ABSTRACT

Title of Dissertation: A STUDY OF THE EFFECTIVENESS OF MENTOR

ROLES IN A RURAL SCHOOL DISTRICT

Ocheze Wosu Joseph, Doctor of Education, 2009

Dissertation directed by: Dr. Carol S. Parham, Chair

The most important component of an effective induction program is a skilled and well trained mentor teacher. In an effort to bring support to novice teachers, school districts across the United States are implementing mentoring programs. This study was designed to investigate the roles mentor teachers play in providing support and developing novice teachers in a rural school district.

Data for this study were collected by way of questionnaire responses, interviews and focus groups with mentor teachers, stakeholders associated with the mentor program, and teachers who participated in the district's mentoring program during 2005-2006, 2006-2007, and 2007-2008 school years. Quantitative and qualitative methods were utilized in this study. Two levels of Kirkpatrick's (1998) Learning and Training Evaluation Theory were used as a conceptual framework.

Findings of the study indicated that new teachers generally perceived the roles of their mentor resource teacher to be effective. There was no statistically significant difference between the mentor role of coach, consultant and collaborator. However, the qualitative data suggests that teachers would have liked more modeling in the classroom by their mentor teacher and secondary teachers noted that it would be more useful to have a mentor with the same content area background.

These data provided insight regarding mentor roles that helped novices develop as reflective practitioners. This study has policy and practice implications for districts concerned with developing and/or enhancing their mentor program. It provides a model for defining roles of a mentor teacher as well as identifying those roles that are effective.

A STUDY OF THE EFFECTIVENESS OF MENTOR ROLES IN A RURAL SCHOOL DISTRICT

By

Ocheze Wosu Joseph

Dissertation submitted to the Faculty of the Graduate School of the University of Maryland, College Park, in partial fulfillment of the requirements for the degree of Doctor of Education 2009

Advisory Committee:

Dr. Carol S. Parham, Chair

Dr. Gilbert Austin

Dr. Patricia Richardson

Dr. Wayne Slater

Dr. Thomas Weible

© by

Ocheze Wosu Joseph

2009

DEDICATION

This dissertation is dedicated in loving memory of my mother, Anna Chinyere Wosu, who always believed in me and encouraged me to do my best. I know you are looking down at me with pride.

To my hard-working, loving father, George Wosu. All my life, I have understood the importance of education. Since elementary school, you taught me to have high expectations and to establish a work ethic of nothing but excellence. You have taught me that through perseverance and hard work and prayer, there isn't anything that I can't accomplish.

I also dedicate this dissertation to my husband, Shawn Joseph, Ed.D. and my children, Isaiah and Ava Joseph.

Shawn, you have loved and cared for me for 15 years. You remind me everyday of who I am and what I am capable of achieving. You are my rock and I thank you with all my heart. Now we can party!

To my fabulous, beautiful children, Isaiah and Ava. This is one testimony that lets you know you can do whatever you set your mind at doing when you put God first. I thank you for your patience and understanding when mommy needed quiet time. You are the best kids a mother could ever ask for and I want the two of you to follow your hearts and be the best at what ever your hearts desire. The sky is the limit, my darlings.

To my fantastic sister, Uchechi Wosu, M.D. We always said we would be "doctors" in the fields of our choice. Thank you for always being there for me. I know you are happier than I am that this baby is all wrapped up!

To the best Aunty in the world. I could never have endured so much without your support. You told me that you would not leave me until I finished school and you kept your promise. I love you more than words can tell.

I am blessed to have so many extended family members and friends who have also been instrumental in assisting me through this process. It is because of their love, encouragement, prayers and support that I am finally Dr. Ocheze Wosu Joseph. I thank you all.

ACKNOWLEDGMENTS

The successful completion of my doctoral studies could not have been accomplished without the support and assistance of persons in both my academic and personal lives. I am sincerely appreciative of those who helped me during this endeavor. Without their continuous positive comments and love during those rough dissertation writing times, this would not have been possible.

I would like to thank Dr. Carol Parham, my mentor and dissertation chair, for her confidence and support and for always being a phone call away. Thanks, "mommy."

I also extend my sincere gratitude to the members of my dissertation committee, including Dr. Thomas Weible, Dr. Gilbert Austin, Dr. Patricia Richardson, and Dr. Wayne Slater. Dr. Weible, thank you for being my mentor during Dr. Parham's absence. I appreciate the patience and time you have given me. Dr. Austin, you have been my onestop dissertation shop. Thank you for providing me with advisement and guidance. Dr. Richardson, your words of wisdom, comments and suggestions have always been clear and concise. Thanks for keeping me on track. Dr. Slater, it's always good to have an English major on my team. Thank you for ensuring my dissertation was well organized and written in the proper form. Without the support and guidance of these people, I could not have successfully completed the dissertation process.

Finally, I would like to thank my superintendents and colleagues in the school system for their support, assistance in data collection, and gathering of materials to make this study possible.

TABLE OF CONTENTS

List of Tab	les
Chapter I	INTRODUCTION
1	Mentor's Role
	Significance of the Study
	Conceptual Framework
	Framework of the Mentor Program
	Statement of the Problem
	Purpose of the Study
	Research Design
	Research Questions
	Limitations of the Study
	Definition of Terms
	Organization of the Study
	<i>g</i>
Chapter II	REVIEW OF THE LITERATURE
1	Emergence of Mentoring
	Teacher Shortage
	Teacher Retention
	Challenges of Rural Districts
	Roles of Mentors
	Effectiveness of Induction Programs
	Using the Kirkpatrick Model
	Summary
	•
Chapter III	METHODOLOGY
-	Introduction
	Research Design
	Conceptual Framework
	Setting
	Subjects
	Research Questions and Statistical Hypotheses
	Research Question 1
	Statistical Hypothesis 1
	Research Question 2
	Statistical Hypothesis 2
	Research Question 3
	Statistical Hypothesis 3
	Research Question 4
	Statistical Hypothesis 4
	Research Question 5
	Research Question 5a
	Procedures
	Instrumentation

	Data Collection						
	Pilot Study and Reliability						
	Follow-Up Interviews						
	Data Analysis						
	Phase I of Data Analysis – Quantitative						
	Content Validation						
	Phase II of Data Analysis – Qualitative						
	Interviews						
	Focus Groups						
	Credibility and Trustworthiness						
	Phase I – Qualitative Research						
	Summary						
Chapter IV	FINDINGS						
1	Introduction						
	Data Collection						
	Response Rates						
	Reliability						
	Correlation Coefficients						
	Research Questions and Statistical Hypotheses						
	Research Question 1						
	Statistical Hypothesis 1						
	Research Question 2						
	Statistical Hypothesis 2						
	Research Question 3						
	Statistical Hypothesis 3						
	Research Question 4						
	Statistical Hypothesis 4						
	Overview of Qualitative Design						
	Research Question 5						
	Level 1: Reactions to the Training						
	Theme – Emotional Support						
	Theme – Mentor Role						
	Theme – Learning Community						
	Theme – Developing Reflective Practitioners						
	Theme - Caseloads						
	Theme - Special Education						
	Level 2 – Learning Gained From the Training						
	Research Question 5a						
	Theme - Reflective Practitioners						
	Theme - Mentor Role						
	Theme-Learning Community						
	Summary						

Chapter V	SUMMARY, CONCLUSIONS, AND
-	RECOMMENDATIONS
Pu	rpose of the Study
Sta	atement of the Problem
Re	search Questions
	ethodology
	mmary of Quantitative Survey Findings
	onclusions Based on Quantitative Results
	alitative Findings
	onclusions Based on Qualitative Results
Re	commendations for Future Practice
	Recommendations for Districts Interested in Developing
	Mentoring Programs
	Recommendations for State Department of Education Recommendations for Annatown School District
	Recommendations for Annatown School District
	Recommendations for Further Studies
Appendix A	Mentor Resource Teacher (MRT) Job Description
Appendix B	Cover Letter
Appendix C	Permission to Modify Instrument
Appendix D	Permission from IRB
Appendix E	Informed Consent From
Appendix F	Permission from District Superintendent to Conduct Study
Appendix G	Beginning Teacher Survey
Deferences	

List of Tables

Table 1	New Teacher Hires	7
Table 2	Mentor Roles Matched with Research Reported in the Literature	48
Table 3	Goal-Based and System-Based Approaches to Evaluation	53
Table 4	Student Enrollment by Ethnicity	58
Table 5	Number of 2006 Annatown County Employees	58
Table 6	Annatown County Public School's Retention Rates	59
Table 7	Study Population From 2006 Through 2008	58
Table 8	Survey Statement Items in Relation to Mentor Roles	66
Table 9	Kirkpatrick's Four Levels of Training Evaluation	67
Table 10	Response Rates of Elementary, Middle and High School Teachers	76
Table 11	Response Rates of Teachers in Entry Years 2005-2006, 2006-2007, and 2007-2008	76
Table 12	Demographics and Background Information of Mentees	77
Table 13	Demographics and Background Information of Mentors	78
Table 14	Cronbach Alphas for Study	79
Table 15	Correlation Matrix for All Major Variables	80
Table 16	One-Way Analysis of Variance of Differences Among Elementary, Middle and High School Teachers' Perceptions Of Mentors' Coaching	81
Table 17	One-Way Analysis of Variance of Differences Among Elementary, Middle and High School Teachers' Perceptions Of Mentors' Consulting	82
Table 18	One-Way Analysis of Variance of Differences Among Elementary, Middle and High School Teachers' Perceptions Of Mentors' Collaboration	83

Table 19	One-Way Analysis of Variance of Differences in Teachers' Perceptions of Mentors' Coaching Based on the Year They Entered the Program
Table 20	One-Way Analysis of Variance of Differences in Teachers' Perceptions of Mentors' Consulting Based on the Year They Entered the Program
Table 21	One-Way Analysis of Variance of Differences in Teachers' Perceptions of Mentors' Collaboration Based on the Year They Entered the Program
Table 22	One-Way Analysis of Variance of Differences in Teachers' Perceptions of Mentors' Coaching Based on the Age of the Teachers
Table 23	One-Way Analysis of Variance of Differences in Teachers' Perceptions of Mentors' Consulting Based on the Age of the Teachers
Table 24	One-Way Analysis of Variance of Differences in Teachers' Perceptions of Mentors' Collaboration Based on the Age of The Teachers
Table 25	Independent t-Test of Differences in Teachers' Perceptions of Mentors' Coaching Based on Gender
Table 26	Independent t-Test of Differences in Teachers' Perceptions of Mentors' Consulting Based on Gender
Table 27	Independent t-Test of Differences in Teachers' Perceptions of Mentors' Collaboration Based on Gender
Table 28	Focus Group and Interview Questions
Table 29	Focus Group Participants
Table 30	Focus Group Themes

CHAPTER I

INTRODUCTION

The beginning was awful, Laura recalled, describing her first days of teaching science in an inner-city middle school. She hadn't begun with high expectations for professional support: I assumed that the teachers would be unsupportive, sort of that sink-or-swim mentality...I assumed that I was all on my own, and that it was me or nothing. (Johnson & Kardos, 2002)

Each year, thousands of students graduate from teacher education programs and enter the nation's classrooms to begin their careers as classroom teachers. Although many of these teachers receive high marks in their teacher preparation program, including student teaching, it will not be enough to prepare them for what they will face (Goodwin, 1999). Many of these teachers also possess a strong passion for educating our youth and are committed to making a difference in the lives of children. Regardless of their good intent to work with students, one-third to one-half of all new teachers leave the profession within the first 3 years as determined from a 1999 report titled, *Retention and Attrition of Teachers at the School Level: National Trends and Predictors* (Boe & Leow, 1999). Many districts in our nation are facing teacher shortages and high teacher attrition. The projected need to place an additional 2.2 million teachers in classrooms by 2010 will be intensely felt in schools throughout the nation (Geringer, 2000). In addition to filling these vacancies, there is greater accountability required in this era of school reform.

Policy makers from local school boards to state legislatures are recognizing the need for school districts to implement induction programs that incorporate mentoring. Insufficient attention has been paid to teacher attrition rates (Curran & Liam, 2002). States, school districts, and schools cannot afford to lose good teachers when there is a high demand for improving student achievement (Curran & Liam, 2002). In the state of this study, the State Superintendent of Schools developed an advisory council in an effort to confront the challenges of providing high-quality professional development for all teachers in the state and to ensure that professional development is fully aligned with

local and state priorities for improving student achievement. Support for new teachers was a part of the professional development offered by all school districts.

Nationally, there is a growing consensus that the quality of a teacher is the single most important factor in determining student performance (Alliance for Excellent Education, 2004). Consequently, districts are looking more closely at the components of their induction programs. According to the Alliance for Excellent Education, a comprehensive induction program must include several components in order to minimize the time it takes for new teachers to perform at the same level as a veteran teacher and to assist new teachers in getting acclimated to school systems' policies and cultures. As such, high-quality mentoring is one of those components and is the component that is the focus of this study. High-quality mentoring involves carefully selecting a mentor from the same field or subject area as the new teacher. The mentors must be trained to function as coach, help improve the quality of teacher's practice, offer feedback, demonstrate effective teaching methods, and help teachers analyze student work and achievement data.

Other components discussed were common planning, ongoing professional development and the inclusion of an external network. Through the use of common planning, the new teacher and his/her mentor should have a regularly scheduled common planning time during the school day to consult. The mentor should support the new teacher by providing strategies about how to develop lesson plans, connecting teaching to improvement of student achievement, and creating a collaborative culture and helping teachers employ collaborative methods to increase student achievement.

With the inclusion of ongoing professional development, the mentor may encourage new teachers to attend meetings that will enhance skills directed to increasing student learning. Professional development activities are most effective when they meet

teachers' needs to expand content knowledge, teach literacy and numeracy at all levels, address diversity and mange student discipline.

Another component addressed by the Alliance for Excellent Education was the inclusion of having an external network of teachers. New teachers should be afforded the opportunity to collaborate and network with teachers outside of their local building. Having a community of colleagues allows new teachers to receive support from each other and reduce feelings of isolation.

The final component discussed was the inclusion of a standards-based evaluation for determining whether or not the individual should continue teaching. Through the support of an effective mentor, this area should be one that deems excellent results. As we look to improve the quality of induction programs and retain teachers by decreasing their frustrations, these components are to be embedded in some form in the plan.

Mentor's Role

The education community understands that mentors have a positive effect on teacher retention but leaves open the question of what mentors actually do and what novices learn as a result (Feiman-Nemser, 1996). According to Saffold (in press), the role of the mentor includes offering ideas to mentees, modeling instructional strategies, team teaching, collaborating on lesson planning, guiding mentees to the appropriate resources, and engaging in ongoing problem solving with their mentees.

Ballantyne, Hansford, and Parker (1995) evaluated and discussed the roles and functions of mentors with regard to new teachers' concerns, needs, and expectations. Based upon their analysis of beginning teachers' perceptions regarding their needs and the ways in which mentors might help them, the researchers concluded that there were four mentoring functions desired by teachers to support their varying needs: personal support, task-related assistance and advice, problem-related assistance and advice, and critical reflection and feedback regarding their practices.

Personal support was defined as the emotional support given by the mentor. The mentor is friendly, open, and approachable, thereby allowing the new teacher to have someone to talk to when in need of advice or comfort. The reassurance and support provided by the mentor is most important during the end of the first teaching semester, as this is the time new teachers report experiencing an increase in stress, difficulty managing a variety of commitments, and overwhelming fatigue.

Task-related assistance was described as the advice, ideas, and resources provided by the mentor. This type of mentoring includes assistance in maintaining school routines, covering required content, assessing and reporting student data, and managing multiple demands required by the job. Mentors are in a position to share resources with a new teacher, plan cooperatively, and model effective teaching behaviors. Mentors must also keep in mind that by the end of the first semester, new teachers are eager to experiment with their own skills and ideas. Therefore, the mentor should try to offer task-related assistance and advice without imposition and to "step back" to allow the beginning teacher freedom to try out his or her own ideas.

Results from a study by Ballantyne et al. (1995) revealed three major mentoring functions that new teachers were able to identify by the end of the first semester. New teachers identified behavior problems as the first major source of concern followed by individual student learning needs. Description of the third major mentoring function, problem-related assistance and advice, included the discussion of problems and the exploration of possible solutions to those problems. Mentors recognize that they are not always able to meet all of the needs of the new teacher; at times, the assistance of the school's administration may be more suitable for the situation.

The final component identified by new teachers in the Ballantyne et al. (1995) study was critical reflection and feedback on practice. Results from their study revealed that the best time to introduce this component is during the end of the first semester.

Teachers are given the opportunity to reflect and receive feedback on their professional practice. At this stage in their development, new teachers can report growing confidence in task-related problem areas.

Helman (2006) discussed the role of coach. Beginning teachers need to be equipped with tools for best practices as well as tools to help the teacher develop the disposition to think deeply about practices which will best meet the needs of individual students. In assisting teachers to think more deeply, mentors engage in coaching conversations. Mentors can take three stances when coaching: (a) probing to extend the beginning teacher's thinking, (b) explicitly teaching or suggesting a specific practice, or (c) focusing the teacher on how the lesson is accountable to larger school and state standards.

In order to meet the goal of improving the quality of programs for new teachers and retaining them by decreasing their frustrations and providing them with the proper tools, all of these components, in some form, are likely to be included in a comprehensive new teacher program. Without adequate support and mentorship, quality teachers may not emerge.

Significance of the Study

This study investigated the roles mentor teachers play in developing novice teachers in a rural school district. Presently, there is limited research regarding the roles mentor teachers play in the development of new teachers. Even more limited in the literature are investigations that explore the effectiveness of mentor teachers whose primary roles are to serve as a coach, a collaborator, and a consultant.

This study gives insight into the reactions and learning that mentor teachers played on their novice teachers in developing teacher quality, which in turn inhibits teacher retention. As such, the findings will be beneficial to other rural school districts that are implementing mentoring programs for teachers, state departments of education,

state legislatures, and the district in which this study was conducted. Although the district in which this study was conducted does not include a mentoring requirement in its negotiated agreement, there are districts that are now making it a requirement. This study will provide the county with useful data to report to the state.

The federal No Child Left Behind (NCLB) Act requires school districts to assume a critical role in promoting the effective teaching needed to facilitate increased academic achievement of all students. One recommendation is to develop and implement initiatives that promote the retention of highly qualified teachers and principals, particularly in schools with high percentages of low-achieving students; such initiatives will need to include teacher mentoring by exemplary teachers and administrators, induction, and other support services for new teachers and principals during their first 2 years of employment.

In addition, due to massive retirements of the teachers from the baby boomer generation and rising student enrollment, the problem of teacher shortages is a constant concern in districts across the United States (Liu, 2006). This shortage is exacerbated by high teacher turnover. Nationally, the average job turnover rate is 11%; in education; however, the employee turnover rate is 14%. Research has suggested that assistance from mentors or experienced veteran teachers has helped new teachers better acclimate themselves into the profession (Smith & Ingersoll, 2004).

As the need for mentors has increased, the issue of acquiring skillful teachers to help promote growth to new teachers has become important to school districts. As funds are being invested in mentoring programs, districts want to retain teachers that have been hired. Assuming that the replacement cost of a new teacher is approximately 50% of a new teacher's salary, Villar and Strong (2007) stated that the difference between state and district retention rates can be translated into a monetary savings to the district of about \$807 per teacher per year for a total of \$3,736 per teacher after 5 years. Villar and Strong also found that increases in effectiveness showed greater savings than the reduction in

costs associated with teacher attrition. Overall, Villar and Strong's findings related to the benefit-cost analysis indicate that investing in a mentoring program will produce a positive return to society, the school district, the teachers, and the students.

The Annatown County Public School district (a pseudonym used for the purposes of this study) is now in the 4th year of implementation of its mentoring program; this research provided the school district with information about the program's effectiveness. Based on information regarding the extent to which program goals were being met, the district will be able to consider modifications to enhance the success of the program as they continue to examine best practices for enriching the professional growth of teachers and contributing to improved student achievement and teacher retention.

Annatown County Public Schools are experiencing a trend: Every year, more new teachers entered the school district. As the number of new teachers continued to grow, the district needed to expand its plan of action to manage and support new teachers in meeting accountability standards. Table 1 depicts the continued growth rate of new teachers entering the district, which is approximately a 200% increase from 1997 to 2007. This growth can be attributed to the expansion of housing in the district. The greatest growth was seen in the 2004-2005 school year, which was a 70% increase. These numbers are expected to continue to increase.

Table 1

New Teacher Hires

Year	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
No. of new hires	74	125	151	79	124	96	150	178	253	155	214

Conceptual Framework

This study sought to evaluate the effectiveness of mentor resource teacher roles (Appendix A) in a small rural school district and contribute to the enhancement of the district's overall mentor program. The qualitative component of this study was based on Donald Kirkpatrick's Learning and Training Evaluation Theory for evaluating the effectiveness of mentor teacher roles and to guide decision making for future actions. Kirkpatrick (1998) stated that a training program must be evaluated in order to determine its effectiveness.

Kirkpatrick's model includes four levels of evaluation which essentially measure reaction, learning, behavior, and results. Kirkpatrick's four levels represent a sequence of ways to evaluate programs.

- 1. reaction of "student" what they thought and felt about the training
- 2. learning the resulting increase in knowledge or capability
- 3. behavior extent of behavior and capability improvement and implementation/application
- 4. results the effects on the business or environment resulting from the trainee's performance.

Kirkpatrick's (1998) framework has been used extensively in research and it has been used in over 500 studies. Most recently, it was used in a study conducted by Dougherty (2000). In her study, Dougherty sought to explore veteran elementary school teachers' experiences with Cognitive Coaching and trust building strategies as a form of voluntary, professional development in a rural school district.

Each level is important and has impact on the next. Kirkpatrick (1998) stated the reason for evaluating a training program is to determine the program's effectiveness. It is the hope of those that make decisions regarding the program's components and those that implement the program that the results from the evaluation are both positive and gratifying.

Framework of the Mentor Program

The state superintendent of schools organized the Professional Development Advisory Council in 2003. The council consisted of 25 members representing all districts in the state, including Annatown's superintendent. The council developed nine standards which were intended to contribute to increased student learning by improving the professional learning opportunities available to teachers. Included in those professional development opportunities are coaching and mentoring relationships.

Teachers are at their best when they are actively engaged in high quality mentoring opportunities themselves. These new standards act as a blueprint for all of us to follow in supporting teacher learning to ensure that they have the tools they need to help all of our students master challenging material. (State Superintendent of Schools, 2003)

As a result of the district superintendent's participation in the council, in 2003, the first mentor program was implemented in Annatown County Public Schools (ACPS). Before implementation, a study group was formed to discuss the components of the program. As a committee, the Mentoring Study Group explored and researched mentoring programs. Although a wealth of information was found, the committee did not locate a great deal of information relating to the county's vision for such a program. A systemic approach for supporting beginning teachers in the district was desired, so the committee developed a program based on what they believed was "doable" in Annatown County (Personal communication with one of the original mentors who assisted with the development of the program, October 25, 2006). In 2003, the first version of the *Mentor Program Guidebook* was developed; it represented a collaborative effort among three mentor resource teachers, the supervisor for the Center of Peak Performance and Productivity at that time, and an outside consultant. The guidebook was reviewed by multiple stakeholders, including department supervisors, supervisors, mentor teachers, a mentor consultant, and mentor personnel in other school systems, to ensure that it

reflected current research and thinking. Research by Costa and Garmston (1994) was also used as a guide for the development of the guidebook. Costa and Garmston (1994) "propose that instructionally effective teacher cognition does not just happen. For many teachers, it needs to be taught, enhanced, and coached" (p.3-4). Their findings show that as a result of cognitive coaching, "the teacher should become more self-supervising, more autonomous. This means that teachers will be performing the inner thought processes of supervision themselves voluntarily and spontaneously without the need for a supervisor's intervention" (p. R-9) Costa and Garmston (1994) viewed learning as a rearrangement or restructuring of mental processes. Coaching should help teachers to make better decisions since teaching involves decision making (Edwards, 2001). The *Mentor Program Guidebook* was revised again in 2007 to distinguish between the role of the mentor and the role of the administrator.

After the development of the mentor program, the school district adopted the cognitive coaching model developed by Costa and Garmston (1994) and used it as an integral part of the program's philosophy and operating model. Although there were several models that might have served as a guide in implementing a mentor program, cognitive coaching was selected because it reflected the desired use of coaching as "a means of focusing on mediating a practitioner's thinking, beliefs, and assumptions towards the goals of self-directed learning and increased complexity of cognitive processing" (Costa & Garmston, p. 5). Costa and Garmston, the founders of cognitive coaching, defined it as a set of strategies, a way of thinking, and a way of working that invites self and others to shape and reshape their thinking and problem-solving capacities. Their contention was that cognitive coaching enables people to modify their capacity to modify themselves. Cognitive coaching is based on the following four major assumptions:

1. Thought and perception produce all behavior.

- 2. Teaching is constant and [sic] decision-making.
- 3. To learn something new requires engagement and alteration in thought.
- Humans continue to grow cognitively. (Center for Educator Recruitment,
 Retention & Advancement, 2007)

According to research conducted by Edwards (2001), teachers who are trained in cognitive coaching become more resourceful, think in more complex ways, are more satisfied with their choice of teaching as a profession, collaborate more, and experience an increase in feelings of efficacy. In addition, Edwards found that student test scores increase and school cultures become more professional.

