TEACHER ATTRITION AND MENTORING: AN EXAMINATION OF TEACHER ATTRITION AND FIRST YEAR EXPERIENCES: IMPLICATIONS FOR POLICY

by

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A DISSERTATION

Submitted in partial fulfillment of the requirements for the degree of
Doctor of Education in the Department of Educational
Leadership, Policy, and Technology Studies
in the Graduate School of
The University of Alabama

TUSCALOOSA, ALABAMA

2013

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ABSTRACT

In recent decades, The United States Department of Education has become concerned with attrition and retention in our teacher workforce. Very low retention, particularly with that of new teachers, is linked to poor quality of education for students. Regular examination of these conditions utilizing the Department of Education's Schools and Staffing Survey (SASS) and the subsequent Teacher Follow-Up Survey (TFS) have resulted in several theories concerning teacher attrition which have, in recent years, put the spotlight on supporting beginning teachers as a way of reducing the number of teachers prematurely retiring from education.

The primary purpose of this study was to investigate the relationship between the first year experiences such as mentoring and teacher attrition in the Southeastern States. Data from the 2007-2008 Schools and Staffing Survey and the 2008-2009 Teacher Follow-Up Survey and the subsequent Beginning Teacher Longitudinal Study were used to examine the relationship between mentoring and attrition of new teachers. Five broad questions were developed to guide the study: (1) What is the relationship between new teacher attrition and first year experiences? (2) What is the relationship between reported levels of commitment and new teacher experiences with induction or mentoring? (3) What is the relationship between perceived effectiveness of mentor programs and characteristics of the program? (4) What is the relationship between attrition and the characteristics of a mentoring program? (5) What are the relationships between perceived overall effectiveness of programs, professional commitment, and attrition?

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The results of the data analyses indicate that, in the Southeast, mentoring was not related to attrition unless certain characteristics of mentoring, such as same grade and subject matching, were considered. Mentoring with same subject or grade level mentors did have a positive relationship with the perceived overall effectiveness of a program, professional commitment, and attrition of new teachers. The results indicated that professional commitment is not a good indicator of attrition but perceived overall effectiveness of programs was a good indicator. The study provides direction for leaders and researchers, particularly in the Southeast, to further develop quality programs aimed at supporting teachers in their first years of service.

DEDICATION

This project is dedicated to my mother and my beautiful baby girl. Thank you for all your love and support, especially now as I add being a mother to my juggling act of teaching, coaching, and studying. I am certain that I would not have finished this without your help. I can only hope to be the same kind of mother to Alyssa. As it turns out, I do want to be just like you when I grow up.

ACKNOWLEDGEMENTS

I have never pictured myself as being “finished” with school and I wonder what I will do with myself now that this project is finally complete. I knew that this degree and this study would be a difficult task and it is not one that I took on lightly but it took on a life of its own and took twice as long as I planned. There is not a room in my house or a shelf in my classroom that does not contain in some way a part of this study. I can not imagine myself having no portion of my day planned around something that I have to do to with “The Paper”. I can’t wait to show my husband the beautiful dining room table that we have underneath the stack of books and papers. I am sure he has forgotten that it is there.

I would like to thank the members of my committee- my Chair, Dr. Daisy Arredondo Rucinski for her support and patience as each semester deadline was missed and new problems arose. Thank you for making me feel like it could be done and helping me reach the finish line. I would like to thank Dr. Dave Dagley for patiently waiting during the giant gap between the proposal and the defense and not retiring and Dr. John Tarter for being willing to join in and complete the committee. Thank you Dr. Watkins for jumping in as I neared the end and renewing my interest in the topic. Our conversations reminded me why I chose the topic to begin with so long ago. Thank you Dr. Sara Tomek for providing support with statistical and software questions as I tackled the job of analyzing data from a very large study myself without the convenience of a statistician.

Throughout this journey I have been blessed with an amazingly supportive, and tolerant, family. My husband, David Fairley, has been wonderful- he knows when to stay and help and when to give me space to work. He has been a wonderful husband and devoted father to our little girl. My mother, Dr. Phyllis Jones, has given me immeasurable support in every kind of way- she has been my tutor, housekeeper, proofreader, mentor, nanny, driver, personal assistant, and cook. And of course my school family- the boys on the cross country team and their parents- for providing joy and a much needed break on a daily basis. Watching them struggle through their challenges and find success on the cross country trail inspires me to continue.

If you are ever not sure- just keep running.

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CHAPTER I:

INTRODUCTION TO THE PROBLEM

In recent decades, the United States Department of Education has become concerned with attrition and retention in our teacher workforce. The very low retention percentages, particularly with that of new teachers, may be linked to poor quality of education for students. Structured induction programs, especially those that include mentoring, have been identified as an important part of professional development for new teachers (American Federation of Teachers, 2001; Carver & Feiman-Nemser, 2009; Darling-Hammond, 1999a; Fletcher, Strong, & Villar, 2005). Mentoring in particular has moved to the forefront of research concerning induction. Unfortunately, too few school districts actually mandate, fund, and implement effective induction and/or mentoring programs. Careful and ongoing analyses of the critical components of programs that are already in place are vital to the development of policy that will support quality induction programming (Carver & Feiman-Nemser, 2009).

Education researchers do not debate the existence of a teacher shortage (Murphy & DeArmond, 2003). The question has been whether or not the shortage is due to increasing student populations in conjunction with the "graying" (age-related retirement) of our teacher workforce (Hussar, 1999) or if it is due to the premature retirement of teachers in conjunction with more stringent requirements for the hiring and retaining of quality teachers (Ingersoll, 2001). The current data seem to suggest that the shortage is due to premature retirement (Marvel, Lyter, Peltola, Strizek, & Morton, 2006).

In 1987, the National Center for Education Statistics developed the Schools and Staffing Survey which is a survey intended to measure critical components of supply, demand, and attrition; characteristics, preparation and experiences of teachers; teacher perceptions of school conditions, responsibilities, policies, and powers; conditions and characteristics of schools; and the implementation of programs and policies (Kalton, Winglee, Krawchuk & Levine, 2000; Mullens & Kasprzyk, 1997; Tourkin et al., 2010). This survey has been revised and administered seven times since its initial development and now contains multiple components including the Teacher Follow-Up survey which is administered to teachers who completed the initial Schools and Staffing Survey the year before and the Beginning Teacher Longitudinal Study in which surveys teachers who reported themselves as first year teachers during the 2007-2008 Schools and Staffing Survey are administered a version of the Teacher Follow up Survey specifically for first year teachers. The surveys contain separate questionnaires for teachers categorized by years of experience (first year or experienced) and by their decisions to remain in the field (former and current). The most current administration was conducted in the 2007-2011 school years and could be useful in determining the relationship between mentoring programs and retention over the past years (Tourkin et al., 2010).

The 2004-2005 Department of Education data indicate that teachers with less than 3 years of experience made up nearly 20 percent of the total population of public school teachers that school year and nearly 50 percent of the teaching population had less than 10 years of experience (Marvel et al., 2006). Periodic surveys conducted by the Department of Education from 1989 to 2005 indicate a rising trend in attrition in the public schools. At the end of the 2004-2005 school year, 8.4 percent of public school teachers surveyed indicated that they would be leaving the field; this is an increase from 5.6 percent in 1989 (U.S. Department of Education, 2005). Of the

total population of teachers who left the field, teachers with less than three years of experience made up the highest percentage and the greatest distribution of teachers leaving the field falls in the categories of teachers with less than 10 years of experience (Marvel et al., 2006). Indeed, research indicates that nearly 50% of teachers leave the field within 5 to 7 years of service (Reed, Reuben, Barbour, 2006). Ingersoll and others have claimed that this exodus of teachers early in their career has led to a shortage of experienced teachers. Researchers have, therefore, argued that the root of the teacher shortage is the inability to retain new teachers rather than the inability to recruit and hire new teachers (Ingersoll, 2001).

With the mandate for Highly Qualified Teachers included in the 2001 reauthorization of the Elementary and Secondary Education Act/ Public Law 107-110, hereafter referred to as "No Child Left Behind," school administrators found it increasingly difficult to fill positions and the number of non-traditional teachers in the workforce increased (Ingersoll, 2001; Murphy & DeArmond, 2003). In fact, data indicate an increasing trend in teacher attrition from 1988-2005 (Marvel et al., 2006). This problem is worse in schools in low-income areas where the need to attract and retain qualified teachers who can provide a higher quality of education is even greater (American Federation of Teachers, 2007).

Many states have begun new programs that offer adults who have already completed an undergraduate degree the opportunity to begin teaching while simultaneously completing an accelerated program resulting in standard teaching certification (Fiestritzer & Chester, 2000). These programs, such as Teach for America and Georgia's Troops to Teachers and Georgia's Teacher Academy of Preparation and Pedagogy (TAPP) programs, place applicants in teaching positions with little to no pre-service training (Darling-Hammond, Chung, & Frelow, 2002; Georgia Professional Standards Commission, 2001). However some researchers argue that the

quality of education provided by new or alternatively trained teachers does not match that of experienced teachers who completed traditional teacher preparation programs as undergraduates (Darling-Hammond, 2000; Darling-Hammond et al., 2002). Additionally, research indicated that the teachers who are brought into the field through these alternative measures are even less likely to remain in the field than teachers who completed traditional pre-service programs (Darling-Hammond & Sykes, 2003; Darling-Hammond et al., 2002). This means that the attempt to fill vacant positions quickly through alternative means has little long term effect in reducing the teacher shortage especially in districts without policies and programs in place to improve retention (Ingersoll, 2001).

Previous examination of retention and attrition utilizing the Department of Education's Schools and Staffing Survey (SASS) and the subsequent Teacher Follow-Up Survey (TFS) and in 2010 the Beginning Teacher Longitudinal Study (BLTS) have resulted in several theories concerning teacher attrition which have, in recent years, put the spotlight on programs claiming to support beginning teachers as a way of reducing the number of teachers prematurely retiring from education (Berry, Daughtry & Wieder, 2010; Kaiser, 2011; Smith & Ingersoll, 2004). These survey respondents are divided into two main groups based on their decision to remain in the field from one year to another. Teachers who have left the field are defined as "Former" and teachers who have remained in the field are identified as "Current." Current teachers are also identified as "Movers" who are still teaching but have switched classrooms or schools and "Stayers" who have the same job as the previous year. The survey respondents are also separated into two groups with one group categorized as "first year teachers" who began teaching during the school year that the survey was administered and all other teachers falling into the other category (Tourkin et al., 2010). Teachers completing exit surveys such as the Teacher Follow-up

Survey report that poor support for beginning teachers ranks among the top reasons that they leave the field prematurely (Darling-Hammond, 1999a; Smith & Ingersoll, 2004). As a result, the use of teacher induction programs, particularly those involving mentoring, has increased (Ingersoll & Smith, 2003; Smith 2007; Smith & Ingersoll, 2004).

In the early 1980s, as few as 15 states had structured induction programs in place but by 2001, the number had increased to 33 and The American Federation of Teachers issued a statement that it considered induction programs an essential part of improving teacher quality and retention (American Federation of Teachers, 2001). However, data collected by the National Center for Education Statistics in 2009-2010 indicate that only 23 states have mandated and funded induction programs. Of these states, 18 states require all new teachers to participate in structured induction programs that are state-funded and that also include mentoring. Five states provide a mentor in the absence of a structured induction program and 28 states and the District of Columbia have no requirements or provisions for a state-funded program at all. This reported data as well as other data from the 2009-2010 Schools and Staffing Survey contradict reports issued by individual states concerning state policies regarding programs for new teachers (Russel, 2006; Tourkin et al, 2010;). This discrepancy opens questions as to whether or not actual programs are in place and utilized by teachers as expected by Board and policies.

Induction programs, defined as the structured and systematic support of new teachers, are important to the development and retention of qualified teachers. Research has indicated that teachers who participate in induction programs are not only more likely to remain in the profession, they are also more likely to provide high quality instruction (American Federation of Teachers, 2001; Darling-Hammond, 1997). In its policy statement concerning induction programs, The American Federation of Teachers (2001) identified five characteristics of

effective induction programs: mandatory participation; one- to two- year program commitments; reduced teaching loads for beginning teachers; the assignment of a mentor; and a summative review provided by the mentor.

Mentoring programs, either as a stand-alone program or as an integral component of a structured teacher induction program, are intended to provide support and opportunities for development to new teachers as well as to rekindle professional commitment in the teachers who are acting as mentors (American Federation of Teachers, 1998). This means that induction programs which include mentoring could not only help in retaining new teachers but also to extend the in-classroom careers of more experienced teachers. Indeed, early research concerning the relationship between mentoring and attrition does indicate that mentoring has a positive relationship with professional commitment and retention (American Federation of Teachers, 1998). In an analysis of the mentoring component of induction programs in the 50 states, the American Federation of Teachers identified five important characteristics of mentoring. These characteristics include subject-level matching between mentors and mentees, structured training and qualifying standards for mentor, stipends for mentors, and release time for mentors.

Problem Statement

Based on the argument that premature retirement or early leaving is a major factor affecting the teacher shortage (Ingersoll, 2001), researchers should investigate the degree to which teachers are participating in induction programs which have been put into place to support and retain new teachers and the relationship between induction programs, and the specific components of those programs, and the teachers' reports of professional commitment, attrition, and the perceived effectiveness of the programs. The problem that we are facing, according to Ingersoll and other researchers, is not just how to attract teachers to the field but how to keep

them there (American Federation of Teachers, 2001; American Federation of Teachers, 2007; Berry et al., 2010; Darling-Hammond, 1999a; Ingersoll, 2001; Ingersoll & Smith, 2003). With a large proportion of teachers leaving the profession before their 5th year of teaching, a research focus on retention of new or beginning teachers is needed (American Federation of Teachers, 2001; Carver & Fieman-Nemser 2007; Darling-Hammond, 2003).

For several decades, leaders in education have worked to improve teacher quality and reduce attrition through induction programs but not enough is known about whether or not the programs have had a significant impact (Darling-Hammond, 1999a). Although the presence of state mandated induction programs has more than doubled, only 23 states have fully funded induction programs and/or mentoring programs. Fewer still included all the identified characteristics of effective programs such as mentoring (American Federation of Teachers, 2001; Ingersoll & Strong, 2011; Keigher, 2010; Russell, 2006). In the Southeast in particular, Alabama, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, West Virginia, and Georgia have programs with varying degrees of support and structure and little is known about the degree to which teachers are participating in the programs and the relationship between these programs and attrition (American Federation of Teachers, 2001; Ingersoll & Strong, 2011, Kaiser, 2011).

Importance of the Problem

According to researchers teacher retention and attrition must be addressed as efficiently as possible with the goal of increased student achievement in mind (Darling-Hammond, 2003; Ingersoll, 2001; Protheroe, Lewis, & Paik, 2002; Russell, 2006; Wong ,2003). In 2003, Darling-Hammond estimated that the United States spent approximately 2.6 billion dollars on costs of teacher attrition (recruitment, training, incentives, etc.). Wong (2003) estimated that schools

spend $50,000 to replace each new teacher who leaves the profession. Additionally, it has been established that the presence of large numbers of novice teachers in a school leads to poor organizational stability and lack of cohesion (Darling-Hammond, 2003; Smith & Ingersoll, 2004) as well as poor student achievement (Kaplan & Owings, 2001).

In the midst of ongoing and changing reform efforts in education, along with an increasingly globalized economy, leaders in education continue to be challenged by reform pressures placed on our education system. Researchers and policy makers need to determine the nature of teacher attrition in order to recommend policies and programs that might help reduce attrition and increase teacher quality. Existing knowledge concerning attrition points to teachers early in their careers as those most likely to leave their jobs (Ingersoll & Smith, 2003; Darling-Hammond, 2003). Currently, teacher induction programs are one of the ways in which leaders are attempting to increase retention. By investigating the effectiveness of the teacher induction programs and the relationship of such programs to the attrition of new teachers, leaders in education would be able to design policy, procedure, and programming that would encourage teachers to remain in the field longer. Although there are many variables at play that affect teacher attrition, state policy-makers recognize the importance of not only mandating but fully funding and supporting structured induction programs that include the specific characteristics, such as mentoring, that support teachers during their formative years and encourage them to remain in the field (Carver & Feiman-Nemser, 2009; Scherer, 1999).

Purpose Statement and Rationale

The purpose of this study was to investigate the relationship between teacher attrition and first year teachers' experiences. Individual components of first-year induction programs, particularly mentoring, were examined as correlational variables with professional commitment,

teacher attrition, and perceived effectiveness of induction programs. The perceived effectiveness of specific characteristics of current programs and relationships between those characteristics and teacher attrition were evaluated. The results can assist school leaders in developing future induction programs for new teachers and improve professional commitment and retention and, thereby, the quality of education experienced by students (Carver & Feiman- Nemser, 2009; Darling-Hammond, 1997; Darling-Hammond, 1999b; Kaplan & Owings, 2001; Protheroe et al., 2002; Wong, 2003).

Conceptual Framework

The conceptual framework for this study involved different theories of beginning-teacher induction programs, teacher stages of development, adult education, and the impact of teacher experience on the quality of education. Based on these theories, it is believed that induction programs that are most effective in developing new teachers provide high levels of support through mentoring for periods of at least one school year. This belief supports the hypothesis that by improving the support offered beginning teachers through induction programs with mentoring and other specific components more teachers will report higher levels of professional commitment and remain in the field for longer periods of time. These outcomes, if obtained, should reduce the amount of time students spend with inexperienced teachers and increase the potential quality of education.

Several researchers have developed theories concerning the stages of development typically experienced by beginning teachers and have drawn from developmental and adult learning theorists such as Piaget, Furth, and Vygotsky to support professional development models for new teachers that offer support through collaboration, reflection, and mentoring (Fuller, 1969; Moir, Barlin, Gless, & Miles, 2009; Moir & Stobbe, 1995). These types of

programs have been successful with adult learners in professions such as business and medicine and should translate to the education profession and new teacher induction programs (Carver & Feiman-Nemser, 2009; Darling-Hammond, 1999a). With appropriate support in place, new teachers may report higher levels of job satisfaction and professional commitment during their first years of service, thus contributing to a decrease in teacher attrition.

