A VALUE-ADDED APPROACH TO DETERMINE THE RELATIONSHIPS OF

MENTORING TO NOVICE TEACHER CLASSROOM EFFECTIVENESS

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The purpose of the study was to determine the relationship between scores of the new teachers' classroom effectiveness with numerical indexes of mentor support, mentor infrastructure, and workplace ecology. In addition, this study sought to determine the effect of various demographics (i.e., gender, age, race, degree, teaching level, and certification route) on the Classroom Effectiveness Index (CEI) scores of first-year teachers, and to determine the differences, if any, between the Classroom Effectiveness Index scores of first-year teachers who remained on campus, switched campuses, or left the district. This study is primarily correlational in nature – looking for relationships between quantifiable variables. The subjects are 68 first-year teachers. The mandatory mentoring program the subjects were involved in consisted of a paid, veteran teacher who worked on the same campus as the first-year teacher and assisted in instructional or behavioral needs. This study measured the impact of the first-year teachers' mentoring experiences to the Classroom Effectiveness Index scores and teacher retention. The findings suggest that the Classroom Effectiveness Index scores might not be an appropriate tool for uncovering which aspects of mentoring contribute to student achievement and retention. Adding the value-added measurement tool to the categories of mentor support (MS), mentor infrastructure (MI), and workplace ecology (WE), rendered no statistically significant results. Therefore, further research is necessary to continue to define the effective characteristics of mentoring and its impact on classroom effectiveness and retention.

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CHAPTER 1

INTRODUCTION

Background of the Study

This study began with a personal concern for the beginning teacher. Currently, the education profession is in a state of crisis. In the era of high-stakes testing, teachers are under greater pressure to ensure student success in standardized test scores than in the past. New laws, such as No Child Left Behind, require a rigorous accountability system that expects all teachers to be "highly qualified" and evaluated for teacher effectiveness. And, unfortunately, because of a plethora of reasons, teachers are leaving the profession at an alarming rate (Ingersoll, 2001). Huling-Austin (1986) contends that a "profession has a responsibility for the well being of its members as well as its clients and that not providing beginning teachers with personal and professional support when it is needed is professionally irresponsible" (p.8). In acceptance of this challenge, change has to occur. Policy makers, administrators, and veteran teachers must assist the beginning teacher in areas such as expectations, management, and instruction in order to ensure teacher and student success. This phenomenon of mentoring plays a vital role in the overall success of teachers and their students.

This research began by requesting that a large, metropolitan independent school district approve a dissertation study to extend research of the Center for Research, Evaluation and Accountability in Teacher Education (CREATE) Teacher Induction Study (Huling & Resta, 2007). Through the CREATE study, 68 first-year teachers from this district were interviewed in spring 2006 about their mentor support and workplace ecology. Mentors completed a survey about the infrastructure of the induction program,

and teacher retention and student achievement data were collected. To date, research linking mentoring to the achievement of novice teachers' students has been quite limited. Using Texas Assessment of Knowledge and Skills (TAKS) classroom scale scores and pass rates, the recent CREATE study found some correlations between intensity of mentoring and student achievement, but these relationships were not consistent across subject areas and grade levels. Huling & Resta (2007) concluded that using the classroom scale scores may have reduced the variability of the sample, thus masking the effect between mentoring and student achievement. Therefore, they suggested adding another variable to their data – a value-added measurement. The study described here incorporates a value-added measure, the Classroom Effectiveness Index (CEI), which adds another dimension to the previous study's collected data. These effects are more precisely described when the Classroom Effectiveness Index is factored into these analyses, providing valuable information for the district as well as for the field of teacher induction.

<div align="center">Conceptual Framework</div>

What is effective teaching? Numerous theorists have posed this question and have found conflicting answers. Bobbit (1918) considered education as a preparation for adulthood. He suggested that a curriculum has to be tailored toward the individual and that any skills not directly related to the individual's personal tasks are unwarranted. This type of individualization resulted in an early differentiation in education. Dewey (1916) believed that teaching students is more than just regurgitating facts. It is imperative to take those learned facts and integrate them fully into students' personal lives. This is often called learning-by-doing. Piaget (1928), who had a major influence

on both early childhood and moral education, suggested that learning occurs in developmental stages through reflecting on one's own actions and establishing rules for those actions. Skinner (1953) clarified that each action is a behavior that needs to be rewarded through positive reinforcement, therefore always receiving the desired positive outcome. Maslow's (1968) humanistic approach placed the focus on the individual, where knowing that curriculum is based on human interests and personal growth benefits the learner both academically and socially. To complement this idea, Bandura's (1977) social cognitive theory stressed the idea that human learning occurs in a social environment.

By observing others, people acquire knowledge, rules, skills, strategies, beliefs, and attitudes. Vygotsky (1978) described effective teaching as a social process, one that is derived through constructing one's own knowledge through authentic learning experiences and social communities. In contrast, Bruner (1966) described learning to be a set of structures and routines where, although interest is important, curriculum should be revisited and repeated until key concepts are mastered. Although there are many definitions of effective teaching, all researchers can agree that the level of instruction affects student achievement (Marzano, 2003).

Research is created to shape policy and practice. Marzano (2003) posits that if all the research-based instructional ideas that transpired over the last several decades were utilized, the teaching profession would see unparallel results. However, with many interpretations and varying research findings, it is a challenge for the individual teacher to determine which practice actually yields the greatest student achievement. Therefore, solid evidence linking effective teaching to student achievement is needed.

