starting in the teaching profession. The feeling of being overwhelmed may be universal to new teachers regardless of amount of or type of education background and preparation. According to Vance, Miller, Humphreys, and Reynolds, 1989, many novice special education teachers are concerned with time management, scheduling, curriculum, and behavior management. The challenges in each of these areas may contribute to similar levels of overall stress.

Another possible explanation for the similar levels of stress may be that all of the programs were developed within the Department of Special Education at the University of Nevada Las Vegas. Thus, if there are particular strengths related to the curricula or the instructors within the Department of Special Education, it is likely that participants in all three teacher preparation programs would be influenced similarly. Specific areas of program strength may result in better preparation and therefore reduced stress levels. Similarly, if there are weaknesses in the curricula and/or the course instructors, it makes sense that students within the department, regardless of the specific program in which they enrolled, would experience similar stress levels in those areas.

Another explanation for this finding could be that novice teachers in each group share similar amounts of interest in teaching students with disabilities. They all chose to pursue a degree in special education. It was not, however, their original choice for a four-year degree program like most other teachers. The reasons for choosing the teaching profession may have been different from typical reasons teachers choose. Perhaps there is something common among individuals who choose non-traditional ways to obtain their teaching licensure that also plays a role in the amount of stress they perceive upon beginning their careers as teachers. Previous career interests and experience in fields other than education may influence stress levels in some way.

Further analysis, revealed there was a significant difference on the communication subscale between the Specialized Teacher Education Program participants and the Teach for America participants as well as a significant difference between the Specialized Teacher Education Program participants and the Alternative Route to Licensure participants. The Specialized Teacher Education Program teachers

reported a higher level of stress in the communication subscale than the Teach for America teachers and the Alternative Route to Licensure teachers.

A plausible explanation for this finding may be because the STEP participants are teaching in the Early Childhood, Mental Retardation, and Autism settings. Many students who are placed in the Early Childhood Special Education setting experience developmental delays. Often times these delays are related to communication. Many students in these settings need supplemental strategies for language development.

Data analysis revealed that there was a significant difference on the collaboration subscale between the STEP participants, the TFA participants, and the ARL participants. The ARL teachers reported less stress than the other two groups. One reason for this finding may be that the ARL teachers were less aware of their needs or because of their increased life experiences they may have been less stressed related to their abilities to collaborate. Also, the ARL participants, as reported by the faculty coordinators, were older and tended to demonstrate higher levels of maturity. Finally, the ARL participants received mentoring while completing student Individual Education Plans. This type of collaboration may have limited the stress they experienced. The other two groups did not receive this type of mentoring.

Research Question 3. Are there differences in levels of stress among novice special education teachers at the beginning and end of the first semester of the school year?

Data revealed that there was no significant difference between levels of stress experienced at the beginning and the end of the first semester. One reason for this finding may be that the length of time between the beginning and the end of the first semester

was only three months. Novice teachers of students with disabilities are still novices after three months. New challenges and new information are presented on a daily basis throughout the first semester of teaching.

Another reason for this finding may be that the stress at the beginning of the semester and the end of the semester may change its cause, but the ultimate outcome results in similar levels of stress. The teachers may be stressed at the beginning of the semester because they are becoming familiar with curriculum, students, parents, and faculty. The teachers may be stressed at the end of the semester because they have to meet deadlines for report cards, parent/teacher conferences, and university final examinations.

Research Question 4. Are there differences in levels of stress among novice special education teachers based on specific skill areas of the beginning teacher standards?

Data analysis revealed that there were significant differences among the seven subscales of the beginning teacher standards. Instructional Strategies caused significantly higher stress levels than Learning Environment, Professional/Ethical Practices, and Collaboration. One reason for this finding may be that most people feel confident in the area of professional/ethical practice. The standards for conducting yourself in a professional or ethical manner are common sense to most people. Most people would agree to having the skills to collaborate with colleagues even if the skills are not practiced because of preference. Instructional Strategies is the only subscale out of the three that is not likely to be viewed as common sense for a professional person. This is content that is newly learned and critical to the success of both teachers and students. The current

emphasis on academic achievement for all students based on the No Child Left Behind Act of 2001 and the Individuals with Disabilities Education Improvement Act of 2004 may translate to additional stress among teachers in the area of instructional strategies. Administrators and teachers are held accountable to ensure that all students in their respective schools demonstrate adequate yearly progress. Students with and without disabilities must participate in yearly assessments to determine academic progress. Clearly, there is a link between the instructional strategies used and student performance on these high stakes assessments. Thus, it is not surprising that the novice teacher would report higher levels of stress related to the instructional strategies subscale than some of the others.