Research Methods

This study involved the use of data collected by the National Center for Education Statistics (NCES). Specifically, data sets from the 2007-2008 Schools and Staffing Survey (SASS) and the 2008-2009 Teacher Follow-Up Survey (TFS) and the 2008-2010 Beginning Teacher Longitudinal Study (BTLS) were utilized. The survey data were collected by mail by NCES staff and were then made available for access by researchers who had been granted a restricted-user license. NCES developed practices and procedures that ensure and monitor confidentiality.

The SASS was initially developed in 1987 by the NCES as a combination of three of its Elementary and Secondary Education Surveys. The survey is conducted periodically and is continually evaluated for validity, reliability, scope, and utility. The data collected pertain to critical components of supply, demand, and attrition; characteristics, preparation and experiences of teachers; teacher perceptions of school conditions, responsibilities, policies, and powers; conditions and characteristics of schools; and the implementation of programs and policies (Mullens & Kasprzyk, 1996; Kalton, et al., 2000; Tourkin et al., 2010). The TFS was also developed by NCES and is distributed to teachers who completed the SASS the previous year. The purpose of the TFS is to measure attrition; examine characteristics of teachers described in this study as “stayers,” “movers,” and “leavers”; obtain data concerning professional activities

and employment within and without the teaching field; and obtain information about attitudes and job satisfaction (Cox et al., 2007; Tourkin et al., 2010; Riley, Robinson & Elliot, 1994).

Data related to specific response items from the surveys were analyzed using SPSS® software. The response items selected for use in this study were chosen based on their application to characteristics of former and current teachers, levels of professional commitment, and participation in and characteristics of mentoring programs. Data were then further limited to just those of teachers working in the Southeastern states (Alabama, Georgia, Mississippi, Louisiana, North Carolina, South Carolina, Tennessee, Kentucky, West Virginia, and Virginia). The data were analyzed across the three major areas identified in the research questions for this study: professional commitment, characteristics of and participation in induction programs, and attrition. Statistical methods used to analyze the data included analysis of variance, t-test to compare means, Chi Square, correlational analyses and descriptive analyses.

Research Questions

There are five sets of research questions. Data collected in the 2007-2008 administration of the Schools and Staffing Survey, the 2008-2009 administration of the Teacher Follow up Survey, and the 2008-2010 administrations of the Beginning Teacher Longitudinal Study Survey were analyzed. The first set of questions involves data from all four TFS questionnaires and the SASS teacher questionnaire to examine the current attrition for new teachers in the Southeast as well as the relationship between attrition and participation in induction and mentoring programs. This includes responses from teachers with all levels of experience (first-year, new, and experienced) who are defined as “former” and “current” teachers based on their response to questions concerning their employment status at the time of the survey administration. The second set of research questions involves data from the SASS Teacher Questionnaire to examine

the relationship between participation in induction and mentoring programs and reported professional commitment which is defined as new teachers reported intention of staying in the field by selection of Likert-type items in response to the question "How long do you plan to remain in teaching?" The third set of questions will include data from teacher responses on the TFS-2L and TFS-3L (Teacher Follow-Up Survey for first-year teachers) to examine the relationships between different characteristics of mentoring programs (frequency of interaction, grade level matching, and subject level matching) and the perceived effectiveness of the programs as reported by teachers measured by the response to the question "Overall, to what extent did your assigned master or mentor teacher improve your teaching last school year (2007-2008)." The fourth set of questions involves data from the TFS-2L and TFS-3L during wave two of the Beginning Teacher Longitudinal Study (2009-2010) to examine the relationships between attrition and certain characteristics of mentoring studies (frequency of interaction, grade level matching, and subject level matching). The fifth set of questions involves data from all surveys to examine the relationships between attrition and perceived overall effectiveness of a program and professional commitment. This will help guide policy makers in identifying predictors of attrition and developing programs that best meet the needs of new teachers with the goal of retaining quality teachers in mind.

The following research questions have been developed to guide the researcher in fulfilling the purpose of the study:

1. What is the relationship between new teacher attrition and first year experiences?
    a. Is there a significant difference in attrition for new teachers in Southeastern states with mandated programs than in Southeastern states without mandated programs?

b. Is there a significant difference in attrition between new teachers and experienced teachers?

c. Is there a difference in participation in programs reported by new teachers in states with mandated programs compared to states with non-mandated programs?

d. Is there a relationship between new teacher attrition and mentoring?

2. What is the relationship between reported levels of commitment and new teacher experiences with induction or mentoring?

   a. What percentage of new teacher respondents reported high levels of professional commitment in 2008?

   b. Is there a difference in the reported level of commitment between new teachers who participated in an induction program during their first year and those who did not?

   c. Is there a difference in the reported level of commitment between new teachers who were paired with a mentor during their first year and those who were not?

3. What is the relationship between perceived effectiveness of mentor programs and characteristics of the program?

   a. Is there a relationship in perceived effectiveness of mentoring programs and the frequency of interactions with a mentor?

   b. Is there a difference between the perceived effectiveness of mentoring programs reported by first year teachers who were paired with a mentor who taught the same grade-level and those who were not?

c. Is there a difference between the perceived effectiveness of mentoring programs reported by first year teachers who were paired with a mentor who taught the same subject and those who were not?

4. What is the relationship between attrition and the characteristics of mentoring programs?
   a. Is there a relationship between attrition and the frequency of interactions with a mentor?
   b. Is there a difference in the attrition of new teachers who were paired with a mentor who taught the same subject and those who were not?
   c. Is there a difference in the attrition of new teachers who were paired with a mentor who taught the same grade-level and those who were not?
5. What are the relationships between perceived overall effectiveness of programs, professional commitment, and attrition?
   a. Is there a relationship between professional commitment and attrition?
   b. Is there a relationship between perceived overall effectiveness of mentoring programs and attrition?

Definition of Terms

BLTS: Beginning Teacher Longitudinal Study. A survey conducted by the US Department of Education/National Center for Education Statistics to follow <2000 first year teachers who participated in the 2007-2008 SASS, and the 2008-2009 TFS. The purpose of BLTS is to provide national estimates of new teacher attrition and mobility and attitudinal data concerning reasons for moving or leaving the profession. Participants completed four surveys in 2008, 2009, and 2010. The survey consists of three questionnaire paths: Current Teacher Questionnaire, Former Teacher Questionnaire, and Returning Teacher Questionnaire for teachers

who left the field but are now returning. Though the USDOE intended to follow the teachers for five years the study ended after only three years due to attrition of participants.

Changers: Teachers who started teaching after first being employed in a different field.

Current Teachers: Teachers who responded that they are currently teaching regularly scheduled classes in a preK-12 classroom.

Experienced Teachers: Teachers who have three or more years of experience.

First-year Teachers: Teachers who have one year or less than one year of teaching experience beyond their student teaching or pre-service training. Survey respondents in this category are teachers who began teaching during the 2007-2008 school year.

Former Teachers: Teachers who responded that they are no longer teaching regularly scheduled classes in a preK-12 classroom.

Highly-Qualified Teachers: Teachers who meet the specific No Child Left Behind teacher preparation and assessment requirements for Highly Qualified status and certification.

Induction Programs: A broad term used to describe any structured program designed to provide support to beginning teachers.

Leavers: Teachers who voluntarily leave their positions to retirement, for non-classroom positions in the field, for childrearing or other personal issues that involves unemployment, or for employment outside the k-12 field of education.

Mentoring: Teacher induction programs that require a new teacher to partner with a more experienced teacher who will offer guidance and opportunities for structured interactions geared toward professional development.

Movers: Teachers who leave their current positions for different classroom positions.

New teachers: Teachers with less than 3 years of experience.

Non-traditional teachers: Teachers who attained certification through a program other than a 4-year undergraduate teacher education program.

Perceived effectiveness: the teachers' responses to items on the Teacher Follow-up Survey for new teachers asking to what extent working with a mentor improved their teaching.

Professional Commitment: Teachers' reported intent to remain in the teaching field on The Schools and Staffing Survey Form SASS-4A item 58b.

SASS: The Schools and Staffing Survey. A national survey conducted periodically by the US Department of Education. This study utilizes data from Form SASS-4A distributed to a sample population of public school teachers in the United States in 2007-2008.

Stayers: Teachers who made no change to their teaching status from the previous year (i.e. they chose to retain employment as a classroom teacher in the same school).

TFS: Teacher Follow-Up Survey. A national survey conducted periodically by the US Department of Education and distributed to teachers who had previously completed the Schools and Staffing Survey. Teachers with two or more years of experience who indicated that they did not return to a teaching position for the 2008-2009 school year received Form TFS-2. First-year teachers who indicated that they did not return to a teaching position for the 2008-2009 school year received Form TFS-2L which includes the same questions as Form TFS-2 with the addition of questions related to participation in induction programs and interactions with a mentor. Teachers with two or more years of experience who indicated that they are returning to a teaching position for the 2008-2009 school year received Form TFS-3 which contains the same questions as Form TFS-2 with the exclusion of questions concerning reasons for leaving the field. First-year teachers who indicated that they are returning to a teaching position for the 2008-2009 school year received Form TFS-3L which contains the same questions as Form TFS-2L with the exclusion of questions concerning reasons for leaving.

Turn-over: The condition in which positions are vacated for any reason and must be re-filled.

Assumptions

This study used data that were collected in a national survey of teachers and accessed through a national database. It is assumed that

1. The questions on the survey were answered honestly by respondents.
2. The data have been accurately recorded by persons responsible for maintaining the database.
3. The lack of responses on individual items did not limit the ability to statistically process the results.
4. The reported validity and reliability measures provided by IES for the survey are accurate.

Limitations

This study is limited by the following factors:

1. Responses on self-report measures such as the TFS are affected by the emotional or psychological states, perceived expectations, or other factors commonly related to the accuracy of self-report data.
2. Survey respondents may not have answered all questions causing sample sizes to differ between questions.
3. Correlational studies such as this one do not pinpoint causal relationships. While a relationship between conditions may be established, it is possible that the relationship itself does not involve the perceived conditions.
4. Only respondents from the Southeastern United States were included in this study which could limit the generalizability of the results.

5. The use of national data sets in secondary data analyses does present problems associated with weighted measures, representativeness of data, mean outliers, generalizability, and effect sizes.

In spite of these limitations, the results of this study should prove useful as leaders in the field of education, particularly those in the Southeast, move toward the advancement of a quality workforce and increased student achievement.

Chapter Summary

The current literature suggests that there exists in the United States a teacher shortage that is a result of the inability to retain new teachers (Ingersoll, 2001). Lack of support during the first few years of service leads to low levels of job satisfaction and attrition (Darling-Hammond, 1999a; Ware & Kitsantas, 2007). The inability to retain new teachers also impacts the quality of education provided to our students (Darling-Hammond, 1999b). In order to combat this problem, many states have implemented structured induction programs that include mentoring for new teachers (American Federation of Teachers, 2001; Carver & Feiman-Nemser, 2009).

In this study, current SASS and TFS data were reviewed to determine the current state of the teaching shortage and if induction programs, specifically those that include mentoring, have had any kind of effect on the improvement of retention and the amelioration of attrition. The data were also used to identify characteristics of effective programs. The results should be useful in future policy decisions concerning the retention of new teachers (Carver & Feiman-Nemser, 2009; Kaiser, 2011; Keigher, 2010).

CHAPTER II:

REVIEW OF THE LITERATURE

The primary purpose of this study was to investigate the relationship between mentoring and teacher attrition in the Southeastern United States. A review of current literature supports the ideas that new and first-year teachers leave at relatively high rates posing a serious problem for educational leaders. Interaction with a mentor has been identified as a way of supporting new teachers that is positively associated with professional commitment and, thereby, attrition. In many states, structured teacher mentoring programs have been established to help reduce teacher attrition and improve the quality of education. This chapter reviews the background of literature related to teacher shortages; current teacher attrition and associated factors; teacher stages of development; theories of adult education; a history of induction programs in the United States; theories of beginning-teacher induction programs; the history and characteristics of mentoring programs; the impact of teacher experience on the quality of education; and the characteristics of current induction and mentoring programs that are viewed as effective in supporting new teachers.

Teacher Supply and Demand in the United States

Though there is no question that filling vacant teaching positions with highly qualified applicants is problematic, there is some debate concerning the nature of the perceived teacher shortage in the United States. In a 1999 study for the National Center for Education Statistics to predict the number of teachers that would need to be hired for 2008-2009, Hussar estimated that the United States would need to hire at least 1.7 million new teachers to meet the demand of

increased enrollment and to replace those that have left the field. In that study Hussar (1999) attributed the largest percentage of attrition to the "graying" of the workforce as more and more teachers approached the typical age of retirement. Other researchers attribute the imbalance in supply and demand to the inability to attract and retain good teachers (American Federation of Teachers, 2001; American Federation of Teachers, 2007; Berry et al., 2010; Darling-Hammond, 1997; Darling-Hammond, 1999a; Ingersoll, 2001; Ingersoll & Smith, 2001; Marvel et al., 2006; Smith & Ingersoll, 2004).

In a 1997 study for the National Commission on Teaching and America's Future, Darling-Hammond estimated that nearly 25% of the Nation's teachers were approaching retirement age. Darling-Hammond also reported that though enrollment was increasing and jobs were becoming available, only two-thirds of college students graduating with a degree in education accepted positions as teachers within one year of graduating and that the supply of teachers is unevenly distributed causing real shortages in certain curricular areas such as special education and demographic areas with lower socio-economic status while other areas experience a surplus. Darling-Hammond further noted that these shortages are exacerbated by the rush to fill positions with less-than-qualified applicants who are then unable or unwilling to remain in the field causing the same positions to become vacant year after year. In 2003, Murphy & DeArmond looked at the situation of supply and demand and the concept of a teacher shortage and again found that the pool of available applicants is unevenly distributed and also identified an increase in demand rather than a decrease in supply as the culprit.

In 2001, Ingersoll wrote that the teacher shortage is not due to a shortage in the number of qualified applicants but rather in the increased demand for new applicants caused by high attrition for reasons other than retirement. In a similar study in 2003 Ingersoll and Smith again

examined the issues surrounding the perceived teacher shortage and again identified attrition as a major cause in the shortage rather than the lack of available new teachers. Indeed the Department of Education data indicate that there is an increasing trend in attrition in education. The most recent information from the National Center for Education Statistics indicates that the overall attrition of teachers responding to the survey increased from 5.6% of all teachers leaving the field in 1989 to 8.4% in 2004 with only a slight drop to 8.0% in 2009 (Keigher, 2010).

Ingersoll and Smith (2003) stressed that attrition is a greater contributor to the teacher shortage than dwindling numbers of students in college and university teacher education programs concluding that research concerning higher retention rates are more important than recruitment strategies. In a 2006 study of factors related to attrition, Strunk and Robinson agreed that attrition is a bigger problem than recruitment and also indicated that attrition rates are higher with less-experienced teachers.

Previous research suggests that between 40% and 50% of all teachers leave the field between their fifth and seventh year (Darling-Hammond & Sykes, 2003). Ingersoll (2001) attributed less than 20% of the attrition to retirement and described a “revolving door” through which teachers would enter the field only to quickly leave to seek employment elsewhere. Ingersoll cited 1990-1991 Schools and Staffing Survey data indicating that in 190,000 new teachers surveyed were hired but 180,000 teachers left and in 1993-1994 data indicated that 193,000 were hired but 213,000 left resulting in a deficit in the workforce. The most recent data concerning attrition does support the notion that the shortage is not necessarily a function of retirement. The 2010 report of data from the Teacher Follow-up Survey indicates that there are more than twice as many teachers over the age of 50 (n=1,126,900) as there are under the age of 30 (n=575,100), however, the rates of attrition for both age groups were similar with 9.2 percent

of teachers under the age of 30 retiring and 10 percent of teachers over the age of 50 retiring (Kaiser, 2011; Keigher 2010; Tourkin et al., 2010).

Attrition and Retention of New and First-Year Teachers

While there may be some question concerning the status of an actual teacher "shortage" in the United States, there appears to be no question that attrition, particularly that of new and first-year teachers, is a critical problem. In 1999, researcher Darling-Hammond wrote that while there does appear to be a shortage in the supply of teachers, the problem is actually that schools are ineffectively recruiting and retaining high-quality applicants (Darling-Hammond, 1999a). A review of current research appears to indicate that the levels of attrition for reasons other than retirement may exist among new or beginning teachers (American Federation of Teachers, 2001; American Federation of Teachers, 2007; Berry et al., 2010; Darling-Hammond, 2003; Darling-Hammond, 1999a; Ingersoll, 2001; Ingersoll & Smith, 2001; Keigher, 2010; Marvel et al., 2006; Smith & Ingersoll, 2003)

In 2003 Darling-Hammond reported the numbers as one-third of teachers leaving before their fifth year. Also in 2003, Smith and Ingersoll reported that almost 30% of teachers leave the profession, which he terms "leavers," or switch schools, which he terms "movers," after their first year. Of that percentage, Smith and Ingersoll found that 14% are leavers while the remaining teachers are just movers. The 2008-2009 Teacher Follow-up Survey indicates that the group of teachers with the highest attrition are those with less than 4 years of experience (Keigher, 2010). As a result of research identifying weaknesses in the ability to retain new teachers, many researchers began to focus on ways to improve the experiences of new teachers as they begin their careers (Scherer, 2010).

Teachers' Stages of Development

Inman and Marlow (2004) identified two different phases in the teacher early careers, which they defined as the first 10 years of a teacher's career. These researchers found differences in perceptions of needs for beginning teachers with 0-3 years of experience and teachers with 4-9 years of experience. The researchers stated that these results indicate changes in attitude and needs that are related to experience. They recommended induction programs that address the needs of new teachers as well as an organizational structure that supports beginning teachers through different stages of development.

In her research, Moir identified five stages of development experienced by teachers during the first year of practice that affects their attitudes and levels of professional commitment and also recommended specific induction programs, which include mentoring components, to address these needs (Moir, 1990; Moir & Bloom, 2003; Moir & Stobbe, 1995). These stages identified by Moir are anticipation, survival, disillusionment, rejuvenation, and reflection (see Fig 1). Though teachers do not necessarily move through the different stages in the same order or on the same timeline, they do generally pass through all stages and start and end with anticipation in one school year. Therefore, it is important to be familiar with the characteristics of each phase in order to provide appropriate support as teachers move through the different stages (Moir & Stobbe, 1995).