For a beginning teacher to become an effective teacher, preparation and mentoring is paramount. Research tells that effective mentoring is a multifaceted process which involves not only the beginning teacher and the mentor, but also the campus and district administration along with surrounding personnel support systems. Despite this multifaceted process, one aspect is clear: logically, mentoring seems likely to have a positive impact on beginning teachers and student achievement. As difficult as the transition is to a new classroom, the added help of a veteran teacher can relieve some of the pressure of daily operations that range from lesson planning, communication, parent conferences, and emotional support. "The role of the mentor is highly significant and requires specialized preparation for the mentor and significant ongoing personal and time commitments on the part of the mentor" (Odell & Huling, 1998, p. 70). This assistance not only benefits the new teacher, but also the mentor, and ultimately produces a more effective teacher, resulting in a classroom in which planning, strategies, and test scores are optimized.

Quality mentoring is said to have not only a positive effect on classroom effectiveness but also on teacher retention. Teacher turnover not only is a cost to the district but also a cost to student learning (Shen & Palmer, 2005). According to the National Education Agency (NEA) (2007), new teachers who participate in induction programs and mentoring are nearly twice as likely to stay in their profession. This finding is significant since the education field is losing a large number of quality teachers each year. "Indeed, critics have long assailed teaching as an occupation that 'cannibalize[s] its young' and in which the initiation of new teachers is akin to a sink or swim, trial by fire, or boot camp experience" (Ingersoll & Smith, 2004, p. 28). Since

many of the first-year difficulties involve basic operations of successfully running a classroom, the use of an effective mentor can greatly reduce this frustration and assist in the overall success of not only the first-year teachers but also their students. In concurrence with this statement, Moir (2003) reiterates that effective induction programs can reduce the rate of teacher attrition, which ultimately saves money for the district so that improper hiring does not occur.

Once a beginning teacher has completed a quality mentoring/induction program and has successfully broken the cycle of attrition, it is the duty of the education profession to evaluate the effectiveness of the teacher. To determine effectiveness, the measurement tool needed must take into account the teacher's contributions to student learning. It is imperative, then, that the assessment tools used to determine classroom effectiveness reflect these differences.

A value-added approach is one such tool. Created by William Sanders (1992) and widely used and accepted in many states, this assessment tool is designed to take a deeper look in evaluating the effectiveness of a classroom teacher. Hershberg, Simon and Lea-Kruger (2004) described value-added assessment as a way to

> help school decision makers determine how effective teachers and schools are, how to differentiate truly exceptional changes from predictable ones, and how to use data at the classroom level to make necessary judgments in pedagogy, curricula, and professional development to bolster learning gains for every child (p. 1).

According to the National Association of State Boards of Education (NASBE) (2005), value-added assessments have significant potential when used with other measures as a tool to improve teaching and show potential for improving the effectiveness of teacher training. For the purpose of this study, utilizing this tool in the

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form of a Classroom Effectiveness Index will allow a clear examination of the effects of mentoring on the classroom effectiveness and retention of first-year teachers.

Statement of the Problem

Schools face a difficult challenge in educating today's youth. Equally important to recognizing the diversity and complexity of teaching individual students and meeting their unique needs is the challenging task of recruiting, mentoring, and retaining effective teachers. The most important task thrust upon education is determining classroom effectiveness.

Overall, the problem of this study was to determine how utilizing a value-added measure can illuminate the impact of mentoring on classroom effectiveness and teacher retention. More specifically, the problems of this study were to determine the relationship between the Classroom Effectiveness Index (CEI) scores of first-year teachers and (1) mentor support (MS), (2) mentor infrastructure (MI), and (3) perceived workplace ecology (WE); to determine the relationship between the Classroom Effectiveness Index scores of first-year teachers and (1) perceived level of mentor support (MS) received on various mentor support descriptors, (2) perceived level of mentor infrastructure (MI) on various mentor infrastructure descriptors, and (3) perceived workplace ecology (WE) on various workplace ecology descriptors; to determine the effect of various demographics (i.e. gender, age, race, degree teaching level, and certification route) on Classroom Effectiveness Index scores of first-year teachers; and to determine the difference between the Classroom Effectiveness Index scores of first-year teachers that (a) remained on campus, (b) switched campuses, or (c) left the district.

Purpose of the Study

This study is of particular importance in the area of preparing educators to be successful in the classroom. Since the 1980s, mentoring has been on the forefront of innovative programs to not only assist beginning teachers, but also to ultimately enrich their teaching to the betterment of their students as well. Current research describes "effective" mentoring programs for both preservice and first-year teachers by offering suggested professional development activities or describing selected relationship attributes between the veteran teacher and the novice, but it fails to truly establish whether and how mentoring is effective and/or beneficial.

This dissertation was developed because of the professional need to build, prepare, nurture, and assist beginning teachers. Importantly, the need for this research is reiterated in the literature in the following statement:

> We need studies that examine the learning opportunities available to beginning teachers and their students that analyze the role of district and state level policies in supporting or constraining quality programs or practices (Feiman-Nesmer, Schwille, Carver, & Yusko, 1999, p. 32).

Follow up to the CREATE study (Huling & Resta, 2007) is imperative to the teaching profession in order to investigate empirically the importance, necessity, and benefits of mentoring to the new teachers, future mentors, administrators, and policy makers. By using the value-added approach, the addition of a value-added measure can clearly identify and define the value of effective mentoring and its relationship to classroom effectiveness.

Research Questions

This study aims to answer the following questions based on data collected from the Classroom Effectiveness Index scores of 68 first-year teachers who began their

induction year in the 2005-2006 academic school year within a large, metropolitan, independent school district.