In addition to coaching, mentor resource teachers engage in the roles of consultant and collaborator as a means of providing new teachers with skills and strategies to be most effective in the classroom. In an effort to assist mentor resource teachers in effectively performing the roles of coach, consultant, and collaborator, the school district hired an outside consultant to provide mentor resource teachers with professional development. From September 2004 to December 2007, the outside consultant met with mentor resource teachers twice a month. Beginning in January 2008, the sessions were reduced to one meeting a month. The primary focus of the meetings was to ensure that mentor resource teachers understand the roles and discuss best practices when the roles are effectively implemented. The outside consultant incorporated active and interactive learning experiences for mentor teachers. The casework or content used for training was authentic in that it was based on the school experiences of the mentor teachers. Each month, time was dedicated to cross-team collaboration, problem solving, and experiential learning. The training supports the skills of mentoring. Each 3-hour training session includes the following components as described by the district's primary consultant:

1. Opening discussion: This was an opportunity to share mentoring best practices that occurred during the month. Such practices included helping a teacher focus

on "need areas," sharing insights from school-based visits with mentors, and utilizing skills practiced in mentor training sessions with teachers.

- 2. Skills practice: This was time spent focusing on a particular skill using a collaborative protocol (a set of structured guidelines that offers collegial support without criticism). These skills included probing, shifting down to identifying essential things to look for and clarifying.
- 3. Caseload issues: A good deal of time was spent reviewing the issues that mentors have with particular teachers. This practice not only helped the mentor find specific strategies to use but also helps the other mentors with similar issues. Many times the skills that were practiced earlier are employed. In addition, various protocols were used to facilitate discussions.
- 4. Journal writing: Each session ended with a provocative question in which mentor teachers were asked to reflect, write, and share. The topics that were selected were relevant to the training that was provided during that session.

Non-tenured first- or second-year teachers as well as teachers new to Annatown County Public Schools were each assigned a mentor resource teacher. At the time of this study, the county had three elementary mentor resource teachers and four secondary mentor resource teachers. The certification of mentor resource teachers varied; consequently, mentor resource teachers were assigned to work with new teachers certified in a variety of subject areas, not just teachers who share the same certification. Each first-year teacher was automatically assigned a mentor and may be provided support throughout the entire first year of teaching; that practice is the norm throughout the county. Nevertheless, decisions were made on a periodic basis by the mentor resource teacher or the building administrator to review the level of support to be provided based on the proficiency of the teacher. The caseload for the mentor resource teacher should be manageable to allow for quality mentoring time with each mentee. According to the Code

of Maryland Regulations (COMAR), an adequate mentor-mentee ratio should be 15 to 1. In Annatown, mentor resource teachers can have as many as 50 or as few as 25 teachers for their caseload, including teachers at all four developmental stages as noted below. The amount of time mentors spend with their mentees varies. Mentor teachers meet with their mentees before school, during the school day, and after school. In addition, mentees communicate via e-mail with their mentees. Annatown County Public Schools recognized that teachers develop at different rates (Mentor Program Guidebook, p. 11); therefore, the intensity and amount of support a teacher received was dependent on the developmental level of the teacher's performance. These stages of development, as described below, are a comprehensive description taken from the district's Mentor Guidebook. They included the following: (a) novice, one who seeks rules and scripts to guide actions; (b) advanced beginner, one who seeks contextual and strategic knowledge; (c) competent, one who makes conscious choices about what to do and how to selfmonitor; (d) proficient, one who functions intuitively with know-how; and (e) expert, one who teaches fluently, integrating best practices with curriculum (Mentor Program Guidebook, p. 11). Although there were no set rules to follow, the mentor determined the developmental level of the mentee through the use of observations, dialogues with the teacher, review of student work, dialogue with the building principal, and other factors. These factors helped the mentor resource teacher determine how much support the teacher received. Once the extent of needed support was determined, teachers were then categorized according to the following levels:

Level A teachers required continuous and intensive support. These teachers were less experienced and, consequently, required more directive skills such as advising, teaching, or modeling, requiring the mentor to assume more of a consultative role and to provide as much as 80% of the developmental framework of teaching.

Level B teachers were considered to be progressing and were more proficient but continue to need some support. They were offered coaching and opportunities for networking.

Teachers categorized as Level C needed minimal support and usually received assistance from the school Student Achievement Specialist (SAS), a school based staff development person. As the mentee's skills improved and he or she was determined to be less dependent as a reflective practitioner, there was a move from assistance to autonomy.

The conversation between the mentor and the mentee had the potential to build a powerful relationship. Therefore, trust-building was an important factor in the menteementor relationship. To facilitate trust building, mentors did not evaluate their mentee's teaching performance with anyone, including school and district administrators, unless the mentee gave permission or unless the academic growth and development, social well being, or physical safety of students was at risk (*Mentor Program Guidebook*, p. 13)

Statement of the Problem

The percentage of new teachers predicted to leave the profession within the first 5 years is 40% (Alliance for Excellent Education, 2004). This number increases to 50% if the new teacher is in a school within a rural or urban setting (Myers, Rust, & Wayne, 2001). As a result, mentoring in the United States has become a part of the teaching landscape over the last 10 years (Liu, 2006). School districts across the nation must deal with this shortage of teachers in an era of increased accountability. In order to do so, districts must ensure that effective mentor teachers are in place to help novices become masterful teachers, which in turn, produces desirable student achievement.

The role of the mentor is critical in increasing productivity and teacher retention. Few empirical research studies of the mentor's role have been documented. Therefore, this study involves the investigation of one district's program to assist novice teachers in the profession. In high-risk rural schools, a shortage of quality teachers has compelled

school leaders to examine programs in place to recruit and retain new teachers (Kritsonis, 2008). One possible solution is the implementation of a strong teacher mentoring program. Research on mentors as coaches has produced promising results (Edwards, 2001); however, there is little research available to enhance understanding of the effectiveness of coaching within these programs.

Purpose of the Study

The purpose of this mixed-methods study was to assess the perceptions of those associated with Annatown County Public Schools' Mentor Teacher Resource Program, which is only one component of the overall mentoring program. Quantitative methodology was used to compare perceptions of teachers participating in the program based on age, gender, and entry year in program. The researcher replicated Carter's(2003) Beginning Teacher Survey to gather data for this portion of the study. The study also utilized qualitative methodology by conducting interviews and focus groups to obtain additional information regarding perceptions of those associated with the program by using Kirkpatrick's Evaluation Model (1998) as a lens to gather and organize data.

According to Odell and Huling (2000), the assignment of a mentor teacher to guide novices in learning to teach is the most significant and cost-effective component of a mentoring program. New teachers' beginning years function as the formative period for learning to teach. They also represent an important time in which beginning teachers gain a clearer, deeper understanding of themselves as teachers.

Basic beliefs and values about the culture of teaching are formed during a teacher's first year (Rogers & Babinski, 2002). Interest in the roles of a mentor teacher reflects concerns about quality teacher preparation as well as how the role of the mentor contributes to the professional development of the novice teacher. Engaging in collaborative relationships is paramount as new teachers adjust to successfully meeting all of the requirements of the profession (Smith, 2006). Recent efforts at the national,

state, and local levels have sought to support mentoring relationships between experienced teachers and entry-level teachers (Smith, 2006). Through such supportive relationships, teachers will be better prepared to face the day-to-day challenges of the K-12 classroom (Smith, 2006). The goal of the mentor, using coaching strategies, is to help new teachers develop their own skills in planning, reflecting, problem solving, and decision making (Mentor Program Guidebook, 2005-06). A coach supports development of thinking, problem-solving, and goal-achievement skills. Increased expertise and effectiveness in planning, reflecting, and decision making, as well as continual professional development, are the desired outcomes of a coaching relationship (Lipton & Wellman, 2001). The presumed relationship between a coach and a teacher is that coaching supports the professional act of teaching and supports teachers in becoming more resourceful, informed, and skilled professionals. This study also examined the importance of mentoring activities that enable new teachers to be successful in the beginning years of teaching.

Research Design

Today's research world is becoming increasingly interdisciplinary, complex, and dynamic; therefore, many researchers need to complement one method with another, and all researchers need a solid understanding of multiple methods used by other scholars to facilitate communication, to promote collaboration, and to provide superior research. This study used both quantitative and qualitative research methods as a means to provide relevant insights and potential solutions to the research questions. A sequential mixed-model design allowed the conclusions that were made on quantitative data to lead to the formulation of questions, data collection, and data analysis for the qualitative component of the study. The final inferences are based on the results of both strands of the study. The qualitative component of the study was conducted to either confirm or disconfirm the

inferences of the quantitative component and provided further explanations for the findings.

This research was conducted in two phases. The first phase of the study was quantitative and the second phase was qualitative. A 30-statement survey was administered to teachers who participated in the mentor program during the 2005-2006, 2006-2007, and 2007-2008 school years. The survey was designed to assess the effectiveness of mentor teacher roles as they relate to the enhancement of teacher pedagogy. Of the 30 questions, 10 questions related to the mentor as a coach, 10 questions related to the mentor as a consultant, and 10 questions related to the mentor as collaborator.

The second phase of the study included 2 focus groups and 1 interview. The research participants for the focus groups and interviews included teachers from the specified years, mentor research teachers and mentor program supervisor. The sessions were tape-recorded, transcribed and coded for themes. The researcher used Kirkpatrick's 4-Level Model of Evaluation as a lens for the focus groups and individual interview questions. The transcripts were shared with the study participants to check for accuracy and verification. The reporting of the focus group material did not identify names of persons or individual schools.

Research Ouestions

The following questions were used to guide this study:

1. Are there differences in mean perceptions of teachers who participated in the program during the 2005-2006, 2006-2007, and 2007-2008 school years as to the effectiveness of the mentor-teacher program with regard to the roles of coaching, consulting, and collaborating between teachers at the elementary, middle, and high school level?

- 2. Are there differences in mean perceptions of teachers who participated in the program during the 2005-2006, 2006-2007, and 2007-2008 school years based on the year they entered the program as to the effectiveness of the mentor-teacher program with regard to the roles of coaching, consulting, and collaborating?
- 3. Are there differences in mean perceptions of teachers who participated in the program during the 2005-2006, 2006-2007, and 2007-2008 school years based on their age as to the effectiveness of the mentor-teacher program regarding the roles of coaching, consulting, and collaborating?
- 4. Are there differences in mean perceptions of teachers who participated in the program during the 2005-2006, 2006-2007, and 2007-2008 school years as to the effectiveness of the mentor-teacher program based on their gender regarding the roles of coaching, consulting, and collaborating?
- 5. How did various stakeholders (teachers participating in program, mentor resource teachers, mentor program supervisor) react to the overall effectiveness of the mentoring programs?
- 5a. What did the various stakeholders (teachers participating in program, mentor resource teachers, mentor program supervisor) learn as a result of their role in the mentoring program?

Limitations of the Study

- Definitions of the roles of the mentor resource teacher are specific to Annatown Public Schools.
- Participants in the study include teachers with varying levels of experience: transfer teachers, second-career teachers, and recent college graduates.

- 3. Participants from the 2005-06 group may not remember as much about the program as the participants from the 2007-08 group; responses are dependent upon the teachers' memories of their experiences.
- 4. The study was limited to one school district which has a small sample size.
- 5. The data of this study were based upon candidates' ability to self-report.
 Candidates' willingness to be honest and their ability to accurately describe their situations limited the reliability of their responses.

Definition of Terms

For the purpose of this study, the following definitions are used:

Mentor resource teacher. An experienced, successful, and knowledgeable professional who accepts responsibility for facilitating professional growth and support of a colleague through a mutually beneficial relationship (*Mentor Program Handbook*, p. 1).

Beginning teacher or new teacher or novice teacher. A teacher in his or her first or second year of teaching receiving the support from a mentor resource teacher.

Coach. Mentor role in which the mentor resource teacher takes nonjudgmental positions and uses tools of questioning, pausing, paraphrasing, and probing for specifics. The skillful coach focuses on teachers' thinking, perceptions, and decision making to encourage self-directed learning (Mentor Program Handbook, p. 7).

Collaborator. Mentor role in which a mentor resource teacher participates in meetings between the mentee and other teachers, students, parents, resource specialists, or administrators to help promote dialogue as well as shared decision making, planning, or problem solving (Mentor Program Handbook, p. 8).

Consultant. Mentor role in which a mentor resource teacher can be an information specialist who provides technical knowledge to teachers. As a process expert, the consultant strengthens the teacher's repertoire of methodology. In addition, the mentor

consults with others who are also providing support to new teachers in curricular areas or other areas of need (*Mentor Program Handbook*, p. 7).

Student achievement specialist (SAS). A school-based teacher that has been hired to improve students' reading and mathematics achievement by working closely with classroom teachers to provide staff development and facilitation of a variety of instructional and assessment approaches. The SAS also provides additional support to new teachers.

Organization of the Study

This study is organized into five chapters. Chapter I includes the introduction to the study, significance of the study, statement of the problem, framework of the mentor program, research questions, limitations of the study, and the definitions of key terms. Chapter II contains the review of the literature. Chapter III describes the design, procedures, and proposed analysis of results. Chapter IV presents the findings of the study, both quantitative and qualitative. Chapter V presents the conclusions and recommendations for further research.

CHAPTER II

REVIEW OF THE LITERATURE

Emergence of Mentoring

Mentoring can be traced back thousands of years. Homer's *Odyssey*, an epic poem that dates back over 3000 years, is thought to be the original source for the term mentoring (Colley, 2002). In the poem, Odysseus, the king, went to battle in the Trojan War. While he was away, he left his kingdom as well as his infant son under the care of an old friend, Mentor. Mentor was described as a wise and trusted advisor, an educator, and a guide (Ibid). His role was described as supporting, protecting, and role modeling. Clawson (1980) asserted that the comprehensiveness and mutuality of the mentor's role is of the essence: "Mentors worthy of the name serve as teacher, sponsor, role-model, confidant, and more" (Little, 1990, p.298).

During the 1950s, significant practical changes in teacher education were initiated as a result of a series of grants distributed by the Ford Foundation. With these grants, districts began to look more closely at supporting new teachers. During the 1960s, the expansion of mentoring grew with federal funding of the Teacher Corps. Funds were available to train teachers for the mentor role. This teacher was most often referred to as a "buddy teacher." The role of the buddy teacher was to guide new teachers in understanding the beliefs of their building and the school district where they were employed. The only requirement to be a buddy teacher was to have more experience in the school than the new hire, and if possible, to be a teacher of the same grade level or subject. This type of mentoring was sometimes referred to as "first generation mentoring" (National Foundation for the Improvement of Education, 1999). During the mid-1970s and 1980s, mentoring as a professional career became a topic of research. The idea of mentoring primarily revolved around teachers who worked as support personnel in

induction programs for 1st-year teachers. Their role was to ease the "reality shock" new teachers faced as they transitioned from being university students to full-time instructors in the classroom (Odell & Huling, 1992). Consequently, there began a move from having experienced classroom teachers assist beginning teachers to having trained full-time mentors in the role of working with beginning teachers.

During the 1980s, mentoring grew further as a way to promote educational improvements. Policymakers believed that mentoring would serve as the vehicle for reshaping teaching and teacher education (Feiman-Nemser, 1996). Wildman, Magliaro, Niles, and Niles (1992) acknowledged mentoring in the 1980s as a key component of reform in teaching. In the early 1990s, beginning teachers most often expressed a need for help with issues pertaining to classroom discipline and student motivation. Recent research has found that many beginning teachers are more concerned with the challenge of time management. Mentoring programs should not assume that the needs of beginning teachers are static.

Mentoring has been a critical topic in education; it has been viewed as a strategy that was favored and supported by stakeholders in the field. Policymakers and educational leaders are supporting and implementing mentoring as a part of school reform to retain qualified teachers, in turn contributing to the enhancement of schools and the overall quality of teaching as a profession (Little, 1990). Mentoring can be viewed most productively as a professional practice that occurs within the context of teaching whenever an experienced teacher guides beginning teachers in their teaching practices; this practice is now referred to as "second generation" mentoring (Odell & Huling, 1992). Research found that what a beginning teacher needs most from a mentor varies significantly over time and differs from new teacher to new teacher. There was a major increase in the number of mentor programs that include full-time mentors (Baker, 2002). With the practice of releasing mentors from their classrooms to mentor new teachers on a

full-time basis, the role of the mentor is a topic that needs further clarification (Ganser, 1997).

Teacher Shortage

Wong (2004) identified several elements to assist in addressing the teacher shortage issue. One key element identified was having a trained mentor to work with new teachers. According to Wong (2004), the way to begin to address the teacher shortage issue is to train and support teachers through an effective mentoring program. He asserted that if those components are included in an induction program, it will ultimately result in the retention, training, and effective support of new teachers. Wong (2004) identified several elements that a successful program should include: 4 or 5 days of induction prior to the beginning of the school year, ongoing professional development to enhance professional practice, the integration of administrative support, implementation of study groups where teachers have opportunities to collaborate and provide support for each other, a trained mentor, and opportunities for teachers to engage in peer visits in the classrooms of master teachers in their school or district.

Teacher Retention

According to Makkonen (2005), retaining teachers helps to maintain a first-rate faculty. Although it can be a costly initiative, districts must understand that taking care of new teachers may be their most cost-effective measure. Makkonen cited researchers from the Public Education Network (PEN) who discovered, after interviewing over 200 new teachers, that mentoring was deemed to be the most effective form of assistance and support during their first year of teaching.

Kardos (2005) asserted that the job of teaching is extraordinarily difficult regardless of how well prepared for the job a new teacher might think he or she is. This is the case because new teachers face double challenges of teaching and learning how to

teach. For this reason, Kardos was surprised by the fact that many districts had not anticipated that new teachers would arrive with needs and, therefore, had not implemented programs that would help them to be successful in their early years. Kardos also restated recent research findings that good teachers have a positive effect on how much students learn. For this reason, formal induction programs should be established. Kardos stated that a strong induction program can help new teachers with many of the basics such as developing lesson plans, preparing for a parent conference, and adapting lessons based on observations of student performance. A good induction program can also provide support to new teachers who feel isolated or alone during their beginning experiences. Finally, Kardos asserted that a good induction program can provide constructive learning opportunities critical to teachers' ongoing development. If these strong characteristics of an induction program are in place, such a program can play a major role in teacher retention.

In support of research by Smith and Ingersoll (2004), Kardos (2005) noted that new teachers who receive supports noted by Smith and Ingersoll as being essential for a good induction program are less likely to leave their schools after the first year. Kardos also cited research conducted by the Project on the Next Generation of Teachers, which found that a new teacher induction program must be coherent and sustained. To acquire these characteristics, programs must receive both financial and philosophical support from district leaders and school administrators. For the program to be successful not only must the school's administrators support the program but also the new teachers must be willing to participate in it. The program is more effective if it is embedded in the working environment of the new teacher, thereby creating a culture that supports the learning and development of the new teacher.

It is in the classroom that the new teacher will make his or her decision to remain in the profession. Therefore, the program should be something that is natural and ongoing; the teacher should not have to leave the building to seek support.

Hayes (2006) examined the effects of a mentoring program over a 3-year period, comparing the performance of teachers in The Raytheon Teaching Fellows Program, as well as their feelings of efficacy and rates of retention. Participants in the study included preservice teacher education candidates from both the traditional undergraduate program (elementary and secondary) and the alternative licensure program, which was applicable only for secondary teachers. Mentors for the program were recruited from 16 local districts and the Catholic Diocese. Four primary measurement tools were used in conducting the research: Mentor Connections Logs, Teacher Needs Assessment, Focus Group Responses, and the Danielson Survey of Mentor and Self-Analysis of Performance. Supplemental data included administrator evaluations, novice teacher reflections, e-mails, and group interactions.

The Mentor Connections Log was used by novice teachers and mentor teachers to document and keep track of their interactions. Novice teachers in the program completed the Teacher Needs Assessment each year. With these data, the researcher could note areas in which the teacher identified needs and his or her desire to satisfy those needs. The researcher could also identify trends and patterns over time. Items included novice teachers' feelings across a range of teaching components, which included instruction, management, professional development, and planning. At the end of the program, Focus Group Responses were collected from all participants. Qualitative data provided insights into teacher feelings of efficacy and growth as reflective practitioners. Finally, the Danielson Survey of Mentor and Self-Analysis of Performance was administered for each year of novice teaching. This tool provided data that discerned communication validity between the mentor and novice teacher as well as teaching performance.

Throughout the duration of the program, the methods of grouping participants varied. Although there were differences in the patterns of grouping, there were no significant differences in novice teacher performance among the various patterns used with the participants. There were, however, notable differences in mentor communications and in responses indicative of self-efficacy. With regard to retention, the author considered it too early to comment; she noted that the greatest numbers of new teachers leave the profession within their first five years whereas the final group of fellows had not reached that point. She also noted that at the time of the study, 99.9% of the fellows were still in the teaching profession and were recognized as leaders in their districts.

Findings from the Mentor Connections Log revealed an increase in total number of communications and an increase in novice teacher-initiated communications. Also important to note, based upon analysis of the Mentor Connections Log, was that 1st-year teachers in a triad frequently contacted 2nd-year teachers rather than their mentors for support and advice. By their doing so, the confidence levels of the 2nd-year teachers were also enhanced.

A 5-point Likert scale was used to analyze data from the Teacher Needs

Assessment Questionnaire. By the time a new teacher was part of a triad, the teacher

demonstrated increased confidence in his or her teaching, ability to problem solve, and

ability to work within professional communities.

Fellows responded to seven questions for the focus group sessions. Responses were summarized according to the extent to which they were instrumental in the development of the mentoring program design. The final measurement involved the use of a rubric included in the Danielson Survey of Mentor and Self-Analysis of Performance, which investigated four levels of performance in the areas of planning and preparation, classroom environment, instruction, and professional development.

Performance for this measure was self-assessed by the novice teacher and assessed by the mentor teacher. Analysis of the data revealed no statistically significant difference between the self-perceptions and the perceptions of the mentor teachers. On the other hand, data did indicate that novice teachers were performing above basic levels in all areas that were measured. Higher scores were noted in classroom management and instruction versus planning and professional development. These results indicate that the levels of communication between the novice teacher and the mentor teacher were reliable. With enhanced communication, collaboration, and professional development focused on specific needs, retention can be encouraged and teachers empowered to impact their learning environments.

Challenges of Rural Districts

While there are challenges in providing teachers with the necessary mentorship to survive, teachers in rural school districts are faced with additional challenges. There are numerous possible characteristics of rural communities. In his article, Monk (2007) discussed how attributes of rural communities, characteristics of teachers, working conditions, and rural student populations all have some form of impact in teacher retention and recruitment in such districts. With regard to recruitment and retention, community attributes, small size, sparse settlement, narrowness of choices, poverty, and economic reliance on agricultural industries are just a few of the factors impacting this issue.

In terms of organizational features, high-quality teachers in rural districts are scarce and teachers are half as likely to have graduated from top-ranked colleges or universities compared to peers in urban areas. The working conditions in some rural schools make attracting teachers difficult. Such schools have a wider range of pupil needs due to smaller numbers of students. In addition, meeting the mandates of No Child Left Behind (NCLB) is difficult. The NCLB is the 2001 legislation which builds on the

foundation laid by the 1994 reauthorization of the Elementary and Secondary Education Act. It expands the federal role in public education by requiring stronger school accountability, more stringent qualifications for teachers, and an emphasis on programs and strategies with demonstrated effectiveness. Although this problem has been recognized, making accountability measures sensitive to the realities of small and rural schools still remains a challenge.

Because of lower teacher salaries in rural districts, school district leaders are more likely to attract less qualified pools of candidates and to face retention problems. An inability to compete with neighboring metropolitan areas in terms of wages leads to applicants with lower qualifications.

Monk (2007) also stated that rural schools arguably face higher costs of operation because of their smaller size and sparsely settled locations. Monk concluded by stating that the attention associated with NCLB highlights the problems of retaining teachers in rural districts and the importance of having highly qualified teachers in every classroom. This focus could help to accelerate a serious policy agenda to improve the ability of rural schools to attract and retain teachers who do function at a high level of teaching.

Statistics from the U.S. Department of Education reveal that schools in rural areas account for approximately 42% of all schools in the nation as well as 30% of students. Reeves (2003) identified additional factors that affect a school district's ability to find and hire highly qualified teachers. Recent data showed that schools in isolated rural areas and inner cities are the hardest to staff, especially if such a school has a large number of minority students and low-income students (Reeves, 2003). The small populations and geographical isolation of many rural schools and districts have a huge impact on access to resources. Reeves described access to financial resources as the major obstacle facing rural districts. Without those resources, many rural districts are faced with the challenge of implementing programs and obtaining the necessary resources to build the capacity to

meet the NCLB mandates. Reeves (2003) suggested several strategies to help retain teachers in rural districts. One strategy is to recruit and train teachers from the local community. Second, states should investigate the option of offering some form of financial incentive to qualified candidates.

After conducting an intensive literature review on teacher retention in rural school districts, Hammer et el (2005), found both general and rural-specific problems related to teacher retention and recruitment. Descriptor words were used in the ERIC database to identify research reports and journal articles that were published between 1993 and September, 2003 on the topic of rural teachers, recruitment and retention. The final search, after narrowing down key words, located 43 papers, reports and journal articles.

The authors used information from the literature review to create questions for the questionnaire titled *The Rural School Districts: Recruitment and Retention Practices*.

The study population included 597 superintendents from a random selection of 1,565 school districts. This population was reflective of the recruiting and retention practices of approximately 1,900 schools serving 718,000 elementary, middle and high school students from rural districts.

As a result, the study revealed five major strategies for recruiting and retaining teachers that were general to the field:

- Grow your own initiatives involving collaborations between schools and higher education
- Targeted incentives
- Important recruiting and hiring practices
- Improved school-level support for teachers
- Use of interactive technologies to help alleviate the problems rural schools
 face in recruiting and retaining high quality teachers

Findings from the study identified four primary challenges in recruiting and retaining teachers that were specific to rural districts:

- Lower pay
- Geographic and social isolation
- Difficult working conditions
- No Child Left Behind (NCLB) requirements for highly qualified teachers

The authors argue that the findings from the study indicate that there is an increasing number of teacher recruitment and retention programs that are being implemented at both the state and local levels. However, little is known about the effectiveness of the programs. The authors recommend a need for literature on model programs and practices for teachers that have been successful and that are specific to rural schools.