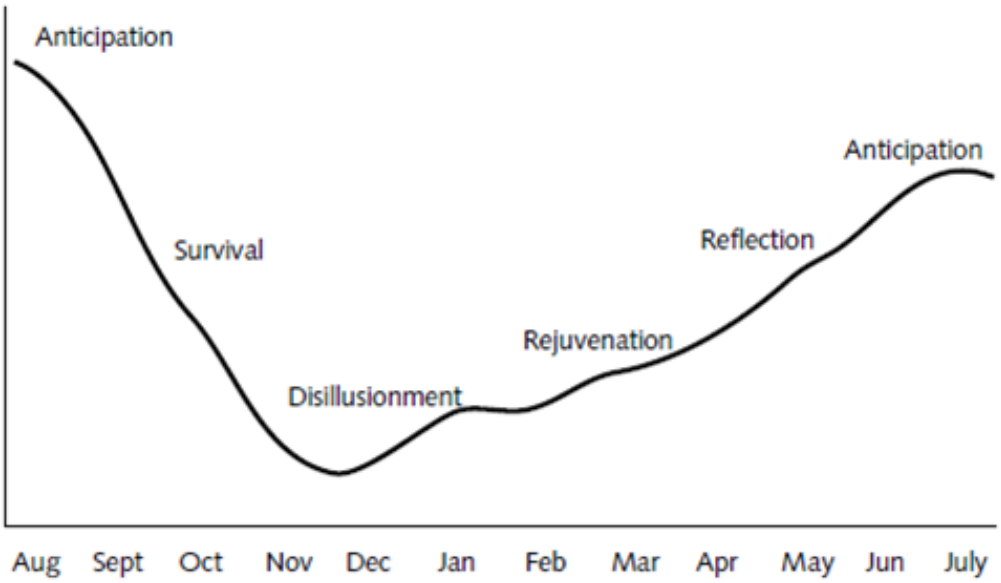

Figure 1. The Phases of Development of First-Year Teachers (Moir, 1990)

Anticipation Phase

Anticipation is the first stage of development experienced by teachers. This stage usually takes place during the last months of pre-service training. During this time teachers tend to romanticize the role of the teacher and hold on to the ideals that were formed during their pre-service education. They become more excited and anxious to begin working independently as a teacher (Moir, 1990; Moir & Stobbe, 1995).

Survival Phase

The survival phase generally takes place during the first month of service as teachers struggle to learn the routine and apply theory to practice. An enormous amount of time is spent planning curriculum from scratch during this phase as the new teachers do not have the materials that are available to experienced teachers. Although they begin to feel overwhelmed, they are focused on doing well and remain excited about teaching. During this time mentors are most helpful in providing focus and materials (Moir, 1990; Moir & Stobbe, 1995).

Disillusionment Phase

After the first 6-8 weeks, new teachers generally reach the disillusionment phase. Stress and exhaustion begin to deteriorate feelings of self-efficacy resulting in low morale, low self-esteem, and reduced professional commitment. It is critical during this time that new teachers have a supportive mentor as it can be the most difficult period of time for new teachers and some do not move past this stage (Moir, 1990; Moir & Stobbe, 1995).

Rejuvenation Phase

This stage generally begins after the semester break. The time away from school gives teachers respite and allows them time to re-group and identify strengths and weaknesses in a reduced stress environment. Reflective conversation with mentors during this time will increase in depth (Moir, 1990; Moir & Stobbe, 1995).

Reflection Phase

As teachers near the end of the first school year, they become more able to self-assess and participate in reflective practices with their mentor. They begin to think of the next school year and perhaps even slip back into a stage of anticipation (Moir, 1990). During this stage teachers will become more independent and able to self-direct reflective practices (Moir, 1990; Moir & Stobbe, 1995). As the new school year approaches, the teacher re-enters the *anticipation* stage but at a lower level (Moir, 1990).

These five stages are important to the development of teacher induction and mentoring programs because they give insight into the attitudinal changes experienced by teachers as they enter the profession. Each stage requires a different level of support and approach in mentoring. The match between teacher need and level of support offered during each phase greatly impacts the likelihood that the teacher will remain in the field (Moir, 1990; Moir & Stobbe, 1995).

Theories of Learning and Adult Learners

The constructivist theory of learning is based on the concept that all learners bring previous knowledge and experience to new instances of learning to construct new knowledge (Lambert, et. al, 2002). This theory is a major building block for the support of mentoring as a key component of quality induction programs (Moir & Stobbe, 1995). As new teachers enter the field, their previous knowledge is limited and they depend on mentors to offer bits of knowledge upon which the new teacher can construct their own knowledge. This fits with the description of learning as a social activity included in the 2002 study by Lambert et al. Interaction with the mentor improves the new teacher's ability to reflect, collaborate, and problem solve (Lambert et al., 2002).

Many of the practices that are included in the development of teacher induction and mentoring programs are based on a constructivist approach to education (Moir & Stobbe, 1995). In a movement away from traditional staff development models that are grounded in a model of educating that treats adult learners as passive recipients of information, Moir and her colleagues recommend collaborative approaches to education that involve practices that are also suggested by Knowles (2002). Andragogy, the study of adult learning developed by Knowles, is based on the following five assumptions (Merriam, 2001):

1. The adult learner can direct his or her own learning.
2. The adult learner has a large amount of life-experiences that enrich learning.
3. The adult learner has specific learning needs that are tied to changing social roles.
4. The adult learner tends to be problem-focused and seeks immediate solutions.
5. The adult learner is motivated by internal rather than external factors.

Based on these assumptions, programs geared towards adult learners, such as teacher induction programs, should be learner-centered and transformative (King & Lawler, 2003). Development programs for adults should include specific needs assessments; the use of reflective practices that draw on life-experiences; the development of collaborative learning communities that encourage dialogue; the use of learner-centered instruction, especially self-directed learning, activities that include opportunities for reflection, clarification, and guidance; and the inclusion of technology (King & Lawler, 2003). Many of these same assumptions are aligned with characteristics of effective mentoring and induction programs described in the literature (American Federation of Teachers, 1998, 2001; Moir & Stobbe, 1995).

There are four major learning theories related to these factors of adult learning (Conlan, Grabowski, & Smith, 2003): Action learning; Experiential Learning; Project-Based Learning; and Self-Directed Learning. Each of the theories relates in some way to the characteristics of effective induction and mentoring programs.

Action Learning

Action Learning involves the use of small group interactions in which a group of lesser-experienced adults works together to solve a real world problem. The group is led by more experienced "learning coaches" who guide the process (Conlan et al., 2003). This theory applies to effective practices in teacher education as an example of a collaborative approach to professional development.

Experiential Learning

Experiential Learning is a holistic approach that involves a hands-on approach to learning in which the learner is directly involved in the job activity and learns through experience and reflection under the guidance of a more experienced employee (Conlan et al., 2003). This is most

similar to the recommended practices of student-teaching and induction for pre-service and beginning-service teachers because it utilizes an “on-the-job” approach with a mentor supervising.

Project-Based Learning

Like Action Learning, Project-Based Learning involves small group interactions and real world problems. In this model, the problem requires several different skill sets and team building, cooperation, and collaboration are emphasized (Conlan et al., 2003). This model is similar to situations in which the teacher and the teacher’s mentor would collaborate with other teachers on the same grade/level for planning purposes.

Self-Directed Learning

Self-Directed Learning is a more informal model in which the learner is solely responsible for the whole learning process including identifying and acquiring resources, setting goals, identifying and implementing strategies to achieve those goals, and evaluating results. In this model many learners find themselves unable to meet expectations (Conlan et al., 2003). While it does not reflect practices recommended by researchers (American Federation of Teachers, 2001; Moir and Stobbs,1995), it does reflect to some extent the isolation described by some researchers as the conditions in which teachers who are not offered structured induction programs often find themselves (Harrell, Lavell, van Tassel, & McKee, 2004).

Based on this research, a number of induction and mentoring programs have been examined to address the needs of beginning teachers during distinct stages of development experienced as they begin their careers. These programs have been examined over the years and have been the subject of conversation and policy concerning education reform across the United States. Theories of adult learning are the foundation for mentoring programs (Algozzine, Gretes,

Queen, & Cowan Hathcock, 2007; Andrews, Gilbert, & Martin, 2006; Smith, 2007; Smith & Ingersoll, 2004; Youngs, 2007).

Models of Induction Programs

Induction is a process used to train, retain, and support new teachers. When designed correctly, induction programs can contribute to the reduction of attrition and increase the effectiveness of teachers which positively impacts the quality of education (Smith 2007; Weiss & Weiss, 1999). Smith (2007) reviewed 2004-2005 SASS data with state policy concerning induction programs and mentoring and found that first-year teachers who participate in induction programs that include a wide range of supportive constructs, including mentoring, are less likely to turn-over. Weiss & Weiss (1999) reported that, even though induction programs that include mentoring appear to be the most effective in reducing turn-over and improving morale of new teachers, these types of programs are often not in place.

Induction programs may include a variety of components from simple orientation to the basic rules of teaching to more elaborate mentoring and reflective practices. Within this spectrum, the National Education Association (NEA) recognizes three basic types of induction programs: basic orientation; instructional practice; and school transformation. Of these three types, the school transformation model most closely resembles what the NEA considers “high-quality professional development” (Parsons, Lupe, & Bosserman, 2002).

Basic Orientation

The basic orientation model generally involves a series of workshops in which teachers are introduced to social and pedagogical norms of the institution. New teachers may or may not be assigned a mentor under this model but any mentoring would occur in an informational

capacity and not involve reflective practices. While this model is helpful, it does not meet all the needs of an effective induction program (Parsons et al., 2002).

Instructional Practice

The instructional practice model also involves the introduction of social and pedagogical norms but includes mentorship with the intent of connecting theory to practice through research-based classroom strategies (Parsons et al., 2002). While this model includes a more structured and supportive approach to mentoring, it also does not fully meet the criteria of an effective induction program.

School Transformation

Of the three models, this model most closely matches the criteria set forth by the NEA. It includes a rigorous and systemic process of continuous evaluation and development. It encourages the use of research-based practices to connect teacher learning goals to student learning goals (Parsons et al., 2002).

Induction and Mentoring

While induction is defined as "a process used to train, retain, and support new teachers," mentoring exists as a separate action that could take place within or as part of an induction program and should not be viewed as synonymous with induction (Wong, 2004). A mentoring program is a program in which a skilled or more experienced person serves as a role-model to teach, encourage, and counsel a less skilled or less experienced person in a nurturing way for the purpose of developing the latter person's professional or personal skill (Anderson & Shannon, 1987). Many of the programs that have been identified as the most effective in producing and retaining high quality teachers include mentoring programs (Darling- Hammond, 1999a).

Successful mentoring programs, in turn, have specific characteristics concerning the type of mentees selected and the training they receive.

Research indicates that school systems that mandate comprehensive induction programs that include structured mentoring programs also report lower new teacher attrition (Darling-Hammond, 2003; Huling-Austin & Murphy, 1987; Ingersoll & Strong, 2011; Kaiser, 2011). However, mentoring programs that exist independent of structured induction programs are perceived as ineffective and having little impact on the development of teaching skills (Wong, 2004). In a 2004 study of induction programs that included mentors, specifically mentors who taught the same subject as the first-year teacher to whom they were assigned, Smith and Ingersoll reported that the teachers who participated in such programs were less likely to leave after their first year of teaching.

Several researchers concluded that teachers who participate in teacher preparation programs that focus on pedagogy rather than content and new teacher mentoring programs that include same-subject mentors, collaboration, and cross-organization networking are more likely to report more positive perceptions of the programs in which they were involved. Algozzine et al. (2007) examined first-year teachers' perceptions of induction programs and found that the assignment of a mentor ranked in the top five of the items that were perceived as most effective. Andrews et al. (2006) examined the support strategies in place for first-year teachers and reported that having a mentor was the most effective support strategy. Jones & Pauley (2003) reported that teachers who do not participate in a mentoring program leave the field at a rate that is 70% higher than teachers that are paired with a mentor. In fact the 2011 Beginning Teacher Longitudinal Study indicated that of the teachers surveyed nationwide 23% of the teachers who

were not assigned a mentor had left the field compared to only 10% of teachers who were assigned a mentor.

In 2010 Berry, Daughtery, and Wieder found that teachers who participated in new teacher mentoring programs that included same-subject mentors, were less likely to move or resign after their first year than teachers who did not participate in such programs. Youngs (2007) found that the mentor's ability to collaborate and the mentor's level of pedagogical knowledge were important. It is also important to note that the data indicated that attrition of experienced teachers who participated as a mentor for a new teacher was less than attrition for teachers who were not involved as mentors thus doubling the benefit of these types of programs (Berry et al., 2010).

History of Induction Programs in the United States

The concept of an induction program for new employees is not unique to the field of education. Induction programs have long been utilized as methods to train and socialize new employees in businesses such as Wal-Mart, Home Depot and major airlines (Wong, 2003). In the field of education, evidence exists to show that induction programs of some form have been found in the literature dating back to the early 19th Century (Elias, Fisher, & Simon, 1980).

Much of the focus of the early induction programs in education has been on socializing teachers to reflect the norms of the institution in behaviors and attitudes (Reinhartz, 1989). However, successful programs help teachers understand the nuances of the school community as well as develop personal skills and promote teamwork (Wong, 2003). A comprehensive induction program should extend beyond the first year of practice and include a continuum of professional development and systematic training, administrative support, mentoring and opportunities for collaboration and reflection (Wong, 2003).

The literature suggests that strong induction programs are effective in increasing retention and decreasing attrition. Huling-Austin & Murphy (1987) analyzed data from studies of induction programs in 8 different states and found that participation in an induction program, particularly one that involved the assignment of a trained support teacher to act in the capacity of a mentor, was related to increased feelings of self-efficacy and job satisfaction reported by participating first-year teachers. In the 1987 Annual Meeting of the American Educational Research Association, Huling-Astin and Murphy indicated that not only should all school districts implement a required induction program but that program should include teachers or mentors who are trained to provide support. In a later report by the American Federation of Teachers (2001), five characteristics were identified as essential to the success of an induction program. These characteristics include mandatory participation, a minimum of 12 months of participation, the assignment of a trained mentor, reduced teaching loads, and a post-program summative review.

Unfortunately, the components of effective induction programs are not always in practice. In 1997, Darling-Hammond found that only 56 percent of teachers participated in an induction program of any kind and that even then the programs varied a great deal in quality and programming. In 2007, Algozzine et al. studied 451 third-year teachers and found that, of the activities in which the teachers participated as part of their induction programs, only about half of the activities have high effectiveness ratings. This means that the components of these induction programs do not match the perceived needs of the teachers. Kardos and Johnson (2007) found that even in states such as Massachusetts and California, which have state-funded, mandated mentoring programs for beginning teachers, less than 50% of the teachers felt that they

received collaborative support, a component of new programs that receives the highest effectiveness ratings from teachers.

Additionally, Andrews et al. (2006) found that the teachers' perceptions of what is offered in the induction programs do not match what the administrators perceive is being offered with the exception of mentorship. For example, 90.3% of principals surveyed reported that teachers were provided with non-evaluative constructive feedback while only 33.7% of teachers surveyed stated that they received this type of feedback. The researchers said that this disparity appears to suggest a difference in perceived definitions of the different aspects of induction, and gave the example of administrators who perceive team meetings as time for collaboration while teachers perceive this time as simply part of the work day. The researchers noted that this disparity could be due to administrators who are simply not aware of what happens in their schools on a daily basis but believe that effective practices are in place when they actually are not.

Since the 1980's more and more states mandated induction programs for teachers although only a few provided specifications as to the components of the programs and how the programs were implemented (Defino & Hoffman, 1984). Unfortunately, too few school districts actually mandate, fund, and implement effective induction and/or mentoring programs (Carver & Feiman-Nemser, 2009; Kaiser, 2011; Russell, 2006). In the early 1980s, fewer than 15 states required induction programs for new teachers but by 1991 a total of 33 states required new teacher induction programs, however only 22 provided funding and only 21 included mentoring as part of the program (American Federation of Teachers, 2001; Kuenzi, 2005). This lack of a key element was problematic. Data collected in December of 2000 indicated that only 29 states were reported as having structured induction programs with mentors and only 17 of those states

provided training for the mentor (American Federation of Teachers, 2001). Even though researchers have indicated time and time again that induction programs, particularly those that involve mentoring, are important to the development of new teachers, policy mandating and supporting these programs remains lacking. Data collected by the National Center for Education Statistics in 2009-2010 indicate that now only 13 states require all new teachers to participate in structured and state-funded induction programs which include mentoring though three additional states do offer mentoring for new teachers as a standalone program (Kaiser, 2011; Keigher 2010).

Current Induction Programs in the Southeast

Structured induction programs, especially those that include mentoring, have been identified as an important part of professional development for new teachers (American Federation of Teachers, 2001; Carver & Feiman-Nemser, 2009; Darling-Hammond, 1999a; Fletcher et al., 2005). Mentoring has moved to the forefront of research concerning induction. In the Southeast in particular, Alabama, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, West Virginia, and Georgia have programs with varying degrees of support and structure and little is known about the degree to which teachers are participating in the programs and the relationship between these programs and attrition (American Federation of Teachers, 2001; Kaiser, 2011). In fact, the 2011 report published by the National Center for Education Statistics only reported Kentucky, North Carolina, South Carolina, Virginia, and West Virginia as Southeastern states that do have required and state-funded induction and/or mentoring programs (Kaiser 2011).

The State of Kentucky began developing a structured induction program for new teachers in 1984 with the establishment of the Kentucky Teacher Internship Program (KTIP). This

program is in alignment with the 1996 recommendations of the National Commission on Teaching and America's Future and provides continuous assessment and support for new teachers during the first two years of employment (McCormick & Brennan, 2001). The current version of the program which was piloted in 2003-2007 includes stipends for mentors, structured training for both mentors and mentees, and an electronic system for staring and collecting data concerning teacher development (Kentucky Department of Education, 2012; New Teacher Center, 2010).