1.   What is the relationship between mentor support (MS) and the Classroom Effectiveness Index (CEI) scores of first-year teachers?

2.   What is the relationship between mentor infrastructure (MI) and the Classroom Effectiveness Index scores of first-year teachers?

3.   What is the relationship between perceived workplace ecology (WE) and the Classroom Effectiveness Index scores of first-year teachers?

4.   What is the relationship between the perceived level of mentor support (MS) received on various mentor support descriptors and the Classroom Effectiveness Index scores of first-year teachers?

5.   What is the relationship between the perceived idealness of various mentor infrastructure (MI) condition descriptors and the Classroom Effectiveness Index scores of first-year teachers?

6.   What is the relationship between the perceived idealness of various workplace ecology (WE) situation descriptors and the Classroom Effectiveness Index scores of first-year teachers?

7.   What is the effect of various demographics (i.e. gender, age, race, degree teaching level, and certification route) on Classroom Effectiveness Index scores of first-year teachers?

8. Is there a significant difference between the Classroom Effectiveness Index scores of first-year teachers that (a) remained on campus, (b) switched campuses, or (c) left the district?

Definition of Terms

The following definitions are used for these terms in this study.

- Mentor support (MS) is the specific duties performed by the mentor teacher in order to assist the first-year teacher. Although these duties may vary from mentor to mentor, the duties closely examined and labeled as descriptors in this study include the assignment of the mentor teacher, when mentor teacher support began, frequency of mentor teacher/first-year-teacher interaction, modes of mentor teacher/first-year teacher communication, frequency of mentor teacher/first-year teacher meetings, who typically initiates contact, topical focus of mentor teacher/first-year teacher interactions, mentor teacher observations of first-year teachers, determination of observation focus, delivery of observation feedback, release time for mentoring, mentor teacher/first-year teacher sharing of resources, mentor teacher suggestions for professional development, first-year teacher perception of relationship with mentor teacher, first-year teacher perception of value of mentoring received, first-year teacher orientation, and first-year teacher support sessions (Huling & Resta, 2007).

- Mentor infrastructure (MI) is how the mentor program is designed to assist the first-year teacher. The descriptors labeled in this study are teaching assignments, classroom proximity, mentor teacher selection process, initial and ongoing mentor training, who the program coordinator is and interaction with that coordinator,

handbook and other materials, suggested time guidelines, documentation requirements, release time for mentoring, first-year teacher support sessions, mentor teacher/first-year teacher common planning periods, funding for first-year teacher supplies/materials, mentor stipend and other mentor rewards/incentives, principal's priority for mentoring, principal's view of mentor teacher's role, mentor program evaluation, and use of evaluation data (Huling & Resta, 2007).

- Workplace ecology (WE) is "a combination of various school climate indicators (such as faculty collegiality, parental support, administrative supervision and support, etc.) and workplace conditions (such as facility maintenance and neighborhood safety)" (Huling & Resta, 2007, p. 20). The various descriptors examined in this study include faculty collegiality, facilitating style of grade level/department chair, facilitating style of administrative team, student discipline support, supervision of administrative team, lesson plan support, process for determining professional development, facilities and equipment, neighborhood safety, parental involvement, student motivation and academic preparation, and student behavior.

- Value-added approach (VAA) is a measurement approach established by Dr. William Sanders (1992) in order to look beyond simple standardized student test scores to determine classroom effectiveness. Sanders (1992) suggest using a value-added approach to determine how much "value" the teacher contributes to students' learning.

- Classroom Effectiveness Index (CEI) is a value-added measurement tool created by a large, metropolitan independent school district in north central Texas to determine classroom effectiveness.

Assumptions

The following assumptions will be made for this study:

1.   The first assumption is that the first-year teachers actually received the mentor services they responded to according to their interview results.

2.   The second assumption is that the district calculated the Classroom Effectiveness Index (CEI) scores correctly and gave the researcher accurate data.

Limitations of the Study

This study, as outlined thus far, has three potential sources of concern. First, the correlational results could show an inverse correlation between mentor support and classroom effectiveness. At first glance, this would seem to be problematic. However, in further examining why this might occur, it is completely plausible. For example, if a situation occurs where there are two novice teachers at a campus and one is excelling while the other one is struggling, a campus administrator might make the decision to place the strongest mentor teacher with the struggling teacher. While the mentor could still be effective, the struggling novice's Classroom Effectiveness Index may still be a low score. Because of using only quantitative data, it may not be clear in the above situation exactly how much support was given to the struggling teacher and why this score was still particularly low. Since student achievement differences are not measured like gender or socioeconomic status, it is easier to ascertain whether low test score results might be due to ineffective teaching. In order to allow for this discrepancy, I was cognizant of the potential issues that might have arisen and conducted the statistical analyses at a probability level of $p \leq .05$.

Second, value-added assessment measures were used with the assumption that true interpretation occurs longitudinally. This means that in order to completely understand the effectiveness of teachers, one must look at data collected over a period of time rather than a snapshot of data. In addition, it has been suggested that value-added assessments be used in conjunction with other types of measures for effectiveness. Although this study looked at data collected for a period of only one year, it does include several instruments for determining teacher effectiveness. I am cognizant of the longitudinality of a value-added measure and suggest a continuation of this study for future research.

Third, data collected and analyzed for this study consisted of first-year teachers from a single school district. Although 14 school districts participated in the original CREATE study, only one of those school districts utilized a value-added assessment. Therefore, the results might or might not generalize to other school districts.