Similar findings were also discussed in a study conducted by Mulvihill (2007). Mulvihill stated that the problem of high teacher attrition plagues rural school districts and has emerged as a critical issue. Understanding the factors that affect attrition is necessary before a district can begin to implement a plan to remedy the problem. Mulvihill found that teacher shortages are caused by three factors: increased enrollment, retirements, and attrition. Of the three, attrition has emerged as the primary cause for the impending teacher shortage.

Mulvihill's study included three separate sample groups consisting of six teachers in each group, which were formed based on their career circumstance. The first sample included a group named leavers. Leavers consisted of six former teachers who worked in a regional district and left the profession prior to their sixth year due to being dissatisfied teaching in the area. The movers were defined as six teachers who started their career in the identified district but left before their sixth year and secured a teaching position in

another district. Stayers were those selected six teachers who spent their entire career in their respective districts. Each stayer taught for a minimum of six years.

Data for the study were collected by conducting case studies of 18 teachers and gathering information through individual teacher interviews. Seven categories emerged from the data. The following categories were identified by all three groups: isolation, administrative support, mandates and regulations, collegial support networks, and mentoring. The last two categories, teaching assignment and love of teaching, were only identified from responses of the leavers and movers.

The majority of the findings focus on interpersonal relationships. The author suggested mentoring as a way to support new teacher development due to the one-on-one support provided. Mulvihill also noted that the issue of rural teacher attrition is complex and continued study in the area will help to contribute to the body of knowledge that already exists.

Roles of Mentors

There is agreement among several researchers that teachers need differing support systems at various stages during their careers (Kiani, 2006). In addition, research has indicated that by providing teacher support and improving conditions of teaching, districts can promote teacher satisfaction, thereby impacting both retention and recruitment (Ibid).

The most common component in induction programs is mentors, and the roles they play are often a focus in induction literature (Awaya et al., 2003; Feiman-Nemser, 1996; Odell & Ferraro, 1992). The literature about mentoring is extensive (Cohen, 2005). In the research the importance of the role of the mentor is acknowledged as an essential component at the heart of professional development in schools (Rowan, 1990). Buttery, Haberman and Houston (1990) claimed that the provision of 1st-year mentoring is the most salient issue facing teacher education. These similar views on mentoring are

consistent with teachers' reports that novices are highly motivated to work with mentors and with research that substantiates the linkage between mentoring and improved transition into the classroom, including lower turnover rates for novice teachers. Howey (1988) described the primary responsibility of a mentor as the duty to guide the novice to become an inquiring professional who is reflective in his or her practice and who continues to grow and develop as a teacher long after the mentoring experience has ended. The responsibility of the mentor is to work collaboratively with the new teacher to observe what occurs in the classroom and to collect data for analysis regarding effective professional growth.

Johnston (1986) asserted that mentoring as a delivery tool in a beginning teacher induction program has great potential. Good mentors should be trained and able to assist with a wide range of needs as well as be able to provide personalized assistance. As an induction strategy, mentoring requires a high degree of cooperation among all parties who together have shared responsibility and input. Johnston also identified four key ingredients that should be included in the role of a mentor: (a) a clear understanding of roles and responsibilities, (b) the ability to assess individual potential for success, (c) a clear understanding of the concept of mentoring, and (d) an understanding of the developmental needs of new teachers. Through mentoring, teachers and other educators renew and enhance their contributions to the profession.

In an examination of several induction programs, Stroble and Cooper (1988) noted both similarities and differences of the programs and studied the roles of mentors in those programs. The authors did not state how the programs were selected for their study. The first program reviewed was Florida's beginning teacher program, which was initiated in 1982. Experienced teachers were assigned to assist beginning teachers to reach levels of competency for state certification. Each beginning teacher was a part of a four-person

team, which also included a peer teacher, a building level administrator, and another professional educator.

The California Mentor Teacher Program, another program studied, was enacted in 1983. The program set two goals: to retain and recognize excellent teachers and to improve the profession by enabling expert teachers to assist others. The mentors' primary role was staff development; they served as supervisors and not evaluators. Oklahoma initiated its entry-year assistance program during the 1982-1983 school year; it included a requirement that 1st-year teachers in Oklahoma be assigned an entry-year support committee. The committee consisted of a school administrator, a teacher consultant, and a higher education representative; its primary responsibility was to provide guidance and assistance, review teaching performance of entry-year teachers, and make recommendations to the state board regarding certification. In addition, teacher consultants served in a variety of mentor roles: helping, providing feedback for formative purposes, and gathering data to make summative judgments. Results from studies of the Oklahoma program revealed that the teacher consultant or mentor provided the most valuable assistance of all interventions and support available for novice teachers. These individuals were valued for their general support, help with teaching, technical assistance in classroom management, and feedback to the entry-year teachers.

Another beginning-teacher program that was a result of an initiative by the State Board of Education was the Virginia Beginning Teacher Assistance Program (BTAP). This program was initiated in 1985 for the purpose of assuring that certified teachers possessed specified competencies and that they received help acquiring those competencies. In 1981, a program for new teachers was implemented in Toledo, Ohio. This program, which was very different from the other programs examined by Stroble and Cooper (1988), was called The Peer Assistance and Review Program. This peer evaluation program used experienced teachers to train and evaluate beginning teachers

and to help experienced teachers whose skills were weak. The most crucial role of the consultant in this program was the assessment role. According to the authors, the role that caused most concern for beginning teachers and for their mentors was the evaluator role. Consultants expressed concern when they were required to make formal, written evaluations of the beginning teachers; they reported being more comfortable with informal discussions of observed teacher behaviors. Odell (1986) asserted that a novice is more inclined to confide in a mentor if the mentor's role focuses more on assistance than assessment. He recommended that the primary responsibility for evaluation rest on one that does not provide extensive support to the novice, and that support teachers or mentors simply offer their information to confirm or disconfirm that of the evaluator's. Stroble and Cooper (1988) concluded that the impact of the relationship between a mentee and mentor changes greatly when the consultant or mentor adds the role of evaluator to his or her responsibilities. Consequently, this role caused most concern for both novices and consultants or mentors. Teacher consultants or mentors preferred informal dialogue in addressing teacher behaviors.

There are state-legislated programs that offer assistance to beginning teachers once they have completed their university programs; similar assistance should be offered at the induction level. In addition, those programs that require mentors to assist and to evaluate should consider separating the two functions to avoid problems. The authors further noted that novices are more likely to confide in a support teacher or mentor whose role is to assist rather than assess. New teachers adjust better to a mentor whose role is more collegial and one that fosters empathy and support; the evaluative role was disfavored.

Huffman and Leak (1986) conducted a qualitative study to describe and assess the role of mentor teachers in a program for beginning teachers. The study included 108 new teachers after a year in a beginning-teacher support system. During the year, the mentor

teachers and other members of the support team were asked to observe beginning teachers at least once a month with regard to the following six components of teaching: management of student behavior, management of instructional time, instructional monitoring, instructional presentation, instructional feedback, and content. Following the observations, mentors and members of the support team conducted formal and informal conferencing with the beginning teachers. At the end of their 1st year, teachers were invited to a voluntary forum where they could express their concerns, reactions, and recommendations regarding the Beginning Teacher Program. The 108 participants completed a three-part questionnaire: (a) open-ended questions seeking responses about what new teachers regarded as the most beneficial aspect of having a mentor, (b) assessment of the help they received from their mentor as it pertained to the six components of teaching, and (c) identification of the most beneficial functions of their mentors regarding written observation reports, formal conferencing, informal conversations, time to observe mentor or other teachers, and other aspects of the role of the mentor. In response to part one of the questionnaire, 96% noted the mentor's role as being an important element in the induction process. In ranking the six components in the second part of the questionnaire, 27% of the new teachers ranked management of student behavior as the area in which they received the most help. At the opposite end of the spectrum, 39% ranked content as the area for which the least amount of support was received. In ranking the functions of the mentor, 67% ranked informal conversation with the mentor as the function they valued most. On the basis of their findings, Huffman and Leak concluded by making the following suggestions:

 Novice teachers should have mentors that teach the same grade level or content area. In addition, addressing issues such as classroom management, instructional methodology, and content are essential. 2. Adequate time for informal and formal conferencing, planning, and conversation between the mentor and mentee should be a primary factor.

The researchers also recommended further research regarding the role of the mentor to provide additional information in several areas. The positive response of beginning teachers regarding the role of the mentor indicated that further definition and refinement of the mentor role could play an important factor in the induction process of beginning teachers (p. 24). Limitations of the study included lack of information about the number of mentors in the program, the specific roles performed by the mentors, and demographic information such as the gender and teaching level (elementary or secondary) of the new teachers and mentors.

A qualitative analysis was conducted by Wildman et al. (1992) to analyze the specific roles, activities, and conditions that are experienced in a mentoring program. This research centered on mentoring in a school setting for new teachers, provided by experienced mentors, as a technique to encourage the teachers to remain in the profession beyond their first year. The researchers developed eight categories of mentoring activities, which addressed five domains of beginning teachers' concerns that had emerged from reported activities of 150 mentor-beginner dyads during the 1989-1990 academic year. The researchers did not report whether the school system was public or private or the size and location of the district under study. Data from this qualitative analysis consisted of records of mentors' roles, verbal explanations to questions, and comments recorded from small group discussions designed to promote sharing of mentoring techniques, activities, and experiences.

The study reported eight ways of providing assistance to beginners:

(a) encouraging reflection; (b) directing and supporting beginners' plans and actions;

(c) providing direct assistance in the development of a process, policy, or product;

(d) providing a menu of information and products for beginners' possible use or

modification; (e) providing products or ideas that enable beginners to solve problems; (f) encouraging and supporting; (g) providing indirect personal and professional assistance; and (h) serving as a mediator. Based on their findings, Wildman et al. asserted that "teachers can achieve many of the expectations evoked by the broader cultural images of mentoring" (p. 212). When highly regarded experienced teachers work collaboratively, they can implement a well designed mentoring program.

Brown (1990) conducted a study to provide descriptive data defining the role of the mentor teacher in developing beginning classroom teachers by surveying a group of identified exemplary school districts in the United States. An exemplary school district was one identified by its state education agency or central education department as having an outstanding mentor program. According to Brown, mentors play varied roles which include guide, role model, counselor, sponsor, resource, and colleague. Findings from the study revealed that 100% of the 73 administrator respondents rated the effectiveness of the mentor program in developing successful new teachers; effectiveness was defined by administrator perceptions of the efficacy of the mentor programs in developing successful teachers.

Using a Likert scale, 51% of administrator respondents gave their respective programs an overall rating of 4, with 1 meaning least effective and 5 meaning highly effective. Using the same instrument, 42 mentor teachers (57%) rated the degree of program effectiveness in developing successful beginning teachers with a 4, as well. Each of the teacher respondents listed the areas of assistance that had personally provided them with the most job satisfaction. Classroom management and discipline, along with support in planning effective lessons and lesson designs, received the largest percentage, 71%. The activity listed by mentors as providing the least amount of personal job satisfaction was in the area of providing support for student achievement and evaluation (30%). Although 43 of 44 mentor teachers indicated they would choose to be mentors again,

only 38 respondents expressed overall satisfaction with the mentor role. Another finding from the study revealed that all surveyed mentors perceived their greatest responsibility as a mentor to be the provision of emotional support and counseling. Respondents for the study included only central office administrators, elementary and secondary principals, and elementary and secondary mentor teachers; beginning teachers were not included as participants in the study.

A quantitative study conducted by Taylor (2000) served two purposes: to determine whether or not a new teacher induction program in southwest Georgia increased the retention rates of beginning teachers and to assess whether or not the new teacher induction and mentoring program was perceived as having met program goals and objectives. With regard to this research, only the second purpose of Taylor's study will be addressed. Teachers were surveyed to determine their perceptions of the extent to which they believed the induction and mentoring program attained its goals and objectives. The study defined effectiveness as meeting the following program goals and objectives: improved teaching performance; increased retention rate; personal and professional well-being; familiarity with school culture; familiarity with school curriculum; familiarity with community; acquisition of teaching skills; acquisition of skills to improve student achievement; successful beginning and retention in the profession; and transmission of knowledge, skills, and behaviors. The subjects for the study included the entire population of beginning teachers from 1996 to 1999 (n = 169), mentor teachers involved in the new teacher induction and mentoring program from 1996 to 1999 (n = 76), and a stratified random sample of teachers who were defined as teachers not included in the mentoring program (n = 138). The non-mentored teachers were selected from a pool of the school system's 375 male and 750 female teachers. As evidenced by respondents' mean ratings of survey items, 76% of teachers believed the objectives of the Dougherty County School System's New Teacher Induction and

Mentoring Program were met. A limitation of the study was the fact that the researcher did not clearly note which objectives were primarily the role of the mentor teacher versus another building resource.

Baker (2002) conducted a study of participants' perceptions of a program's effectiveness. The purpose of the study was to record, document, and compare the perceptions of the 26 new teachers and 35 mentor teachers in the pilot-mentoring program in a unified public school district in southern Arizona. In addition, the study examined whether new teacher perceptions differed from mentor teacher perceptions as well as the effects of mentoring on the new teachers' professional growth.

A descriptive analysis completed to supply mean scores for eight activities performed by mentors was used to determine which mentoring activities new teachers identified as most beneficial. The range of the instrument was 1-10 and the areas were as follows: communication (M = 6.8); reflective questioning (M = 5.3); receiving materials (M = 5.2); emotional support (M = 2.6) (which was described as encouragement, shared conversation, constructive feedback, caring attitude, and someone to talk with); mentor feedback (M = 4.5); discipline problems (M = 5.0); creating lesson or unit plans (M = 4.5) 5.4); observing mentors (M = 4.20); support with student relationships (M = 6.5); and creation of bulletin boards (M = 8.5). Emotional support was identified as the most beneficial activity or role assumed by the mentor, followed by observing mentors and mentor feedback. Mentor teachers were asked to rank the same activities, and a descriptive analysis was completed to supply the mean score of each mentoring activity. The results regarding mentoring activities identified by mentors as the most beneficial are as follows: communication (M = 7.3); reflective questioning (M = 5.2); receiving materials (M = 5.3); emotional support (M = 2.9); mentor feedback (M = 4.8); discipline problems (M = 4.5); creating lesson or unit plans (M = 5.0); observing mentors (M = 4.9); support with student relationships (M = 6.3); and creation of bulletin boards (M = 8.5).

As was the case for the teacher rankings of activities performed by mentors, mentor teachers also ranked emotional support as the most beneficial activity. Discipline problems, mentor feedback, and observing mentors were the next most beneficial activities according to mentors.

Based on the data, there was a statistically significant difference between mentor teachers and new teachers in the perceived benefit of mentoring activities. Mentor teachers found the mentoring activities to be more beneficial than did new teachers. Although the researcher provided a brief description of what emotional support entailed, it would have been useful to provide the same clarification for the other activities and roles. In addition, Baker (2002) had stated that the mentors were selected for their ability to perform the roles of confidant, advocate, and critic (p. 18); however, there was no mention of these roles in the survey.

In another quantitative study, Mount (2000) recorded, documented, and compared the perceptions of 45 teachers who received the support of trained induction specialists; these specialists were defined as recently retired teachers from the Memphis City School System who had each completed specific training modules to assist one intern with organizational details during their first two weeks of school. The teachers also received the support of trained mentors who were defined as teachers in the same school, who began the mentoring process after the induction specialists left. These mentors had been identified by the system as teachers who encompassed a variety of skills and knowledge specifically designed to enhance their ability to mentor a novice. One subject group consisted of 15 teachers who participated in and completed the Memphis Intern Mentoring Project for the 1998-1999 school year and remained as employees of the Memphis City School System for a second year of teaching. The second subject group was made up of 30 randomly selected beginning teachers who completed their first year of teaching in the Memphis City School System without participating in the pilot

program, but who also remained teaching in the system for a second year. As was the case in Baker's (2002) research, the roles of confidant, advocate, coach, and critic were expected roles of the mentor. Nevertheless, when subjects were asked to identify and rank the five activities on each list that were the most beneficial activities or roles of the mentor, these roles were not listed. In another similarity with Baker's study, emotional support was ranked as the most beneficial mentor activity or role. Emotional support consisted of encouragement, shared conversation, constructive feedback, caring attitude, and someone to talk to. Demonstrations of how to handle discipline were ranked as the least beneficial mentor activity.

Effectiveness of Induction Programs

An evaluation of a unique 3-year program designed to support beginning teachers, experienced teachers new to district, and reassigned teachers, as well as educational personnel such as librarians and counselors working under the educational personnel certificate for the first time, was conducted by Trenta, Newman, and Newman, (2002). The program was unique in that, unlike many mentor programs, the Teacher Evaluation Program (TEP) emphasized evaluation of the beginning teacher by including the participation of multiple stakeholders. The program was also unique because consulting teachers served two roles: mentor and evaluator. A consulting teacher was defined as an experienced teacher assigned by the district to orient, help develop, and evaluate interns or new teachers during their first 3 years of employment with the district. The consulting teachers provided feedback for development and evaluation of the interns or new teachers as part of the reemployment decision-making process. A quantitative and qualitative questionnaire consisting of 24 questions was developed and sent to 200 participants in a midwestern suburban school district. There were statistically significant differences between the new teachers or interns and the administrators in the ratings of the interns' professional development needs being met in the areas of planning and delivery; the new

teachers or interns assigned higher ratings in both areas. According to the mentors in the study, delivery was considered to be the most effective role in assisting the new teacher. Although the authors of the study did not provide numerical data regarding the response rate for the questionnaires, their study indicated that all stakeholders, including new teachers, mentors, and administrators, supported the program and believed it worked. At the same time, they also believed that all aspects of the program could be improved.

Kelley (2004) conducted a study of novice teacher cohorts participating in the Partners in Education Program (PIE), an induction partnership jointly administered with the University of Colorado; they were tracked for 4 years to calculate their retention rate. Cohort members consisted of novice teachers from six districts in Colorado. According to longitudinal data analyses, novices that participated in the program stayed in the profession at much higher rates than the national statistics suggested is likely, with 94% of the participants teaching beyond 4 years. Of the 144 teachers tracked, 23 were men and 121 were women. Of the 23 men, 16 were in elementary school and 7 in middle or high school; of the 121 women, 105 were in elementary school and 16 in middle or high school. There were few differences in turnover between elementary and secondary teachers. The author asserted that an effective induction program has lasting effects on teacher quality and retention. Such a program must give novices the attention and guidance they need to grow and improve their instructional practices, thereby helping them remain in the profession longer.

The PIE induction program provided support and professional growth needs through three approaches. One approach essential to the retention of novice teachers is intensive mentoring. In using this approach, mentoring was provided by expert clinical professors who were released from their teaching duties to concentrate on the needs of their inductees. Mentors did not evaluate or conduct assessments of their mentees.

Professional growth or development was designed based on the needs of the novices and

focused on professional growth goals. Mentors received training in cognitive coaching and other mentoring strategies. During meetings with their mentees, mentors provided a variety of ongoing coaching options and participated in the following: observing lessons, providing feedback, modeling instruction, working with students, team teaching, examining student work, assisting with individual and group assessments, arranging observations of other classrooms, short- and long-term planning, developing standards-based lessons and authentic assessments, differentiating instruction to meet the needs of diverse learners, creating classroom communities, and collaborating with colleagues and parents. On the basis of this study, Kelley concluded that financial resources, incentives for induction support, and teacher development are factors that legislators and policymakers must bring to the view of national, state and local agencies to retain committed, effective teachers.

A study that sought to evaluate perceptions of a mentoring program for beginning teachers was conducted by Frazier (2006). The purpose of his study was to determine the effectiveness of mentoring and other guidance activities the participants received as beginning teachers in a secondary school in rural eastern Tennessee, as well as their vision of how mentoring should be structured for beginning teachers. The study included 8 beginning teachers (7 received mentoring in their first year and 1 received no mentoring at all) and 13 veteran teachers (7 received mentoring their first year and 6 received no mentoring at all). Analysis of data collected from beginning teachers revealed that their mentoring experiences varied in their effect in helping teachers remain in the teaching profession. Data from the veteran teachers who had received mentoring revealed that mentoring experiences helped them deal with daily procedures, routines, and cultural differences in the school setting. The beginning teachers that were dissatisfied with the mentoring experience attributed their feelings to not having sufficient time to work together with their mentors. Caring attitude, support, reducing the feeling of isolation,

and help in developing classroom management techniques were among the mentor roles or activities beginning teachers considered to be positive elements of their induction program.

Dunlap (1998) studied the impact of mentoring on West Virginia public school teachers. Proportional stratified samples of public school teachers across the state of West Virginia who had taught at least 16 years but not more than 20 years were subjects for the study. For the 624 questionnaires that were distributed, there was an overall return rate of 35%. The respondent group included 75% females and 25% males. Study findings revealed that mentoring experiences for West Virginia teachers had a positive relationship on teacher retention and job satisfaction. In rating mentor helpfulness, 67% described the mentoring program as extremely helpful. Mentors assisted teachers by providing the following: encouragement, suggestions, teaching strategies, availability, school policies, and shared ideas. Of these activities, 28% of the participants noted assistance with school policies as the most beneficial mentoring help. A similar percentage of the participants, 26%, noted assistance with teaching strategies as the second most beneficial support received through the mentoring program. In addition, the study revealed that approximately 70% of the teachers believed their mentors had contributed to their professional success.

A quantitative study was conducted by Hatzopoulos (2003) to examine beginning teachers' perceptions of the quality of mentoring programs in two school divisions in southeastern Virginia and their success relating to such programs. The study also examined beginning teachers' ratings of the importance of identified components of their mentoring program. A five-point Likert scale questionnaire addressing 26 attributes of a mentoring program was distributed to 300 beginning elementary and secondary teachers from grades K-12 who were involved in a state-mandated mentoring program during the 2001-2002 school year. The response rate of participants completing the survey was 67%.

The author studied three areas: quality of the mentoring program, teacher level of success, and rating of importance of components of the mentoring program. Beginning teachers rated the overall quality of their mentoring program as well above average. Respondents who were identified as likely to stay in the profession for the next 3 years gave themselves significantly higher success ratings (M = 4.05) than those who were not likely to remain in the field (M = 3.82). Novice teachers rated the overall quality of the mentoring program high (M = 3.82); however, 14% of the novice teachers planned to leave the field.

Using the Kirkpatrick Model

Kirkpatrick (1998) stated the reason for evaluating a training program is to determine the program's effectiveness. Kirkpatrick's Four Level Model was developed in 1959 and has been extensively used over the past 40 years within the evolution of training. It is the hope of those who make decisions regarding the program's components and those who implement the program that the results from the evaluation are both positive and gratifying.

According to Kirkpatrick, each level is a part of a sequence of ways to evaluate programs. Each level is important and has an impact on the next level. In order to get the most accurate results, Kirkpatrick discusses the importance of going through each level although they become more difficult and time consuming as you move from one level to the next.

The first level Kirkpatrick defines is reaction. Once it is determined what it is the researcher wants to find out, the researcher must get reactions from both the subjects and the leaders involved in the training. In addition, if the training is going to be effective in terms of participant learning, it is important that the trainees react favorably. To obtain the reaction of participants, questions related to the program's facilitation, trainers, facilities, and overall satisfaction or dissatisfaction are addressed.

Learning is the second level of Kirkpatrick's model. Learning can be measured when one of the following has been determined: What knowledge was learned? What skills were developed or improved? What attitudes were changed? It is important to measure learning for two reasons: (1) It measures the effectiveness of the instructor in increasing knowledge and/or changing attitudes and (2) It shows how effective he or she is. If little or no learning has taken place, no change in behavior can be expected.

The third level of Kirkpatrick's model is behavior. Kirkpatrick defines behavior as the extent to which change in behavior has occurred because the participant attended the training program. It is common for some trainers to want to bypass levels 1 and 2, reaction and learning, in order to measure behavior. However, Kirkpatrick states that it would be a serious mistake. It is important to evaluate both reaction and learning in case no change in behavior occurs. In order for change in behavior to occur, Kirkpatrick states that the following four conditions are necessary:

- 1. The person must have a desire to change.
- 2. The person must know what to do and how to do it.
- 3. The person must work in the right climate.
- 4. The person must be rewarded for changing.

The final level of Kirkpatrick's model is results. Results are defined as the final results that occurred because the participants attended the program. Final results can include increased production, improved quality, decreased cost, reduced frequency and/or severity of accidents, increased sales, reduced turnover, and higher profits. Having a training program is instrumental in getting such results.

Kirkpatrick's model has been used extensively in research. The research topics are very diverse and can be found in a variety of disciplines. The following are recent studies conducted that found using Kirkpatrick's model beneficial.

Dougherty (2000) conducted a case study using qualitative methods to analyze the effects of a cognitive coaching, trust building training for veteran teachers in a rural K-8 elementary school. The subjects consisted of 31 participants from a single school in a rural setting. The final survey used Kirkpatrick's Four Levels of Evaluations (1998) to evaluate the impact of the program. The data collected reflected evidence of how much each participant reacted to the training, what they learned from their participation, how their behaviors had changed, and what results there were for the participants and their school districts. The data gathered from the teacher surveys, their reflective responses, and personal interviews showed a high degree of positive response to Levels 1 through 3.