Similarly, North Carolina requires the completion of a three year induction program with mentoring for new teachers. This program, begun in 1998 as the Beginning Teacher Support Program, includes mentoring, limited "non-instructional duties" for new teachers such as supervision during lunch or dismissal and club sponsorship, mentor training, and structured assessment strategies (South Carolina Department of Education, 2006). South Carolina began development of The South Carolina Induction and Mentoring Program in 2001 and required that all districts have in place a written plan for induction by 2008. This program requires structured guidelines for the selection and training of mentors, requirements for subject- and grade level-matching, and a plan for program evaluation (New Teacher Center, 2006). The States of Virginia and West Virginia also recently developed highly structure induction programs that include mentoring. In 1991 the Board of Education of West Virginia authorized funding for a structured induction program for teachers that includes the assignment of a mentor, stipends for mentors, and a system of formal assessment (New Teacher Center, 2010). Virginia first developed its Beginning Teacher Assistance Program in 1985 but this was not successful and was rescinded in 1991. In 1996 The Virginia Board of Education began setting aside funds specifically for use in supporting new teachers. Finally, in 2000 the Department of Education approved and established

a state-funded mentoring program geared towards providing support for both new and struggling teachers with an allotment of nearly $3,000,000 (Virginia Board of Education, 2000).

Unfortunately, despite the myriad of reports indicating a need for strong state-funded support, Alabama, Georgia, Mississippi, and Tennessee do not require new teachers to participate in induction programs nor do they provide funding for such programs. Although Georgia began one of the first induction programs in the nation in 1979 as the Georgia Beginning Teacher Program (McDonald, 1980), which later became the Georgia Mentor Teacher Program (GMTP) in 1997, this program remains unfunded and unregulated (Kaiser, 2011; New Teacher Center, 2010). Counties across Georgia did develop district-wide structured programs that are aligned with state standards for induction and mentoring but research conducted in 2000 failed to provide evidence that the program had been effective as new teacher participation was found to be inconsistent across the districts in Georgia (Columbia Group, 2000; New Teacher Center, 2010).

Like Georgia, the states of Alabama, Mississippi and Tennessee also began working to develop an induction and/or programs but these programs remain unregulated. In the early 1990's the Teacher Quality Mentoring Program was introduced in Alabama public school systems. Alabama continued to establish and publish standards as late as 2004 with the Alabama Teacher Induction Program in 2001 and the Alabama Standards for Effective Teacher Induction and Mentoring in 2004 but current reports indicate that there is no structured or funded program for new teachers in public schools (Kaiser, 2011; New Teacher Center 2010). In the late 1990's the State of Mississippi began amending The Mississippi Code of 1972 to provide funding for structured mentor programs for new teachers (MScode, 2004). In the 2010 *Mississippi Highly Qualified Teacher Plan- revised,* there is documentation of state-mandated training for mentors

and provisions for a stipend but new teacher participation in this program is not required state-wide (Mississippi Department of Education, 2010; Kaiser, 2011; New Teacher Center, 2010). Tennessee Board of Education developed standards for induction and mentoring in 1998 and received grant money to fund the establishment of a strong new teacher support program but after collaborating with The University of Tennessee and Peabody College at Vanderbilt in 1999-2003, the Board reached the conclusion that the demands for an induction program were too high to be met by the State itself and returned the responsibility of funding and implementation to the individual districts (Keigher, 2010; New Teacher Center, 2010; Tennessee Department of Education, 2004).

The information in the current literature seems to indicate that the States are in agreement that induction and mentoring programs do improve the quality and retention of new teachers but for a variety of reasons, the State Boards are unable or unwilling to provide the necessary support to make the programs part of the First Year routine across all districts. Unfortunately, the absence of such a program not only has a potential impact on new teacher attrition but also on the quality of education students receive. Policy concerning these programs must, therefore, be implemented and funded state-wide and not just in the districts that can generate enough district-level funds to support the programs.

Teacher Experience and Quality of Education

Quality induction and mentoring programs do more than just enhance the experience of the new teacher; they also help to improve the quality of education experienced by the students (Lynch, DeRose & Kleindienst, 2006). Multiple studies have identified a strong relationship between participation in quality induction programs, job satisfaction, effective practices and increased student achievement (Darling-Hammond, 2003; Moir and Bloom, 2003; Wong, 2005).

This connection further supports the importance of state-funded, structured induction programs that include mentoring and reflective practices.

It is not enough to just retain new teachers for longer periods of time, it is also important to ensure that teachers develop necessary skills quickly in their first years of teaching so that students can maximize the benefits of time in the classroom. Wong (2004) argues that the teacher- the attitudes, skills and experiences of the teacher- is the single most important factor impacting student achievement and other research indicates that teachers who participate in quality induction programs that include mentoring programs have more positive attitudes, greater enthusiasm, and greater sense of self-efficacy (Moir & Stobbe, 1995). These attitudes naturally spill over into the classroom and students benefit (Darling-Hammond, 2003; Wong, 2003). When new teachers receive adequate support, they develop into effective teachers quickly and efficiently and are able to have a more positive impact on their students (Darling- Hammond, 2003; Wong, 2003).

Rationale for the Study

A review of the literature seems to indicate that teacher attrition rates remain a problem in the United States. The 2005 analysis of the 1999-2000 SASS and TFS data conducted by Provasnik and Dorfman indicated that not only is teacher retention still a problem in the United States but the rate of attrition has in fact increased. Researchers such as Ingersoll and Smith (Ingersoll, 2001; Ingersoll & Smith, 2003; Smith & Ingersoll, 2004) argued that this perceived teacher shortage is not a function of supply and demand but rather an issue of retaining quality teachers. They argued that retaining quality teachers to retirement age is more important than recruiting new teachers through alternative certification and incentive programs.

Reviews of SASS and TFS data indicate that issues with job satisfaction (i.e., low salaries, feelings of isolation, and lack of support from administration) and teacher efficacy are key factors that must be addressed in the quest to find ways to retain quality teachers (Algozzine et al., 2007; Certo & Fox, 2002; Harrell, et al., 2004; Provasnik & Dorfman, 2005; Ware & Kitsantas, 2007). Additionally, with some of the highest percentages of attrition related to years of experience, researchers have looked to teacher induction and mentoring programs for solutions (Algozzine et al., 2007; Andrews et al., 2006; Smith, 2007; Smith & Ingersoll, 2004; Youngs, 2007).

The results of these studies have identified certain components that appear to be more effective than others but, as Kardos and Johnson (2007) suggested, more research is needed concerning the implementation of effective mentoring and induction programs. Specifically, we need clear data concerning the factors impacting teacher retention and the characteristics of effective induction programs and ongoing organizational health. By examining the relationship between beginning teacher mentoring programs and teacher attrition, program designers can better align the beginning teacher programs to meet the needs of the teachers and improve teacher retention.

According to Darling-Hammond (2003), research concerning this problem should focus on any differences in attrition, reasons for leaving, and reports of job satisfaction among the different demographic groups (gender, race, level of education, certification status, years of experience, SES of school) and an examination of the differences in the perceptions of the effectiveness of specific characteristics of first year programs across the demographic groups. Information concerning satisfaction with first year programs for teachers who did not stay or do not plan to stay in the field compared to those who did stay or do plan to stay as well as

differences in perceived positive organizational characteristics (teacher needs) between the demographic groups would also be helpful in increasing the theoretical knowledge concerning induction programs. Understanding the relationship between attrition and induction programs will help further develop theories related to teacher retention.

The teacher shortage remains a problem in the United States. One theory concludes that teachers are leaving faster than they are being recruited (Ingersoll & Smith, 2003). According to this theory, an increase in demand coupled with the inability to retain quality teachers results in a teacher shortage. To make matters worse, states have been forced to lower standards for hiring and certification in order to cover the shortfall and fill the positions (Darling-Hammond, 1997). Indeed, in 2004 nearly 80 percent of teachers leaving the profession were teachers with less than ten years of experience and 29 percent were teachers with less than four years experience (Marvel et al, 2006; Russell, 2006). This creates a situation in which students are subjected to the most inexperienced teachers for the majority of their educational experiences. Teacher retention then becomes a key factor in improving teacher quality.

Goodlad (2004) described issues concerning the circumstances of teaching; he acknowledged the generally negative atmosphere in which teachers work and made several suggestions concerning improvements. One of the areas for improvement concerns teacher preparation and competency. Like the Ware and Kitsantas study (2007), Goodlad emphasized the need for teachers to have feelings of increased self-efficacy as part of job satisfaction. Goodlad identified inadequate preparation, feelings of isolation and lack of autonomy as issues impacting job satisfaction. With appropriate interventions, such as strong teacher induction programs, new teacher retention rates could be increased by reducing feelings of isolation and improving job satisfaction.

In a 1985 review of research concerning induction and mentoring, Gray and Gray challenged the idea that the relationship of mentor-mentee is not something that can be mandated and found that regardless of the voluntary or involuntary status of the induction and/or mentoring programs, teachers paired with a mentor in their first years demonstrated significantly higher development of professional skills than those who were not. The examination of state-mandated programs in Hawaii, California, and Illinois indicated that financial and political support of induction programs at the state level is vital to the success of induction programs, and there is a direct correlation between this level of support and the impact the program has on teacher quality and attrition state-wide. Researchers therefore conclude that research-based teacher induction programs that are mandated and funded at the state level and subject to ongoing evaluation and development will have a greater impact on the quality of education (Johnson, Goldrick, & Lasagna, 2010). Researchers also identify the need for more investigation into the specific characteristics effective programs and the impact of current state-supported induction and mentoring programs so that policy can be strengthened nationwide (Goldrick, 2011; Johnson et al., 2010).

Chapter Summary

This chapter reviewed the background of literature related to teacher shortages; current attrition and factors affecting attrition; teacher stages of development; theories of adult education; a history of induction programs and theories of beginning-teacher induction programs, the history and characteristics of mentoring programs; the impact of teacher experience on the quality of education; and the characteristics of current induction and mentoring programs in Southeastern States. The literature discussed supports the ideas that new or beginning teachers leave at relatively high rates and that teacher induction programs that include mentoring and

reflective practice have a greater impact on job satisfaction and attrition rates than programs that do not include opportunities for mentoring and reflective practice (Darling-Hammond, 2003; Ingersoll & Smith 2003; Moir & Stobbe, 1995). Theories of learning and adult learners supported the characteristics of the mentoring process as effective ways to provide learning opportunities for adults (Lambert et. al., 2002). Also discovered in the literature is evidence that teachers who are better prepared through quality induction programs that include mentoring develop more effective teaching skills and are able to provide a higher quality of education to their students (Wong, 2003). It is, therefore, important to carefully analyze current induction and mentoring programs to determine the relationship between the characteristics of those programs and teacher attrition and professional commitment. This study can provide information to policy makers in the Southeastern states that encourage mandates and dedicated funding for the development and support of teachers, particularly new teachers.

CHAPTER III:

RESEARCH METHODOLOGY

The primary purpose of this study was to investigate the relationship between the mentoring and teacher attrition in the Southeastern United States. Guiding questions were developed based on related literature. Current data from the 2007-2008 administration of the Schools and Staffing Survey, The 2008-2009 Teacher Follow-Up Survey and The 2009-2011 Beginning Teacher Longitudinal Study were used to examine the relationship between participation in induction programs that include mentoring and the actual attrition rates of first year teachers. The target population was new teachers in the Southeastern States who participated in the 2007-2008 Schools and Staffing Survey. The data collected focused on teachers identified as “former teachers” or “current teachers” based on their response to the question “Do you currently teach any regularly scheduled classes in any of grades pre-K-12?” and automatically presents the correct form of the survey based on that response. This method groups “movers” in with “stayers” together as “current” teachers and all others as “former” teachers. An understanding of the impact of current programs will help educational leaders in the Southeastern States develop and improve programs to support first year teachers and retain quality teachers beyond their formative years as well as to develop better organizational health.

Research Questions

The study was guided by five questions based on current literature under which sets of research questions were developed. The first set of questions involves data from all four TFS questionnaires and the SASS teacher questionnaire to examine the current state of attritions for

new teachers in the Southeast as well as the relationship between attrition and participation in induction and mentoring programs. This included responses from teachers with all levels of experience (first-year, new, and experienced) who are defined as “former” and “current” teachers based on their response to questions concerning their employment status at the time of the survey administration. The second set of research questions involves data from the SASS Teacher Questionnaire to examine the relationship between participation in induction and mentoring programs and reported professional commitment which is defined as new teachers reported intention of staying in the field by selection of Likert-type items in response to the question “How long do you plan to remain in teaching?” The third set of questions included data from teacher responses on the TFS-2L and TFS-3L (Teacher Follow-Up Survey for first-year teachers) to examine the relationships between different characteristics of mentoring programs (frequency of interaction, grade level matching, and subject level matching) and the perceived effectiveness of the programs as reported by teachers in response to the question “Overall, to what extent did your assigned master or mentor teacher improve your teaching last school year (2007-2008).” The fourth set of questions involves data from the TFS-2L and TFS-3L during wave two of the Beginning Teacher Longitudinal Study to examine the relationships between attrition and certain characteristics of mentoring studies (frequency of interaction, grade level matching, and subject level matching). The fifth set of questions involves data from all surveys to examine the relationships between attrition and perceived overall effectiveness of a program and professional commitment. This will help guide policy makers in identifying predictors of attrition and developing programs that best meet the needs of new teachers with the goal of retaining quality teachers in mind.

The following questions were used to guide this study:

1. What is the relationship between new teacher attrition and first year experiences?
    a. Is there a significant difference in attrition for new teachers in Southeastern states with mandated programs than in Southeastern states without mandated programs?
    b. Is there a significant difference in attrition between new teachers and experienced teachers?
    c. Is there a difference in participation in programs reported by new teachers in states with mandated programs compared to states with non-mandated programs?
    d. Is there a relationship between new teacher attrition and mentoring?
2. What is the relationship between reported levels of commitment and new teacher experiences with induction or mentoring?
    a. What percentage of new teacher respondents reported high levels of professional commitment in 2008?
    b. Is there a difference in the reported level of commitment between new teachers who participated in an induction program during their first year and those who did not?
    c. Is there a difference in the reported level of commitment between new teachers who were paired with a mentor during their first year and those who were not?
3. What is the relationship between perceived effectiveness of mentor programs and characteristics of the program?
    a. Is there a relationship in perceived effectiveness of mentoring programs and the frequency of interactions with a mentor?

b. Is there a difference between the perceived effectiveness of mentoring programs reported by first year teachers who were paired with a mentor who taught the same grade-level and those who were not?

c. Is there a difference between the perceived effectiveness of mentoring programs reported by first year teachers who were paired with a mentor who taught the same subject and those who were not?

4. What is the relationship between attrition and the characteristics of mentoring programs?

   d. Is there a relationship between attrition and the frequency of interactions with a mentor?

   e. Is there a difference in the attrition of new teachers who were paired with a mentor who taught the same subject and those who were not?

   f. Is there a difference in the attrition of new teachers who were paired with a mentor who taught the same grade-level and those who were not?

5. What are the relationships between perceived overall effectiveness of programs, professional commitment, and attrition?

   a. Is there a relationship between professional commitment and attrition?

   b. Is there a relationship between perceived overall effectiveness of mentoring programs and attrition?

Study Methods

This study was a secondary data analysis that includes descriptive, multivariate, and correlational measures. Data collected by the Department of Education and the National Center for Education Statistics (NCES) for the 2007-2008 Schools and Staffing Survey (SASS), the

2008-2009 Teacher Follow-Up Survey (TFS), and the 2009-2011 Beginning Teacher Longitudinal Study were utilized for this study. Printed versions of the surveys, information concerning the description of the surveys and research methods can be found on the NCES website (http://nces.ed.gov/surveys/sass/). Data sets for this study were limited to that of public school respondents from the Southeastern United States and will be disaggregated according to demographics, attrition (defined as "former" and "current"), and years of experience (first year teachers, new teachers with less than three years in the field, and experienced teachers with three or more years in the field).

Materials

This study used data that were collected in the administrations of the 2007-2008 Schools and Staffing Survey (SASS), the 2008-2009 Teacher Follow-Up Survey (TFS) and the 2009-2011 Beginning Teacher Longitudinal Study (BLTS) which involved repeated surveys using portions of the TFS. All of these surveys were developed and administered by the US Department of Education- Institute of Education Science (IES). The surveys were administered to teachers, principals and other staff members in public, public charter, private, and Bureau of Indian Affairs schools across the United States. The data were then made available in SAS and ASCII formats to researchers who were granted a restricted-user license by the IES (Tourkin et al., 2010). Versions of the SASS and TFS have been administered 6 times in the past twenty years. The surveys were administered for the BTLS for the first time in 2009.

Before each administration the questions were revised based on previous validity and reliability analyses and current research trends. Tests for reliability and validity were conducted for whole surveys and for item-by-item measurements. Based on the results of these tests some questions were changed while others remained the same. While specific reliability and validity

measures in terms of Chronbach;s Alpha, construct validity and factor analysis and are not available for the surveys as a whole, a description of the procedures used to measure and ensure reliability and validity during the construction of the surveys is available here http://nces.ed.gov/surveys/sass.

The 2007-2008 Schools and Staffing Survey (SASS)

The Schools and Staffing Survey (SASS) involved five different questionnaires- the School District Questionnaire; the School Questionnaire; the Principal Questionnaire; the Teacher Questionnaire; and the Library Media Questionnaire. Data from the Teacher Questionnaire (Form SASS-4A) will be used in this study. This survey was designed to a measure variety of variables related to teaching including but not limited to teachers' education and training, certification, professional development, perceptions and attitudes about teaching (Tourkin et al., 2010). It included questions such as, “In what year did you begin teaching, either as a full-time or part-time, at the elementary or secondary level?” (Form SASS-4A item #9); “Did you enter teaching through an alternative certification program?” (Form SASS-4A item #31); and “In your first year of teaching, how well were you prepared to- a. teach your subject matter? b. Use a variety of instructional methods?”, etc. followed by a rating of “Not prepared at all”, “Somewhat prepared”, “Well prepared”, and “Very well prepared” (Form SASS-4A item #37). The surveys were distributed by mail in August 2007 and collection ended in May 2008. The national response rate for this questionnaire was 84 percent with 47,600 participants responding (Tourkin et al., 2010).