Finally, it is nearly impossible to take into consideration all the factors that contribute to the successes or failures of a classroom. I clearly understand that teaching is a multifaceted profession and that many contributing factors can result in high or low Classroom Effectiveness Index scores. However, for the purpose of this study, mentoring is the one factor that is examined more closely. It is suggested that other factors, too, be considered for future research.

Description of Method

This study was primarily correlational in nature – looking for relationships between quantifiable variables. The subjects were 68 first-year teachers. The mandatory mentoring program the subjects were involved in consisted of a paid,

veteran teacher who worked on the same campus as the first-year teacher and assisted in instructional or behavioral needs. This study measured the impact of the first-year teachers' mentoring experience to the Classroom Effectiveness Index scores and teacher retention. To answer the research questions, data were collected using the following instruments:

1. Classroom Effectiveness Index

2. CREATE Novice Teacher Interview

3. CREATE Mentor Survey

Summary

This chapter outlined the need for and protocol for this important study. It is imperative that quantitative research studies clearly show the importance of mentoring and its relationship to and/or effects on classroom effectiveness and teacher retention. Data from the current study allow for better decision making and better preparation for new teachers. To reiterate this point, Feiman-Nemser (1996) stated, "to inform mentoring policy and practice, we need more direct studies of mentoring and its effects on teaching and teacher retention" (pp. 3-4). The following chapter reviews the current literature on mentoring, teacher retention, and effectiveness.

CHAPTER 2

REVIEW OF THE LITERATURE

Four threads of research that surface about the impact of mentoring or of induction programs that include mentoring are explored in this chapter. The first section takes a historical perspective on the concept of teacher induction. Within an induction program for teaching, mentoring is a valued component, and it is explored in the second section of this chapter. The last half of the section on mentoring takes a close look at a recent and ongoing study of teacher mentoring led by Huling and Resta (2007). This study serves as the framework for the research reported in this dissertation. Third, the review of literature addresses economic impacts of teacher induction, an important aspect of this form of professional development that deserves attention. Finally, the issue of teacher or classroom effectiveness is addressed. A unique contribution of this dissertation is its consideration of a value-added approach to assessment in relation to new teachers who were part of the Huling and Resta (2007) study. However, the value-added measure used in this study needs to be placed in the larger context of other notions of teacher effectiveness.

Historical Perspective of Teacher Induction

In the field of education, induction is a program that provides guidance and support for first-year or early career teachers. Its basic premise is that qualified individuals assist beginning teachers in the areas of curriculum, instruction, and management. Induction has been defined as a shift from being the student to being the teacher (Huling-Austin, 1990). This section defines the term "induction" and "effective

induction programs," examines how induction has developed over the last 20 years, and establishes the need for a quality induction program.

The act of teaching has not changed. It is still the profession's main goal to facilitate the learning of students while preparing them to become fully participating, productive citizens. What have changed are the conditions of contemporary schools. Basic teaching skills are not enough for teachers to (a) provide the necessary support for all students in today's public schools and (b) to reach high and rigorous standards. Today, an effective teacher encounters a diverse classroom with the skills necessary to support student success. (Hinds, 1988). Complete preparation that includes both knowledge and practice is a must.

One type of preparation is induction. First-year teachers are expected to teach and carry out the same responsibilities that veteran teachers do. New teachers simply do not have all the tools in their toolbox to be successful. Acquiring a full set of tools takes time and experience. Berliner (1988) estimated that it usually takes a new teacher upwards of five or more years to reach an expert developmental level. Carter (1990) also agreed, suggesting that using effective teaching practices takes time. A quality induction program is needed to give new teachers the tools necessary to reach expertise. The requirements of today's schools means that teachers must move beyond basic teaching skills and be prepared for the diversity of today's children, the demands of contemporary curriculum, and the extent to which public schools serve students who are vulnerable in educational settings.

Induction is best viewed as a systemic continuum: preservice – induction – inservice. When viewed in this context, "it becomes clear that programs to address the

induction period need to function both as logical extensions of the preservice program and as entry pieces in a larger career-long professional development program" (Huling-Austin, 1990, p. 535).

There are many definitions of induction. However, one definition that fits the idea of a systemic continuum was generated by Britton. Britton (2003), an associate director of WestEd's National Center for Improving Science Education (NCISE), categorizes induction as a (1) "process for learning, (2) a particular period of time, (3) a specific phase of teaching and (4) a system" (p. 3). Each category is described below.

The first category described by Britton (2003) is a "process for learning" (p. 3). This category reiterates Dewey's (1918) theory of "learning by doing" where first-year teachers are getting actual on-the-job training. Although one must receive the proper education to lay the foundation to become a master teacher, it can be argued that one truly learns how to teach by teaching. Induction programs are designed to immerse the first-year teacher in the education field with assistance on key components to achieve success.

The second category of an induction program is a "particular period of time" (Britton, 2003, p. 4). Traditionally, induction lasts for the entire first year or more. This allows a continuum of growth to occur. Although some programs may be designed for only a few weeks and others for a period of years, Feiman-Nemser (2001) suggested that induction programs should be viewed as supporting the progression of a teacher's growth over time. Time is an important characteristic in an induction program.

The third category of an induction program is a "specific phase of teaching" (Britton, 2003, p. 4). This category depends on the individual teacher. Many first-year

teachers are making the transition from being a student to being a teacher and trying to establish the different roles to take. Some are very comfortable with teaching almost immediately, while others struggle for a period of time. The induction program must be designed and implemented to address the individual needs of the teacher.