In another study, Hamtini (2008) proposed an adaptation of Kirkpatrick's model which accommodated the nuances of the e-learning environment. Hamtini used three levels of Kirkpatrick's model: interaction (which is an adaptation of level 1, reaction), learning and results. The interaction stage looked at the special challenges posed by the environment. The learning and results stages examined the alignment between the curriculum and the needs of an organization. Findings from the study supported the thesis that existing training models fail to accommodate for e-learning environments and in establishing important guidelines and criteria for the remediation. Findings from this study were similar to others in this area. Level 1, satisfaction, showed that recipients of face-to-face instruction have expressed more satisfaction. In level 2, learning, there was no significant difference in learning outcomes when compared to traditional classroom instruction.

Summary

Individual district mentoring programs and the role of mentors may vary from one program to another; however, the consistent focus of each program is its commitment to support new teachers. Regardless of the program, for any mentor-novice relationship to be successful, the individuals must develop a relationship that is built on mutual respect

and trust. To help new teachers to be reflective in their practice, mentors must provide continuous coaching, modeling, and questioning techniques (Ponder, 2005).

Table 2 presents mentor roles according to available research studies. Some of the studies on mentoring programs suggested that the support of mentors helped teachers to better adjust to the profession. The findings of the research in this field were confounded by the diverging roles of mentors. This discrepancy in the roles of mentors was utilized to design this study. In an effort to expand empirical research as well as address the gaps in the literature, this study (a) employed a mixed-methods methodology, (b) provided a well defined meaning of mentor roles, and (c) utilized a survey instrument that measures the effectiveness of mentor roles.

Table 2

Mentor Roles Matched with Research Reported in the Literature

	Mentor Roles				
	Coach	Consultant		Collaborator	
Authors	Provision of	Data analysis	Emotional	Classroom	
	feedback		support	management	
Baker (2000)			X		
Buttery, Haberman & Houston (1990)		X			
Frazier (2006)				X	
Huffman & Leak (1986)	X			X	
Stroble & Cooper (1988)		X			

CHAPTER III

METHODOLOGY

Introduction

In this chapter, the procedures are outlined for accomplishing the purpose of this study, which was to review the mentoring program in Annatown County Public Schools. The procedures used in this study are described under the following headings: research design, conceptual framework, setting, subjects, research questions, procedures, instrumentation, data collection, and data analysis.

Research Design

This study employed a sequential explanatory strategy using a mixed-methods design. Creswell (2003) stated,

The sequential explanatory strategy is the most straightforward of the six major mixed methods approaches. It is characterized by the collection and analysis of quantitative data followed by the collection and analysis of qualitative data. The priority typically is given to the quantitative data, and the two methods are integrated during the interpretation phase of the study. (p. 215)

The primary method used in this study was quantitative. According to Fitzpatrick, Sanders, and Worthen (2004), surveys are "one of the most important data collection tools available in evaluation" (p. 341). This aspect of the research was concerned with assessing the perceptions of stakeholders associated with the Annatown Public School District's teacher mentoring program. Quantitative research allows a researcher to analyze social reality using variables, and it generates numerical data to represent the social environment (Gall et al., 1996). The researcher's intent was to determine whether there

were differences in perceptions among a number of differing variables between teachers and mentors who participated in a teacher mentoring program.

The secondary method that was used in this study was a qualitative approach. Qualitative methods are used to obtain "intricate details about a phenomena such as feelings, thought processes, and emotions that are difficult to extract or learn about through more conventional research methods" (Strauss & Corbin, 1998, p. 11). Merriam (2001) states that qualitative researchers in education "seek to discover and understand a phenomenon, a process, or the perspectives and worldviews of the people involved" (p.11). The qualitative component of this study gave insight into the feelings, thought processes, and emotions of teachers, mentor teachers, and program implementers' perceptions of the Annatown Public School District's mentor program. The goal of this component of the study was to better understand these stakeholders' perspectives regarding a phenomenon, the implementation of the Annatown Public School District's teacher mentoring program.

Conceptual Framework

Donald Kirkpatrick (1998) stated the reason for evaluating a training program is to determine its effectiveness. This mixed-method study was designed to investigate the extent to which mentor roles were perceived as effective to teachers receiving the support of county mentor resource teacher. Several models have been used to evaluate training programs. Eseryel (2002) states that evaluation is an integral part of most instructional design (ID) models. Evaluation tools and methodologies help determine the effectiveness of instructional interventions. Despite its importance, there is evidence that evaluations of training programs are often inconsistent or missing (Carnevale & Schulz, 1990; Holcomb, 1993; McMahon & Carter, 1990; Rossi et al., 1979). Possible explanations for inadequate evaluations include: insufficient budget allocated; insufficient time allocated;

lack of expertise; blind trust in training solutions; or lack of methods and tools (see, for example, McEvoy & Buller, 1990).

Kirkpatrick's model of evaluation served as the foundation for the model of evaluation used in this research. Kirkpatrick (1998) believed that evaluating results was the greatest challenge for professionals involved in training programs. Kirkpatrick identifies three reasons for evaluating:

- 1. To justify the existence of the training department by showing how it contributes to the organization's objectives and goals
- 2. To decide whether to continue or discontinue the program
- 3. To gain information on how to improve future training programs (p.16).

Kirkpatrick's Four Level Model was developed in 1959 and has been extensively used over the past 40 years within the evolution of training. According to Philips (1991) goals-based and systems-based approaches are predominately used in the evaluation of training. Kirpatrick's Four Level Model is a goals-based approach. Kirpatrick;s model is the most influential framework used in evaluation (Carnevale & Schulz, 1990; Dixon, 1996; Gordon, 1991; Philips, 1991, 1997). Stufflebeam (2000) defines the goal-based approach as "the oldest and perhaps most widely used model of program evaluation in education" (22). This approach focuses on the concept that the function of evaluation is to determine the extent to which an educational program has achieved predetermined goals or objectives (Stufflebeam, 2000). The one purpose of this study was to examine the extent to which mentors were effective in enhancing new teachers' performance. As such, a goals-based approach was most effective to utilize.

Conversely, another widely used approach to evaluation is systems-based approaches. Stufflebeam's CIPP model (1987), Collier and Cohen's IPO model (1990), and Fitz-Enz's TVS model (1994) are all systems-based approaches (Eseryel, 2002). Systems-based approaches are more useful in terms of thinking about the overall context

and situation. In many cases, systems-based approaches do not represent the dynamic interactions between the design and the evaluation of training (Eseryel, 2002). This primary focus of this study investigated the dynamic interactions between mentors and participants. As a result, a systems-based approach was not deem as appropriate to use as a conceptual framework as a goals-based approach.

This study used Kirkpatrick's Four Level Model as a conceptual framework. Kirkpatrick's Four Level Model was intended for use in performance improvement through training and focused on evaluating long-term benefits for organizations, in terms of financial gain. To date, this model is still used extensively and is a leader in the evolution of theory, practice, and research that is associated with training. The four levels of Kirkpatrick's model are reaction, learning, behavior, and results. This study of a school district's teacher mentoring program was concerned with the reactions and learning of participants. As such, Kirkpatrick's model was most appropriate to serve as a conceptual framework. Table 3 summarizes the components of each of these models.

Table 3

Goal-Based and Systems-Based Approaches to Evaluation

Kirkpatrick (1959)	CIPP Model (1987)	IPO Model (1990)	TVS Model (1994)
1. Reaction: to gather data on participants reactions at the end of a training program	1. Context: obtaining information about the situation to decide on educational needs and to establish program objectives	1. Input: evaluation of system performance indicators such as trainee qualifications, availability of materials, appropriateness of training, etc.	1. Situation: collecting pre-training data to ascertain current levels of performance within the organization and defining a desirable level of future performance
2. Learning: to assess whether the learning objectives for the program are met	2. Input: identifying educational strategies most likely to achieve the desired result	2. Process: embraces planning, design, development, and delivery of training programs	2. Intervention: identifying the reason for the existence of the gap between the present and desirable performance to find out if training is the solution to the problem
3. Behavior: to assess whether job performance changes as a result of training	3. Process: assessing the implementation of the educational program	3. Output: Gathering data resulting from the training interventions	3. Impact: evaluating the difference between the pre- and post-training data
4. Results: to assess costs vs. benefits of training programs, i.e., organizational impact in terms of reduced costs, improved quality of work, increased quantity of work, etc.	4. Product: gathering information regarding the results of the educational intervention to interpret its worth and merit	4. Outcomes: longer- term results associated with improvement in the corporation's bottom line- its profitability, competitiveness, etc.	4. Value: measuring differences in quality, productivity, service, or sales, all of which can be expressed in terms of dollars

The first level of Kirkpatrick's model is reaction. According to Kirkpatrick (1998), it is imperative to get reactions of both the subjects and the leader. Reaction assesses how well trainees like a particular training program by measuring their feeling of satisfaction. Kirkpatrick lists several reasons why measuring reaction is important: (1) it gives us valuable feedback that helps to evaluate the program as well as comments and suggestions for program improvement; (2) it tells trainees that the trainers are there to help them do their job better and that they need feedback to determine how effective they

are; (3) reaction sheets can provide quantitative information that you give to managers and others concerned about the program; and (4) finally, reaction sheets provide trainers with quantitative information that can be used to establish standards of performance for future programs (p.25).

The second level of Kirkpatrick's (1998) model is learning. This level attempts to measure knowledge, skills, and attitudes acquired or improved through the training program. Learning means determining one of the following:

- What knowledge was learned?
- What skills were developed or improved?
- What attitudes were changed?

The evaluation of learning is important for two reasons: It measures the effectiveness of the instructor in increasing knowledge or changing behavior and it shows how effective he or she is (p.42).

Kirkpatrick's third level is behavior. This level measures the extent to which participants transfer training to their jobs. In terms of evaluation, this level is more difficult to evaluate than the first two levels. The first reason is because trainees cannot change their behavior until they have an opportunity to do so. Secondly, predicting a change in behavior will occur is almost impossible. Thirdly, once the trainee has put the learning to the job, one may come to one of the following conclusions: (1) "I like what happened, and I plan to continue to use the new behavior," (2) "I don't like what happened, and I will go back to my old behavior," or (3) "I like what happened but the boss and/or time restraints prevent me from continuing it" (p.48). The obvious goal is for the trainee to concur with the first conclusion. This can be encouraged by providing the trainee with rewards for attributing the desired behaviors.

The last level of Kirkpatrick's Four Level Model is results. Kirkpatrick (1998) describes this level as the most important and perhaps the most difficult level because this

is where one must determine what final results occurred because of attendance and participation in a training program. The trainers have the opportunity to evaluate or assess the objectives of the training that was desired. Questions that are associated with this level are:

- How much did quality improve?
- How much did productivity increase?
- What tangible benefits were received?

These questions sometimes remain unanswered for the following reasons: (1) Trainers don't know how to measure the results and compare them with the cost of the program and (2) If they do know how, the findings probably provide evidence at best and not clear proof that the positive results come from the training program (p.60).

Kirkpatrick (1998) contends that some training and development professionals believe that evolution means measuring changes in behavior that occur as a result of training programs. There are many factors that professionals are concerned with. In the case of this study, the researcher was concerned with the learning that takes place in a classroom, as measured by increased knowledge, improved skills, and changes in attitude. All four levels are important and should be understood by professionals in education, training, and development. However, in some cases, particularly in the field of education, there is no attempt to change behavior. The end result is usually concerned with an increase in knowledge, improved skills, and changes in attitudes (Kirkpatrick, 1998). This was the case for this particular study; therefore, only levels one and two apply.

This study explored the reactions of participants of the Annatown Public School District's teacher mentor program. Evaluation at the reaction level measures how those who are involved in the program react to it. Kirkpatrick (1998) calls it "measure of customer satisfaction" (p.19). According to Kirkpatrick, the future of a program depends

on positive reaction. In addition, if participants do not act favorably, they probably will not be motivated to learn (p.20).

In this study, the reaction level included data to understand what stakeholders involved in the program saw as program strengths and weaknesses. This level also included information detailing how stakeholders felt program goals were being met and what was being done to enhance the overall program.

In addition, the knowledge, skills, and attitudes of participants in the teacher mentoring program will be understood through utilizing Kirkpatrick's (1998) second level: learning. Knowledge, skills and attitudes are the three things instructors in a training program can teach (Kirkpatrick, 1998). When one of those things has taken place, then one can say that learning has occurred. Kirkpatrick (1998) defines learning as the extent to which participants change attitudes, improve knowledge and/or increase skills as a result of program participation.

In summary, level two, learning, is intended to answer questions such as: In what areas has there been the most growth? How was that growth facilitated? What attitudes were changed? What skills were developed or improved?

Setting

Annatown County (fictitious name) is one of 24 school districts in a mid-Atlantic state; within its boundaries, the county contains nine incorporated towns. The total estimated population in 2004 was approximately 140,000, which represented an increase of 5.84% from the 2000 census. Annatown County is thriving with industry and contains additional industrial park land available for new development. The main city in the county is undergoing a renaissance with new investment generating building turnover and rehabilitation, new retail and service enterprises, and rising property values. A new University System Center opened in January 2005.

More people are discovering the lower cost of living in the county as evidenced by the current growth spurt. Annatown County is becoming an extension of the metropolitan area centered around a large urban city. Currently, there are 3,070 housing units in various stages of development in the city, and the population of the city is anticipated to increase by another 16% within the next 5 to 7 years.

Annatown County Public Schools (ACPS) is a predominantly rural school district that is transitioning to a more urban and suburban district. The county has 25 elementary schools, 7 middle schools, and 7 high schools. Student enrollment in 2006 was approximately 21,000. The free- and reduced-price meals percentage during the 2005-2006 school year was 35%. The county's English language learner population increased from 159 students in 2005 to 270 students in 2006, representing an increase of 70%. A shift in student population has been seen in ACPS. Table 4 illustrates the increases in school diversity in recent years. African American and Hispanic populations have grown while the White, Asian, and American Indian populations have remained stable. Overall, the county's population has increased, but there has not been a major change in the racial composition of the school district. By the year 2010, schools in Annatown County are expected to become more diverse.

Table 4
Student Enrollment by Ethnicity

Year	Total	American Indian	Asian	African American	White	Hispanic
2007	21,692	56 (.26%)	372 (1.7%)	2,801 (12.9%)	17,536 (80%)	927 (4.3%)
2006	21,141	53 (.20%)	295 (1.4%)	2,328 (11%)	17,848 (84%)	617 (3%)
2005	20,807	42 (.20%)	281 (1.3%)	2,111 (10%)	17,883 (86%)	490 (2.3%)
2004	20,338	45 (.22%)	229 (1.1%)	1,939 (9.5%)	17,719 (87%)	406 (2%)
2003	20,102	41 (.22%)	243 (1.2%)	1,783 (8.7%)	17,685 (88%)	350 (1.7%)
2002	19,961	36 (.22%)	232 (1.7%)	1,691 (8.5%)	17,673 (88%)	329 (1.65%)

The school system employs nearly 2,700 employees, making ACPS the second largest employer in Annatown County. Staff and faculty members during the 2006 school year included 618 full-time employees, 377 part-time employees, 14 full-time executive staff, 133 other full-time administrators, 2 other part-time administrators, and 1, 590 full-time teachers (See Table 5).

Table 5

Number of 2006 Annatown County Employees

Type of staff	Number hired
Full-time staff	618
Part-time staff	377
Full-time executive staff	14
Other administrators - full time	133
Other administrators - part time	2
Full-time teachers	1,590
Part-time teachers	28
Substitutes	1,114
Temps	320

Table 6 shows retention rates of teachers from 2005-2006 to 2007-2008. The school system is retaining about 93% of its teaching staff.

Table 6

Annatown County Public School's Retention Rates

School Year	Number of Teachers that left	Retention Rate
FY 2007-2008	123	93.1%
FY 2006-2007	142	91.5%
FY 2005-2006	86	94.4%

Subjects

The sample for this study was drawn from the population of beginning K-12 teachers who participated in the mentoring program in Annatown County Public Schools during the 2005-2006, 2006-2007, and 2007-2008 school years. Information on the gender and grade level of the study population is presented in Table 7.

Table 7
Study Population From 2005 Through 2008

Year of program entrance	Total number of participants	Elementary participants completing 2 years		, , , , , , , , , , , , , , , , , , ,		
		Male	Female	Male	Female	
2005-2006	126	11	53	18	44	
		Male	Female	Male	Female	
2006-2007	211	4	86	45	76	
		Male	Female	Male	Female	
2007-2008 (completed 2 nd year of program in the 2008-2009 school year after study was conducted)	207	23	83	29	72	
Total number completing 2 full years of program			33	37		

The first population of teachers included those that began the mentoring program during the 2005-2006 school year. That year a total of 126 participants were involved in the mentoring program. The second population included those that began the program during the 2006-2007 school year. That year a total of 211 participants were involved in the mentoring program. The third population included those that began the program during the 2007-2008; the total number of participants in the mentoring program that year was 207. The combined number of participants in the mentoring program from 2005 through 2008 was 544. Although the program officially began during the 2003-2004 school year, 2005-2006 is the first school year for which systematic data are available. Each participating beginning teacher was involved in the county's mentor teacher program and received the support of a mentor resource teacher (Appendix A) during his or her first 2 years of teaching except for those in the 2007-2008 group during the time of the study; those individuals had been in the program for only 1 year.

Research Questions and Statistical Hypotheses

Research Question 1

Are there differences in mean perceptions of teachers who participated in the program during the 2005-2006, 2006-2007, and 2007-2008 school years as to the effectiveness of the mentor-teacher program with regard to the roles of coaching, consulting, and collaborating between teachers at the elementary, middle, and high school level?

Statistical Hypothesis 1

There are no statistically significant differences in mean perceptions of teachers who participated in the program during the 2005-2006, 2006-2007, and 2007-2008 school years as to the effectiveness of the mentor-teacher program with regard to the roles of

coaching, consulting, and collaborating between teachers at the elementary, middle, and high school level.

Research Question 2

Are there differences in mean perceptions of teachers who participated in the program during the 2005-2006, 2006-2007, and 2007-2008 school years based on the year they entered the program as to the effectiveness of the mentor-teacher program with regard to the roles of coaching, consulting, and collaborating?

Statistical Hypothesis 2

There were no statistically significant differences in mean perceptions of teachers who participated in the program during the 2005-2006, 2006-2007, and 2007-2008 school years based on the year they entered the program as to the effectiveness of the mentor-teacher program with regard to the roles of coaching, consulting, and collaborating.

Research Question 3

Are there differences in mean perceptions of teachers who participated in the program during the 2005-2006, 2006-2007, and 2007-2008 school years based on their age as to the effectiveness of the mentor-teacher program regarding the roles of coaching, consulting, and collaborating?

Statistical Hypothesis 3

There are no statistically significant differences in mean perceptions of teachers who participated in the program during the 2005-2006, 2006-2007, and 2007-2008 school years based on their age as to the effectiveness of the mentor-teacher program regarding the roles of coaching, consulting, and collaborating.

Research Question 4

Are there differences in mean perceptions of teachers who participated in the program during the 2005-2006, 2006-2007, and 2007-2008 school years as to the effectiveness of the mentor-teacher program based on their gender regarding the roles of coaching, consulting, and collaborating?

Statistical Hypothesis 4

There are no statistically significant differences in mean perceptions of teachers who participated in the program during the 2005-2006, 2006-2007, and 2007-2008 school years based on their gender regarding the roles of coaching, consulting, and collaborating.

Research Question 5

How did various stakeholders (teachers participating in program, mentor resource teachers, mentor program supervisor) react to the overall effectiveness of the mentoring programs?

Research Question 5a

What did the various stakeholders (teachers participating in program, mentor resource teachers, mentor program supervisor) learn as a result of their role in the mentoring program?

Procedures

The researcher reviewed other previously developed surveys about mentoring and adapted the format for questions used in this survey to address the implementation of the ACPS Mentor Program. The researcher worked with Annatown's Human Resources Department as well as their Staff Development Department to identify and locate the appropriate teachers in the system for purposes of distributing the surveys. The researcher

sent surveys to approximately half of the participants who received 2 years of support from a mentor teacher during the 2005-2006 school year, 2006-2007 school year, or the 2007-2008 school year. Therefore, the total population for the study was approximately 260 participants. The survey instrument was provided to the prospective respondents via an electronic link embedded within an e-mail communication. All prospective respondents were given an explanation of the purpose of the study and a link to the survey, which included instructions. Respondents were routed to an online survey Web site engine and data collection program, Survey Monkey.

Survey Monkey, an online survey tool that was created in 1999 designed to create surveys and gather data, enables people of all experience levels to create their own surveys. Survey Monkey enables a researcher to obtain individual as well as group responses, filter responses, and download results into a database. Through the e-mail invitation collector option, the researcher was able to create an e-mail distribution list, create a message, schedule the delivery, and manage and track the survey respondents. Survey Monkey also allows the researcher to resend a message to those respondents who have not answered the survey or have only partially answered it. By accessing the collector with the e-mail list for the survey that has already been sent one initial message, the researcher can re-send a message to only those in the no-response status. Survey Monkey also allows the survey data to be analyzed within the analysis section of the survey. As soon as a respondent completes the survey and clicks the submit button on the survey, the response comes back into that section. As data are gathered, a response summary page then presents data in a bar graph presentation of the summary numbers. From that point, the researcher has several options, such as checking the total response counts, percentages, respondent counts, and response averages for the questions. From this section, the researcher can browse individual survey responses and can filter and export responses for additional analyses.

The introduction message or cover letter (Appendix B) that was sent to participants explained the significance of the study, assured respondents of anonymity, and provided instructions for completing the survey. All respondents received the same introduction message. Participants were given two weeks after the date of receipt of the e-mail to complete the survey. Once completed, the survey responses were filed with other responses in an online data management system. The programming of the online survey collection tool did not allow respondents to return to the survey after completion. If they closed the survey before completion and attempted to return, the tool would have directed them to the next unanswered question. A follow-up e-mail message was sent to all subjects who had not responded after 2 weeks. All survey responses were submitted into Survey Monkey and subsequently downloaded into the Statistical Package for the Social Sciences (SPSS) data analysis software.

Instrumentation

Because the basic purpose of this study was to assess the mentoring program, the focus of the instrument was to gather data about the program outcomes and mentor teacher roles. In addition to the adaptation of Carter's study (2003), the purposes of the program and the roles of the mentor teacher, as defined in the Annatown County *Mentor Program Guidebook* (2005), were the bases for the selection of questions in the first part of the survey instrument.

The Annatown Public School *Mentor Program Guidebook* (2005) recognized consulting, collaborating and coaching as the central mentor roles. In order to assess whether these roles are being implemented, a two-part questionnaire was given to participants.

The Beginning Teacher Survey, which was developed and implemented by Dr. Sadie Carter (2003), was adapted and used for gathering data for this study. For the purposes of this study, permission to use and adapt the survey was granted by Dr. Carter

(Appendix C). Part I of the questionnaire required participants to respond to 30 statements about three strategies chosen for this study: coaching, collaborating, and consulting. Participants responded to 30 statements about various strategies that support new teacher development. The survey was adapted and used for obtaining data needed to answer the research questions. The second part of the questionnaire required participants to supply demographic information related to each respondent's gender, age range, school level of employment, and experiences with the mentoring program.

Data Collection

Data related to the three aspects of the mentor roles were collected using the questionnaire entitled Beginning Teacher Survey. The researcher obtained permission from the University's Institutional Review Board (IRB) (Appendix D) prior to beginning this study. A quasi-random sample of 50% of the total population constituted the participants for the study. Once the list of names of mentor program participants from the previous 3 years was obtained by the researcher from the Center for Peak Performance and Productivity, the researcher numbered all participants. The researcher then flipped a coin to determine if even-numbered participants or odd-numbered participants would be randomly chosen; heads represented even numbers and tails represented odd numbers. The coin toss resulted in heads; thus, the researcher randomly selected those participants with even numbers. The researcher sent the instrument to participants electronically. The electronic survey was accompanied by a consent form, with a cover document explaining the purpose of the study, the procedures for completing the questionnaire, and the participants' confidentiality rights.

In Part I of the survey, the respondents were asked to rate on a Likert scale whether they *strongly disagree* (1), *somewhat disagree* (2), *somewhat agree* (3), or *strongly agree* (4) with each of the statements on the survey, which are related to the three aspects of the mentor role. Therefore, a low score would indicate a weak

endorsement of a statement, and a high score would represent a strong endorsement of the statement. Participants were asked to circle the number that correlated with their response to each statement listed on the questionnaire. Using a Likert scale with response rates Strongly disagree, Somewhat disagree, Somewhat agree, and Strongly agree, the following is a sample question in Part I:

My mentor...

- 1. helped me think through problem situations. (consulting)
- 2. taught me how to present lessons. (collaborator)
- 3. used probing to help me create quality questions. (coaching)

The following is a sample question in Part II:

Teaching for me is a: $\Box 1^{st}$ career $\boxtimes 2^{nd}$ career

Part I of the survey permitted respondents to indicate the extent to which each of the mentor roles was implemented. This part was designed to examine the processes that the mentors used to carry out their identified roles and to seek evidence of implementation of other identified roles or activities described in the literature. There are three primary mentor roles described in the Annatown County Mentor Program Guidebook: consulting, collaborating and coaching. Additionally, considerable district resources are directed toward ensuring that mentors can effectively carry out their roles.

The role of consulting is measured by the mentor's ability to provide valuable information to help strengthen a teacher's repertoire of methodology. The role of collaborator is identified by the mentor's ability to work with teachers to solve problems and make decisions related to lesson delivery and student performance. Finally, the third role, coaching, is measured by the mentor teacher's ability to help a new teacher plan and reflect. Table 8 outlines the questions in the survey in relation to the mentor role described.