Participants did not respond to all items on the questionnaire either by survey design or by choice. Four methods were used to impute values for items were not answered: data were used from other items on the questionnaire; data were extracted from a related component of

SASS; data were extracted from the sampling frame; and data were extracted from the record of a sampled case with similar characteristics. Responses were also weighted to reduce bias from missing items (Tourkin, et al., 2010). This researcher determined that these methods were acceptable and that missing data did not prevent the data from being processed for this study.

The 2008-2009 Teacher Follow-up Survey (TFS)

The 2008-09 Teacher Follow-up Survey (TFS) consisted of four questionnaires that were sent to a subsample of teachers who responded to the 2007-08 SASS Teacher Questionnaire. Two are for respondents who left the field (TFS-2 and TFS-2L) and two are for teachers who did not leave the field (TFS-3 and TFS-3L). Within those two groups, there was one questionnaire for teachers who reported themselves as first-year teachers in the 2007-2008 SASS survey and one for teachers who did not. The TFS was designed to measure differences attrition and characteristics between teachers who were defined as "leavers", "movers" or "stayers" and includes questions such as "Indicate the level of importance EACH of the following played in your decision to leave the position of a K-12 teacher" followed by 30 items that were to be rated as "Not important at all", "Slightly important", "Somewhat important", "Very important", "Extremely important" (TFS-2L item #12); "From the items above, which do you consider the one most important reason in your decision to leave the position of a K-12 teacher?" (TFS2L item #13); and "Overall, to what extent did your assigned master or mentor teacher improve your teaching last school year (2007-2008)?" followed by a rating scale of "Not at all", "To a small extent", "To a moderate extent", "To a great extent" (Keigher, 2010).

Data from all four TFS questionnaires will be used in this study. This survey was web-based. Like the SASS not all participants responded to all items due to survey design or choice. Because portions of this survey were used for the subsequent waves of the BTLS the adjustments

made during imputation and weighting were not completed at the time of this study. The full imputations and weighting will not be completed until 2014 which may change the weights of previously released data. This researcher determined that the current weights and imputations are acceptable for this study and the committee agreed.

The 2007-20011 Beginning Teacher Longitudinal Study

The Beginning Teacher Longitudinal Study (BLTS) was developed as part of the Schools and Staffing Survey series of questionnaires. The survey tools used for this portion of the Survey are the Teacher Follow Up Survey Form TFS-3 and TFS-3L. First administered in 2007-2008 to a cohort of 1,990 new teachers, the purpose of the BLTS was to provide data concerning the experiences and career choices of new teachers (Kaiser, 2011). Data were collected annually by the US Census Bureau and though it was expected to continue for 5 years, cohort attrition ended the survey process in 2011 after the third wave of survey (Kaiser, 2011; Keigher, 2010). Data were collected via paper survey for the first wave and via the internet for the second and third waves. The data were weighted to produce national estimates and correlations were tested for significance at the .05 level. The weighted response rate for each administration of this survey varied from 73 percent to 90 percent (Tourkin et al., 2012).

Sample Design and Data Collection

Data for the 2007-2008 SASS and 2008-2009 TFS were collected by the IES. The SASS participant sample is a stratified probability proportional to size sample (proportional stratified sampling). For the Public school sample, the IES distributed surveys to all schools in the public sectors. The schools were sampled first using a separate survey then linked each school to its corresponding district for identification. In order to obtain a representative teacher sample, schools were selected for the study based on the number of teachers working within a given school, though schools of all sizes were sampled. Within the selected schools, teachers were then sampled at a rate of at least one and no more than 20 teachers per school with an average of three and eight teachers per school. The sample units were then weighted in order to take into account the school's selection probability; to reduce biases resulting from surveys that were not returned or not returned fully completed; and to improve the precision of sample estimates (Keigher 2010). This sampling method is appropriate for this type of survey because it allows researchers to accurately represent identified subgroups in the population (Gay, 1996).

For the 2007-2008 SASS data collection period, surveys were distributed by mail with both telephone and in-field follow-up methods used to remind school survey coordinators to collect and return questionnaires. Teachers who failed to return the questionnaires were contacted by telephone from a call center in an attempt to complete the survey. Responses from the surveys were entered into electronic data files, which were checked against the survey forms for accuracy. Identifying information was removed and replaced with identification numbers to protect respondents' confidentiality. The IES conducted reliability testing concerning data entry to ensure satisfactory reliability of data (Keigher 2010).

The sampling frame for the 2008-2009 Teacher Follow-up Survey (TFS) involved 44,200 public and private school teachers who had previously completed the 2007-2008 Schools and Staffing Survey. Prior to the distribution of the TFS, a Teacher Status Form completed and the information from the Teacher Status Form was used to stratify the respondents into four groups based on their current employment status: Movers- teachers who remained in the field for the 2008-2009 school year but changes schools; Stayers- teachers who continued to teach in the same school for the 2008-2009 school year; Leavers- teachers who left the field prior to the start of the 2008-2009 school year; and Unknowns- teachers who are no longer teaching in the same school but the employment status is unknown. The pool of respondents were then further allocated and weighted in order to match the sampling design established in the administration of the 2007-2008 Schools and Staffing Survey. The response rate for the TFS is over 76% and the BTLS response rate varies from 73-90% (Keigher 2010; Tourkin et al. 2012).

For this study, these data sets were loaded onto a secured and encrypted cd-rom provided by the Department of Education and stored on a secured computer at The University of Alabama. The data sets were manipulated in order to extract responses specific to questions related to this study. Guidelines set forth by the Department of Education and the IES concerning security and handling of data were followed during the study.

Population and Sample Sizes

This study utilized a sample population as representation of an entire group. Samples are used in research to make generalizations about an entire group when each member of the group is not available for participation (Hinkle, Wieserman, & Jurs, 2003). The population studied by this research is public school teachers in the Southeastern States of Alabama, Georgia, Mississippi, Tennessee, Kentucky, North Carolina, South Carolina, Virginia, and West Virginia.

These states were selected as appropriate for this study based on similar socio-economic and school characteristic identified in the 2007-2008 Schools and Staffing Survey. A total of 1313 new teachers from these states responded to the 2007-2008 Schools and Staffing Survey (see Table 1). A total of 636 respondents were from states that do not mandate and fund induction programs (Alabama, Georgia, Mississippi, and Tennessee) and 677 respondents were from states that do mandate and fund induction programs (Kentucky, North Carolina, South Carolina, Virginia, and West Virginia). Of those 1313 respondents only 440 new teachers remained as respondents on the 2008-2009 Teachers Follow Up Survey. Portions of the Teacher Follow Up Survey were administered to the same sample population again as part of the Beginning Teacher Longitudinal Study in 2009-2010 with 395 remaining (see Table 2). For each administration of the survey some respondents skipped some questions either because the item on the questionnaire involved a contingency question that did not apply to their experience or because the respondent chose to skip the question. This resulted in different N for participants for each research question. The different N may give the impression that missing data are problematic, however, adjustments have been made using imputations and weighted measures. The researcher determined that because of the structure of the sample populations and the design of the overall surveys and research questions this method was acceptable and this was approved by the dissertation committee.

Table 1

State Reports of New Teacher Participants

States	SASS Total	Induction	Mentor	TFS Status-Current	TFS Status-Former
Non-mandated States	636	364	457	301	86
Alabama	171	112	118	71	23
Georgia	133	79	97	97	20
Mississippi	189	79	97	74	21
Tennessee	143	73	107	59	22
Mandated States	677	508	531	270	83
Kentucky	139	100	115	40	15
North Carolina	145	124	118	80	26
South Carolina	134	119	106	62	15
Virginia	124	89	95	63	17
West Virginia	135	76	97	25	10

Table 2

BTLS Percentage Distribution of 2007-2008 New Teachers by Teacher Status and Select Characteristics

Selected Characteristics		Teacher Status 2008-2009	
		Former	Current
Gender	male	3.3%	27.3%
	female	6.9%	62.4%
Race	American Indian	0.0%	0.6%
	Asian	0.0%	0.3%
	Black	2.8%	11.6%
	White	7.2%	75.4%
	Multi-racial	0.3%	1.9%
Highest degree earned	Associate's or no degree	0.8%	1.4%
	Bachelor's degree	6.9%	70.7%
	Master's degree	1.9%	1.6%
	Education specialist or Certificate of Advanced Graduate Studies	0.0%	0.5%
	Doctorate or Professional degree	0.5%	1.1%
Age	<25	3.9%	35.6%
	26-30	1.9%	24.3%
	31-35	1.4%	10.5%
	36-40	0.6%	6.9%
	41-45	0.0%	6.6%
	46-50	0.8%	3.9%
	51-55	1.1%	0.8%
	>55	0.6%	1.1%
Salary	<20,000	0.9%	1.2%
	20,000-24,999	0.0%	1.5%
	25,000-29,999	1.2%	5.4%
	30,000-34,999	5.7%	44.6%
	35,000-39,999	1.5%	24.6%
	40,000-44,999	0.9%	6.9%
	45,000-49,999	0.3%	3.9%
	>50,000	0.0%	1.5%

Data Analysis

Reliability, validity and confidence intervals concerning the data and surveys used for this study were measured and reported by The National Center for Education statistics. Statistical Package for Social Sciences (SPSS®) software was used to translate and analyze the SASS, TFS, and BLTS data sets. All variables in this study were measured by teacher response to the SASS, and TFS surveys.

These surveys consist of mostly structured items and very few open ended questions. Several of the items are contingency questions that serve to categorize respondents by years of experience, current employment status, teaching assignments, etc and then only present questions that are relevant to that condition. This allows for the disaggregation of data among different sample groups within the whole pool of respondents.

Several of the research questions for this study are concerned with the differences in the responses between the different sample groups for the survey items that require respondents to rate statements based on a Likert-type item response scale which was developed to measure attitudes and opinions (Likert, 1932) or on items that present ordered-category responses to indicate how often a respondent participates in an activity. In the field of social science this type of data are assumed to exist in a normal distribution and analytical measures such as sample means, analysis of variance, and *t* tests are most commonly used but the results must be clarified in discussion (Gay, 1996; Göb et al., 2007; Ubersax, 2006). In this study percentage distribution, Chi Squared, *t* tests and analysis of variance were used to examine differences among groups concerning data collected on Likert and ordered-category items.

What is the relationship between first year experiences and new teacher attrition? Chi Square tests were used to examine the questions in this set. Chi Square is used when a sample size *N* is taken from a population assumed to have a normal distribution to determine if differences in variations in the sample are due to chance or error (Hair et al., 1992). The respondents were identified as either current or former teachers who either did or did not participate in induction or mentoring programs. The respondents were also identified as teachers from states that either did or did not mandate and fund programs for first-year teachers. Pearson's Chi Square was used for these questions because the sample was taken from a population with an assumed normal distribution and then the sample was divided by categorical responses on the survey. Significance was accepted at the .05 level.

What is the relationship between reported levels of commitment and new teacher experiences with induction and mentoring? The dependent variable in this question is the reported level of commitment defined by the teachers' responses to the question "How long do you plan to remain in teaching?" Each question is followed by categorical responses with only one possible selection such as "Certainly would become a teacher" and "Probably would become a teacher" for the first item and "As long as I am able" and "definitely plan to leave as soon as I can" for the second item. The responses were coded on a scale of 1-7 to calculate mean scores. Independent variables included categorical responses (yes or no) to questions involving participation in an induction program and interaction with a mentor.

A descriptive analysis was first performed to determine the percentage of new teachers reporting high levels of commitment. Independent samples *t* tests with a significance level of .05 were used to analyze the remaining research questions in this set. Both the Mann-Whitney U test

and the Kruskall Wallis H test were used. The ANOVA was also used to further test the question concerning levels of commitment and mentoring.

What is the relationship between perceived effectiveness of mentor programs and characteristics of the program? The dependent variable for this question is the perceived effectiveness of the mentoring program as indicated by selection of Likert-type items in response to the question "Overall, to what extent did your assigned master or mentor teacher improve your teaching last school year (2007-08)?" The responses were coded on a scale of 1-4 to calculate means. Independent variables include frequency of interactions with a mentor, subject matching with a mentor, and grade matching with a mentor. The variable for frequency of interactions was measured by selection of Likert-type items "never", "a few times a year", "once or twice a month", or "at least once a week" in response to the question "How frequently did you work with the master or mentor teacher during the 2007-2008 school year?". The variables of subject and grade matching were measured by categorical "yes" or "no" responses to the questions "Has your master or mentor teacher ever instructed students in the same subject area(s) as yours?", and "Has your master or mentor teacher ever instructed students in the same grade level(s) as yours?"

Pearson's R and Spearman's Correlation tests were used to examine the perceived overall effectiveness of mentoring programs and frequency of interactions. Independent samples *t* tests were used to examine the relationship between perceived effectiveness and same-subject or same grade-level mentors. All tests utilized a significance level of .05.

What is the relationship between attrition and the characteristics of mentoring programs? The relationships between dependent variable in this set of questions, attrition, and the independent variables, characteristics of mentoring programs, were measured using Chi-Square and independent samples *t* tests with significance accepted at the .05 level. Chi-Square

was used to determine significance for the relationship between subject- and grade- level matching and attrition. Variables were measured as yes or no responses to the questions "Has your master or mentor teacher ever instructed students in the same subject areas as yours?" and "Has your master or mentor teacher ever taught the same grade level as yours?" The *t* test was used to examine the relationship between the frequency of interaction with a mentor and attrition. Frequency of interaction was measured as the selection of Likert-type items in response to the question "How frequently did you work with your master or mentor teacher during the 2007-08 school year?" The responses "never", "a few times a year", "once or twice a month", and "at least once a week" were given scale values to calculate means for former and current teachers.

What are the relationships between perceived overall effectiveness of programs, professional commitment, and attrition? The variables in this question were defined and measured as they were in previous questions. The relationship between professional commitment and attrition and perceived overall effectiveness and attrition was measured using an independent samples *t* test. Scale values for overall effectiveness and professional commitment were used to calculate means for each for former and current teachers. Significance was accepted at the .05 level.

Summary

In this study, data from the 2007-2008 Schools and Staffing Survey and the 2008-2009 Teacher Follow-Up Survey and the 2009-2011 Beginning Teacher Longitudinal Study were used to examine the relationship between teacher experiences with mentoring and new teacher attrition. The data were collected by the United States Department of Education, National Center for Education Statistics and were downloaded to a secure computer at The University of

Alabama for use in this study. Data pertaining only to current and former teachers in the Southeastern United States were used in the study. The data were analyzed using descriptive measures, Chi-Square, and independent samples *t* tests. Significance was accepted at $p>.05$ for all tests.

CHAPTER IV:

RESULTS

The primary purpose of this study was to investigate the relationship between mentoring and teacher attrition in the Southeastern United States. The following research questions have been developed to guide the researcher in fulfilling the purpose of the study:

1. What is the relationship between new teacher attrition and first year experiences?
2. What is the relationship between reported levels of commitment and new teacher experiences with induction or mentoring?
3. What is the relationship between perceived effectiveness of mentor programs and characteristics of the program?
4. What is the relationship between attrition and the characteristics of a mentoring program?
5. What are the relationships between perceived overall effectiveness of programs, professional commitment, and attrition?

A subset of research questions were developed for each of the guiding questions. To adequately investigate the relationships and conditions included in the research questions, the researcher conducted statistical analyses of the data collected by the NCES and the US Department of Education in the 2007-2008 Schools and Staffing Survey, the 2008-2009 Teacher Follow-Up Survey, and the 2008-2011 Beginning Teacher Longitudinal Study. The analyses included descriptive measures, Chi-Square, and independent samples *t* tests. An alpha level of .05 was used for all statistical tests.

This chapter presents the findings in seven sections. The first section describes the population sample and the instrumentation. The second section presents the results of the analyses of research questions related to the relationship between new teacher attrition and first year experiences. The third section presents the results of the analyses of research questions related to the relationships between reported levels of commitment and first year experiences. The fourth section presents the results of the analyses of research questions related to the relationship between perceived effectiveness of mentoring programs and the characteristics of the program. The fifth section presents the results of the analyses of research questions related to the relationships between attrition and the characteristics of mentoring programs. The sixth section presents the results of the analyses of research questions related to the relationships between perceived overall effectiveness of programs, professional commitment, and attrition. The chapter concludes with a summary of the data.

Instrumentation and Sample Population

This study is a secondary data analysis that involved data that were collected through a repeated cross-sectional study utilizing the 2007-2008 Schools and Staffing Survey (SASS) and the 2008-2009 Teacher Follow-Up Survey (TFS). Data sets for the 2009-2011 Beginning Teacher Longitudinal Study (BLTS) were also collected using the TFS.. All of these surveys were developed and administered by the US Department of Education- Institute of Education Science (IES). Versions of the SASS and TFS have been administered 6 times in the past twenty years. For each administration the questions were revised based on previous validity and reliability analyses and current research trends. The BLTS began in 2009 and the TFS was administered in three different waves for that study ending in 2011. The surveys were administered to teachers, principals and other staff members in public, public charter, private,

and Bureau of Indian Affairs schools across the United States. The data are then made available in SAS and ASCII formats to researchers who have been granted a restricted-user license by the IES (http://nces.ed.gov/surveys/sass/index.asp). Reliability, validity and confidence intervals concerning the data and surveys used for this study were measured and reported as sound measures by The National Center for Education statistics though the specific results are not reported as a single number such as Chronbach's Alpha.

New Teacher Attrition and First-Year Experiences

Four research questions were developed to investigate the guiding question in this section. The data were analyzed using descriptive measures and Chi-Square. The results for each question are as follows.

Is there a significant difference between attrition for new teachers in Southeastern states with mandated programs than in Southeastern states without mandated programs? A Chi-Square analysis was performed to test the data and the results of the data analysis for this question indicate that there is no significant difference in attrition between teachers in Southeastern states that do mandate and fund first year programs and those who do not (p= .57). In states with no mandated and funded programs only 12% of the respondents (n= 395) were described as former teachers or those who had left the field (n=26) and in states that do mandate and fund programs only 13.9% of the respondents were described as former teachers (see Table 3).