The final category of an induction program is that it is "a system" (Britton, 2003, p. 5). This means that induction, and the mentoring that is part of induction, is a multifaceted, complex process designed to assist individual teachers to be successful and to positively impact the learning of students. A system requires the involvement of first-year teachers, mentor teachers, administrators, and possibly university or central administrative representatives. This system of individuals supports and assists in ways that are complex enough to meet the individual needs of the first-year teacher. There is not a one-size-fits-all when designing induction programs, although there are characteristics that induction programs tend to hold in common.

As recently as 30 years ago, the idea of induction did not exist in the United States. Only a few notable programs are mentioned in the early literature. They include the National Association of Secondary School Principals' three-year program entitled The Induction of Beginning Teachers, and The University of Northern Colorado's Teacher Induction Partnership. The first state-mandated induction program was from Florida in 1978 and was called the Beginning Teacher Program. The induction idea quickly gained momentum in the 1980s because of many educational reforms and a potential teacher shortage. Mentoring and induction educational literature grew in interest as well as educational conference presentations and keynotes. In that decade,

it is estimated that more than 30 states implemented mentoring/induction programs for beginning teachers (Hawk & Robards, 1987).

One researcher who put induction and mentoring in the state and national spotlight is Dr. Leslie Huling. After graduating from Texas Tech University in 1981, she became an exchange faculty member and the program director at The University of Texas at Austin Research and Development Center for Teacher Education (UT R&DCTE). At the center, she focused on two induction studies: the Teacher Induction Study (which looked at induction programs in Florida and Oklahoma), and the Model Teacher Induction Project (which collected information from 31 induction programs from around the nation, most of which were district programs). She was at the UT R&DCTE from 1981 until it closed in 1986. She then went to Texas State University, where she is currently a professor in curriculum and instruction and the director of the Education Policy Implementation Center (L. Huling, personal communication, July 15, 2008).

Huling's career has focused on the needs of first-year teachers, mentoring and induction programs, and the development and evaluation of effective programs. Her passion for the education profession and mentoring/induction is evident in her 100-plus published articles, chapters, and books. She has received more than $16 million in grants to support new teachers and conduct research in mentoring and induction (L. Huling, personal communication, July 15, 2008).

Huling's initial contribution at the state and national level for mentoring and induction stemmed from her work at UT R&DCTE. Her experience in this leadership role allowed Huling to begin research that helped to define mentoring and induction programs and to establish the need for these programs. The need was there, and the

education profession began to take notice (L. Huling, personal communication, July 15, 2008).

<div align="center">Early Induction Programs</div>

Policy is created from rigorous research and recommendations from national reports. One example which launched mentoring and induction into the national spotlight was the Teacher Induction Process. From 1985 to 1988, the Association of Teacher Educators sponsored a national commission on the teacher induction process that was chaired by Peggy Ishler. From this three-year study, five policies about induction were recommended:

1. Induction programs are necessary in every school district to assist beginning teachers in making the transition from novice to experienced professional.

2. Induction programs must be based on the needs of the individuals as they adjust to their particular professional context.

3. The experienced professionals who serve as sources of help to beginning teachers should receive training and support to facilitate their assistance, including reduced teaching loads.

4. Support personnel should be concerned with the professional development of individual beginning teachers and be separated from the evaluation role of a district.

5. The training of teachers should be recognized as an ongoing educational process from preservice to retirement requiring cooperative financial and programmatic support from those involved, including the local district, higher education, and state departments of education (Brooks, 1987, p. 538).

The above policies allowed educational entities to begin to form quality induction programs based on researched guidelines. These guidelines put induction in the national spotlight.

Beginning in 1982, Florida created the Beginning Teacher Program that was funded by the state to seek improvement in student learning by offering support services for first-year teachers (Stakenas, 1984). The structure of this program is autonomous in that each of the 62 public school districts develops its own programs by submitting the program guidelines to the Commissioner of Education and the Department of Education for review and acceptance. Each program includes support staff who assist first-year teachers in instruction through activities and portfolios. Florida educators contend the success of this program is due to frequent, personal observation and continual assessment and evaluation of the first-year teacher. Although one cannot account for all the variables that go into teacher success, since its inception, this program has had a low failure rate, a little over 1% overall (Gold, 1990). This program continues to be successful and has since been renamed the Professional Orientation Program.

Another example is the California Beginning Teacher Support and Assessment (BTSA). It was established as a result of the California New Teacher Project. This state-funded program provides "support and assistance for the professional development of new teachers and assesses their competence in the classroom" (p. 568). The BTSA addresses the following components in its induction program:

1.   Support by a mentor

2.   Clinical supervision regarding reflection and portfolio work

3. Formative assessments of teaching practice

4. Professional development to promote effectiveness with students

5. Retention in teaching

6. Satisfaction with the occupation (Fideler & Haselkorn, 1999, p. 87)

In an effort to bridge the transition from beginning teacher to veteran teacher, Beginning Teacher Support and Assessment programs work collaboratively with local school districts, colleges and universities, and other educational entities. One of California's 29 Beginning Teacher Support and Assessment programs is the University of California/Santa Cruz New Teacher Project. This diverse region, led by Dr. Ellen Moir, focuses on implementing effective teaching practices to students whose background is culturally diverse. The success of this program has led to collaboration with other educational entities and institutions across the nation in working with diverse students.