Data analysis revealed that standards related to learning environment, communication, instructional planning and assessment caused higher levels of stress than professional/ethical practice. Again the reason could be that most people believe that professional and ethical behavior is common sense. The idea of establishing an appropriate learning environment, providing accurate communication, choosing appropriate curriculum, planning lessons, and assessing student learning, however, can be very stressful to a new teacher because of the challenges associated with these tasks and the high stakes outcomes associated with each.

Data analysis revealed that instructional planning and assessment caused higher levels of stress than collaboration. One reason for this finding could be that many teachers view collaboration as being desirable and easy to do. They may believe that collaboration represents a viable means for obtaining assistance with the challenging aspects of their jobs. Planning instruction for students and assessing learning requires

very specific skills. Thus, it may evoke more stress among novice teachers than the notion of collaborating with their peers, veteran teachers, and/or assigned mentors.

Conclusions

1. Novice special education teachers, regardless of type of preparation program or current teaching setting, experience similar levels of stress related to beginning teacher standards when these standards are viewed as a total scale. However, several differences in stress levels emerge when specific areas within the standards are evaluated further.
2. Novice self-contained teachers experience more stress related to communication standards than novice resource room teachers.
3. Novice teachers from the STEP preparation program experience more stress related to communication standards and collaboration standards than novice teachers from TFA and ARL respectively.
4. Novice special education teachers experience comparable levels of stress at the beginning and ending of their first semester of teaching.
5. Novice special education teachers experience less stress related to professional/ethical practice and collaboration than the other areas represented in beginning teacher standards.

Implications for Practice

Additional support related to the communication standards may cause less stress for self-contained novice teachers. Self-contained special education teachers may benefit from staff development opportunities to learn about strategies that enhance language development and communication skills of students. Self-contained teachers may also

benefit from observing classroom teachers who use strategies designed to enhance language and communication skills. Self-contained teachers may also benefit from training and exposure to strategies and materials available for English Language Learners. It is challenging to expose students in a self-contained setting to grade level materials at a comparable rate as the general education teachers, but is even more difficult when there are students in the class with linguistic differences.

Administrative support is needed to alleviate some of the stress experienced by novice resource room and self-contained teachers. Administrators have the authority to waive some of the typical teacher responsibilities (e.g., indoor/outdoor duty, grade level or departmental meetings, and committee meetings) because special education teachers have the added responsibilities of individual education plan meetings and preparation, student scheduling issues, multi-disciplinary team meetings, and maintenance of student confidential information.

Teachers in the Specialized Teacher Education Program (STEP) may benefit from additional support related to collaboration and communication. These teachers hold a generalist license in Nevada and may, therefore have some previous experience related to the importance of collaboration with families, teachers, and other school personnel. They may also recognize that students in self-contained settings typically have more intensive instructional and behavioral needs than the students they were previously prepared to teach. Thus, they may recognize that effective collaboration skills are going to be even more important in their new positions. Moreover, taking the role of supervisor for paraeducators and providing communication related to instructional techniques or strategies for best practice with students with disabilities may be a new expectation and

therefore difficult. The teachers involved in the STEP program might benefit from training in all of these areas. Again, administrative support is necessary as the administrator is responsible for arranging professional development to adequately address the needs of their teachers.

Administrators must balance the need for additional training for novice teachers with their need to be in the classroom with the students. Support that does not involve time away from the classroom as with staff development or training opportunities could prove beneficial to novice special education teachers. A manual should be provided during induction before the school year officially begins. The manual should address all of the standards outlined in the beginning teacher standards. It would serve as a quick reference guide for what to do in which situations. This would allow teachers to obtain needed information and possible solutions to challenges quickly and to feel more in control of minor situations that arise.