Table 3

Cross-tabulation of Attrition and State Policy

	TFS Type			
State Policy	Former	Current	χ^2	Sig.
Non-mandated Programs	26	190	.32	.57
Mandated Programs	25	154		

Is there a significant difference in attrition between new teachers and experienced teachers? A Chi-Square test was performed to analyze the data and results of the data analysis indicate that there is no significant difference between the attrition of new teachers and the attrition of experienced teachers (p=.97). Of the new teachers who responded to items pertaining to this question (n=146) 22.6% reported that they were former teachers who had left the field and of the experienced teachers responding (n=598) 22.7% reported that they were former teachers (see Table 4).

Table 4

Cross-tabulation of Attrition of Levels of Experience (n=744)

	TFS Type			
Level of experience	Former	Current	χ^2	Sig.
New teachers (<3 years)	33	113	.00	.97
Experienced teachers (≥3years)	136	462		

Is there a difference in participation in programs reported by new teachers in states with mandated programs compared to states with non-mandated programs? The results of the data analysis indicate that teachers in states with mandated and funded programs are significantly more likely to report having participated in first year programs described either as a mentoring program or an induction program (p=.00). A total of 1263 first year teachers responded to SASS items pertaining to this question. Chi-Square tests were used to analyze the data. In non-mandated states 74% (n=616) of the respondents report that they were provided a mentor during their first year while in mandated states 82% (n=647) indicated that they were provided a mentor during their first year. In non-mandated states 60% (n=616) of the respondents reported they participated in an induction program during their first year while in mandated states 78.5% (n= 521) indicated that they participated in an induction program during their first year (see Table 5).

Table 5

Cross-tabulations of Participation First-Year Programs

	Participation in Program		Pearson	
	yes	no	χ^2	Sig.
State policy for mentor				
Non-mandated Programs	457	159	11.51	.00
Mandated Programs	531	116		
State policy for induction				
Non-mandated Programs	364	252	55.71	.00
Mandated Programs	508	139		

Is there a relationship between new teacher attrition and mentoring? A total of 362 teachers responded to items relevant to this question; 37 former teachers and 325 current teachers. A Chi-Square test was performed to analyze the data (χ^2 =1.95). The results of the data analysis indicated that there is no significant difference (p=.163) between the attrition of teachers who were paired with a mentor during their first year and those who were not (see Table 6). Of the respondents 75.6% of former teachers were paired with a mentor and 84.6% of the current teachers were paired with a mentor.

Table 6

Crosstabulation of Attrition and Mentoring

	TFS Type			
Mentor	Former	Current	χ^2	Sig.
Yes	28	275	1.94	.162
No	9	50		

Levels of Commitment and First-Year Experiences

The research questions were developed to investigate the guiding question for this section. The data were drawn from the SASS, TFS, and second wave BTLS. Data analysis included descriptive analyses, *t* tests, and Analysis of Variance. The Likert-type item responses to the question "How long do you plan to remain in teaching?" were assigned a scale value and means were calculated for new teachers who did participate in an induction program their first year and for those who did not. The item "undecided at this time" was assigned a value of zero.

What percentage of new teacher respondents reported high levels of professional commitment in 2008? A descriptive analysis was performed to calculate percentages in categories of commitment. Results of the data analysis indicate that 70% (n=1313) of new teachers reported high levels of commitment selecting responses that were either "As long as I am able" or "Until I am eligible for retirement from this job" (see Table 7).

Table 7

Percentage Distribution of Professional Commitment

Teacher report of intent to remain in the field	N	%
As long as I am able	723	55.1
Until I am eligible for retirement benefits from this job	195	14.9
Until I am eligible for retirement benefits from a previous job	1	.1
Until I am eligible for Social Security benefits	8	.6
Until a specific life event occurs	68	5.2
Until a more desirable job opportunity comes along	81	6.2
Definitely plan to leave as soon as I can	14	1.1
Undecided at this time	223	17.0
Total	1313	100.0

Is there a difference in the reported level of commitment between new teachers who participated in an induction program during their first year and those who did not? A Kruskal-Wallis test for independent samples was performed to compare means (*n*=1049). The results of the data analysis indicate that there is no significant difference in the reported level of commitment between teachers who did participate in an induction program their first year and those who did not (p=.28). The mean score for commitment for teachers who did participate in induction programs during their first year was M=6.09 and the mean score for teachers who did not participate in induction programs during their first year was M=6.14 (see Table 8).

Table 8

Professional Commitment and Induction- comparison of means

1st yr. induction program	N	Mean	Std. Deviation	Std. Error Mean	Kruskall-Wallis Significance
Yes	718	6.09	1.65	.06	.28
No	331	6.14	1.67	.09	

Is there a difference in the reported level of commitment between new teachers who were paired with a mentor during their first year and those who were not? The results of the data analysis indicated that there is a significant difference between the professional commitment of teachers who were paired with a mentor and those who were not (p=.04) but that teachers who were paired with a mentor were more likely to report lower levels of commitment than teachers who were not paired with a mentor. A total of 1263 teachers responded to items pertaining to this question. Means were calculated for professional commitment of teachers who were paired with a teacher their first year and those who were not. Means were compared using Mann-Whitney U test, *t*-tests for comparisons of means, and ANOVA. The mean for teachers who were paired

with a mentor (M=2.81) was significantly lower than and the mean for teachers who were not paired with a mentor (M=3.35; see Table 9).

Table 9

Professional Commitment and Mentoring

1st yr - mentor	N	Mean	Std. Deviation	Std. Error Mean
Yes	988	2.81	2.685	.085
No	275	3.35	2.915	.176

	Levene's Test for Equality of Variances		t-test for Equality of Means						
	F	Sig.	t	df	Sig. (2-tailed)	Mean Diff	Std. Error Diff	95% Confidence Interval of the Difference Lower	Upper
Equal variances assumed	17.52	.00	-2.89	1261	.004	-.54	.19	-.91	-.17
Equal variances not assumed			-2.76	412.27	.006	-.54	.20	-.92	-.16

ANOVA	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	65.66	2	32.83	4.39	.01
Within Groups	9824.09	1310	7.50		
Total	9889.75	1312			
Independent Samples Mann-Whitney U test	.04 Significant difference found between groups				

Perceived Overall Effectiveness and the Characteristics of the Programs

There were three research questions developed to investigate the guiding question in this section. Data gathered with the TFS in wave two of the BTLS were used to examine the relationship between characteristics of mentoring programs and the perceived overall effectiveness of the program. The characteristics that were being examined were subject or grade level matching and the frequency with which new teachers met with their mentors. The variable of perceived overall effectiveness was measured by selection of Likert-type items in response to the question "Overall, to what extent did your assigned master or mentor teacher improve your teaching last school year 2007-2008?" The responses were assigned a scale value so that means could be calculated for the variables of grade- and subject- matching. Data analyses include correlative measures and independent samples *t* tests. The results indicated that there is a relationship between perceived overall effectiveness of the program and the frequency with which teachers met with their mentors as well as grade and subject matching.

Is there a relationship in perceived effectiveness of mentoring programs and the frequency of interactions with a mentor? The results of the data analysis indicated that there was a significant relationship between the frequency of interactions with a mentor and the perceived effectiveness of the program ($p=.00$); teachers who met more frequently with their mentors perceived their programs as more effective (see Table 10). Data for this question were drawn from the TFS in wave two of the BTLS. A total of 262 teachers responded to the survey questions. Pearson's R ($r= .64$) and Spearman's Correlation ($\rho=.61$) were both used in the data analysis.

Table 10

Frequency of Interactions with a Mentor and Perceived Overall Effectiveness

Frequency of interactions with a mentor		Improvement due to mentoring				
		Not at all	To a small extent	To a moderate extent	To a great extent	Total
never	Count	13	3	0	0	16
	% Total	5.0%	1.1%	0.0%	0.0%	6.1%
a few times a year	Count	7	23	6	1	37
	% Total	2.7%	8.8%	2.3%	0.4%	14.1%
once or twice a month	Count	5	31	21	10	67
	% Total	1.9%	11.8%	8.0%	3.8%	25.6%
at least once a week	Count	0	24	53	65	142
	% Total	0.0%	9.2%	20.2%	24.8%	54.2%
Total	Count	25	81	80	76	262
	% Total	9.5%	30.9%	30.5%	29.0%	100.0%

Symmetric Measures

		Value	Asymp. Std. Error[a]	Approx. T[b]	Approx. Sig.
Interval by Interval	Pearson's R	.643	.037	13.538	.000[c]
Ordinal by Ordinal	Spearman Correlation	.614	.042	12.555	.000[c]
N of Valid Cases		262			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

Is there a difference between the perceived effectiveness of mentoring programs reported by first year teachers who were paired with a mentor who taught the same grade-level and those who were not? The results of the data analysis indicate that there is a significant difference between groups (p<.05). The Mann-Whitney U and *t* tests for Equality of Means were performed to analyze the data. The mean score of overall effectiveness for teachers who were paired with a mentor who taught the same grade was M=2.8 and the mean score of overall effectiveness for teachers who were not was M=2.5 which means that teachers who were paired with a mentor who taught the same grade level that they did were more likely to perceive their programs as an effective means for improving their teaching (see Table 11).

Table 11

Perceived Overall Effectiveness and Same Grade Mentor

Group Statistics				
Grade Match	N	Mean	Std. Deviation	Std. Error Mean
Yes	219	2.8447	.97849	.06612
No	41	2.5122	.89783	.14022

	Levene's Test for Equality of Variances		t-test for Equality of Means						
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
Equal variances assumed	.523	.470	2.022	258	.044	.33255	.16445	.00871	.65639
Equal variances not assumed			2.145	59.2	.036	.33255	.15503	.02237	.64273
Independent Samples Mann-Whitney U test	.039	Significant difference found between groups							

Is there a difference between the perceived effectiveness of mentoring programs reported by first year teachers who were paired with a mentor who taught the same subject and those who were not? The results of the data analysis indicated that there was a significant difference between groups ($p<.05$). A total of 261 teachers responded to the items pertaining to this question. The Independent Samples Kruskal-Wallis and *t* tests for Equality of Means were performed to analyze the data. The mean score of overall effectiveness for teachers who were paired with a mentor who taught the same grade was M= 2.9 and the mean score of overall effectiveness for teachers who were not was M=2.4 which means that teachers who were paired with a mentor who taught the same subject were more likely to perceive their programs as an effective means for improving their teaching (see Table 12).

Table 12

Perceived Overall Effectiveness and Mentor Subject Matching

Mentor Subject Match				
Subject match	N	Mean	Std. Deviation	Std. Error Mean
Yes	187	2.9091	.92007	.06728
No	74	2.4865	1.03690	.12054

	Levene's Test for Equality of Variances		t-test for Equality of Means						
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
Equal variances assumed	4.268	.040	3.224	259	.001	.42260	.13108	.16449	.68072
Equal variances not assumed			3.061	120.967	.003	.42260	.13804	.14931	.69590
Independent Samples Kruskall- Wallis Test				.000	Significant difference found between groups				

Attrition and the Characteristics of Mentoring Programs

Three research questions were developed to investigate the guiding question in this section. Data gathered with the TFS in wave two of the BTLS were used to examine the relationships between attrition and the variables of subject or grade matching in mentoring programs and the frequency with which new teachers met with their mentors. The frequency with which teachers met with their mentors was measured by selection of Likert-type items in response to the question “How frequently did you work with your master or mentor teacher

during the 2007-2008 school year?" The responses were assigned a scale value so that means could be calculated for teachers in the category of former or current. The variables of subject and grade matching were categorical as yes or no. Data analyses include Chi-Square and independent samples *t* tests.

Is there a relationship between attrition and the frequency of interactions with a mentor? The data were analyzed using independent samples *t* tests. The results of the data analysis indicated that there was no significant relationship between the frequency with which teachers met with their mentor and attrition (p=.01). A total of 262 teachers responded to survey items pertaining to this question. The frequency of interaction was calculated as a mean for former and current teachers. The mean of frequency of interactions for Former Teachers is M=1.45 and the mean of frequency of interaction for Current Teachers is M=1.47 (see Table 13). This means that teachers who remained in the field met more frequently with their mentors than teachers who left the field.

Table 13

Attrition and Frequency of Interactions with a Mentor

Group Statistics				
TFS Status	N	Mean	Std. Deviation	Std. Error Mean
Former teacher	22	2.8182	1.05272	.22444
Current teacher	240	3.3208	.90164	.05820

Independent Samples Test									
	Levene's Test for Equality of Variances		t-test for Equality of Means						
								95% Confidence Interval of the Difference	
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Equal variances assumed	.139	.710	-2.467	260	.014	-.50265	.20377	-.90391	-.10140
Equal variances not assumed			-2.168	23.910	.040	-.50265	.23186	-.98129	-.02401

Is there a difference in the attrition of new teachers who were paired with a mentor who taught the same subject and those who were not? The relationship between attrition and same subject pairing with a mentor was analyzed using Chi-Square ($\chi^2 = 11.18$). The results of the data analysis indicated that there was a significant relationship between attrition and same subject mentoring (p=.02). This means that significantly fewer teachers who were paired with a mentor who taught the same subject left the field than teachers who were not paired with a mentor who taught the same subject (see Table 14).

Table 14

Crosstabulation of Attrition and Same-subject Mentoring (n=261)

	TFS Type		Pearson	
Mentor subject matching	Former	Current	χ^2	Φ
yes	9	178	11.18	.00
no	13	61		

Is there a difference in the attrition of new teachers who were paired with a mentor who taught the same grade-level and those who were not? The relationship between attrition and same grade level pairing with a mentor was analyzed using Chi-Square ($\chi^2 = 2.39$). The results of the data analysis indicate that there is a significant relationship between attrition and same grade mentoring (p=.03). This means that fewer teachers who were paired with a mentor who taught the same grade level left the field than teachers who were not paired with a mentor who taught the same grade level (see Table 15).

Table 15

Cross-tabulation of Attrition and Mentor Grade Level Matching (n=260)

	TFS Type			
Grade Level Matching	Former	Current	χ^2	Φ
yes	16	203	2.39	.03
no	6	35		

Perceived Overall Effectiveness of Programs, Professional Commitment, and Attrition

Two research questions were developed to examine the variables in the guiding question for this section. Data for these questions were gathered with the SASS, TFS, and TFS items during wave two of the BTLS. Attrition was measured as a categorical response of yes or no to the question "Do you currently teach any regularly scheduled classes in any of grades preK-12?" which grouped teachers as Former or Current. Perceived overall effectiveness was measured by selection of Likert-type items in response to the question "Overall, to what extent did your assigned master or mentor teacher improve your teaching last school year 2007-2008?" The responses were assigned a scale value so that means could be calculated for the variables of former or current teacher. Professional commitment was measured as the selection of Likert-type item responses to the question "How long do you plan to remain in teaching?" The response items were assigned a scale value and means were calculated for current and former teachers. The item "undecided at this time" was assigned a value of zero. Independent samples *t* tests were used for this section. The results indicated that there was no relationship between professional commitment and attrition but there was a relationship between perceived overall effectiveness of a mentor and attrition.

Is there a relationship between professional commitment and attrition? The results of the data analysis indicate that there is no significant difference of professional commitment between Current and Former teachers at the $p>.05$ level (see Table 16). This means that teachers who reported that they are very committed to remaining in the field as long as possible were not more likely to actually remain in the field than teachers who reported that they were less committed. A total of 744 teachers responded to survey items pertaining to this question. Mean scores of

professional commitment were calculated for Former (M=5.87) and Current teachers (M=5.90). An independent samples *t* test was conducted to compare means.

Table 16

Professional Commitment and Attrition

TFS Questionnaire type	N	Mean	Std. Deviation	Std. Error Mean
Former teacher	169	5.8698	1.19308	.09178
Current teacher	575	5.9009	1.18303	.04934

Independent Samples Test

	Levene's Test for Equality of Variances		t-test for Equality of Means						
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
Equal variances assumed	.015	.904	-.299	742	.765	-.03105	.10372	-.23466	.17256
Equal variances not assumed			-.298	272.47	.766	-.03105	.10420	-.23618	.17408

Is there a relationship between perceived overall effectiveness of mentoring programs and attrition? An independent samples *t* test was conducted to compare means. The results of the data analysis indicate that there was a significant difference between the mean scores of perceived overall effectiveness for Current (M=2.09) and Former (M=1.38) teachers (p=.01). This means that teachers who remained in the field perceived their mentors as more effective than teachers who did not remain in the field (see Table 17). A total of 362 teachers responded to survey items pertaining to this question.

Table 17

Perceived Overall Effectiveness and Attrition

TFS Status	N	Mean	Std. Deviation	Std. Error Mean
Former teacher	37	1.3784	1.40141	.23039
Current teacher	325	2.0923	1.49199	.08276

Independent Samples Test									
	Levene's Test for Equality of Variances		t-test for Equality of Means						
	F	Sig.	t	df	Sig. (2-tailed)	Mean Diff	Std. Error Diff	95% Confidence Interval of the Difference	
								Lower	Upper
Equal variances assumed	.140	.709	-2.77	360	.006	-.71393	.25734	-1.2200	-.20785
Equal variances not assumed			-2.92	45.81	.005	-.71393	.24480	-1.2068	-.22111

Summary of Results

Data collected during administrations of the 2007-2008 SASS, 2008-2009 TFS, and 2008-2011 BTLS were used to evaluate five broad questions guiding this research. A series of 14 sub-questions were developed to examine the variables identified in the guiding questions. Analyses used in the study include descriptive analyses, Chi-Square, correlational measures, independent samples *t* tests, ANOVA, and comparisons of means. After the data analyses were completed the following results were determined.

What is the relationship between new teacher attrition and first year experiences? There was no significant difference in attrition between new teachers and experienced teachers in the Southeastern states. Furthermore, there was no significant difference in attrition between states that mandate and fund first year programs and those that do not. There was, however, a significantly higher level of participation in first year programs for teachers in states that mandate and fund their programs and those that do not. This means that, although more teachers in states with mandated and funded programs were participating in first year induction programs, those states do not retain more teachers than states without mandated and funded programs.