Another early, noteworthy induction program is the Oklahoma Entry-Year Assistance Program. Implemented in 1981, its intention is to assist teachers in the licensing and certification process. The program is designed around the first-year teacher, a committee, and an evaluation process. The committee is comprised of the teacher, an administrator, a university representative, and a chairperson that assists the first-year teacher in classroom management and instruction. The committee is to evaluate the first-year teacher for certification purposes only. The following process elements/steps make up the program:

1. Uses meaningful parental input as one criterion in evaluating the entry-year teacher's performance

2.   Meets with the entry-year teacher a minimum of three times per year for

        evaluation review and recommendations

3.   Observes the entry-year teacher a minimum of three times per year

4.   Reviews progress with the entry-year teacher and formulates recommendations

        concerning teaching performance

5.   Makes a recommendation concerning certification (Garrett, 1994, p. 1)

Because of its demonstrated success rate and numerous studies, this program has

been used by other states as a model.

During the 1990s, with more legislative interest in induction, research studies

shifted paradigms. Previous research focused on the needs or experiences of first-year

teachers. Later research considered the design and implementation of induction

programs, teacher effectiveness, and teacher retention rates, all of which have a

financial impact. However, by then, the need had been established, and laws had been

created in many states. One example is Texas Senate Bill 994 passed in 1991. Senate

Bill 994 mandated that all new teachers be assigned a mentor during their first year of

service. The Texas Education Code §13.038 Teacher Induction reads as follows:

> (a) The State Board of Education and the Coordinating Board, Texas College
> and University System, shall develop a comprehensive teaching induction
> program for the probationary period.

> (b) The induction program shall include a one-year period of teaching
> cooperatively supervised by experienced teachers, school administrators, and
> faculty of institutions of higher education (Texas Education Agency, 1995, pg.
> 17).

In 1991, only three programs were actually funded by the Texas Education

Agency. One such program was The Texas Beginning Educator Support System

(TxBESS). This state-level, voluntary induction program worked closely with school

districts, education centers, universities, and community groups to create partnerships in preparing first-year teachers. This

> three-year pilot project focused on developing a beginning teacher support system for Texas. Funded by the U.S. Department of Education and the State Board for Educator Certification (SBEC), TxBESS addressed three major goals: (1) increasing teacher retention, (2) assisting teachers in developing and refining sound teaching practices that support high-quality instruction, and (3) improving student performance (TxBESS Evaluation Report, 2001, p. 5).

This program created a formative assessment called the TxBESS Activity Profile (TAP) that is utilized by a trained mentor. "The TAP is based on the TxBESS performance standards for teachers, which consist of 22 interrelated proficiencies that describe what a beginning teacher should know and be able to do" (TxBESS Evaluation Report, 2001, p. 6). The proficiencies of the TAP are the same as the framework for teaching published by Danielson (1996) and used in the PRAXIS II assessment. In the TxBESS process, the beginning teacher and a trained mentor use the TAP to conduct formative assessment, a bridge for communication about instructional and management decisions of the first-year teacher.

Findings from a two-year program evaluation study indicated that teacher retention did increase if the first-year teacher had two years of TxBESS mentor support, thus solidifying the importance of mentors in an induction program. Research indicated that an effective mentoring/induction program must exist to meet the unique needs of beginning teachers (Holden, 1993).

Induction and Mentoring

One of the key components of a successful induction program is that of the mentor. Mentoring has a plethora of definitions designed to suit the specific context in which it seems applicable. In education, mentoring is used to share knowledge with the

intent to increase both the novice and veteran teacher performance (Haynes & Hutto, 1991, p. 1).

The basic definition of the term mentor is a trusted counselor or guide. However, more complex and nonlinear meanings have developed over time. For example, mentoring can be defined as an "interaction within a positive working relationship that protégés or novices are encouraged to achieve their personal and professional goals" (Walker, 1992, p. 6). With respect to curriculum and instruction,

> mentors need to guide and support novice teachers to pose questions about current teaching practices to uncover the assumptions underlying curriculum and practices and encourage them to reconstruct curriculum and practices to suit the teaching contexts in which they find themselves (Cherian, 2007, p. 27).

> Mentoring is a learning relationship between two people. It requires trust, commitment and emotional engagement. It involves listening, questioning, challenge and support. It has a timescale (Garvey, 2007, p. 1).

> Herman & Mandell (1961) express that "mentoring is simply the application of the principle of scholarship to the practices of nurturing student learning" (p. 27). Sweeny (2004) suggests that "mentoring is the all-inclusive relationship and process, and includes everything done to support protégé orientation and professional development" (p. 1). Some researchers simplify mentoring as a role to answering questions.

Generally speaking, mentoring is the practice of helping or assisting another. In the context of education, this usually involves a veteran teacher who is asked to supervise informally or formally, a novice teacher in an induction program to alleviate the pressure of predictable and unexpected obstacles to overall success. Current research reports varied definitions, but most agree that mentoring is a multifaceted, complex process (Huling, 1998). Most simply, Gehrke (1988) expresses that mentors are teachers.

Huling and O'Dell (1998) contend that "the core of teacher development is a combination of teaching experiences and those day-to-day interactions with veteran colleagues that prompt reflection and refinement of practice" (p. 70). With the assistance of a mentor, first-year teachers benefit from their multiple roles. Levinson, Darrow, Klein, Levinson, and McKee (1978) attribute multiple roles to the mentor: teacher, sponsor, exemplar, counselor, host and guide, and developer of skills and intellect. The role of the mentor is not only multifaceted but crucial in developing an effective induction program.

One recent study conducted in the United Kingdom focused on the specific aspects of an effective mentor partnership between the mentor and the novice using video to record classroom practices in the effort to stimulate reflective dialogue. Results indicated that, "this process empowered both school-based mentors and trainees to see themselves as creators of professional knowledge, enhancing their learning and contributing to the learning culture of the school" (Whitehead & Fitzgerald, 2006, p. 43).