Recommendations for Future Research

As a result of findings in this study, numerous recommendations for further research should be considered. First, the differences in the amount of stress experienced between novice special education teachers who receive training in the area of communication and novice special education teachers who do not receive such training should be studied. Second, the differences in the amount of stress experienced between novice special education teachers who receive training in the area of collaboration and novice special education teachers who do not receive such training should be examined. Third, differences in the amount of stress experienced between novice special education

teachers who receive training related to strategies and materials for ELL students and novice special education teachers who do not receive training should be investigated. Fourth, differences in the amount of stress experienced between novice special education teachers who receive release time from supplemental teacher duties (e.g., bus duty) to focus on special education responsibilities and novice special education teachers who do not receive release time would be interesting to study. Fifth, the differences in the amount of stress experienced between novice special education teachers who receive training on how to be an effective supervisor to paraeducators and novice special education teachers who do not receive this training needs to be explored. Finally, the differences in the amount of stress experienced between novice special education teachers who receive a standards-based manual as a quick reference and novice special education teachers who do not receive this manual should be investigated.

APPENDIX A

TEACHER STRESS SURVEY

Rate the level of stress(anxiety, discomfort, uncertainty) you have experienced related to each standard over the past month.	No Stress 1	Mild Stress 2	Moderate Stress 3	Severe Stress 4
1. Instructional Strategies				
Use strategies to facilitate integration into various settings.				
Teach individuals to use self assessment, problem solving, and other cognitive strategies to meet their needs.				
Select, adapt, and use instructional strategies and materials according to characteristics of the individual with exceptional learning needs.				
Use strategies to facilitate maintenance and generalization of skills across learning environments.				
Use procedures to increase the individual's self-awareness, self-management, self-control, self-reliance, and self-esteem.				
Use strategies that promote successful transitions for individuals with exceptional learning needs.				
2. Learning Environments and Social Interactions				
Create a safe, equitable, positive, and supportive learning environment in which diversities are valued.				
Identify realistic expectations for personal and social behavior in various settings.				
Identify supports needed for integration into various program placements.				
Design learning environments that encourage active participation in individual and group activities.				
Modify the learning environment to manage behaviors.				
Use performance data and information from all stakeholders to make or suggest modifications in learning environments.				
Establish and maintain rapport with individuals with and without exceptional learning needs.				
Teach self-advocacy.				
Create an environment that encourages self-advocacy and increased independence.				
Use effective and varied behavior management strategies.				
Use the least intensive behavior management strategy consistent with the needs of the individual with exceptional learning needs.				
Design and manage daily routines.				
Organize, develop, and sustain learning environments that support positive intracultural and intercultural experiences.				
Mediate controversial intercultural issues among students within the learning environments in ways that enhance any culture, group, or person.				
Structure, direct, and support the activities of paraeducators, volunteers, and tutors.				
Use universal precautions(handwashing, cleanliness).				
3. Communication				
Use strategies to support and enhance communication skills of individuals with exceptional learning needs.				
Use communication strategies and resources to facilitate understanding of subject matter for students whose primary language is not the dominant language.				

Rate the level of stress(anxiety, discomfort, uncertainty) you have experienced related to each standard over the past month.	No Stress 1	Mild Stress 2	Moderate Stress 3	Severe Stress 4
4. Instructional Planning				
Identify and prioritize areas of the general curriculum and accommodations for individuals with exceptional learning needs.				
Develop and implement comprehensive, longitudinal individualized programs in collaboration with team members.				
Involve the individual and family in setting instructional goals and monitoring progress.				
Use functional assessments to develop intervention plans.				
Use task analysis.				
Sequence, implement, and evaluate individualized learning objectives.				
Integrate affective, social, and life skills with academic curricula.				
Develop and select instructional content, resources, and strategies that respond to cultural, linguistic, and gender differences.				
Incorporate and implement instructional and assistive technology into the educational program.				
Prepare lesson plans.				
Prepare and organize materials to implement daily lesson plans.				
Use instructional time effectively.				
Make responsive adjustments to instruction based on continual observations.				
Prepare individuals to exhibit self-enhancing behavior in response to societal attitudes and actions.				
5. Assessment				
Gather relevant background information.				
Administer nonbiased formal and informal assessments.				
Use technology to conduct assessments.				
Develop or modify individualized assessment strategies.				
Interpret information from formal and informal assessments.				
Use assessment information in making eligibility, program, and placement decisions for individuals with exceptional learning needs, including those from culturally and/or linguistically diverse backgrounds.				
Report assessment results to all stakeholders using effective communication skills.				
Evaluate instruction and monitor progress of individuals with exceptional learning needs.				
Develop or modify individualized assessment strategies.				
Create and maintain records.				
6. Professional and Ethical Practice				
Practice within the code of CEC Code of Ethics and other standards of the profession.				
Uphold high standards of competence and integrity and exercise sound judgment in the practice of the profession.				
Act ethically in advocating for appropriate services.				
Conduct professional activities in compliance with applicable laws and policies.				
Demonstrate commitment to developing the highest education and quality-of-life potential of individuals with exceptional learning needs.				