What is the relationship between reported levels of commitment and first year experiences? The reported level of commitment for new teachers was considered high for 70% of the respondents; however, there was not a significant relationship between reported levels of commitment and participation in general induction programs. There was, however, a significant relationship between reported levels of commitment and pairing with a mentor. Interestingly enough, these results indicated that teachers who were paired with a mentor actually reported significantly lower professional commitment. This result was unexpected and suggests that many of the teachers who worked with mentors had negative experiences or developed negative attitudes in spite of being provided additional one-on-one support. It could be that the timing of the survey coincided with Moir's Disillusionment Phase of teaching (Moir, 1990) but the relationship of the theoretical phases of development and the administration of the survey are unknown to this researcher. This relationship should be further investigated.

What is the relationship between perceived overall effectiveness of mentor programs and characteristics of the program? There was a significant positive relationship between perceived overall effectiveness and frequency of interactions. There was a significant positive relationship

between perceived overall effectiveness and same subject or grade level matching with mentors. This means that teachers felt that working with a mentor had a greater positive impact on their teaching if they meet frequently with a mentor and if that mentor taught the same grade and/or subject that they did. This could be because the mentors who are matched by grade or subject were more familiar with the new teachers' experiences concerning the subject matter and characteristics of students of a certain age and that more frequent interaction provided opportunity for a greater level of support.

What is the relationship between attrition and the characteristics of mentoring programs? There was no significant relationship between attrition and the frequency of interactions with the mentor but teachers who were paired with either a same subject or same grade level mentor were more likely to remain in the field. This means that it seems to be more effective to match a new teacher with a mentor who has taught the same grade level and subject regardless of how often the teacher and the mentor interact.

What is the relationship between perceived overall effectiveness or professional commitment and attrition? There was no significant relationship between professional commitment and attrition but there was a significant relationship between perceived overall effectiveness of mentoring programs and attrition. This means that teacher reports of professional commitment do not appear to have been an important variable when investigating attrition as the two are unrelated. However, because teachers who remained in the field regarded their programs as more effective, it is argued by this researcher that more attention should be given to teacher reports of effectiveness as a means for identifying ways to improve first year experiences.

Chapter Summary

This chapter presents a summary of the methods and instrumentation, the population sample, the data analysis procedures, the results of the analyses, and a report of the findings. The study examined the relationship between attrition and new teacher experiences with mentoring. Five guiding questions were formed with 14 research questions. The results of the data analyses indicate that, in the Southeast, mentoring was not related to attrition unless certain characteristics of mentoring, such as same grade and subject matching, were considered. Mentoring with same subject or grade level mentors did have a positive relationship with the perceived overall effectiveness of a program, professional commitment, and attrition of new teachers. The results indicated that professional commitment is not a good indicator of attrition but perceived overall effectiveness of programs was a good indicator. The final chapter summarizes the results of the analyses, discusses them and the implications of these findings, and describes implications for policy research and practice. In the discussion, important findings that were not aligned with previous research are noted. New questions and recommendations for future research that may address these questions are presented and discussed.

CHAPTER V:

SUMMARY OF FINDINGS, DISCUSSIONS, CONCLUSIONS AND IMPLICATIONS

Recent research indicated that there is a pervasive problem with attrition in the United States, particularly with that of new teachers, which is associated with poor quality of education. In fact the US Department of Education found that 20% of teachers in the United States had less than three years of experience and that the highest percentage of teachers leaving the field also had less than three years of experience (Marvel et al, 2006; U.S. Department of Education, 2005). New teachers completing exit surveys identified poor support for beginning teachers as one of the top reasons for choosing to leave the field (Darling-Hammond, 1999a; Smith & Ingersoll, 2004). This has lead researchers and policy makers to focus on structured induction programs that could help increase new teacher retention (American Federation of Teachers, 2001; Carver & Feiman-Nemser, 2009; Darling-Hammond, 1999a).

Mentoring, as used here, is a program in which a skilled or more experienced person serves as a role model to teach, encourage, and counsel a less skilled or less experienced person (Anderson & Shannon, 1987). Based on constructivist theories of adult learning and Moir's five stages of development experienced by new teachers, mentoring was identified as a key component of effective programs designed to provide adequate support for new teachers in an effort to increase teacher quality and retention (Lambert et al, 2002). The American Federation of Teachers has identified subject and grade level matching as potentially critical components of mentoring programs (American Federation of Teachers, 1998). As a result, the inclusion of mentoring in first year induction programs has been on the rise (Ingersoll & Smith, 2003; Smith, 2007; Smith & Ingersoll, 2004).

In 2001 as many as 33 states had developed structured induction programs as identified by The American Federation of Teachers as essential to improving teacher quality and retention (American Federation of Teachers, 2001). Unfortunately, only 23 states have fully funded and mandated programs and fewer still require mentoring as a component of the program (American Federation of Teachers, 2001; Kaiser, 2011). States in the Southeast provide varying degrees of some form of induction program either with or without mentoring. Alabama, Georgia, Mississippi, and Tennessee report some type of program in most districts but these programs are not mandated or funded by the State government. Kentucky, North Carolina, South Carolina, Virginia, and West Virginia all provide mandated and funded first year induction programs to new teachers. However, little is known about the effectiveness of these programs and the relationship between participation in the programs or the characteristics of programs and new teacher attrition (American Federation of Teachers, 2001; National Center for Education Statistics, 2011).

Chapter V includes three parts: a summary of the study, study methods, and results; a discussion of the results as they relate to the literature; and a conclusion with implications for practitioners and policymakers.

Summary of the Study, Methods, and Results

The purpose of this study was to investigate the relationship between new teacher attrition and the experiences of first year teachers in the Southeastern States. Mentoring as a component of an induction program and characteristics of mentors were examined as correlational variables with professional commitment, perceived effectiveness of the program, and attrition. The results can assist school leaders in improving the experiences of first year teachers in the Southeast to improve teacher retention and the quality of education experienced

by students (Carver & Feinman-Nemser, 2009; Darling-Hammond, 1997; Darling-Hammond 1999b; Kaplan & Owings, 2001; Protheroe et al., 2002; Wong 2003).

Methods

This study was a secondary data analysis that involved data collected by the U.S. Department of Education during the administrations of the 2007-2008 Schools and Staffing Survey (SASS), 2008-2009 Teacher Follow-up Survey (TFS), and the 2009-2011 Beginning Teacher Longitudinal Study (BTLS). These surveys together are a repeated cross-sectional study conducted by the Department of Education and the National Center for Education Statistics. All participant interactions and interviews and appropriate ethical considerations such as consent forms and confidentiality measures were handled by those agencies. These agencies also tested the survey tools for reliability and validity and found them to be sound. The data are released to researchers who have received a restricted-user license from the NCES. The data were stored on cd-rom in a secured location at the University of Alabama for use during analysis. Strict security measures were followed during the analyses.

Response data from 1,921 participants included in the SASS were used for this study. All of the participants worked in public schools in the Southeastern states of Alabama, Georgia, Mississippi, Tennessee, Kentucky, North Carolina, South Carolina, Virginia, and West Virginia in 2008-2009. Of these participants, 1,313 were new teachers with less than three years of experience. Of these 1,313 new teachers, 440 responded to items on the TFS. Of these 440 only 362 responded to questions on the TFS for wave two of the BTLS. During each administration some participants did not answer all items on the survey either by survey design or by choice resulting in different Ns for each of the research questions. The data are weighted and imputed to account for these missing data. The process of weighting and imputation is described in detail in

the SASS report and summarized in this paper (Tourkin et al., 2010; Keigher, 2010). This researcher determined that no further adjustments were needed and the committee agreed.

Assumptions and Limitations

This study was limited by factors typical to studies that utilize survey tools to gather data. One possible limitation was that responses on self-report measures such as the TFS are affected by the emotional or psychological state of the participant at the time of response. Therefore the researcher had to assume that all questions are answered honestly and with a clear state of mind. Reponses were also affected by the participants understanding of the wording of the question, therefore the researcher had to assume that the reliability and validity measures are accurate and that the responses are related to the intended meaning of the question. The researcher had to assume that these responses were recorded accurately. Survey respondents may not have answered every question either by design or by choice causing sample sizes to differ between questions. The use of a sample from a national data set presented problems related to weighted means and representative measures. The researcher assumes that the construction of the survey and research questions allows existing data to be statistically processed without adjusting for the missing data. Because this study utilized only the data from respondents working in the Southeast it is not necessarily generalizable outside of that region. Furthermore, the study is correlational and can not be used to pinpoint causes of attrition.

Summary of the Findings

Five guiding questions were developed to focus this study. For each of these guiding questions a set of research questions was developed. The results of the study indicated that the existence of a mandated and funded induction program in the Southeastern States was not necessarily related to improved teacher retention unless the program included a mentoring

component in which the new teachers were paired with mentors who taught the same grade and subject. Professional commitment was not improved when paired with a mentor and did not appear to be a good indicator of actual attrition. The perceived effectiveness of the mentoring program, however, was a good indicator of attrition. In this section the results of the data analyses for each guiding question is discussed.

What is the relationship between new teacher attrition and first year experiences? The results of the analyses indicate that there was no significant difference in attrition between teachers in the group of states that do mandate and fund new teacher programs and those that do not. Although teachers in states that mandate and fund the programs are more likely to report having participated in some kind of induction or mentoring program during their first year than teachers in states that do not. Attrition appeared to be unrelated to years of experience as the results indicated no significant difference in attrition between new teachers with less than three years of experience and more experienced teachers. There was no significant difference in attrition between teachers who had been assigned a mentor and those who had not.

This means that new teachers in states that require participation in first year programs really did participate in those programs but this participation had little to no impact on the ability of those states to retain new teachers when compared to states that did not mandate programs. These results indicated that attrition in the Southeast is not primarily a problem associated with the retention of new teachers and did not support the argument presented by Ingersoll and Darling-Hammond in their studies that the teacher shortage is due to the inability to retain new teachers (Darling-Hammond, 1999a; Ingersoll, 2001; Ingersoll & Smith, 2003). It also indicated that there is a difference in the trend in the Southeast that deviated from National reports concerning attrition and the relationship between attrition and mentoring (Marvel et al. 2006;

Kaiser, 2011; Keigher 2010). It appears that, at least in the Southeast, there exists a balance of the "graying of the workforce" described by Hussar (1999) and the inability to retain new teachers described by other researchers (American Federation of Teachers, 2007; Marvel et al., 2006). This raises questions concerning the reasons reported by teachers in Southeastern States as important factors for deciding to remain in field and specifically which of the recommended components of first year programs are being included in these states. It could be that economic factors could far outweigh factors related to support and job satisfaction when teachers are considering their futures. Regional difference such as economic depression might be considered in future research to determine the reasons that teachers are leaving, or staying, in the field.

What is the relationship between reported levels of commitment and new teachers' experiences with induction or mentoring? The results indicated that 70% of the participants reported high levels of professional commitment, however, the mean score of commitment reported by teachers who had been assigned a mentor was actually lower than that of teachers who had not been assigned a mentor. This finding is not expected based on research suggesting that mentoring should bolster new teacher feelings of efficacy and professional commitment (American Federation of Teachers, 1998; Conlan et al., 2003; Jones & Pauley, 2003; Ware & Kitsantas, 2007). When considering Moir's theory of Stages of Teacher Development (1995), it could be that the timing of the survey coincided with the disillusionment stage of development. Furthermore, the teachers who were involved with a mentor were more likely to have been participating in reflective practices causing them to become more self-aware (Ferraro 2000). This could have temporarily deepened their feelings of inadequacy during this phase although the end result was a more positive outcome towards the end of the year (Ferarro, 2000; Moir & Stobbe, 1995). This self-awareness could have made these teachers feel decreased self-efficacy because

the teachers without a mentor were not as able to reflect on their feelings and abilities (Ferarro, 2000). It is possible that teachers did not feel adequate collaboration was available as noted in the study by Kardos and Johnson (2007) which could contribute more to negative feelings for teachers whose expectations for collaboration were not met.

What is the relationship between the perceived effectiveness of mentor programs and the characteristics of the programs? The results indicated that teachers perceived programs that included higher frequencies of interactions and those with mentors who taught the same subject or grade level to be more effective than programs that did not have these characteristics. This does support research concerning effective mentoring programs (Algozzine et al., 2007; American Federation of Teachers, 2001; Huling-Austin & Murphy, 1987; Jones & Pauley, 2003; Strunk & Robinson, 2006). Interaction with a mentor who has specific knowledge of the experiences of the new teacher, such as experiences specific to teaching certain grade levels or subjects, is supported by andragogy and a constructivist approach to adult learning (Lambert et al., 2002; Knowles, 2002; Merriam, 2001; Moir & Stobbe, 1995). This means that teachers who are provided with appropriate levels of support from a mentor who is knowledgeable and understanding are more likely to end the induction phase of their career feeling satisfied and prepared to work independently. This is important because the attitude of teachers and their feelings of satisfaction and self-efficacy appear to be important factors in both teacher retention and the quality of education that students receive (Algozzine et al., 2007; Andrews et al., 2006; Darling-Hammond, 1999b; Fletcher et al., 2005; Jensen, 1996).

What is the relationship between the characteristics of a mentoring program and attrition? The results of this study indicated that interactions with a mentor are not likely an effective method of supporting teachers unless the mentor teaches the same grade level or subject

as the new teacher with whom they are paired. Mentoring in general was not related to attrition and, indeed, the frequency of interaction with a mentor was also not related to attrition. The results of the current study indicate that only 9% of new teachers in the Southeast who were paired with a mentor left the field within 3 years while only 15% of new teachers who were not paired with a mentor left within three years. No significant difference was found between these two groups. The results of Kaiser's analysis of TFS data in the BTLS indicated that nationally 23% of teachers who completed their first years without a mentor in 2008-2009 had left the field by 2001 while only 10% of new teachers who were paired with a mentor during 2009-2008 had left the field which means that the relationship between mentoring and attrition in the Southeast is not similar to that of the nation as a whole. It is important to note that attrition of teachers in the Southeast who were not paired with a mentor are also much less than the national average while the attrition for teachers who were paired with a mentor.

It seems that the act of providing a new teacher with a mentor and even providing high levels of support in the form of increased interactions with a mentor does little to influence the teacher to remain in the field for a longer period of time. However, when the relationship between attrition and specific characteristics of mentoring programs is examined there appears to be evidence that teachers who interact with certain types of mentors, namely those who teach the same subject or grade level, are more likely to remain in the field for longer periods of time. This is important because it supports the research of Carver and Feiman-Nemser (2009), who indicated that the assessment of specific characteristics of individual programs as they relate to the needs and perceptions of the teachers involved in the programs is a critical approach to developing effective programs (King & Lawler, 2003; Parsons, Lupe, & Bosserman, 2002). This does support theories of adult learners and the research concerning the most effective

characteristics of programs for adult learners (American Federation of Teachers, 2001; Fuller, 1969; Harrel et al., 2004; Hulling-Austin & Murphy, 1987).

What are the relationships between perceived overall effectiveness of programs, professional commitment, and attrition? The results of this study indicated that there was no significant relationship between professional commitment and attrition. There was, however, a significant relationship between overall effectiveness and attrition. This is important because it suggests that teachers' self-reports of professional commitment and their intentions to remain in the field are not a good indicator that they will actually remain in the field long-term. As noted previously this could be because their levels of commitment vary as they progress through the different stages of development outlined by Moir (Moir & Stobbe, 1995). This development is cyclical and, therefore, the level of commitment that a teacher may report should vary according to which stage they are experiencing at the time of the survey. Teacher feelings should ebb and flow continually throughout the first two to three years of teaching. The perceived effectiveness of the mentoring program should not be affected by feelings associated with stages of development and, therefore, should be a better indicator of the quality of the teachers experiences and the level of support they have received as they progress through the stages of development.

Discussion of the Results

Previous research suggests that there exists in the United States a teacher shortage that is a result of the inability to retain new teachers and that lack of support during the first few years of service leads to high attrition in new teachers (Darling-Hammond, 1999a; Ingersoll, 2001; Ware & Kitsantas, 2007). In turn, the inability to retain new teachers impacts the quality of education provided to our students (Darling-Hammond, 1999b; Fletcher et al., 2005). In order to combat this problem, many states have implemented structured induction programs that include

mentoring for new teachers (American Federation of Teachers, 2001; Carver & Feiman-Nemser, 2009).

The literature review supports the ideas that new or beginning teachers leave at relatively high rates and that teacher induction programs that include mentoring appear to be related to lower attrition rates than programs that do not include opportunities for mentoring (Darling-Hammond, 2003; Ingersoll & Smith 2003; Moir & Stobbe, 1995). Theories of learning and adult learners also support the notion that the mentoring process is an effective way to provide learning opportunities for adults (Lambert et. al., 2002). It is, therefore, important to carefully analyze current induction and mentoring programs to determine the relationship between the characteristics of those programs and teacher attrition and professional commitment. The results of the current study do not support the findings that new teachers are more at-risk for attrition than experienced teachers and it also does not support the idea that mentoring alone is an effective means for providing support for new teachers unless the mentors are matched by subject or grade level.

The results of the current study examined new teacher experiences and attrition in the Southeast. The results indicate that there is not a problem with attrition that is limited just to new teachers and that the presence of a mandated and funded mentoring program does not appear to be related to the attrition of new teachers. The study does support previous research that identified subject and grade level matching as more effective characteristics of mentoring programs when measured by teacher self-reports and attrition of participants. The study also identified the teacher's perceptions of the effectiveness of the mentor as a good predictor of attrition but not of professional commitment.