Table 8
Survey Statement Items in Relation to Mentor Roles

Mentor role	Survey statement items
Coach	2, 5, 7, 15, 16, 19, 22, 23, 27, 29
Consultant	6, 10, 11, 12, 14, 20, 21, 24, 26, 30
Collaborator	1, 3, 4, 8, 9, 13, 17, 18, 25, 28

Pilot Study and Reliability

An earlier instrument was pilot tested with the online survey system, Survey Monkey. Based on results from that particular survey, the researcher found it more beneficial to find a comparable survey that had already been validated. The instrument used had fewer questions than the instrument used in the pilot study. In addition, the instrument used allowed the researcher to better obtain the data needed to successfully answer the research questions.

Follow-Up Interviews

The data collected from the quantitative part of the survey, Part I, reported perceptions of mentor roles from three identified groups by year: 2005-2006, 2006-2007, and 2007-2008. The researcher also created a qualitative portion of the study, Part II. The sample for the interviews in Part II included three to four randomly selected teachers from each of the three identified groups, mentor resource teachers and the supervisor for staff development. The data from the focus groups and interview provided additional information about the mentor program. Finally, the data will help the district to consider enhancements to the program based on the elements that participants identified as strengths or weaknesses as well as their suggestions for improvement. Therefore, this follow-up interview section was designed to elicit additional information about the

mentor program. In particular, efforts were made to identify participants' perspectives about specific aspects of the program using questions based upon Kirkpatrick's Level 1 (Reactions) and Level 2 (Learning) of the Learning and Training Evaluation Theory.

Table 9

Kirkpatrick's Four Levels of Training Evaluation

Level	Evaluation type (what is measured)	Evaluation description and characteristics
1	reaction	 reaction evaluation is how the delegates felt about the training or learning experience
2	learning	learning evaluation is the measurement of the increase in knowledge
3	behavior	behavior evaluation is the extent of applied learning
4	results	results evaluation is the effect on the business or environment by the trainee

Data Analysis

Data analysis was conducted in two phases. The first phase included analysis of the quantitative data. The second phase included analysis of the qualitative data.

Phase I of Data Analysis - Quantitative

The researcher used the SPSS program, which is a comprehensive statistical software package, to calculate Cronbach's Alphas (measures of inter-item reliability) for each component in the survey and for the total. Second, the researcher computed correlation coefficients to describe the effect of the relationship between the three domains for all mentor participant groups. Independent *t*-tests were computed based on gender.

Content Validation

In terms of validity, Dr. Carter documented the validity of the instrument by having a panel of experts (selected because of their expertise or experience with the mentoring program), including five administrators, five mentors, and five beginning teachers, assess validity by reviewing the survey to determine how well the items fit into specific domains.

In addition, the panelists reviewed the items for readability and clarity, making suggestions for wording or structural changes. Afterwards, the panelists looked at the categories of responses and determined their appropriateness for each item by rating the association to the item. The panelists sought an 80% level of agreement for panel responses; items generating less than an 80% agreement rate were modified and redistributed for revalidation. The beginning teacher instrument was revalidated and modified seven times to reach an agreement level of 80%. Finally, the researcher documented the validity of the instrument by having it examined by members of the school administration concerned with the program.

Phase II of Data Analysis - Qualitative

In this study, a qualitative analysis was conducted as described by Creswell (2003). Creswell stated,

The process of data analysis involves making sense out of text and image data. It involves preparing the data for analysis, conducting different analyses, moving deeper and deeper into understanding the data, representing the data, and making interpretation of the larger meaning of the data. (p. 190)

Creswell (2003) identified the following steps for qualitative analysis, which this study followed:

- "Organize and prepare data for analysis" (p. 191). All of the data were transcribed, and the data from the document were recorded on a document analysis form.
- 2. "Read through all of the data" (p. 191). The researcher gained a general sense of the data and reflected upon its overall meaning. Notes were recorded on general thoughts relative to the data.
- 3. "Begin the coding process" (p. 192). The researcher organized materials into "chunks" before bringing meaning to those chunks. The researcher labeled the chunks based upon the actual language of the participants.
- 4. "Use the coding process to generate categories or themes for analysis" (p. 193). The researcher looked for common themes from individuals or groups involved in the study and then analyzed for interconnections between the individuals and groups. The researcher looked for multiple perspectives supported by diverse quotations.
- 5. "Advance how the descriptions and themes will be represented in the qualitative narrative" (p. 194). The researcher used narrative passages to convey the findings of the analysis. Detailed discussions of several themes from multiple perspectives were used. Quotes from individuals and from groups and documents were used for the narrative.
- 6. "Give the meaning of the data" (pp. 194-195). The researcher described the lessons learned from the data. The data were compared to findings from previous studies.

Interviews

Patton (1990) stated, "The power of purposeful sampling lies in selecting information-rich cases for study in depth. Information-rich cases are those from which one can learn a great deal about issues of central importance to the purpose of the

research" (p. 169). Patton (1990) described the significance of interviews in qualitative evaluations:

Interview data for program evaluation purposes allow the evaluator to capture the perspectives of program participants, staff, and others associated with the program. What does the program look and feel like to the people involved? What are the experiences of program participants? What thoughts do people knowledgeable about the program have concerning program operations, processes, and outcomes? What do people know about the program? What are their expectations? What features of the program are most salient to the people involved? What changes do participants perceive in themselves as a result of their involvement in the program? (pp. 278-279)

In January 2009, the researcher met with the supervisor of the mentor resource teachers to interview for the study. A one-hour interview was conducted. The researcher met at the supervisor's office. The interviewer audiotaped the interview and took notes using a pad and pen. A signed letter of consent was received prior to commencement of the interviewing process (Appendix E). All audiotapes and transcripts were secured in a file cabinet at the researcher's home. The audiotapes and transcripts will be destroyed when the research is completed.

Focus Groups

Patton (1990) described a focus group as "an interview with a small group of people on a specific topic. Groups typically include six to eight people who participate in the interview for one-half to two hours" (p. 335). There are a number of benefits to using a focus group in an evaluation study. Focus group interviews represent an efficient qualitative data collection method; thus, a focus group interview allows qualitative researchers to significantly increase their sample size in an evaluation. Focus groups also

provide quality controls on data collection because participants can provide checks and balances on each other that weed out false or extreme views. Group dynamics typically allow participants to focus on the most important topics and issues in the program and make it easy to see when there is consensus on an issue. In addition, focus groups tend to be enjoyable for the participants.

The dates, times, and locations of the focus group interviews were identified by working with the staff development secretary to identify convenient times and sites for the focus groups. The researcher identified a preexisting meeting and determined a time to meet with participants immediately after the meeting. The researcher conducted the session at the Office of Staff Development. The sessions were audiotaped, and the researcher took written notes using a pen and pad. For the purpose of anonymity, the focus group data were reported by either their year of entry into the program or their position as a mentor teacher; individual names were not included. All audiotapes and transcripts were secured in a file cabinet at the researcher's home; the audiotapes and transcripts will be destroyed when the research is completed.

Credibility and Trustworthiness

Phase I – Qualitative Research

Creswell (2003) wrote, "Validity is seen as a strength of qualitative research, but it is used to suggest determining whether the findings are accurate from the standpoint of the researcher, the participant, or the readers of an account" (pp. 195-196). This study employed a number of strategies to ensure validity. The methods included triangulation, member checking, a statement of subjectivity, and peer debriefing (Creswell). Triangulation of data sources (interviews, focus groups, and document analysis) was used to build coherent justification for themes.

To determine the accuracy of the qualitative findings, the researcher provided the interview transcripts and narratives of the focus group data to participants to determine whether the participants considered the account to be accurate. The researcher adjusted any accounts that needed to be changed and noted changes in the final report.

Finally, the researcher used peer debriefing to enhance the accuracy of the account. The researcher worked with Dr. Shawn Joseph, a principal in the Northwest School District, and an outside consultant for the school district to review data throughout the process. The researcher asked questions about the study so that the account would resonate with people other than the researcher.

Summary

In summary, this chapter has outlined the procedures of inquiry used to investigate the perceptions of identified stakeholders in looking at the effectiveness of mentor roles as one component of an induction program. This chapter described the research design, and the methods and procedures to be used for collecting and analyzing the data obtained for the study. The results of the data were used to confirm or negate the study's hypotheses and to draw conclusions about the effectiveness of mentor roles.

CHAPTER IV

FINDINGS

Introduction

The No Child Left Behind Act (NCBLA) of 2002 has put the national spotlight on teacher quality. Concern for teacher quality is growing as several studies look for connections between effective teacher practices and student learning. Teachers' professional knowledge and experience make a significant difference in student learning and teacher retention (Darling-Hammond & Sykes, 2003).

NCLB is legislation that is committed to ensuring that all students, regardless of background, ethnicity, gender and socioeconomics, meet high academic standards in every school. To achieve that goal, school districts across the country will need to provide students with experienced teachers as well as support and develop new teachers (Alliance for Excellent Education, 2004).

High-poverty, rural districts suffer the most from the revolving door of teacher turnover (Retrieved 11/17/08 from http:www.cerra.org/research.html). As districts invest valuable time and money into the teacher workforce, it is critical that new teachers be supported and retained so that the investment not only reduces cost from turnover and attrition, but also increases the performance of highly trained teachers and schools so that the needs of all students are met.

One of the most effective ways to recruit teachers is to keep the teachers that are already in the system (Hanuscin, 2008). Assigning mentors to new teachers helps beginning teachers work through the difficult transition from student to teacher. Mentoring is one of the most commonly used vehicles to support and inspire new teachers' professional development. Through mentor support, new teachers engage in

practices, such as inquiry, and are able to resolve their most pressing perceived difficulties and develop a vision of the kind of teacher they want to be (Hanuscin, 2008).

Chapter IV presents the results of the data analysis. This mixed-methods study was designed to investigate the effectiveness of the roles of mentor teachers in a rural school district in a mid-Atlantic state. It also assesses how important the mentoring activities are in terms of enabling new teachers to be successful in the beginning years of teaching.

This research has two phases. The first phase is a quantitative design. In the fall of 2008, a quasi-random sample of teachers that participated in the program completed the Begining Teacher Survey. This survey, which was adapted by the researcher from Carter's 2003 study, contained thirty statements. The survey was sent to 130 elementary teachers and 145 secondary teachers that participated in the mentor program during one of the following school years 2005-2006, 2006-2007 or 2007-2008. The second phase of this study focused on a qualitative methodology. Data were collected from focus group interviews of teachers and mentor teachers that were participants in the mentoring program as well as from an interview with the supervisor of staff development.

Data Collection

The study's protocols were found to be in accordance with the Federal Policy for the Protection of Human Subjects (OHRP) and were approved by the Institutional Review Board of a mid-Atlantic state university (Appendix D). The researcher's request was also approved by the superintendent of the district where the study was conducted (Appendix F). The researcher obtained from the district's Staff Development Office a list of those teachers who participated in the mentoring program during one of the following school years: 2005-2006, 2006-2007, or 2007-2008. Upon obtaining the list, the researcher used a coin flip toss to determine if even or odd numbered names would be invited. After names were selected, the researcher entered participants' email addresses

into the SurveyMonkey address book. Although email addresses were available, the researcher later discovered that a substantial number of those teachers invited were no longer employees of the school district. As a result, the true sample size of 135 was less than the anticipated sample size of 275.

Data collection included the administration of a 30-item survey that was sent through SurveyMonkey to all qualified subjects on September 22, 2008. A link to the survey was sent, including a cover letter, a consent form, and access to the survey questions. The cover letter contained the purpose of the study and the researcher's contact information if needed (Appendix B). The email invitation collector feature of SurveyMonkey allows access to the list of email addresses that were sent the survey. By using this feature, the researcher was able to check the status of emails to see the number of those who were categorized as "Responded," "Unresponded," or "Opted Out." After three weeks, the researcher checked the response rate through SurveyMonkey; it had reached 35%. The researcher then decided to use the "Reminder Email" feature of SurveyMonkey. SurveyMonkey re-sent the email message containing the link to the survey to all email addresses in the "No Response status." It should be noted that when the survey was sent out initially, secondary teachers were closing for the end of the marking period and elementary teachers were in the process of administering county benchmark assessments. The researcher received a number of emails from individuals stating that they wished to be removed from the list because they did not wish to take the time to complete the survey due to the stress of the job. After the second reminder was sent to participants, the response rate rose to approximately 50%. The researcher understands that an adequate response rate is 70% (Fink, 1995). However, based on email responses from invited participants, the stress that teachers in the district were undergoing, and consulting with several building level administrators, the researcher made the decision to close the survey.

Response Rates

The final number of responses is displayed in Table 10. The total response rate for elementary teachers was 50%; for secondary level teachers it was 48%. The total response rate was 49%.

Table 10

Response Rates of Elementary and Secondary School Teachers

Teachers	Number of Surveys Sent	Number of Surveys Received	Response Rate (%)
Elementary Level	130	65	50
Secondary Level	145	70	48
Total	275	135	49

The data in Table 11 show that 63% of year 2005-2006 participants responded, while the return rates for years 2006-2007 and 2007-2008 were much lower, 49% and 41%, respectively. The total response rate was 49.

Table 11

Response Rates of Teachers in Entry years 2005-2006, 2006-2007, and 2007-2008

Year of Program Entry	Number of Surveys Sent	Number of Surveys Received	Response Rate (%)
2005-2006	67	42	63
2006-2007	105	51	49
2007-2008	103	42	41
Total	275	135	49

The data in Table 12 presents demographic and background information on the mentees. Females outnumbered the males; females, 71% and males, 29%. There were more participants in the 21 to 31 age group (61.6%). Most participants were young

adults. It is important to note that not all mentees responded to all questions. Therefore, the percentages do not necessarily add to 100%. There were more elementary school staff participants than middle and high school participants completing the study. In terms of having similar certification specialty, most participants did not have a mentor who was an expert in his/her grade level and/or content area. Most participants had mentor meetings that lasted for less than an hour and most participants felt that they needed less support from their mentor than they received.

Table 12

Demographics and Background Information of Mentees

Variable	%	N
Gender of Mentee		
Male	29	39
Female	71	96
Age Group		
21 to 31	61	83
32 to 42	21	28
43 to 53	13	17
54+	1	4
Year in Program		
2005-2006	31	42
2006-2007	38	51
2007-2008	31	42
School Assignment		
Elementary (K-5)	48	65
Middle $(6-8)$	24	33
High School (9 -12)	27	37
Need for Support		
More Support	41	55
Less Support	59	80

The data in Table 13 presents demographic and background information on the mentors. There were seven mentors, three at the elementary level and four at the secondary school level. Therefore, the gender heading in Table 13 shows that 31% of the mentees had a male mentor, and 69% had a female mentor. Only 29% of the mentors had a certification match similar to that of the mentee. In terms of frequency of meetings,

41% of the mentees said that they met with their mentor once a week or every other week. The length of meeting for 90% of the mentees was less than one hour.

Table 13

Demographics and Background Information of Mentors

Variable	%	N
Gender of Mentor		
Male	31	40
Female	69	90
Certification Match with Mentor		
Yes	29	38
No	47	62
Don't Know	24	32
Frequency of Meetings		
Once a week	17	22
Once every other week	24	32
Once a month	39	52
Once a semester	8	11
Other	12	16
Length of Mentor Meetings		
Less than an hour	90	117
One hour	9	12
More than an hour	1	1

Reliability

Cronbach alphas measure inter-item reliability and consistency of the survey instrument. They are used when no pretest-posttest reliability measures are available. Cronbach alphas were computed on all three domains and were checked for internal consistency. According to Gall, Gall, and Borg (2003):

If a scale has a high alpha coefficient [typically .60 or higher, with the highest possible coefficient being 1.00], it means that individuals who respond in a certain way to one item on the scale are likely to respond in the same way to the other items on that scale. If a scale had an alpha

coefficient .60 or higher, it was considered as having exceptional value. (p.196)

The data in Table 14 show that the survey has very high inter-item scores for each of the three parts of the survey, all above .94.

Table 14

Cronbach Alphas for Study

Domain	No. of Items	Alpha Score
Domain 1: Mentor as Coach	10	.94
Domain 2: Mentor as Consultant	10	.94
Domain 3: Mentor as Collaborator	10	.95

Correlation Coefficients

In order to describe the effect of the relationship between the three domains, correlation coefficients were computed for all mentor participant groups. A correlation coefficient can range from -1.00 to +1.00.

In interpreting the data which are displayed in Table 15, the researcher used an established set of criteria to make judgments about the significance of the correlations (Gliner & Morgan, 2000). According to Gliner & Morgan (2000), if a correlation was between 0.0 and 3.0, it was considered to be weak; if it were between .31 and .70 it was considered modest; and if it were .71 or higher, it was considered to be strong. The .05 level used to identify those correlations was statistically significant.

The data in Table 15 show that there was a very high correlation between coaching, consulting, and collaborating. All of the correlations were above .93 and were statistically significant at the .001 level.

Table 15

Correlation Matrix for Coaches, Consultants, and Collaborators

	Domain 1 Coach	Domain 2 Consultant	Domain 3 Collaborator
Domain 1	1.00 (130)	.93 (129) P=.001	.94 (131) P=.001
Domain 2		1.00 (130)	.93 (130) P=.001
Domain 3			1.00 (130)

^{***}p < .001

Research Questions and Statistical Hypotheses

The research questions and statistical hypotheses are presented here with discussion of the findings for each question.

Research Question 1

Are there differences in mean perceptions of teachers who participated in the program during the 2005-2006, 2006-2007, and 2007-2008 school years as to the effectiveness of the mentor-teacher program with regard to the roles of coaching, consulting, and collaborating between teachers at the elementary, middle, and high school level?

Statistical Hypothesis 1

There are no statistically significant differences in mean perceptions of teachers who participated in the program during the 2005-2006, 2006-2007, and 2007-2008 school years as to the effectiveness of the mentor-teacher program with regard to the roles of

coaching, consulting, and collaborating between teachers at the elementary, middle, and high school level.

Table 16 displays the results of a one-way analysis of variance among elementary (K-5), middle (6-8), and high school (9-12) teachers' mean perceptions of mentors' coaching. Because the researcher wanted to be conservative, in all cases she used Scheffé's multiple range test and set the level of significance at .05. The data show that there were statistically significant differences relating to the effectiveness of the mentors' coaching among teachers at the elementary, middle, and high school level. The data indicate that the middle school teachers had statistically significantly higher mean scores than did the high school teachers. There were no differences between the middle school and elementary school teachers' perceptions of the effectiveness of the mentors' coaching. Therefore, the statistical hypothesis was rejected.

Table 16

One-Way Analysis of Variance of Differences Among Elementary, Middle and High School Teachers' Perceptions of Mentors' Coaching

	df	Sum of Squares		Mean Square	F	Sig.
Between Group	s 2	486.22		243.11		
Within Groups	124	6,517.31		52.56	4.63	.01*
		G	G	G	Group 1 – H	•
		r p	r p	r p	Group 2 – El Group 3 – M	•
Mean	School Type	1	_	3	Group o Th	
Mean	School Type					
26.32 29.73 31.53	High (9-12) Elementary (K-5 Middle (6-8)	*				

Table 17 displays the results of a one-way analysis of variance among elementary (K-5), middle (6-8), and high school (9-12) teachers' mean perceptions of mentors' consulting. There were statistically significant differences among these teachers relating to the effectiveness of the mentors' consulting role among teachers at the elementary, middle, and high school level. The elementary and middle school teachers had statistically significantly higher mean scores than did the high school teachers. Therefore, the statistical hypothesis was rejected.

Table 17

One-Way Analysis of Variance of Differences Among Elementary, Middle and

High School Teachers' Perceptions of Mentors' Consulting

	df	Sum of Squares		Mean Square	F	Sig.
Between Group	s 2	592.57		296.28		
					5.30	.001***
Within Groups	120	6,704.85		55.87		
		G r	G r	G r	Group 1 – Hi Group 2 – El	_
		p	p	p	Group 3 – M	•
Mean	School Type	1	2	3		
26.73 30.87 32.57	High (9-12) Elementary (K-5 Middle (6-8)	* *				

Table 18 displays the results of a one-way analysis of variance among elementary (K-5), middle (6-8), and high school (9-12) teachers' mean perceptions of mentors' collaboration. There were statistically significant differences among these teachers relating to the mentors' collaboration among teachers at the elementary, middle, and high school level. The elementary and middle school teachers had statistically significantly

higher mean scores than did the high school teachers. Therefore, the statistical hypothesis was rejected.

Table 18

One-Way Analysis of Variance of Differences Among Elementary, Middle and

High School Teachers' Perceptions of Mentors' Collaboration

	df	Sum of Squares		Mean Square	F	Sig.
Between Group	s 2	455.71		227.86		
					4.34	.01*
Within Groups	118	6,200.29		52.54		
		G	G	G	Group 1 – H	ioh
		r	r	r	Group 2 – El	•
		p	p	p	Group 3 – M	iddle
		1	2	3		
Mean	School Type					
23.69	High (9-12)					
27.92	Elementary (K-5	*				
28.37	Middle (6-8)	*				

The data in Tables 16, 17, and 18 show that middle school teachers were more likely to feel that their mentor was a coach than high school teachers did. Both elementary and middle school teachers were more likely to view their mentor as a consultant than were high school teachers. Both elementary and middle school teachers were more likely to also view their mentor as a collaborator than were high school teachers. The statistical hypothesis for the three variables, coach, consultant and collaborator, was rejected.

Research Question 2

Are there differences in mean perceptions of teachers who participated in the program during the 2005-2006, 2006-2007, and 2007-2008 school years based on the

year they entered the program as to the effectiveness of the mentor-teacher program with regard to the roles of coaching, consulting, and collaborating?

Statistical Hypothesis 2

There were no statistically significant differences in mean perceptions of teachers who participated in the program during the 2005-2006, 2006-2007, and 2007-2008 school years based on the year they entered the program as to the effectiveness of the mentor-teacher program with regard to the roles of coaching, consulting, and collaborating.

Table 19 displays the results of a one-way analysis of variance looking for differences in teachers' mean perceptions of mentors' coaching based on the year they entered the program. The data show that there were no statistically significant differences among these teachers with regard to the role of coaching based on the year of entry into the program. The statistical hypothesis was therefore accepted.

Table 19

One-Way Analysis of Variance of Differences in Teachers' Perceptions of Mentors'

Coaching Based on the Year They Entered the Program

	df	Sum of Squares	Mean Square	F	Sig.
Between Groups	2	160.14	80.07		
				1.67	.19
Within Groups	119	5,695.64	47.86		
3.6	2005 2006	27.00.2006.2007	20.26	2007 2000	22.27

Means for years: 2005-2006 – 27.00; 2006-2007 – 29.36; 2007-2008 – 33.27

Table 20 displays the results of a one-way analysis of variance looking for differences in teachers' mean perceptions of mentors' consulting based on the year they entered the program. There were statistically significant differences among these teachers relating to the effectiveness of the mentor teacher program with regard to the role of consulting. The difference lay between teachers entering the program in 2006-2007 and

2005-2006. The teachers in the 2006-2007 group rated their mentor's consulting significantly higher than did the teachers in the other two years. The statistical hypothesis was rejected.

Table 20

One-Way Analysis of Variance of Differences in Teachers' Perceptions of Mentors'

Consulting Based on the Year They Entered the Program

		Sum of		Mean		
	df	Squares		Square	F	Sig.
Between Groups	2	329.41		164.70		
					3.19	.04
Within Groups	116	5,980.58		51.56		
		G	G	G	Group 1 20	05 2006
		r		r	Group $1 - 20$ Group $2 - 20$	
		-	_	_		
		p	p	p	Group 3 – 20	06-2007
		1	3	2		
Mean	Entry Year					
30.06	2005-2006					
31.00	2007-2008					
35.58	2006-2007	*				

Table 21 displays the results of a one-way analysis of variance looking for differences in teachers' mean perceptions of mentors' collaboration based on the year they entered the program. The data show that there were no statistically significant differences among these teachers with regard to the role of collaboration based on the year of entry into the program. Therefore, the statistical hypothesis was accepted.

Table 21

One-Way Analysis of Variance of Differences in Teachers' Perceptions of Mentors'

Collaboration Based on the Year They Entered the Program

	df	Sum of Squares	Mean Square	F	Sig.
Between Groups	2	277.42	138.71		
				2.81	.06
Within Groups	114	5,621.50	49.31		

Means for years: 2005-2006 – 31.67; 2006-2007 – 22.00; 2007-2008 - 26.86

Research Question 3

Are there differences in mean perceptions of teachers who participated in the program during the 2005-2006, 2006-2007, and 2007-2008 school years based on their age as to the effectiveness of the mentor-teacher program regarding the roles of coaching, consulting, and collaborating?

Statistical Hypothesis 3

There are no statistically significant differences in mean perceptions of teachers who participated in the program during the 2005-2006, 2006-2007, and 2007-2008 school years based on their age as to the effectiveness of the mentor-teacher program regarding the roles of coaching, consulting, and collaborating.

The data in Table 22 indicate that there were no statistically significant differences in teachers' mean perceptions of the effectiveness of mentors' coaching based on the age of the teachers. Therefore, the statistical hypothesis was accepted.

Table 22

One-Way Analysis of Variance of Differences in Teachers' Perceptions of Mentors'

Coaching Based on the Age of the Teachers

	df	Sum of Squares	Mean Square	F	Sig.
Between Groups	2	248.70	124.35		
				2.38	.09
Within Groups	121	6,316.98	52.21		

Means for age groups: 21 - 31 = 27.04; 32-42 = 30.29; 43-54 + = 26.37

The data presented in Table 23 based on teachers' age show that there are no statistically significant differences in teachers' mean perceptions of the effectiveness of mentors' consulting. Therefore, the statistical hypothesis was accepted.