Parallel to the changes in the classroom from the last 30 years, the role of mentoring has also changed. Classroom and student expectations have increased exponentially, and the new demands of the 21st-century classroom require highly qualified, experienced mentor teachers (Moir, 2003). Because of this change in the classroom, establishing an effective mentoring program is paramount. Conversely, mentoring not only benefits the novice teacher, it also has a strong impact on those directly and indirectly involved in the mentoring process. To sum it up,

> mentoring can be a powerful professional development exercise for veteran teachers. As they hone their skills of observation and analysis, coaching and assessment, collaboration and inquiry, mentor teachers are developing the tools for the study and ongoing improvement of teaching with fellow teachers. In this

way mentor teachers become a resource for school and districts as well as for teacher preparation programs (Feiman-Nemser, 2001, p. 28).

Creating an effective mentoring program requires the assistance from many individuals: the mentor, the campus administration, and the district administration. However, according to Brooks (1987) and Huling-Austin (1990), the most crucial component of any mentoring and induction program is the mentor itself.

<center>Mentoring within a Comprehensive Induction Program</center>

The importance of mentoring has been established; but opinions about how mentoring is used within a comprehensive induction program are varied. Because of variety in the demographics and standards for new teachers, the mentoring programs for new teachers seem to be just as varied as the individuals who create and participate in them. Fortunately, experts in the field of mentoring/induction have suggested common themes and guidelines for creating effective mentoring/induction programs. Huling-Austin (1988) identified five goals that are widely used in creating effective programs. Although this list is not all-encompassing, it includes common goals and objectives:

1.   To improve teaching performance

2.   To increase the retention of promising beginning teachers

3.   To promote the personal and professional well-being of beginning teachers

4.   To satisfy mandated requirements related to induction

5.   To transmit the culture of the school system and the teaching profession to beginning teachers (p. 2)

Because of the importance of each of the aforementioned goals for an effective mentor program, it is necessary to examine each one further.

To improve student and teacher performance, criteria must be in place so that mentor teachers are using the best practices and instructional strategies identified by the program guidelines. Adherence to standards or valued aspects of teaching can be accomplished during the mentor selection process. Researchers agree that mentors must be willing and able to use current, research-based techniques incorporating technology and taking into account the learning styles and needs of all students. They must employ the skills that enable the new teacher to be successful. O'Dell (1989) established five criteria in the selection process of mentors:

1.   Demonstrate excellence in teaching

2.   Demonstrate excellence in working with adults

3.   Demonstrate sensitivity to the viewpoint of others

4.   Demonstrate a willingness to be an active and open learner

5.   Demonstrate competence in social and public relations skills (pp. 25-26)

As the current literature states, mentoring is a reciprocal process. The skills that are modeled for new teachers to observe and use in their own instruction are essential in allowing new teachers to grow into master teachers. Identifying and pairing effective mentors with first-year teachers can result in success in both the professionalism of the teacher and the achievement of the student. Thus, creating an effective program must provide for instructional and emotional support as well as following research-based and state guidelines.

To increase the retention of promising beginning teachers, an emphasis is placed on adequately preparing new teachers for the job at hand. This factor can contribute to overall teacher satisfaction, helping to persuade the teacher to continue teaching.

Regardless of whether the new teacher comes from a traditional, nontraditional, or alternative certification route to the classroom, it is imperative that the mentor assist the new teacher in all aspects of teaching. The role or job of the mentor is equally important to ensuring the success of the first-year teacher and the success of the mentor program.

Emotional support between the mentor and the first-year teacher is extremely important (Gratch, 1998; Huling, 1986, 1989, 1990, 1992; Kilburg, 2005; O'Dell, 1986; Schlichte, Yssel, & Merbler, 2005). Rowley (1999) suggests that in order to be an effective mentor, one needs to create that emotional bond with the novice teacher to better meet their unique needs. Being cognizant of the first-year teacher's need of emotional support should be at the forefront of any successful mentor program.

One example of an effective mentoring program is in Broward County, Florida. The beginning teacher program is composed of a school-based team of a peer teacher, another professional educator, and a building-level administrator. The peer teacher is an experienced teacher who teaches the same grade level or content area as the new teacher in order to better serve him or her in the areas of instruction, management, emotional assistance, and professional development. The responsibilities of peer teachers include

> scheduling and completing at least two formative observations, coordinating substitute teachers and observation dates, assisting the beginning teacher in meeting the recommendations in the professional development plan, successfully completing the district's Beginning Teacher Program in-service training activities for support team members, and monitoring and signing off on progress indicated on the timeline checklist (Sedinger, 1998, p.123).

This configuration allows the mentor to remain in close proximity to the new teacher, offering unrestricted time to answer questions or offer assistance. In addition, it

also allows the new teacher to rely on someone who knows first-hand the rules, procedures, and protocol of the school and faculty. This configuration is most common because it is the easiest to accommodate schedules and time. Requiring and insisting that emotional support be a main goal to promote the personal and professional well-being of the new teacher is critical to maintaining a successful program.

In addition to offering emotional support, it is necessary to follow all state and national mandates when implementing a mentoring program. One goal of some mentoring programs includes preparing the new teacher to pass the state and/or national examinations, as well as successfully completing all formal yearly professional development appraisal systems. For example, TxBESS offers a program to help beginning teachers understand and prepare for their yearly Professional Development and Appraisal System (PDAS). As part of the mentor program, upholding this standard is a critical component to ensure success to both the first-year teacher and the students served.