Based on previous research, it was surprising that there was no relationship found between participation in a mentoring program and attrition in general. However, when the relationship between specific characteristics of mentoring programs and attrition was investigated, the researcher discovered than teachers who were paired with a mentor who taught the same grade or subject were more likely to remain in the field than those who did not. Furthermore, teachers reported higher levels of perceived overall effectiveness of programs with these same characteristics and, although there was no relationship between frequency of interactions and attrition, there was a relationship between frequency of interactions and perceived effectiveness. In other words, simply being assigned a mentor and meeting with him or her frequently was not enough; the mentor must have had experiences that closely match those of the new teacher to be able to effectively provide support. Teachers who were specifically assigned mentors who were familiar with the developmental characteristics of the students and or the subject that was being taught were more effective than mentors who were not. Teachers who were paired appropriately with mentors were more likely to perceive their first year programs as effective and were also more likely to remain in the field. This finding means that leaders in the field who are charged with the task of developing effective programs to provide support for new teachers should consider the characteristics of mentors that match the specific needs of teachers such as grade and subject level matching. It also suggests the need for a more in-depth look at other characteristics of mentoring programs that may also be related to perceived effectiveness and attrition.

The results of this study indicate that although new teachers reported generally high levels of professional commitment regardless of their first year experiences, professional commitment does not appear to be a good predictor of attrition because there was no difference

in reported levels of commitment between those who remained in the field and those who left the following year. Furthermore, the results showed that teachers who were paired with a mentor actually reported lower feelings of professional commitment than teachers who were not paired with a mentor. This finding does not support logical conclusions based on research concerning adult learning models and teacher induction (Conlan et al., 2003; Elias et al., 1980; Harrell et al., 2004). It is definitely an anomaly but the absence of a relationship between professional commitment and attrition seems to indicate that the teachers who were paired with a mentor experienced something during their first year that did not contribute positively to their experience and resulted in increased desire to leave the field before the end of their first year regardless of the actual outcome of attrition. Research by Kardos and Johnson (2007) supports the explanation that lack of appropriate support in the form of collaboration could actually contribute to negative feelings of commitment rather than increased feelings of self-efficacy.

It is possible that the phases of development identified by Moir through which a teacher cycles during the first few years of employment could contribute to this attitude but that relationship is unknown. On the same note, the lack of a relationship between participation in a mentoring program and attrition also indicates that teachers who were paired with a mentor were not more or less likely to leave the field than a teacher who was not. So it seems that the experiences with a mentor functioned independently of whatever was contributing to the teachers' decisions to ultimately stay in the field. This does support other research concerning the differences in perceptions of support (Algozzine et al., 2008; Andrews et al., 2006; Bishop, 1997; Kardos & Johnson, 2007). Leaders could benefit from carefully considering the types of support that a mentor can offer his or her mentee and work to build a culture of support within Professional Learning Communities.

This researcher found the relationship between professional commitment and mentoring to be conflicting but when the mean levels of program effectiveness were compared between teachers whose mentor taught the same grade or subject and those who did not, the results indicated that subject matching, and grade-level matching were significant not only to attrition but to perceived overall effectiveness of the programs. This result supports the theory that teachers are able to accurately report the effectiveness and value of the programs in which they participate (Ware & Kitsantas, 2007; Wong, 2004, Youngs, 2007). Because teachers who perceived their programs as more effective were more likely to remain in the field, it could be that, within the group of teachers who worked with a mentor, the teachers who worked with mentors who taught the same subject and grade level reported higher levels of professional commitment than those whose mentors were not matched by subject or grade. It could be that the mismatched mentor is related to increased feelings of dissatisfaction (Andrews, et al., 2006; Kardos & Johnson, 2007).

While many of the findings of this study supported studies included in the literature review, such as the importance of grade level and subject matching in mentoring as it applies to perceptions of support and attrition, some of the findings of this study were quite surprising and did not support the findings of previous research. First, the finding that attrition did not appear to be related to years of experience is notable in that it does not support the theory that the problem is rooted in the experiences of the new teachers. This does not seem to be similar to national averages suggesting that there may be something going on in the Southeastern States that significantly impacted the decisions teachers made concerning their professional futures and remaining in the field of education. In fact, the results of Kaiser's analysis of TFS data in the BTLS indicated that nationally 23% of teachers who completed their first years without a mentor

in 2008-2009 had left the field by 2001 while only 10% of new teachers who were paired with a mentor during 2009-2008 had left the field. The results of the current study indicate that in the Southeast there was no significant difference in attrition between teachers who were paired with a mentor their first year (9%) and those who were not (15%). It is important to note that attrition of teachers in the Southeast who were not paired with a mentor are also much less than the national average while the attrition for teachers who were paired with a mentor is similar. This difference could be related to the specific characteristics of programs that have been implemented in the Southeast or other factors, such as economic depression and fear, which are not related to first year experiences that are influencing teachers of all levels of experience about decisions to remain in the field. Research concerning policies impacting more experienced teachers that have been implemented in the Southeastern States in the last five years such as changes in retirement benefits, the implementation of furlough days for budgetary considerations, or excessive regulation of teaching and curriculum could help identify factors that may be contributing to premature retirement for more experienced teachers.

Second, the finding that new teachers who were paired with a mentor actually reported lower levels of commitment could indicate that there was a serious flaw in the design of existing programs in the Southeast that appear to have had the opposite of the intended or expected effect in supporting new teachers through the phases of development as they transition from student-teacher to teacher. Based on previous research, it could be expected that teachers who were paired with a mentor would have increased feelings of professional commitment but in this study they actually had decreased feelings of professional commitment. Research concerning the attitudes and experiences of the mentors themselves might explain what may be happening as the

mentors and mentees interact that could be helpful or detrimental to the developmental processes of the new teacher (Kardos and Johnson, 2007).

Since this study focused on the mentoring components of grade level and subject matching, and on frequency of interactions as important characteristics of mentoring programs based on previous research that identified those characteristics as most important to the effectiveness of programs, more research is needed to identify other characteristics that might be perceived as more important than others. A multivariate analysis of all available characteristics reported in the SASS/TFS may prove helpful in developing a predictive equation as a basis for program improvement. The discrepancies between national reports of attrition and the results in this study of teachers in the Southeast indicate that there was no single answer that applies to all teachers across the country (Russell, 2006). Each region and even each state may need to thoroughly evaluate the current programs for effectiveness and to use those results to continue to improve upon programs and make adjustments as the climate within the different districts changes.

Conclusion and Implications

It is no secret that teaching is a challenging career choice and that many new teachers discover early on that they are more suited for a different career path. Not everyone has the personality to meet the daily challenges involved in teaching in the modern public school classroom with its wide range of cultural and socio-economic differences, the changing and often seemingly indifferent policies handed down from disconnected leaders, and the pressure to provide an increased quality of education with decreased financial resources. These factors contribute to of attrition, however, there may be many good teachers who seem to be leaving the field simply due to lack of support in their formative years as they face these challenges. The

focus on induction programs and mentoring that has been increasing over the past decade signals that policy makers have become more concerned with making sure that new teachers are receiving the support that they need.

The general implications of this study are that the quality of the program is more important than the mere presence of a mentor. It is important for policymakers to be aware that the current state of attrition and the first year of experience of teachers do not seem to be dependent solely on the existence of the mentoring or induction program itself or the funding of programs. The results of this study indicate that teachers in the Southeast may be supported by first year programs that are structured in such a way as to include frequent interactions with mentors who are paired with the new teachers based on the subjects and grade levels. District leaders and practitioners should carefully evaluate current programs and outcomes in terms of perceived overall effectiveness of specific characteristics and actual attrition when developing and improving programs.

The results also indicate that there are still many unknowns in the development of the programs. With student success as the bottom line, future research needs to focus on which other aspects of the programs are perceived as more effective supporting in retaining good teachers during their first years of service. Programs should also be evaluated to determine which characteristics other than grade and subject level matching are helpful and even which might be harmful as indicated by the decreased feelings of professional commitment reported by teachers who were paired with a mentor. The development of new teachers is critical to the quality of education that students receive and, therefore, programs need to be evaluated to determine the extent to which they are meeting the ever changing needs of the population.

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Appendices

Appendix I

Survey excerpt
Schools and Staffing Survey (2007-2008): Teacher Questionnaire
Form SASS 4A

I. GENERAL INFORMATION

6. What was your MAIN activity LAST school year (2006-2007)?

9. In what year did you begin teaching, either as a full-time or part-time, at the elementary or secondary level?

10. a. How many years have you worked as a FULL-TIME elementary or secondary teacher in PUBLIC SCHOOLS?

10. b. How many years have you worked as a PART-TIME elementary or secondary teacher in PUBLIC SCHOOLS?

IV CERTIFICATION AND TRAINING

36. Was your FIRST year of teaching before the 2003-2004 school year?

38. In your first year of teaching did you participate in a teacher induction program?

39. Did you receive the following kinds of support during your FIRST year of teaching?

a. Reduced teaching schedule or number of preparations
b. Common planning time with teachers in your subject
c. Seminars or classes for beginning teachers
d. Extra classroom assistance
e. Regular supportive communication with your principal, other administrators, or department chair
f. Ongoing guidance or feedback from a master or mentor teacher

58b. How long do you plan to remain in teaching?

1. As long as I am able
2. Until I am eligible for retirement benefits from this job
3. Until I am eligible for retirement benefits from a previous job
4. Until I am eligible for Social Security benefits
5. Until a specific life event occurs (e.g. parenthood, marriage)
6. Until a more desirable job opportunity comes along
7. Definitely plan to move as soon as I can
8. Undecided at this time

Appendix II

Selected Survey Questions
Teacher Follow-Up Survey: Questionnaire for Former Teachers 2008-2009
Form TFS-2

I. EMPLOYMENT STATUS

10a. Did you receive an incentive to retire from the position of a K-12 teacher at last year's school?

10b. Would you have remained in teaching if you had not received an incentive to retire?

II. INFORMATION ON LEAVING THE TEACHING PROFESSION

11a. Did you leave teaching because your contract was NOT renewed?

Appendix III

Selected Survey Questions
Teacher Follow-Up Survey: Questionnaire for Former Teachers 2008-2009
Form TFS-2L (First year teachers)

I. EMPLOYMENT STATUS

10a. Did you receive an incentive to retire from the position of a K-12 teacher at last year's school?

10b. Would you have remained in teaching if you had not received an incentive to retire?

II. INFORMATION ON LEAVING THE TRACHING PROFESSION

11a. Did you leave teaching because your contract was NOT renewed?

IV. INFORMATION ABOUT YOUR TEACHING POSITION IN THE 2007-2008 SCHOOL YEAR

17. When did you begin teaching, either full-time or part-time, at the elementary or secondary level?

18a. Last school year (2007-08), were you assigned a master or mentor teacher by your school or school district?

18b. Was your master or mentor teacher's main job being a mentor during the 2007-08 school year?

18c. Has your master or mentor teacher ever instructed students in the same subject area(s) as yours?

18d. Has your master or mentor teacher ever instructed students in the same grade level(s) as yours?

18e. How frequently did you work with the master or mentor teacher during the 2007-08 school year?

1. At least once a week
2. Once or twice a month
3. A few times a year
4. Never

18f. How frequently did your master or mentor teacher observe you in your classroom during the 2007-08 school year?

1. At least once a week
2. Once or twice a month
3. A few times a year
4. Never

20. Overall, to what extent did your assigned master or mentor teacher improve your teaching last school year (2007-08)?

1. Not at all
2. To a small extent
3. To a moderate extent
4. To a great extent

Appendix IV

Selected Survey Questions
Teacher Follow-Up Survey: Questionnaire for Current Teachers
2008-09 School Year
Form TFS-3

II. INFORMATION ABOUT CHANGES FROM LAST SCHOOL YEAR TO THIS SCHOOL YEAR

3a. Are you currently teaching in the SAME SCHOOL as you were last year (2007-08)?

3b. Are you currently teaching in the same state as you were in last year (2007-08)?

3c. Are you teaching in a school OUTSIDE the United States?

6. Which of the following best describes your move from last year's school to your current school? (For this question, all charter and Bureau of Indian Education [BIE]-funded schools are considered public schools.)

1. Moved from one PUBLIC school to another PUBLIC school in the same school district
2. Moved from one PUBLIC school district to ANOTHER PUBLIC SCHOOL DISTRICT

3. Moved from a PRIVATE school to a PUBLIC school
4. Moved from one PRIVATE school to another PRIVATE school
5. Moved from a PUBLIC school to a PRIVATE school

8a. Did you change schools because your contract was NOT renewed at last year's school?

13. To what extent do you agree or disagree with the following statement:
I am generally satisfied with being a teacher at this school.
1. Strongly agree
2. Somewhat agree
3. Somewhat disagree
4. Strongly disagree

Appendix V

Selected Survey Questions
Teacher Follow-Up Survey: Questionnaire for Current Teachers
2008-09 School Year
Form TFS-3L (Former first-year teachers)

II. INFORMATION ABOUT YOUR TEACHING POSITION IN THE 2007-2008 SCHOOL YEAR

7. When did you begin teaching, either full-time or part-time, at the elementary or secondary level?

8a. Last school year (2007-08), were you assigned a master or mentor teacher by your school or school district?

8b. Was your master or mentor teacher's main job being a mentor during the 2007-08 school year?

8c. Has your master or mentor teacher ever instructed students in the same subject area(s) as yours?

8d. Has your master or mentor teacher ever instructed students in the same grade level(s) as yours?

8e. How frequently did you work with the master or mentor teacher during the 2007-08 school year?

1. At least once a week
2. Once or twice a month
3. A few times a year
4. Never

8f. How frequently did your master or mentor teacher observe you in your classroom during the 2007-08 school year?

1. At least once a week
2. Once or twice a month
3. A few times a year
4. Never

10. Overall, to what extent did your assigned master or mentor teacher improve your teaching last school year (2007-08)?

1. Not at all
2. To a small extent
3. To a moderate extent
4. To a great extent

IV. YOUR CURRENT SCHOOL: CONDITIONS AND EXPERIENCES

26. To what extent do you agree or disagree with the following statement:

I am generally satisfied with being a teacher at this school.

1. Strongly agree
2. Somewhat agree
3. Somewhat disagree
4. Strongly disagree

27. During the current school year, are you working with a master or mentor teacher who was assigned by your school or district?

28. Overall, to what extent has the master or mentor program improved your teaching during the current school year?

1. Not at all
2. To a small extent
3. To a moderate extent
4. To a great extent

Appendix VI

Sample Pages from the Survey

U.S. DEPARTMENT OF EDUCATION
NATIONAL CENTER FOR EDUCATION STATISTICS

Conducted by:
U.S. DEPARTMENT OF COMMERCE
Economics and Statistics Administration
U.S. CENSUS BUREAU

TEACHER FOLLOW-UP SURVEY

QUESTIONNAIRE FOR FORMER TEACHERS
2008–09 SCHOOL YEAR

(Please correct any errors in name, address, and ZIP Code.)

THIS SURVEY HAS BEEN ENDORSED BY MANY ORGANIZATIONS. THE NAMES OF THESE ORGANIZATIONS ARE SHOWN ON THE NEXT PAGE.

NOTICE

This survey is authorized by Title I, Part E, Sections 151(b) and 153(a) of Public Law 107-279, the Education Sciences Reform Act of 2002. The results will only be produced as statistical summaries.

TFS-2L
(9-24-2009)

IV INFORMATION ABOUT YOUR TEACHING POSITION IN THE 2007–08 SCHOOL YEAR

17. When did you begin teaching, either full-time or part-time, at the elementary or secondary level?

Do not include time spent as a student teacher.

TCHMO ☐☐ Month AND TCHYR ☐☐☐☐ Year

18a. Last school year (2007–08), were you assigned a master or mentor teacher by your school or school district?

MNTYN
1 ☐ Yes
2 ☐ No ➡ GO TO item 21 on page 16.

b. Was your master or mentor teacher's main job being a mentor during the 2007–08 school year?

MNPRI
1 ☐ Yes
2 ☐ No

c. Has your master or mentor teacher ever instructed students in the same subject area(s) as yours?

MNSUB
1 ☐ Yes
2 ☐ No

d. Has your master or mentor teacher ever instructed students in the same grade level(s) as yours?

MNGRA
1 ☐ Yes
2 ☐ No

e. How frequently did you work with the master or mentor teacher during the 2007–08 school year?

Mark (X) only one box.

MNFRQ
1 ☐ At least once a week
2 ☐ Once or twice a month
3 ☐ A few times a year
4 ☐ Never

f. How frequently did your master or mentor teacher observe you in your classroom during the 2007–08 school year?

Mark (X) only one box.

MNOBS
1 ☐ At least once a week
2 ☐ Once or twice a month
3 ☐ A few times a year
4 ☐ Never

Appendix VII

Internal Review Board Approval Form (IRB) with Original Title

EX-11-CM-017

IRB Project #:

THE UNIVERSITY OF ALABAMA
INSTITUTIONAL REVIEW BOARD FOR THE PROTECTION OF HUMAN SUBJECTS
REQUEST FOR APPROVAL OF RESEARCH INVOLVING HUMAN SUBJECTS

I. Identifying information

	Principal Investigator	Second Investigator	Third Investigator
Names:	Victoria Jones	Dr. Daisy Arredondo Rucinski	
Department:	ILPTS		
College:	College of Education		
University:	University of Alabama		
Address:	5000 Sumit Wood Dr. Kennesaw, GA 30152		
Telephone:	404-312-2195		
FAX:			
E-mail:	runrideclimb@hotmail.com	darredo@bamaed.ua.edu	

Title of Research Project: A secondary analysis of teacher mentoring and attrition in Georgia: Implications for Policy

Date Submitted: 3/16/2011
Funding Source: none

Type of Proposal ☒ New | ☐ Revision | ☐ Renewal Please attach a renewal application | ☐ Completed | ☒ Exempt

Please attach a continuing review of studies form

Please enter the original IRB # at the top of the page

UA faculty or staff member signature: [redacted]

II. NOTIFICATION OF IRB ACTION (to be completed by IRB):
Type of Review: _____ Full board ___ Expedited

IRB Action:
___ Rejected Date: _____
___ Tabled Pending Revisions Date: _____
___ Approved Pending Revisions Date: _____
✓ Approved-this proposal complies with University and federal regulations for the protection of human subjects.
Approval is effective until the following date: 3-22-12 as
Items approved: ___ Research protocol (dated_____)
___ Informed consent (dated_____)
___ Recruitment materials (dated_____)
___ Other (dated_____)

Approval signature [redacted] Date 3/23/2011