Table 23

One-Way Analysis of Variance of Differences in Teachers' Perceptions of Mentors'

Consulting Based on the Age of the Teachers

	df	Sum of Squares	Mean Square	F	Sig.
Between Groups	2	74.16	37.08		
				.65	.53
Within Groups	118	6,768.29	57.36		

Means for age groups: 21 - 31 = 30.77; 32-42 = 30.00; 43-54+=27.21

The data presented in Table 24 on consulting based on teachers' age show that there are no statistically significant differences in teachers' mean perceptions of the effectiveness of mentors' collaboration. Therefore, the statistical hypothesis was accepted.

Table 24

One-Way Analysis of Variance of Differences in Teachers' Perceptions of Mentors'

Collaboration Based on the Age of the Teachers

	df	Sum of Squares	Mean Square	F	Sig.
Between Groups	2	167.64	83.82		
				1.59	.21
Within Groups	116	6,100.23	52.59		
3.5		2= 00 00 10	2-1-12-1		

Means for age groups: 21 - 31 = 27.89; 32-42 = 25.46; 43-54 + 24.56

Research Question 4

Are there differences in mean perceptions of teachers who participated in the program during the 2005-2006, 2006-2007, and 2007-2008 school years based on their gender as to the effectiveness of the mentor-teacher program regarding the roles of coaching, consulting, and collaborating?

Statistical Hypothesis 4

There are no statistically significant differences in mean perceptions of teachers who participated in the program during the 2005-2006, 2006-2007, and 2007-2008 school years based on their gender regarding the roles of coaching, consulting, and collaborating.

The data in Table 25 show that there were no statistically significant differences in teachers' mean perceptions of the effectiveness of mentors' coaching based on gender. Therefore, the statistical hypothesis was accepted.

Table 25

Independent t-Test of Differences in Teachers' Perceptions of Mentors' Coaching Based on Gender

	No. of					2-Tail
	Cases	Mean	S.D.	t-Value	D.F.	Sig.
Male	39	30.54	7.78			
				1.39	125	.17
Female	88	28.56	7.27			

The data in Table 26 show that there were no statistically significant differences in teachers' mean perceptions of the effectiveness of mentors' consulting based on gender. The statistical hypothesis was accepted.

Table 26

Independent t-Test of Differences in Teachers' Perceptions of Mentors' Consulting Based on Gender

	No. of					2-Tail
	Cases	Mean	S.D.	t-Value	D.F.	Sig.
Male	36	31.47	7.79			
				1.20	121	.23
Female	87	29.63	7.69			

The data in Table 27 show that there were no statistically significant differences in teachers' mean perceptions of the effectiveness of mentors' collaboration based on gender. Therefore, the statistical hypothesis was accepted.

Table 27

Independent t-Test of Differences in Teachers' Perceptions of Mentors' Collaboration

Based on Gender

	No. of					2-Tail
	Cases	Mean	S.D.	t-Value	D.F.	Sig.
Male	35	27.40	7.99			
				.46	119	.65
Female	86	26.71	7.26			

Overview of Qualitative Design

The qualitative portion of this study included two separate focus groups and an interview which were conducted between December 2008 and January 2009. The primary purpose of the focus groups and interview were to answer research questions 5 and 5a and to provide additional information regarding the roles of the mentor resource teachers as well as insight regarding the mentor program as one component of the district's attempt to enhance the performance of new teachers.

Kirkpatrick (1998) stated the reason for evaluating a training program is to determine the program's effectiveness. It is the hope of those who make decisions regarding the program's components and those who implement the program that the results from the evaluation are both positive and gratifying. Table 28 includes the questions used in the focus groups and in the interview.

Table 28

Focus Group and Interview Questions

Level 1	Reaction to Training
	What are some strengths of the program?
	What are some weaknesses of the program?
	What are some recommendations to improve to the program?
Level 2	Learning Occurred
	Knowledge Learned
	S .
	Skills developed or improved
	E .

Table 29 indicates the number of participants by school level for focus groups 1, 2, and 3.

Table 29

Focus Group Participants

Focus Group		Number of Participants and the year they entered the program
1	2 elementary teachers2 middle school teachers2 high school teachers	1- 2005-2006; 1- 2006-2007 1- 2005-2006; 1- 2007-2008 2- 2007-2008
2	2 elementary mentor resource teachers 2 secondary mentor resource teachers	
3	Interview conducted with supervisor of	staff development

The following themes emerged during analysis of the focus group data and interview data relating to the reaction of participants of the program: there was strong emotional support; mentor roles were seen as strengths and weaknesses; special education; and caseloads of the mentors. Table 30 categorizes the themes from the focus groups and interview under Kirkpatrick's levels I and II.

Table 30

Focus Group Themes

Kirkpatrick Level	Themes
Level I-Reactions	 Emotional support Mentor roles Learning communities Developing reflective practitioners Caseloads Special education
Level II- Learning	 Developing reflective practitioners Mentor roles Learning communities

Research Question 5

How did various stakeholders (teachers participating in program, mentor resource teachers, mentor program supervisor) react to the overall effectiveness of the mentoring programs?

Level 1: Reaction to the Training

According to Kirkpatrick (1998), once it is determined what it is the researcher wants to find out, the next step is to get reactions from both the subjects and the leaders involved in the training. In addition, if the training is going to be effective, it is important that the trainees react favorably to it. The following questions were asked to measure reactions:

- What were strengths of the mentoring program?
- What were some weaknesses of the mentoring program?
- What changes could be made to improve the program?

A number of themes emerged under level one, reactions. According to the literature, emotional support is a highly beneficial attribute of the mentor. In Baker's (2002) study, emotional support was identified as the most beneficial component assumed by the mentor. The theme of emotional support was also captured in this study. The following was a statement by a mentor resource teacher:

Theme – Emotional Support

"I think for some of them, the emotional support is the really, really big thing, especially at the beginning. I've heard some teachers say, 'I'm always glad when it's a day when you're here.' Someone they can cry or vent to. So I think emotional support is huge."

One teacher commented:

"I thought it was nice to have some support when I was feeling overwhelmed that first year because that first year you definitely have like all this information just coming at you and I felt like she helped me to work through some of that."

Another teacher said:

"I had taught before. So having taught, I still found it overwhelming to come into this county. My mentor helped me deal with the emotional piece."

Another teacher reflected:

"It's hard being a new teacher in this county. It's like a tsunami being overwhelmed with resources."

Theme – Mentor Role

Mentor resource teachers play many roles in the program. Based on the literature, the role of the mentor is acknowledged as an essential component at the heart of professional development in schools (Rowan, 1990). The following statements show reactions of supervisors, mentors and teachers in response to the varying roles of the mentor resource teachers in Annatown County.

The supervisor reflected on the role of confidant. The following was said:

"I think something that new teachers tell me is that how in this school system they feel that perhaps in the cases of some people, there is only one person that they can go to that is truly confidential. The county mentor teachers are the only one. That's not the case with all new teachers. Many new teachers probably have that same confidence with perhaps their SAS or a curriculum and instruction specialist. I think that somehow we have been able to maintain that fidelity and it isn't just an accident because we actually have pretty lively conversations here in our shop sometimes. We say, 'gee, if we do that, are we kind of starting to slide over to something that is going to feel evaluative? Is the way that message is going to come forward?' It is very frequent for us to bring up

something and for someone to say, 'I'm not really sure about that.' I think that a huge strength is that complete fidelity we have to a very confidential program. I think many people here would know the depth of the issues that the mentors are aware of because they so skillfully handle it and carry it."

A mentor resource teacher responded to the role of being non-evaluative by stating:

"I was just thinking. Many mentor program mentors are involved in the observation process and we are not at all. And I think that helps people feel more comfortable and sometimes share things they may not be comfortable sharing with an administrator."

Another mentor resource teacher said:

"The non evaluative piece is something that we really stress and we value that and try hard to protect it."

The response from another mentor resource teacher was:

"Administrators and supervisors that have been in the county for several years really honor that. And I don't think that we're very often asked to give up information. Even though we would say no, we would refrain from it. Most people now know not even to put us in that situation of asking."

Theme – Learning Community

Fullan (1993) stated, "The ability to collaborate on both a large and small scale-is one of the core requisites of post modern society...In short, without collaborative skills and relationships, it is not possible to learn and to continue to learn as much as you need in order to be an agent for social improvement" (pp17-18).

This quote was observed as an important factor in the mentor program. The supervisor of staff development expressed:

"One of the reasons this year that we are really growing is because we're learning so much about new teachers. They are used to being very much in a community of learners and to really learn this whole idea of it's a network is really cool to them. It's not just you and the new teacher working together. There is an advantage of bringing in 6 of the people you work with and bring them together in as a small learning community. They're all new teachers and they teach each other. So I really see that we're building a network of new teachers and connecting them out across buildings and out across schools."

Classroom visitations are another component in which mentor resource teachers help promote small learning communities in which novices learn from each other. The supervisor of staff development had this to say as it relates to the classroom visitation process:

"The classroom visitation process is huge as well because you can talk – like the data – about it and for many people they have to see it. Even though classroom visitations are something that is available for anybody, we keep trying to plug it in for all veterans; the majority of the classroom visits when I look at who coordinated them, they are coordinated by mentor teachers. And thank goodness we really continue to have host teachers who are excellent. We've shifted that program this year so it can be differentiated even more. It's not like we just have three third grade teachers. What we know is that this teacher is struggling with guided reading groups and this teacher over in this school is really good with guided reading groups and this teacher also has Title I kids. What it lets you do is to really differentiate and they go over and they spend the day. Sometimes I wonder about the mentor teachers. They stay there with them for the purpose of shared reflection. We've also gotten into it's not just necessarily one new teacher. Sometimes it's two or three because then the power of their conversation is just so great."

A mentor resource teacher said:

"I would say as far as program strengths, anytime we can help the teachers network with other teachers, either through classroom visitation or at new teacher academy, job-like. Whether we can recommend another teacher for them to work with or plan with. I hate to say this but it's like the dating game. We're playing match makers. But sometimes we are. I've even had in the past teachers at one school planning with some teachers at another school because their own team wasn't working for them so they ended up teaming with somebody else so they started sharing things through email and stuff."

A teacher responded to this by stating:

"I think the greatest impact came from when I went on other visits with her to different schools to observe different classrooms."

Theme- Developing Reflective Practitioners

In responding to questions pertaining to level 2, learning, the theme, professional development, was reflected by the following statements. A mentor resource teacher said:

"Throughout the year, we'd rather have follow-ups with them to discuss topics."

Another mentor resource teacher said:

"And instead, we're trying to tailor and offer different things and let them choose, based hopefully on needs. So we're offering a topic series, which will start this month. The topic series, they can choose what they are interested in. There are 10 different sessions that are offered. If they attend any five, they can get one credit. If they attend all ten, they'll get two. And it's tailored to things we feel new teachers could use – classroom management, instruction things.

Another mentor resource teacher supported by stating:

"And that's an after hours thing. But there's been some during the day things.

Secondary, you did classroom management seminars. Elementary has done guided reading. We have Jeanie Fish doing one coming up on literacy centers. We have some

grade level things happing during the day. So instead of having them come from 4:30 to 6:30, when there're not thinking, we can cover half a day with a substitute and offer them something a little more – when they are a little more relaxed and hopefully it's a little more meaningful to them, also because they get to pick and choose."

The following statement was shared by another mentor resource teacher:

"X brought up the follow-ups. In the past, we had four follow-up sessions, 8 hours in total. 4 of those hours were for supervisors so we really only had 4 hours when we pulled back in as a group. I think we all fear losing that time. However I had face to face time with my mentees much more than the 4 hours and already all of us have brought them back in for a month. What can you do for 2 hours after school? So while we've lost that our follow-up now, it's not forced into a two hour time at the end of the school day. (Y- That they resent.). It's more looking at their needs even more purposed."

A teacher stated:

"Another greatest impact also came from the follow-up workshops. Once I had that, some of the things they gave us at the beginning and coming and following up then I knew what I could actually talk about. That was nice to meet with other people within the mentor program."

Theme-Caseloads

According to Comar, 13A.07.01.05, the maximum ratio of mentor to mentees is 1 mentor to 15 mentees unless the state superintendent grants a waiver based on good cause (Retrieved 2/23/09 http://www.dsd.state.md.us/comar/idq_files/search.idq). Caseloads, the amount of non-tenured teachers assigned to a mentor, was a very strong theme through all three groups. In addition to discussing the amount of teachers they supported, the topic of one-on-one support also emerged as participants spoke to the strengths of the program. The supervisor of the program noted caseloads as a weakness but not a true weakness because of the other supports in building. This was the response:

"Supervisor- I guess one weakness would be the caseload that they carry. They are higher than what Comar would like them to be. They are higher than what Comar says which is 15:1 but I always put the big but in there because we have SAS's. So it's not as if a new teacher shouldn't have a backup in the building when we look at the 15 to 1. That seems to vary. It is very different between elementary and secondary. When you get into the secondary level, SAS's, and because of people being content specific, aren't really viewed as a mentor in a way that may be in elementary. So their caseloads are still kind of high."

Even after mentioning caseload as a weakness of the program, the supervisor also supported the time that mentors are able to give their mentee as a strength.

"Supervisor- One strength of the program that I see is that it is focused on the opportunity for new teachers to have one-on-one conversations with mentor teachers. Through those conversations, the mentor teachers are either engaged as a consultant or they are just telling them what it is they need to know, which is sometimes when they are working with teachers, they realize teachers are in survival mode and they just need to be told what to do. It's not the ideal but it is the ideal. They can also move into collaboration and they can move into coaching. So, that gives time and it's labor intensive to be able to provide that. It is something where we've been able to have and continue to provide funding to any new teacher, any non-tenured teacher. So, and of course the skill; I see my mentor teachers as being extremely skilled in doing that. I would venture to say, the more that I have been in this position, I have not necessarily seen that other counties have that opportunity for the mentors to be so skilled to do that. And other people and other roles are quasi-coaching."

On the other hand, many felt that the one-on-one support was not enough. A mentor resource teacher supported this theme by stating:

"My biggest concern is I have 40 teachers [on my caseload]. Getting to give everybody the time that I wish I had. Time. Time is always an issue. I have trouble getting around some days especially when there are other things happening that I miss a day. Like next week is a 3 day week and I have a visit one of those days so I'm down to 2 days. And it is very hard to cover all my bases sometimes."

Another mentor resource teacher added:

Since I'm staff developer too, I only have Harrison Ele. I find I have time to spend not only with my teachers that need intensive help but time even with the ones that need minimal. They're the ones that you can really coach. Time to actually coach and not be that constant rushing out the door to the next stop is helpful.

A teacher responded to this theme by stating:

"I have to say or preface this with as far as my mentor was concerned, if I specifically asked for something, you know, I got it. I have nothing negative to say about the individual. I think one of the weaknesses in the program, or what I wonder might be a severe weakness is, it's like parole officers. There are so many, at least when we started, there were a lot of new teachers in the building so I didn't get to see very much of her. When I saw her, I loved it. So, sometimes I wonder if the numbers are the problem. The ratio of mentors to teachers is a problem."

On the contrary, one teacher saw the one-on-one support as a program strength. The teacher stated:

"I think that a true strength of the program is that because she's dealing with you one-on-one it becomes tailor made. So it's automatic. She's responding to your needs, if you can articulate them. Usually, she's articulating them for you. Well, you need to be doing this, you need this..."

Theme- Special Education

When asked questions regarding their reaction to program training weaknesses, the supervisor of staff development said:

"We still have, I guess, the one issue that probably comes up the most is questions and concerns about special education. We try to fill that gap by having all the specialty positions paying somebody who is a special ed person in that same little niche to support. It's still even [an issue] with the general ed teachers though. It is an area where it seems like exactly how does this work in this building and what's the delivery method. I guess that's maybe partially because it is relatively new to our system."

One mentor resource teacher also saw special education as a program weakness.

The mentor resource teacher responded by stating:

"I think I struggle with special education. None of us on the team have been special education teachers and I *think that needs to be the model that changes in our county*. And their needs are very different. As well as those who are kind of on the fringes. They are new employees but necessarily new educators in the traditional sense of teaching. So when we have occupational therapists, speech pathologists, I sometimes feel very limited in my ability to help them."

Another mentor resource teacher supported the quote above by stating: "I would agree."

Level 2- Learning Gained from the Training

Research Question 5a

What did the various stakeholders (teachers participating in program, mentor resource teachers, mentor program supervisor) learn as a result of their role in the mentoring program?

According to Kirkpatrick (1998), there are three components that those in a training, or the case of this study mentoring position, can teach: knowledge, skills and attitudes. Participants were asked the following questions in order to measure the learning that occurred during the mentorship period:

- Where have you seen the greatest growth? (What knowledge was learned?)
- What skills were developed or improved?
- What attitudes were changed?
- How have you facilitated that growth?

Theme-Reflective Practitioners

The goal of Annatown County's mentor program is to develop practitioners that are reflective in their practice. Costa and Garmston (2002) identify five regions of reflection. Teachers are reflective when they:

- Summarize impressions and recall supporting information.
- Analyze casual factors; compare, analyze, infer, and determine cause and effect relationships.
- Construct new learning and applications.
- Commit to applications.
- Reflect on the coaching process and explore refinements (p.40).

The supervisor of staff development responded to the question of where the greatest growth has been seen by stating:

"I know that they typically rate the problem solving and reflective conversations as the areas that they felt were the most beneficial. They've learned how to be a reflective practitioner. They learn how to go and find the resources that they need even if the mentor is not there, which is a big part of what it is we want them to do. But they learn how to solve problems.

A mentor resource teacher recalled a situation in which she was elated by the fact that a teacher was beginning to be reflective. She responded to the same question by stating:

"We want them to be risk takers. You want to give them a comfortable place to fail. And say, that was crappy. What are you going to change next time. What would you have liked to? For example writing, sometimes they will show me a student's writing- this was all I could get. Well, something has to change. And right now this is all you're getting out of them. So, they realize, I'm the one that has to change what I'm doing. It's not always the kid's fault. Sometimes just getting that huge perspective because they want to say, look, I can't get them to write, they can't, this is all I can get them to write.... And so just having them change the way they view it that the only thing you can control is what you are doing."

Another mentor resource teacher said:

"The key is having them be able to look back at their practice and question what they're doing and be willing to change it. And be open to maybe this isn't exactly what it needs to be. I could go try something else. They are not going to teach the way they were taught or the way their teammate tells them or within their learning style."

One teacher responded by stating:

"I really benefited from the conversations we would have after she watched me teach."

Another teacher said:

"She made me figure out the answers and how to use what I already know to improve my teaching."

Theme-Mentor Role

Learning was also seen to occur based on the role of mentor. One mentor resource teacher discussed that depending on the needs of the teacher, she would decide which role to play in that given situation. She said:

"I think I have facilitated that probably through a lot of reframing for them. For example, a teacher yesterday just looked at the data for math scores, for the 8th grade, and predicting MSA success and the data was just really, really, awful. And she was feeling like there was nothing she was going to be able to do and why did she even decide to take this job; she was coming from another field of education and when I asked her what is it at the end of the year that you want your students to have. She said I want them to have hope. I want them to have hope that their lives could be different and they could be better. And then going from that to kind of back tracking, then what is it you did today that you see may have given a child hope for something? So that they can see even when the data isn't what they want it to be, that there is hope and there's other things to work for. So, through a lot of reframing, mostly through coaching, paraphrasing, just asking those deeper questions of what it is that matters most to them. How will they measure their success because if all they look at is testing and they look at their test scores and the last benchmarks are not what they want it to be, it is really easy to feel, I'm a failure without looking at all those other things."

Another statement that was made by a mentor resource teacher was:

"In my experience, a lot of that when I talk about the resiliency and the support emotionally, a lot of that is through coaching. I think when it comes to instructional strategies, classroom management, time, space, organization, a lot of that is more coaching."

Another mentor resource teacher said:

"I feel more comfortable with my ability to step back and not be the person with all the answers. I feel like I say this all the time - I'm really not the expert in this area, but... I feel like I do more collaboration than I have in the past. And I feel like teachers are very receptive to that. Some may want us to have the answers and some may need us to have the answers but to step back from that and to say you know what, let's kind of work through that together. I think that is where I have seen a lot of growth with teachers."

Theme-Learning Community

The supervisor for staff development expressed that in her role to facilitate mentor growth, she makes sure that mentor teachers are continuous learners. She stated:

One of the things that I wanted to make sure when I came here was that the mentors in CP3 were connected with curriculum and instruction so that in some ways, the CP3 mentors were the jack of all trades. They don't need to know everything about the content. Actually my secondary mentors are not content specific. They could be working with a person who is a math teacher and this is an English teacher. But they know enough. The elementary teachers know content pretty well because they were general education teachers themselves so they're in that same world. The secondary, they know enough to know who it is that that person needs to speak to in order to connect them with that person. If it's their own content, then they know obviously more about it. But I think one of the things I really tried to do was to make sure that we weren't just about talking to you."

She has helped to facilitate the process of mentors growing and learning and being able to better provide services to new teachers by providing them with monthly professional development.

"I work with an outside consultant and she does the monthly training and she also does the in-the-school visits/observations and feedback to them. I talk with her about issues that I hear either directly from new teachers or from supervisors who are working with new teachers or that I hear through individual planning meetings. I have individual

planning meetings for mentors. And even in that regard, I try to have them sort of guide the agenda. I ask, what are the things that you need to talk about? I'm able to take from that and share with the consultant the kinds of strands and things that I heard and then we connect them together. Then, we also have a monthly mentor program meeting."

Overall, there was clear acknowledgement that the training component of the mentor program has positive impact in the implementation of building new teacher knowledge and skills. Mentor resource teacher support was seen as adequate in terms of having someone to ask for specific questions and discuss resources. There was a need for mentor teachers to be seen more in all roles: coach, collaborator and consultant.

Summary

This chapter presented findings associated with the study. A mixed-methods approach which utilized both quantitative and qualitative methods was used to address the four research questions. Chapter V includes this study's findings, recommendations for further study, and recommendations for practice.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

The following section will further address the results that were gathered from the survey as well as from the focus groups and interview. This section is divided into several key areas which include purpose of the study, statement of the problem, research questions, methodology, findings of the study, conclusions and recommendations.

Purpose of the Study

The purpose of this mixed-methods study was to assess the perceptions of those associated with Annatown County Public Schools' Mentor Teacher Resource Program, which is only one component of the overall mentoring program. The behaviors and practices were discussed from the perspectives of teachers who participated in the program during the 2005-2006, 2006-2007, or 2007-2008 school year, from mentor resource teachers and the supervisor of staff development. The researcher adapted Carter's (2005) Beginning Teacher Survey to collect data for the quantitative portion of the study.

This study also examined the importance of mentoring activities that enable new teachers to be successful in the beginning years of teaching. To provide additional insight to the behaviors and practices of participants that may not be available through general quantitative research methods, a qualitative methodology was utilized using Kirkpatrick's Four Level Evaluation Model to prepare questions to guide the focus groups and interview.

Statement of the Problem

Life for new teachers has traditionally been a "sink or swim" proposition (Ingersoll, 2003). Beginning teachers enter the profession eager to teach and enrich lives, but from the very first day in their own classroom, they are faced with challenges and

responsibilities. Although all new teachers in Annatown County Public Schools are assigned a mentor resource teacher their first two years in the district, there is still a percentage of teachers who leave the profession.

Historically, schools have not been set up to support learning of novice teachers (Sarason, 1990). A Teacher Follow-up Survey (TFS) by the National Center for Education Statistics (NCES), 2000-2001, shows that mentoring does make a difference. Results from the survey indicate that the rate of attrition among teachers who had been in a mentoring program was 11.8% while the rate of attrition for those novices that did not participate in a mentoring program was 18.6%.

The number of mentor programs in the United States has dramatically increased over the years. Within those programs, the role of the mentor teacher is critical in increasing productivity. Few empirical research studies of the mentor's role have been documented. This study involved the investigation of one district's program to assist novice teachers in the profession. In high-risk rural schools, a shortage of quality teachers has compelled school leaders to examine programs in place to recruit and retain new teachers (Kritsonis, 2008).

Research Questions

Prior to beginning the research, the following research questions were developed to provide the structure for data collection and analysis.

- 1. Are there differences in mean perceptions of teachers who participated in the program during the 2005-2006, 2006-2007, and 2007-2008 school years as to the effectiveness of the mentor-teacher program with regard to the roles of coaching, consulting, and collaborating between teachers at the elementary, middle, and high school level?
- 2. Are there differences in mean perceptions of teachers who participated in the program during the 2005-2006, 2006-2007, and 2007-2008 school years based on the

year they entered the program as to the effectiveness of the mentor-teacher program with regard to the roles of coaching, consulting, and collaborating?

- 3. Are there differences in mean perceptions of teachers who participated in the program during the 2005-2006, 2006-2007, and 2007-2008 school years based on their age as to the effectiveness of the mentor-teacher program regarding the roles of coaching, consulting, and collaborating?
- 4. Are there differences in mean perceptions of teachers who participated in the program during the 2005-2006, 2006-2007, and 2007-2008 school years as to the effectiveness of the mentor-teacher program based on their gender regarding the roles of coaching, consulting, and collaborating?
- 5. How did various stakeholders (teachers participating in program, mentor resource teachers, mentor program supervisor) react to the overall effectiveness of the mentoring programs?
- 5a. What did the various stakeholders (teachers participating in program, mentor resource teachers, mentor program supervisor) learn as a result of their role in the mentoring program?

Methodology

This study used both quantitative and qualitative research methods as a means to provide relevant insights and potential solutions to the research questions. For the quantitative portion of the study, the Beginning Teacher Survey was administered to teachers who participated in Annatown County's mentor program during the 2005-2006, 2006-2007 or 2007-2008 school year. The instrument was designed to measure teacher perceptions of the effectiveness of mentor roles. Of the 30 statements on the survey, ten statements measured the mentor's role as coach, ten statements measured the mentor's role as collaborator.