Rate the level of stress(anxiety, discomfort, uncertainty) you have experienced related to each standard over the past month.	No Stress 1	Mild Stress 2	Moderate Stress 3	Severe Stress 4
Demonstrate sensitivity for the culture, language, religion, gender, disability, socio-economic status, and sexual orientation of individuals.				
Practice within one's skill limit and obtain assistance as needed.				
Use verbal, nonverbal, and written language effectively.				
Conduct self-evaluation of instruction.				
Access information on exceptionalities.				
Reflect on one's practice to improve instruction and guide professional growth.				
Engage in professional activities that benefit individuals with exceptional learning needs, their families, and one's colleagues.				
7. Collaboration				
Maintain confidential communication about individuals with exceptional learning needs.				
Collaborate with families and others in assessment of individuals with exceptional learning needs.				
Foster respectful and beneficial relationships between families and professionals.				
Assist individuals with exceptional learning needs and their families in becoming active participants in the educational team.				
Plan and conduct collaborative conferences with individuals with exceptional learning needs and their families.				
Collaborate with school personnel and community members in integrating individuals with exceptional learning needs into various settings.				
Use group problem solving skills to develop, implement and evaluate collaborative activities.				
Model techniques and coach others in the use of instructional methods and accommodations.				
Communicate with school personnel about the characteristics and needs of individuals with exceptional learning needs.				
Communicate effectively with families of individuals with exceptional learning needs from diverse backgrounds.				
Observe, evaluate and provide feedback to paraeducators.				

APPENDIX B

PARTICIPANT INFORMED CONSENT FORMS

UNIVERSITY OF NEVADA LAS VEGAS
UNLV
UNIVERSITY OF NEVADA LAS VEGAS

INFORMED CONSENT

Department of Special Education

TITLE OF STUDY: Investigating Stress Related to Beginning Teacher Standards

INVESTIGATOR(S): Dr. Susan Miller and Michelle Richardson

CONTACT PHONE NUMBER: 895-1108

Purpose of the Study
You are invited to participate in a research study. The purpose of this study is to investigate the levels of stress experienced by novice special education teachers.

Participants
You are being asked to participate in the study because you are a participant in one of the alternative licensure programs at UNLV.

Procedures
If you volunteer to participate in this study, you will be asked to do the following: complete a five minute survey three times over the Fall 2005 school year.

Benefits of Participation
There *may not* be direct benefits to you as a participant in this study. However, we hope to learn more about the stress that teachers experience early in their teaching careers. This information has the potential to lead to improved support for teachers.

Risks of Participation
There are risks involved in all research studies. This study may include only minimal risks. You may become uncomfortable when answering some of the questions.

Cost /Compensation
There *will not* be financial cost to you to participate in this study. The study will take five minutes of your time for each of the three administrations for a total of fifteen minutes. You *will not* be compensated for your time.

Contact Information
If you have any questions or concerns about the study, you may contact **Dr. Susan Miller at 895-1108 or Michelle Richardson at 799-7720 .** For questions regarding the rights of research subjects, any complaints or comments regarding the manner in which the study is being conducted you may contact **the UNLV Office for the Protection of Research Subjects at 702-895-2794.**

UNLV
UNIVERSITY OF NEVADA LAS VEGAS

INFORMED CONSENT

Department of Special Education

TITLE OF STUDY: Investigating Stress Related to Beginning Teacher Standards

INVESTIGATOR(S): Dr. Susan Miller and Michelle Richardson

CONTACT PHONE NUMBER: 895-1108

Voluntary Participation

Your participation in this study is voluntary. You may refuse to participate in this study or in any part of this study. You may withdraw at any time without prejudice to your relations with the university. You are encouraged to ask questions about this study at the beginning or any time during the research study.

Confidentiality

All information gathered in this study will be kept completely confidential. No reference will be made in written or oral materials that could link you to this study. All records will be stored in a locked facility at UNLV for at least 3 years after completion of the study. After the storage time the information gathered will be shredded and discarded.

Participant Consent:

I have read the above information and agree to participate in this study. I am at least 18 years of age. A copy of this form has been given to me.

_____ _____

Signature of Participant Date

_____

Participant Name (Please Print)

Participant Note: Please do not sign this document if the Approval Stamp is missing or is expired.

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