The qualitative portion of the study was designed by conducting two focus groups and one interview. The research participants for the focus groups included teachers from the elementary, middle, and high school level, and mentor resource teachers working with teachers at the elementary, middle and high school levels. The interview was conducted with the supervisor of staff development. The sessions were transcribed and sent to participants to ensure accuracy. The researcher used Kirkpatrick's Four Level Evaluation model, level one, reaction, and level two, learning, as a lens for analysis. Participant names or identifying schools were not included in the transcription.

Summary of Quantitative Survey Findings

Based on the results of the survey, findings indicate a strong degree of inter-item reliability. This assumption is made based on the computation of Cronbach alphas on the three domains.

Finding #1: The instrument had a high degree of reliability across the three domains tested.

Finding #2: A one-way analysis of variance compared elementary, middle and high school teachers' perceptions of the mentors' role as coach. The results indicated that middle school teachers were more likely to feel that their mentor was a coach than high school teachers. There were no differences between elementary and middle schools.

Finding #3: A one-way analysis of variance compared differences among elementary, middle and high school teachers' perceptions of the mentors' role as consultant. The results indicated that elementary and middle school teachers had statistically higher mean scores than did the high school teachers.

Finding #4: A one-way analysis of variance compared differences among elementary, middle and high school teachers' perceptions of the mentors' role as

collaborator. The results indicated again that elementary and middle school teachers had statistically higher mean scores than did the high school teachers.

Finding #5: A one-way analysis of variance compared differences in teachers' perceptions of the mentors' role as coach based on the year they entered the program. The data revealed that there were no statistically significant differences among these teachers with regard to the role of coaching based on the year of entry into the program.

Finding #6: A one-way analysis of variance looked at differences in teachers' mean perceptions of their mentors' consulting role based on the year they entered the program. The results show there were statistically significant differences. The teachers in the 2006-2007 group rated their mentor's consulting role significantly higher than did the teachers in the 2005-2006 and 2007-2008 groups.

Finding #7: A one-way analysis of variance compared differences in teachers' perceptions of their mentors' role as collaborator based on the year they entered the program. They data show that there were no statistically significant differences among teachers with regard to this role.

Finding #8: A one-way analysis of variance of differences in teachers' perceptions of their mentor in the role as coach based on their age was conducted. Based on teachers' age, there are no statistically significant differences in teachers' perceptions of their mentor in the coach role.

Finding #9: A one-way analysis of variance of differences in teachers' perceptions of their mentor in the role as consultant based on their age was conducted. Based on teachers' age, there are no statistically significant differences in teachers' perceptions of their mentor in the consultant role.

Finding #10: A one-way analysis of variance of differences in teachers' perceptions of their mentor in the role as collaborator based on their age was conducted. Based on teachers' age, there are no statistically significant differences in teachers' perceptions of their mentor in the collaborator role.

Finding #11: An independent t-test of differences in teachers' perceptions of mentors in the roles of coach, consultant and collaborator based on gender confirmed no statistically significant differences.

Conclusions Based on Quantitative Results

The researcher used a one-way analysis of variance to look for statistical differences in research questions one through three. The conclusion reached on research question one is that high school teachers were the least receptive of mentor roles. This finding could be rationalized because of the fact that mentor teachers and new high school teachers are not necessarily matched by content area. Therefore, high school teachers may have felt that they needed someone who better understood their content area. This implication would be a better need for alignment with research that says novice teachers should have mentors that teach the same grade level or content area (Huffman & Leak, 1986).

The conclusion reached on research question two, which compared mean perceptions of teachers who participated in the program based on their entry year, showed that there was a statistically significant difference based on year of entry, only for consulting, between year 1 and year 2 participants. The researcher was surprised at this finding. The researcher expected to see a difference in the mean perceptions of those in 2007-2008 group because this group of participants had the opportunity to participate when the program had been in its fullest implementation as compared to those who participated in the 2005-2006 group when the program was in its early years of implementation. A reason for this significance could be because during the 2006-2007

school year, a new supervisor was appointed to the department that supervises the mentor program.

For research question three, the data indicated that there were no statistically significant differences in teachers' mean perceptions of the roles coach, consultant and collaborator based on the age of the teachers. This researcher concluded that age was not an important variable in this study.

An independent t-test was used to answer research question four which compared differences in teachers' perceptions of mentors' role as coach, consultant and collaborator based on gender. There were no statistically significant differences. The researcher concluded that whether or not the new teacher and mentor were of the same gender, the quality of support was not an issue. New teachers showed respect for the mentor and mentor teachers were comfortable providing support to new teachers regardless of a gender match.

Supported by previous research, the results of this study indicate that mentor teacher support played an effective role in the enhancement of new teacher professional growth (Feimer-Nemser, 1996). Also supported by the research is that teacher preparation methods such as mentor support helps keep teachers in the classroom because they are more prepared and less stressed about the many duties of new teachers (Hayes, 2006).

Qualitative Findings

Focus groups were conducted with teachers that participated in the program during the school years 2005-2006, 2006-2007, and 2007-2008, mentor resource teachers, and program supervisor. In order to reduce the risk of having one perspective, the method of triangulation as a data collection method was used. Triangulation provided a way of collecting information for a diverse range of individuals and setting (Maxwell, 1996). The following findings were based on discussions from focus groups and interviews:

Finding #1- In analyzing responses in terms of gender differences of the teachers participating in the study, there were none. There was no data from focus group discussions that showed that gender had any affect on the relationship between new teachers and mentor resource teachers. When new teachers were asked if gender affected their relationship, their response suggested that it was a professional working relationship and gender differences had no impact.

Finding #2- In analyzing responses in terms of age groups of the teachers participating in the study, there were none. Data from focus group discussions determined that age had no affect on the relationship between new teachers and mentor resource teachers because all behaved in a professional manner. If the new teacher were older than their mentor resource teacher, they still showed respect for the knowledge the mentor was there to offer.

Finding #3- In analyzing responses in terms of the year teachers entered the mentoring program, the teachers in the 2006-2007 group rated their mentor's consulting significantly higher than did the teachers in the other two years. This finding could be because this particular group had the highest survey response rate. In addition, this was the second group of participants since the program's implementation. Therefore, based on results from the program's first year, the program could have made improvements.

Finding #4- In analyzing responses in terms of the teaching level of the teachers participating in the study, elementary teachers were more receptive to taking new ideas and implementing suggestions made by the mentor resource teachers. Based on focus group discussions, data reveal that elementary mentor resource teachers are better able to relate to their mentors because they are more familiar with the content. At the secondary level (middle and high school), the mentor teacher may not have taught the same content area as the teacher they are mentoring. Therefore, the mentoring is more focused on non-instructional items such as classroom management and organizational skills.

Finding #5- Classroom management was the most ranked area of need from mentor resource teachers according to middle school and high school teachers. Focus group data gathered showed that at the middle and high school levels, more non-instructional strategies were the focus of the mentoring. Middle and high school teachers receive the majority of instructional/content support from department chairs.

Finding #6: The county's mentor program is very receptive to change based on feedback from participants. As a result, changes to improve the program were implemented based on previous feedback. Participants shared that such changes include but are not limited to the reduction of days for the New Teacher Academy, Mentor/Mentee Partnership, and workshop follow-up sessions.

Finding #7- Focus group data concluded that elementary mentor resource teachers found that providing guidance to new teachers was not as challenging because they were more familiar with the structure and curriculum. Secondary mentor teachers provide support to teachers in all content areas/disciplines so they may or may not be familiar with the content area of the teacher(s) they are mentoring.

Finding #8- Most teachers participating in the program felt that the program was beneficial. However, statements made by the teachers during the focus groups suggested that they would have preferred more demonstration lessons from their mentors.

Finding #9- Most elementary teachers felt that the most valuable activity with their mentor was visiting another teacher in the grade level at a different school.

Discussions from the focus groups confirmed that watching other teachers teach helped them to see discussed strategies in action and this gave them hope and confidence.

Finding #10- Mentor teachers agreed that the role in which they performed as a mentor (coach, consultant, collaborator) was dependent upon the teacher and what he/she needed at the time. Based on focus group discussions, the mentor resource teachers felt

that there were times when they just had to tell new teachers what to do but the ideal is to coach them so that they will be able to make sound decisions independently.

Finding #11- The supervisor of staff development, mentor resource teachers and teachers participating in the study all agreed that the number of teachers on mentor resource teachers' caseloads were high. Statements made by teachers during the focus groups were that at times they felt their mentor performed "drive-by" services. Mentor resource teachers found conflicts at times between attending professional development opportunities and meeting with their new teacher.

Finding #12- The supervisor of staff development, the mentor resource teachers and teachers participating in the study identified the non-evaluative nature of the program as a strength. Because it is non-evaluative, new teachers felt more comfortable opening up and discussing issues/concerns with their mentor resource teacher. Mentor resource teachers emphasized the fact that it is very much valued and they try hard to protect the nature of it.

Conclusions Based on Qualitative Results

A number of this study's findings supported previous research conducted on mentor programs. Similar to previous research (Rowan, 1990, Feiman-Nemser 2001), this study found that the school district perceived a need to continue to implement its mentoring program. From the focus groups' discussions of Kirkpatrick's level 1, reactions, it was determined that regardless of their teaching level or level of experience, all of the mentor resource teachers and teacher participants acknowledged that participation in the program had some form of positive impact. The highest viewed form of support received was emotional support.

In the research, the importance of the role of the mentor is acknowledged as an essential component in developing the growth of new teachers (Rowan, 1990). In the area of Kirkpatrick's level 2, learning, findings from the focus groups confirmed the

importance of mentor roles. The researcher concluded that based on the situation and needs of the new teacher, the mentor resource teacher made the determination of the best role to implement to help the teacher to be successful. Mentor resource teachers felt that the role of consultant is most used in the beginning of the relationship. To maintain the role of coach was their goal in the end of the relationship. On the other hand, new teachers would have liked to see the mentor resource teacher implement the collaborator role more frequently. Through the collaborator role, new teachers would have liked to have their mentor resource teacher team teach and assist more in planning lessons.

The findings from this phase of the study support previous literature regarding mentor roles. According to researchers, the importance of the role of the mentor is acknowledged as an essential component at the heart of professional development for new teachers (Rowan, 1990). Mentors need to be knowledgeable about the various needs of new teachers and be able to change roles based on the new teacher's present situation (Rowan, 1990).

Another finding from this study which supports research conducted by Wilman et al (1992) is the type of assistance provided by mentor teachers. Mentors in this study noted that encouraging reflection was an essential piece to professional growth. When teachers are able to reflect on their practice, they become aware of the strategies they can use to learn and understand when, how, and why these strategies operate. They are also able to better monitor their own performance and evaluate their progress against specific criteria.

Recommendations for Future Practice

The need to produce reflective practitioners will continue to be at the forefront of educational systems. As this need arises, the need to provide teachers with the support necessary to help them grow will need to be addressed. The findings from this study have several implications and recommendations for school districts interested in creating

reflective practitioners through mentoring programs, state departments of education interested in supporting the development of mentoring programs, and the school district involved in this study.

Recommendations for Districts Interested in Developing Mentoring Programs

- 1. School districts concerned with increasing the quantity and enhancing the quality of their new teachers should consider implementing a mentoring program in which the role of the mentor teacher is the most important component of the program. The role of the mentor teacher should be clearly defined and there should be clear expectations of what new teachers should gain from the relationship.
- 2. Understanding what roles are most beneficial to the enhancement of new teacher professional development will help in developing effective mentor –teacher relationships.
- 3. There are clear benefits to developing mentoring programs. In rural districts, where costs may be prohibitive, utilizing technology to reduce the potential costs of hiring mentors is a viable medium to provide services to clients. Rural districts may not be able to provide funding to reduce mentor workloads. As an alternative, rural districts may choose to create web-based portals containing lessons for specific content areas, articles and resources to support teachers in content areas, and to conduct webinars on topics relevant to the school district. Phone conferences, where a mentor can speak to a number of conference participants at their locations, can continue to provide emotional support to new teachers, while allowing the mentor to maximize the use of time and resources.
- 4. Rural districts should consider working collaboratively to hire mentors, especially at the secondary level, who are content specific to support new teachers in their content area. In districts where there are only one or two teachers that need support, it may not be feasible to hire a mentor within the candidate's content area to support

them. However, in critical areas, rural districts can collaborate to hire a mentor to support candidates at the secondary level in multiple districts.

Recommendations for State Department of Education

- 1. According to the Code of Maryland Regulations (COMAR), an adequate mentor-mentee ratio should be 15 to 1. In Annatown, mentor resource teachers can have as many as 50 or as few as 25 teachers for their caseload. Therefore, state departments of education can assist in providing funds for districts to hire additional mentor teachers to reduce the mentor to new teacher ratio.
- 2. State departments of education should continue to provide funding to school districts to implement mentoring programs. Providing beginning teachers with exemplary mentor teachers is a way of retaining new teachers. Darling-Hammond and Sykes (2003) advise that in the years ahead, the chief problem will not be producing new teachers, but in preventing the exodus of new teachers from the profession. The problem of "churning" (Ingersoll, 2003) which results in a constant influx of inexperienced teachers is caused largely by insufficient support of new teachers in the first three years.

Recommendations for Annatown School District

- 1. The school district should continue implementing the program. Based on findings from the study, the school district has a program that is functioning at a satisfactory level and should continue to be implemented. Teacher participants at the elementary, middle and high school levels all found benefits of the programs. Mentor resource teachers and the supervisor of the department also found huge benefits of having the program and good results in terms of the success of new teachers using practices that were guided by mentor resource teachers.
- 2. Previous research on effective mentoring programs has concluded that in an effective program, the mentor must be able to spend a considerable amount of time with

the new teacher (Moir & Bloom (2003). Findings from this study reveal that some new teachers felt that their mentor teacher provided them with "drive-by" meetings. Therefore, it is recommended that mentors give teachers quality time in providing them with the needed support. To do this, the mentor should inform the new teacher in advance of when he/she will be coming. The new teacher should provide the mentor with areas in which he/she would like to focus and the allotted time needed for debriefing.

Recommendations for Further Studies

- 1. It is recommended that a case study be conducted with mentor teachers working with teachers at the high school level. This recommendation is being made because this study found that high school teachers valued the roles of their mentor teacher less than both elementary and middle school teachers. In order to gain more insight into the reason for this finding, a case study would be a more appropriate method.
- 2. This study focused on one small school district. It was a correlational study and it was not designed to explore causal relationships between participation in mentoring program and retention rates. The purpose of this study was to provide evidence concerning the degree of the relationship, if any, between new teacher and mentor teacher roles as it pertains to enhancing new teacher practice. There is insufficient data to make any causal claim. Further research is needed to explore causality that could assist in further developing more knowledge in the field of mentor teacher roles and teacher retention rates.

Appendix A

Mentor Resource Teacher (MRT) Job Description

MINIMUM REQUIREMENTS:

- Eligibility for State Department of Education teacher certification.
- Five (5) years of successful classroom teaching experience.
- Demonstrated effective human relations skills as evidenced by previous experience
- Knowledge of research-based strategies that lead to increased student achievement and best practices for teaching and learning.
- Knowledge of Annatown County Public Schools' (ACPS) Master Plan, Maryland's Teacher Professional Development Standards, and current legislation and implications for public schools professional development.
- Ability to communicate effectively verbally and in writing.
- Ability to organize, facilitate, and manage multiple tasks and projects.
- Ability to work beyond the regular work day for additional pay in order to provide professional development for ACPS staff
- Ability to perform the essential functions of the position with or without reasonable accommodations.

PERFORMANCE RESPONSIBILITIES:

- Assist non-tenured teachers to improve instruction in order to increase student achievement.
- Provide direct support to non-tenured teachers in curriculum, instructional planning, assessment, classroom management, and related activities.
- Provide feedback regarding instructional effectiveness based on classroom visits and reflective dialogue.
- Design and/or research materials, trends, and issues to provide resources for nontenured teachers.
- Work in collaboration with all school staff (Student Achievement Specialists, Department Leaders and tenured teachers) to provide support to non-tenured teachers through involvement in school professional development initiatives, programs, and learning experiences
- Collaborate with other appropriate staff (mentor teachers, curriculum and instruction specialists, school and Central Office staff) to enhance support for teachers and ensure alignment and consistency in practices and procedures
- Coordinate support services to tenured teachers, as requested.
- Develop, plan, and conduct professional development activities for ACPS staff.
- Demonstrate leadership in researching resources, program trends, and issues to engage the mentor program in continuous process improvement.
- Participate as a mentor team member to implement, document, and evaluate, the mentor and other professional development programs.
- Develop and maintain efficient organizational methods and tools, including required documentation of program goals and benchmarks.
- Demonstrate courteous and professional treatment of all students, parents, and employees of Annatown County Public Schools.
- Assume other duties as assigned.

Appendix B

Cover Letter

Dear Educator.

I am a doctoral student attending the University of Maryland. I am doing a study on the County's mentor program which has been approved by the school system.

As a past participant in the mentor program, you are being asked to participate in a review of the Washington County Public School Mentoring Program. Your participation is needed to ensure a comprehensive and balanced view of the mentoring program. Although the study has the support of the school district, it is being conducted as a doctoral dissertation.

This research will be used to ensure that the county mentor program continues to provide beginning teachers with the most appropriate support. The instrument is not coded, and no individual or school will be identifiable. The electronic survey program will, however, note which responses have been received and will resend electronic reminders to non-respondents after a period of a few weeks.

Participation in the survey should take 10 to 20 minutes. Participation in this study is voluntary.

I thank you in advance for your prompt attention to this request and for putting forth your best efforts in answering the questions as accurately and honestly as possible.

If you have any questions, please feel free to contact me at 301.797-6296. My email address is josepoch@wcboe.k12.md.us. You may also contact Dr. Carol Parham, chairperson of my committee, by calling the university at (301) 405-4962.

If you are willing to complete the survey, please click "Next" and follow the directions which appear at the beginning of the survey.

Thank you for your participation.

Sincerely, Ocheze Joseph Assistant Principal, Fountaindale Elementary University of Maryland Doctoral Student

Appendix C

Permission To Modify Instrument

From: "Sadie Carter" sadiecarter@johnston.k12.nc.us
"Ocheze JOSEPH" <JosepOch@wcboe.k12.md.us>

Date: 4/1/2008 4:55 PM **Subject:** Re: instrument

Hello Ms Joseph,

It was a pleasure speaking with you today. It is with pleasure that I give you permission to modify my survey instrument from my dissertation to acquire the necessary data needed to either affirm or negate the answers to your research questions in your dissertation. It is my understanding that the modified instrument will be used for the sole purpose requested and nothing more. With that understanding, please move forward and add to the body of knowledge critical to the growth of this profession.

If I can be of further assistance to you, please let me know.

Sadie J. Carter, Ed.D. Director of Human Resources (Classified) Johnston County Public Schools P.O. Box 1336 Smithfield, North Carolina 27577 (919) 934-6032 Ext. 248 Fax (919) 989-1095

Appendix D

Permission From IRB



2100 Lee Building College Park, Maryland 20742-5121 301.005.4212 Tzt. 301.314.1475 FAX trh@dears.omd.edu www.umresearch.und.edu/IRD

April 11, 2008

MEMORANDUM

Application Approval Notification

To:

Dr. Carol Parham

Ocheze Joseph

Department of Education Leadership, Higher Education, and

International Education

From:

Roslyn Edson, M.S., CIP (C)

IRB Manager

University of Maryland, College Park

Re:

IRB Application Number: # 88-0196

Project Title: "A Study of the Effectiveness of Mentor Roles in a

Rural School District"

Approval Date:

April 10, 2008

Expiration Date:

April 10, 2009

Type of Application:

Initial

Type of Research:

Non-Exempt

Type of Review

For Application:

Expedited

The University of Maryland, College Park Institutional Review Board (IRB) approved your IRB application. The research was approved in accordance with 45 CFR 46, the Federal Policy for the Protection of Human Subjects, and the University's IRB policies and procedures. Please reference the above-cited IRB application number in any future communications with our office regarding this research.

Recruitment/Consent: For research requiring written informed consent, the IRB-approved and stamped informed consent document is enclosed. The IRB approval expiration date has been stamped on the informed consent document. Please keep copies of the consent forms used for this research for three years after the completion of the research.

Continuing Review: If you intend to continue to collect data from human subjects or to analyze private, identifiable data collected from human subjects, after the expiration date for this approval (indicated above), you must submit a renewal application to the IRB Office at least 30 days before the approval expiration date.

Modifications: Any changes to the approved protocol must be approved by the IRB before the change is implemented, except when a change is necessary to eliminate apparent immediate hazards to the subjects. If you would like to modify the approved protocol, please submit an addendum request to the IRB Office. The instructions for submitting a request are posted on the IRB web site at: https://www.nunresessrch.umd.edu/filb/irb-Addendum/s20Protocol.htm.

Appendix E

Informed Consent Form

Page 1 of 3	
Initials	Date

CONSENT FORM

ALL FOCUS GROUP PARTICIPANTS

Project Title	A Study of the Effectiveness of Mentor Roles in a Rural School District
Why is this research being done?	This is a research project being conducted by Ocheze Joseph at the University of Maryland, College Park. We are inviting you to participate in this research project because you were a participant in the county's Mentor Program sometime between the 2004-2009 school years. The purpose of this research project is to measure the effectiveness of Washington County's mentor program as well as examine the extent to which teacher judgments about the program are related to demographics of the program and of the teachers.
What will I be asked to do?	You will be requested to participate in a focus group interview session. The researcher will ask participants to participate in a focus group interview of approximately one (1) hour in length. You will be asked 4 levels of questions in addition to some follow-up questions. These interviews will be scheduled at a time and location convenient to the participants.
What about confidentiality?	Participants for this study are all adults on a voluntary basis. We will do our best to keep your personal information confidential. To help protect your confidentiality: (1) your name will not be included on the surveys or other collected data: (2) the researcher will have access to the data. All data will be destroyed one year after the completion of this dissertation. All responses will be kept confidential. Subjects will be asked not to discuss the group members' responses outside of the focus group. Only the researcher will have access tot eh records of information obtained directly for tm the interviews. If we write a report or article about this research project, your identity will be protected to the maximum extent possible. Your information may be shared with representatives of the University of Maryland, College Park or governmental authorities if you or someone else is in danger or if we are required to do so by law.

Project Title	A Review of a Mentor Program in a Small Rural School
1.10,000.1100	District
What are the benefits of this research?	This research is not designed to help you personally, but the results may be used to help the school district consider modifications to be made to enhance the mentor program. We hope that, in the future, other people might benefit from this study through improved understanding of mentor roles
Do I have to be in this research? May I stop participating at any time?	Your participation in this research is completely voluntary. You may choose not to take part at all. If you decide to participate in this research, you may stop participating at any time. If you decide not to participate in this study or if you stop participating at any time, you will not be penalized or lose any benefits to which you otherwise qualify
Is any medical treatment available if I am injured?	The University of Maryland does not provide any medical, hospitalization or other insurance for participants in this research study, nor will the University of Maryland provide any medical treatment or compensation for any injury sustained as a result of participation in this research study, except as required by law.
What if I have questions?	This research is being conducted by Ocheze Joseph and EDHI at the University of Maryland, College Park. If you have any questions about the research study itself, please contact Ocheze Joseph at: 301-766-8158 or o.joseph@myact.net. If you have questions about your rights as a research subject or wish to report a research-related injury, please contact: Institutional Review Board Office, University of Maryland, College Park, Maryland, 20742;(e-mail) irb@deans.umd.edu; (telephone) 301-405-0678 This research has been reviewed according to the University of Maryland, College Park IRB procedures for research involving human subjects.

Page 3 of 3	
Initials	Date

Project Title	A Review of a Mentor Program in a Small Rural School District	
Statement of Age of Subject and Consent [Please note: Parental consent always needed for minors.]	Your signature indicates that: you are at least 18 years of age;, the research has been explained to you; your questions have been fully answered; and you freely and voluntarily choose to participate in this research project.	
Signature and Date	NAME OF SUBJECT	
	SIGNATURE OF SUBJECT	
	DATE	

$\label{eq:appendix} \mbox{ Appendix F}$ Permission from District Superintendent to $\mbox{ Conduct Study}$

March 23, 2009

Ocheze Joseph Assistant Principal Fountaindale School for Arts & Academic Excellence

Dear Ms. Joseph:

This letter serves to grant you permission to conduct your dissertation study within our local school system.

The dissertation study will focus on the topic of "A Study of the Effectiveness of Mentor Roles in a Rural School District." As discussed, the findings from your study will be shared with the school system staff prior to final publication.

Good luck with your research.

Michael D. Markoe

Appendix G

Beginning Teacher Survey

1. Consent Form

Dear Educator,

 ${\rm I}$ am a doctoral student attending the University of Maryland. ${\rm I}$ am doing a study on the County's mentor program which has been approved by the school system.

As a past participant in the mentor program, you are being asked to participate in a review of the Washington County Public School Mentoring Program. Your participation is needed to ensure a comprehensive and balanced view of the mentoring program. Although the study has the support of the school district, it is being conducted as a doctoral dissertation.

This research will be used to ensure that the county mentor program continues to provide beginning teachers with the most appropriate support. The instrument is not coded, and no individual or school will be identifiable. The electronic survey program will, however, note which responses have been received and will resend electronic reminders to non-respondents after a period of a few weeks.

Participation in the survey should take 10 to 20 minutes. Participation in this study is voluntary.

I thank you in advance for your prompt attention to this request and for putting forth your best efforts in answering the questions as accurately and honestly as possible.

If you have any questions, please feel free to contact me at 301.797-6296. My email address is josepoch@wcboe.k12.md.us. You may also contact Dr. Carol Parham, chairperson of my committee, by calling the university at (301) 405-4962.

If you are willing to complete the survey, please click "Next" and follow the directions which appear at the beginning of the survey.

Thank you for your participation.

Sincerely,

Ocheze Joseph Assistant Principal, Fountaindale Elementary University of Maryland Doctoral Student

. Part I				
DIRECTIONS Part I: This sec	ction contains specific act	ivities associated with the va	arious mentor roles.	
For each statement, indicate implemented by checking th				onent or activity was
1. My mentor				
helped me to develop effective classroom discipline skills.	Strongly disagree	Somewhat disagree	Somewhat agree	Strongly agree
2. My mentor				
helped me create strategies to engage all students in the learning.	Strongly disagree	Somewhat disagree	Somewhat agree	Strongly agree
3. My mentor				
helped me to create student assessment instruments.	Strongly disagree	Somewhat disagree	Somewhat agree	Strongly agree
4. My mentor				
helped me create purposes for student learning.	Strongly disagree	Somewhat disagree	Somewhat agree	Strongly agree
5. My mentor				
helped me to understand the Maryland Voluntary State Curriculum (VSC).	Strongly disagree	Somewhat disagree	Somewhat agree	Strongly agree
6. My mentor				
gave advice about how to set up and organize my classroom.	Strongly disagree	Somewhat disagree	Somewhat agree	Strongly agree
7. My mentor				
taught me how to design instruction that stimulated student learning.	Strongly disagree	Somewhat disagree	Somewhat agree	Strongly agree
8. My mentor				
helped me to facilitate authentic learning activities.	Strongly disagree	Somewhat disagree	Somewhat agree	Strongly agree
9. My mentor				
assisted me in collaborating with colleagues on committees and other school	Strongly disagree	Somewhat disagree	Somewhat agree	Strongly agree

10. My mentor				
assisted me in the interpretation of school system policies and procedures.	Strongly disagree	Somewhat disagree	Somewhat agree	Strongly agree
11. My mentor				
provided resource materials that helped me in planning instruction.	Strongly disagree	Somewhat disagree	Somewhat agree	Strongly agree
12. My mentor				
was available to help me clearly think through problem situations.	Strongly disagree	Somewhat disagree	Somewhat agree	Strongly agree
13. My mentor				
discussed the culture of my school.	Strongly disagree	Somewhat disagree	Somewhat agree	Strongly agree
14. My mentor				
gave advice about how to create different ways to involve parents.	Strongly disagree	Somewhat disagree	Somewhat agree	Strongly agree
15. My mentor				
helped me become a continuous learner.	Strongly disagree	Somewhat disagree	Somewhat agree	Strongly agree
16. My mentor				
taught me how to design lessons in which students mastered skills.	Strongly disagree	Somewhat disagree	Somewhat agree	Strongly agree
17. My mentor				
assisted me in collaborating with colleagues on committees and other school activities.	Strongly disagree	Somewhat disagree	Somewhat agree	Strongly agree
18. My mentor				
helped me to develop procedures for communicating with parents.	Strongly disagree	Somewhat disagree	Somewhat agree	Strongly agree
19. My mentor				
gave me advice about the first years of teaching.	Strongly agree	Somewhat disagree	Somewhat agree	Strongly disagree

20. My mentor				
shared and interpreted school site guidelines and procedures.	Strongly disagree	Somewhat disagree	Somewhat agree	Strongly agree
21. My mentor				
provided emotional support when needed.	Strongly disagree	Somewhat disagree	Somewhat agree	Strongly agree
22. My mentor				
provided feedback about my teaching.	Strongly disagree	Somewhat disagree	Somewhat agree	Strongly agree
23. My mentor				
encouraged my thinking about differentiated instruction.	Strongly disagree	Somewhat disagree	Somewhat agree	Strongly agree
24. My mentor				
asked open-ended questions about what student data mean.	Strongly disagree	Somewhat disagree	Somewhat agree	Strongly agree
25. My mentor				
helped me evaluate my own instruction.	Strongly disagree	Somewhat disagree	Somewhat agree	Strongly agree
26. My mentor				
helped me improve my repertoire of teaching strategies.	Strongly disagree	Somewhat disagree	Somewhat agree	Strongly agree
27. My mentor				
encouraged me to assess my teaching practices.	Strongly disagree	Somewhat disagree	Somewhat agree	Strongly agree
28. My mentor				
co-taught lessons with me.	Strongly disagree	Somewhat disagree	Somewhat agree	Strongly agree
29. My mentor				
demonstrated how to make decisions about my teaching.	Strongly disagree	Somewhat disagree	Somewhat agree	Strongly agree
30. My mentor				
served a valuable resource person.	0	0	\circ	0

3. Part II: Demographic Information
Please answer each question.
* 1. Gender:
Male
Female
* 2. In what school year did you begin the mentor program?
2005-2006
2006-2007
2007-2008
* 3. What is your current assignment?
○ K-5
9-12
Other (please specify)
other (predic specify)
4. Age group:
21-31
O 32-42
43-53
53+
5. My mentor resource teacher was a:
Male Female
6. My mentor resource teacher's certification was in my specialized certification area.
yes
○ no
◯ don't know

7. Frequency of mentor meetings: (Please check one.)	
Once a week	
once every other week	
Once a month	
once a semester	
If none of the above, please explain.	
a note of the dotte, prede explains	
8. On average, my mentor meetings lasted:	
less than an hour	
O one hour	
more than an hour	
* 9. I feel I needed:	
more support	
less support	
Comments:	
10. If you are an Encore teacher or secondary teacher, please check content	
area/discipline.	
Math	
O Art	
Media	
English	
Physical Education	
Science	
History	
Special Education	
Music	
Other (please specify)	

References

- Alliance for Excellent Education. (2004). *Tapping the potential: Retaining and developing high-quality new teachers*. Washington, DC: Author.
- American Federation of Teachers. (1998). Mentor teacher programs in the states. *Educational Issues Policy Brief*, 5, 1-13. Washington, DC: Author.
- Applegate, J. H., Flora, V. R., Johnston, J.M, Lasley, T. J., Mager, G. M., Newman, K. K., et al. (1977). *The first year teacher study*. Columbus, OH: The Ohio State University. (ERIC Document Reproduction Service No. ED135766)
- Awaya, A., McEvan, H., Heyler, D., Linsky, S., Lum, D., & Wakukawa, P. (2003). Mentoring as a journey. *Teaching and Teacher Education*, 19, 45-46.
- Bader, M. (2006). Education reforms. *Teaching & Learning*, 81(3). 12-17.
- Baker, D. (2002). Mentoring: Participant perceptions of a program's effectiveness. Dissertation Abstracts International, 63(05), 1788A. (UMI No.3053865)
- Ballantyne, R., Hansford, B., & Packer, J. (1995). Mentoring beginning teachers: A qualitative analysis of process and outcomes. *Educational Review*, 47(3), 297-307.
- Berry, B., Hopkins-Thompson, P., & Hoke, M. (2002, December). *Assessing and supporting new teachers: Lessons from the Southeast*. Chapel Hill, NC: The Southeast Center for Teaching Quality. (ERIC Document Reproduction Service No. ED474183)
- Boe, E., Barkanic, G., & Leow, C. (1999). *Retention and attrition of teachers at the school level: National trends and predictors*. Washington, DC: National Center for Education Statistics. ERIC Clearinghouse on Teaching and Teacher Education. (ERIC Document Reproduction Service NO. ED436485)
- Brown, C. M. (1990). The role of the mentor teacher in developing beginning classroom teachers: The perspective from selected exemplary school districts in the United States. *Dissertation Abstracts International*, 52(021), 507A. (UMI No. 9118191)
- Buttery, T. J., Haberman, M., & Houston, W. R. (1990). First annual ATE survey of critical issues in teacher education. *Action in Teacher Education*, 12(2), 1-7.
- Carter, S. (2003). An assessment of the Newport News teacher mentor program. Dissertation Abstracts International, 55(12), (UMI No. 3203681)
- Carnevale, A.P., & Schulz, E.R. (July, 1990). Return on investment: Accounting for training. *Training and Development Journal*, 44(7), S1-S32.

- Center for Educator Recruitment, Retention, & Advancement. (n.d.). Retrieved August 10, 2007, from http://www.cerra.org/teachers/coach.html)
- Clawson, J. G. (1980). Mentoring in managerial careers. In C.B. Derr (Ed.), *Work, family and the career* (pp. 144-165). New York: Praeger.
- Cohen, B. (2005). Enhancing the learning profession: Improving new teacher retention with teacher induction. *Dissertation Abstracts International*, 66(06), 2177A. (UMI No. 3178498)
- Colley, H. (2002). A "rough guide" to the history of mentoring from a Marxist feminist perspective. *Journal of Education for Teaching*, 28(3), 257-273.
- Costa, A., & Garmston, R. (2002). *Cognitive coaching: A foundation for renaissance schools*. Norwood, MA: Christopher-Gordon Publishers, Inc.
- Creswell, J. W. (2003). *Research design: Qualitative, quantitative, and mixed methods approaches* (2nd ed.). Thousand Oaks, CA: Sage Publishing.
- Creswell, J. W. (2005). Educational research: Planning, conducting, and evaluating quantitative and qualitative research. New Jersey: Merrill-Prentice Hall.
- Darling-Hammond, L. (1997). *Doing what matters most: Investing in quality teaching*. New York: National Commission on Teaching and America's Future.
- Darling-Hammond, L. (1999a). Recruiting teachers for the 21st century: The foundation for educational equity. *The Journal of Negro Education*, 68(3), 254-279.
- Darling-Hammond, L. (December, 1999b). *Teacher quality and student achievement: A review of state policy evidence*. Seattle, WA: University of Washington, Center for the Study of Teaching and Policy.
- Darling-Hammond, L. (2004). Standards, accountability, and school reform. *Teachers College Record*, *106*(6), 1047-1085.
- Darling-Hammond, L., & Sykes, G. (2003, September 17). Wanted: A national teacher supply policy for education: The right way to meet the "highly qualified teacher" challenge. *Education Policy Analysis Archives*, 11(33). Retrieved May 18, 2004, from http://epaa.asu.edu/epaa/v11n33/
- Darling-Hammond, L., & Youngs, P. (2002). Defining "highly qualified teachers": What does "scientifically-based-research" actually tell us? *Education Researcher*, *31*(9), 13-25.

- Dougherty, P. A. (2000). The effects of cognitive coaching training as it pertains to: trust building and the development of a learning community for veteran teachers in a rural elementary school. *Dissertation Abstracts International*. (UMI No. 3054864).
- Dove, M. (2004, Fall). Teacher attrition: A critical American and international education issue. *The Delta Kappa Gamma Bulletin*, 28(1) 9-30.
- Dunlap, L. (1998). A study of the impact of mentoring on West Virginia public school teachers. *Dissertation Abstracts International*, 59(08), 2931A. (UMI No. 9902303)
- Edwards, J. (2001). *Cognitive coaching: A synthesis of the research*. Highlands Ranch, CO: Center for Cognitive Coaching.
- Eseryel, D. (2002). Approaches to evaluation of training: Theory and Practice. *Educational Technology*, *5*(2), 93-98.
- Feiman-Nemser, S. (1996). *Teacher mentoring: A critical review*. Washington, DC: ERIC Clearinghouse on Teaching and Teacher Education. (ERIC Document Reproduction Service NO. ED397060)
- Feiman-Nemser, S. (2001). From preparation to practice: Designing a continuum to strengthen and sustain teaching. *Teachers College Record Volume*, 103(6), 1013-1055.
- Fink, A. (1995). How to sample in surveys. Thousand Oaks, CA: Sage Publications.
- Fitzpatrick, J. L., Sanders, J. R., & Worthen, B. R. (2004). *Program evaluation: Alternative approaches and practical guidelines.* Boston: Pearson Education, Inc.
- Frazier, M. (2006). An evaluation of a mentoring program of beginning teachers in a rural East Tennessee secondary school. *Dissertation Abstracts International*, 67(11), 4136A. (UMI No. 3242686)
- Fuller, F. (1969). Concerns of teachers: A developmental conceptualization. *American Educational Research Journal*, 6(2), 207-226.
- Gall, M., Borg, W., & Gall, J. (2003). *Educational research: An introduction* (7th ed.). Boston: Allyn & Bacon.
- Galvez-Hjornevik, C. (1985). Mentoring among teachers: A review of the literature. *Journal of Teacher Education*, 76(2), 2-48.

- Ganser, T. (1997, March). The contribution of service as a cooperating teacher and mentor teacher to the professional development of teachers. Paper presented at the annual meeting of the American Educational Research Association, Chicago, IL.
- Ganser, T. (2002). Sharing a cup of coffee is only a beginning. *Journal of Staff Development*, 23(4), 28-32.
- Garmston, R., & Linder, C. (1993). Reflections on cognitive coaching. *Educational Leadership*, *51*(2), 57-61.
- Geringer, J. (2000). *In pursuit of quality teaching: Five key strategies for policymakers*. Denver, CO: Education Commission of the States. Retrieved March 26, 2001, from http://www.ecs.org/initiatives/Geringer/Geringer/Geringer/Geringer/20Initiative/20Final.pdf
- Goodwin, L., Stevens, E., Goodwin, W., & Hagood, E. A. (2000). The meaning of faculty mentoring. *Journal of Staff, Program, & Organization Development*, 17(1), 17-30.
- Gray, W., & Gray, M. (1985). Synthesis of research on mentoring beginning teachers. *Educational Leadership*, 43(3), 37-43.
- Guskey, T. R. (2003). How classroom assessments improve learning. *Educational Leadership*, 60(5), 6-11.
- Hanuscin, D., & Lee, M. (2008, Summer). Mentoring New Teachers. *Science & Children*, 45(9), 56-57.
- Hammer, P. C., Hughes, G., McClure, C., Reeves, C., & Salgado, D. (2005). Rural teacher recruitment and retention practices: A review of the research literature, national survey of rural superintendents, and case studies of programs in Virginia. Retrieved April 8, 2008, from www.edvantia.org.
- Hamtini, T. M. (2008). Evaluating e-learning programs: An adaptation of Kirkpatrick's model to accommodate e-learning environments. *Journal of Computer Science*, *4*(8), 693-698.
- Hargreaves, A., & Fullan, M. (2000, Winter). Mentoring in the new millennium. *Theory into Practice*, 39(1), 50-56.
- Hatzopoulos, F. (2003). A study of beginning teachers: Perceptions of effectiveness of mentoring programs and teacher retention. *Dissertation Abstracts International*, 64(03). (UMI No. 3083802).
- Healy, C., & Welchert, A. (1990). Mentoring relations: A definition to advance research and practice. *Educational Researcher*, 19(9), 17-21.

- Helman, L. (2006). What's in a conversation? Mentoring stances in coaching conversations and how they matter. In B. Achinstein, & S. Z. Athanases (Eds.), *Mentors in the making: Developing new leaders for new teachers* (pp. 69-82). NY: Teachers College Press.
- Hirsch, E., Koppich, J., & Knapp, M. (1999, December). *Revisiting what states are doing to improve the quality of teaching: An update on patterns and trends*. Seattle, WA: University of Washington, Center for the Study of Teaching and Policy.
- Hirsch, E., Koppich, J., & Knapp, M. (1999, December). *State action to improve teaching*. Seattle, WA: University of Washington, Center for the Study of Teaching and Policy.
- Holcomb, J. (1993). Make training worth every penny. DelMar, CA: Wharton.
- Howey, K. (1988). Mentor-teachers as inquiring professionals. *Theory into Practice*, 27(3), 209-213.
- Huffman, G., & Leak, S. (1986). Beginning teachers' perceptions of mentors. *Journal of Teacher Education*, 37(1), 22-25.
- Huling, L., & Resta, V. (2001). *Teacher mentoring as professional development*. Washington, DC: ERIC Clearinghouse on Teaching and Teacher Education.
- Huling-Austin, L. (1988, April). A synthesis of research on teacher induction programs and practices. Paper presented at the annual meeting of the American Educational Research Association, New Orleans, LA. (ERIC Document Reproduction Service NO. ED302546)
- Ingersoll, R. (2001a, January). A different approach to solving the teacher shortage problem. Seattle, WA: University of Washington, Center for the Study of Teaching and Policy.
- Ingersoll, R. (2001b, January). *Teacher turnover, teacher shortages, and the organization of schools*. Seattle, WA: University of Washington, Center for the Study of Teaching and Policy.
- Ingersoll, R., & Kralik, J. (2004, February). *The impact of mentoring on teacher retention: What the research says*. Denver, CO: Education Commission of the States.
- Johnson, S., & Kardos, S. (2002). Keeping new teachers in mind. *Educational Leadership*, 59(6), 12-16.

- Johnston, J., & James, T. (1986). *Leadership and cooperation through mentoring: Rethinking roles in teacher education.* Paper presented at the Association of Teacher Educators Summer Workshop, Flagstaff, AZ.
- Kardos, S. (2005). New teacher induction. In C. Chauncey (Ed.), *Recruiting, retaining, and supporting highly qualified teachers* (pp. 65-76). Cambridge, MA: Harvard Education Press.
- Kelley, L. (2004). Why induction matters. *Journal of Teacher Education*, 55(5), 438-448.
- Kiani, M. (2006). Contextual factors and the role of the mentor in a new teacher mentoring program. *Dissertation Abstracts International*, 64(03).(UMI No. 3208957).
- Kirkpatrick, D. L. (1998). Evaluating training programs: The four levels (2nd ed.). San Francisco, CA: Berrett-Koehler Publishers, Inc.
- Koppich, J. (2004). *Developing state policy to ensure a "highly qualified" teacher in every classroom*. Washington, DC: National Governors Association Center for Best Practices.
- Koppich, J., Asher, C., & Kerchner, C. (2002). *Developing careers, building a profession: The Rochester career in teaching plan*. New York: National Commission on Teaching and America's Future.
- Lipton, L., & Wellman, B. (2001). *Mentoring matters: A practical guide to learning-focused relationships*. Sherman, CT: MiraVia, LLC.
- Little, J. W. (1990). The mentor phenomenon and the social organization of teaching. *Review of Research in Education*, *16*, 297-351.
- Makkonen, R. (2005). Taking care of novice teachers (Chapter 6). In C. Chauncey (Ed.), *Recruiting, retaining, and supporting highly qualified teachers*. Cambridge, Massachusetts: Harvard Education Press.
- Maryland Department of Planning. (2005). Census 2000 Summary File 3. Baltimore: Maryland Department of Planning. Available: http://www.mdp.state.md.us/msdc/census/cen2000/SF3/rawdata/sf3 rawdata.htm
- Maryland Teacher Professional Development Advisory Council. (2004, December). Helping teachers help all students: The imperative for high-quality professional development. Report submitted to the Maryland State Superintendent of Schools. Baltimore: Author.
- Maxwell, J. A. (1996). *Qualitative research design: An interactive approach.* Thousands Oaks, CA: Sage Publishing.

- McEvoy, G.M., & Buller, P.F. (August, 1990). Five uneasy pieces in the training evaluation puzzle. *Training and Development Journal*, 44(8), 39-42.
- McMahon, F.A., & Carter, E.M.A. (1990). *The great training robbery*. New York: The Farmer Press.
- Merriam, S. (2001). *Qualitative research and case study applications in education* (Rev. ed.). San Francisco: Jossey-Bass Publishers.
- Moir, E., & Bloom, G. (2003). Fostering leadership through mentoring. *Educational Leadership*, 60(8), 58-60.
- Monk, D. (2007, Spring). Recruiting and retaining high quality teachers in rural areas. *The Future of Children*, *17*(1), 155-174.
- Mount, B. (2000). Trained mentors and induction specialists: A new teacher mentoring design model. *Dissertation Abstracts International*, 61(03), 950A. (UMI No. 9967043).
- Mullen, C. (2000). Constructing co-mentoring partnerships: Walkways we must travel, *Theory into Practice*, 39(1), 4-11.
- Mulvihill, Mark (2007). Taking care of teachers: The experiences of rural educators regarding career longevity. *Dissertation Abstracts International*, 68(06), (UMI No. 3273194).
- National Commission on Teaching and America's Future. (1996). *What matters most: Teaching for America's Future.* New York: Author.
- National Education Association. (1999). *Creating a teacher mentoring program*. Foundation for the Improvement of Education. Washington, DC: Author.
- National Foundation for the Improvement of Education. (1999, Fall). *Creating a teacher mentoring program.* Washington, DC: Author.
- Odell, S. (1986). Induction support of new teachers: A functional approach. *Journal of Teacher Education*, *37*(1), 26-29.
- Odell, S., & Ferraro, D. (1992). Teacher mentoring and teacher retention. *Journal of Teacher Education*, 43(3), 200-204.
- Odell, S., & Huling, L. (Eds.) (2000). *Quality mentoring for novice teachers*. Indianapolis, IN: Kappa Delta Pi.
- Patton, M. Q. (1990). *Qualitative evaluation and research methods* (2nd ed.). Newbury Park, CA: Sage Publications.

- Peter, M., & DuMez, J. (1997). Creating caring systems of support: Collaborative networking and teacher induction programs. *Delta Kappa Gamma Bulletin*, 63, 18-21.
- Reeves, C. (2003). Implementing the No Child Left Behind Act: Implications for rural schools and districts. Oak Brook, IL: North Central Regional Educational Laboratory. Retrieved April 8, 2008, from www.ncrel.org/policy/pubs/html/implicate/index.html
- Rogers, D., & Babinski, L. (2002). From isolation to conversation: Supporting new teachers' development. Albany, NY: SUNY Press.
- Ross, J. (1992). Teacher efficacy and the effects of coaching on student achievement. *Canadian Journal of Education*, 17(1), 51-65.
- Rossi, P.H., Freeman, H.E., & Wright, S.R. (1979). *Evaluation: A systematic approach*. Beverly Hills, CA: Sage.
- Rowan, B. (1990). Commitment and control: Alternative strategies for the organizational design of schools. *Review of Research in Education*, *16*, 353-387.
- Saffold, F. (in press). Renewing urban teachers through mentoring. In *Keeping good teachers*. Alexandria, VA: Association for Supervision and Development.
- Schmoker, M. (2001). *The results field book: Strategies from dramatically improved schools*. Alexandria, VA: Association for Supervision and Development.
- Sherer, M. (1999). *A better beginning: Supporting and mentoring new teachers*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Smith, T., & Ingersoll, R. (2004). What are the effects of induction and mentoring on beginning teacher turnover? *American Educational Research Journal*, 41(3), 681-714.
- Stansbury, K., & Zimmerman, J. (2000). *Lifelines to the classroom: Designing support for beginning teachers*. Retrieved June 13, 2007, from http://epaa.asu.edu/epaa/v11n33
- Steele, R. (1991). Mentoring: An effective tool for retention of minorities. *Urban Education*, *36*(1), 39-59. (ERIC Document Reproduction Service No. ED342841)
- Strauss, A., & Corbin, J. (1998). *Basic of qualitative research: Techniques and procedures for developing grounded theory*. Thousand Oaks, CA: Sage Publications, Inc.

- Street, C. (2004). Examining learning to teach through a social lens: How mentors guide newcomers into a professional community of learners. *Teacher Education Quarterly*, 31(2), 7-24.
- Stroble, E., & Cooper, J. (1988, Summer). Mentor teachers: Coaches or referees? *Theory into Practice*, 27(3), 231-236.
- Stufflebeam, D. L. (2000). The CIPP model for evaluation. In D. L. Stufflebeam, G. F. Madaus, & T. Kellaghan (Eds.). *Evaluation models* (2nd ed.) (279-317). Boston: Kluwer Academic Publishers.
- Taylor, J. (2000). Assessment of the Dougherty County new teacher induction and mentoring program. *Dissertation Abstracts International*, 61(02), 574A. (UMI No.9962615)
- Thies-Sprinthall, L. (1986). A collaborative approach for mentor training: A working model. *Journal of Teacher Education*, *37*(6), 13-20.
- Trenta, L., Newman, I., Newman, C., Salzman, J., Lenigan, D., & Newman, D. (2002, February). *Evaluation of a teacher mentoring program using a mixed methods approach*. Paper presented at the annual meeting of the Eastern Educational Research Association, Sarasota, FL.
- Uzat, S. (1998, November). Cognitive coaching and self-reflection: Looking in the mirror while looking through the window. Paper presented at the annual meeting of the Mid-South Educational Research Association, New Orleans, LA. (ERIC Document Reproduction Service No. ED427064)
- Veenman, S. (1984). Perceived problems of beginning teachers. *Review of Educational Research*, 54(2), 143-178.
- Wang, J., & Odell, S. (2002). Mentored learning to teach according to standards-based reform: A critical review. *Review of Educational Research*, 72(3), 481-546.
- Washington County Public Schools. (2005). *Mentor program guidebook* (2005-2006). Center for Peak Performance and Productivity. Hagerstown, MD: Author.
- Wayne, A., Youngs, P., & Fleischman, S. (2005). Research matters: Improving teacher induction. *Educational Leadership*, 62(8), 76-78.
- Wildman, T., Magliaro, S. G., Niles, R. A., & Niles, J. (1992). Teacher mentoring: An analysis of roles, activities, and conditions. *Journal of Teacher Education*, 43(3), 205-215.
- Wong, H. (2004). Induction programs that keep new teachers teaching and improving. *NASSP Bulletin*, 88(638), 41-58.

- Wright, T. (2000). A survey of mentor/mentee activities in beginning teacher induction programs in region XI. *Dissertation Abstracts International*, 63(09), 3081A. (UMI No.3064435)
- Zimpher, N., & Rieger, S. (1988). Mentoring teachers: What are the issues? *Theory into Practice*, 27(3), 175-182.