Finally, it is important to transmit the culture of the school system. Effective mentors not only assist the beginning teacher with the fundamentals of the classroom, but also the fundamentals of how the campus operates. Each campus has its unique identity and functions in a particular way. Mentors can address these functions so the beginning teacher will understand the environment in which he or she works (Stansbury & Zimmerman, 2000). The overall goal of creating effective mentoring programs involves all participants in a school system -- teachers, administrators, district personnel, school boards, and community members. Knowing the unique expectations, dynamics, and functions of a school system is a key ingredient for new-teacher

success. Proper training in facilitating this knowledge should be an important part of any mentor program.

One such program is the joint teacher induction program of Albuquerque public schools and the University of New Mexico. This induction program is composed of 24 veterans known as clinical support teachers who (a) offer personal support and in-class consultation, (b) counsel beginners on methods and materials, and (c) demonstrate teaching techniques. This clinical role is offered by the school system and the university to outstanding veteran teachers who plan to give up a year of teaching to support a new teacher. The goal of this program is to not only support beginning teachers but also provide an environment to support retention.

Although the aforementioned goals are not all-encompassing, they are considered important goals to implement in an effective mentor program. A crucial underpinning to any effective program is funding.

Economic Impacts of Induction

Although the field of teaching has been around for centuries, it wasn't until the 1980s that concern for first-year teachers gained national attention. During this decade, educators and policy makers noticed an alarming trend toward poor retention rates of teachers, especially teachers in their first five years of service. A leading authority in teacher retention, Ingersoll (2001), estimates that almost a third of America's teachers leave the field sometime during their first three years of teaching, and almost half leave after five years. In many low-income communities and rural areas, the rates of attrition are even higher. The attrition rate for those who enter through some "alternative" pathways can be as high as 60%.

In an effort to reverse this trend, researchers, specialty groups, and policy makers began to look into the complexities of the early years of teaching, with the hope of uncovering the issues that are most pressing. National reports such as the Holmes Group's (1986) *Tomorrow's Teachers* and the Carnegie Forum's (1986) *A Nation Prepared: Teachers for the 21st Century* put induction in the political spotlight. These studies looked at multiple variables that might be associated with low teacher retention rates and came up with possible solutions such as increasing salaries, offering compensation for teaching at schools with certain populations, and establishing support systems. Several state legislatures decided to support the establishment of induction programs but offered little to no financial support for these programs.

The number of teacher mentoring programs has dramatically increased since the early 1980s as vehicles for supporting and retaining novice teachers (Huling & Resta, 2001). With the increase of mentoring programs, there should be an increase in teacher retention. Current literature suggests that by not providing a new teacher with an effective mentor, beginning teachers become overwhelmed and possible frustrated, leaving the teaching profession all together (Ryan et al., 1980).

One suggested method for estimating the cost of teacher turnover is to

define the cost as a percentage of annual salary plus the cost of benefits. It is estimated that the turnover cost per employee is equal to roughly 25 percent of the annual salary of the leaver plus the amount the company invests in benefits for the leaver (Brenner, 2000, p. 2).

In this model, the cost for benefits averages 35% of the leaver's annual salary. With a current teacher turnover rate of 15.6%,

using the most conservative turnover cost estimation method, Texas is losing approximately $329 million each year, with alternate estimations for these costs reaching as high as $2.1 billion per year (Benner, 2000, p. 16).

Not only is this a cost in dollars, but it is also a cost to the education profession and to the students served. Huling-Austin (1986) contends that a

> profession has a responsibility for the well being of its members as well as its clients and that not providing beginning teachers with personal and professional support when it is needed is professionally irresponsible (p. 3).

In the last two decades, first-year teacher induction programs have increased in quantity because of the fact that educators have been leaving the profession. According to the National Education Association (2007), new teachers who participate in induction programs and mentoring are nearly twice as likely to stay in their profession. This finding is significant since the education field is losing a large number of quality teachers each year. The exact reason for leaving the profession ranges from teacher dissatisfaction, career change, and family change to retirement, but one fact is clear: As a profession, education is losing educators. Therefore, it is of paramount importance that the field of education creates programs to assist those in their first year, providing a foundation for their careers to be long lasting.

A study was conducted by Smith and Ingersoll (2004) to determine the effects that induction and mentoring had on retention. Their data came from the Schools and Staffing Survey, which was administered by the National Center for Education Statistics. The results of this study indicated that first-year teachers who (a) had a mentor in the same content area and (b) was actively involved in induction activities were more likely to remain on the same campus and in teaching after the first year (Smith & Ingersoll, 2004). Research conducted by Brenner (2000) in Texas on teacher shortages and their financial implications clearly indicated that a high percentage of teachers were leaving the profession each year. Currently, according to the Texas Education Agency's (2008)

annual Academic Excellence Indicator System for the academic school year 2006-2007,

the same year in which the data in this study was conducted, the teacher turnover rate

was 15.6%. Therefore, current research is needed to determine what effective

mentoring is and how it impacts teacher retention. Feiman-Nemser (1996) confers

suggesting that more research-based studies on mentoring and induction are needed in

order to establish solid mentoring and induction policy.

<div align="center">Current Research on Teacher Induction and Mentoring</div>

There are many research studies mentioned in the literature on mentoring and

induction. According to the Teacher Education Yearbook XIV, several current studies

parallel this dissertation's concept by highlighting the importance of mentoring and

induction and its connection to student achievement.

One such study was in New York. This three-year study was conducted by

Ashdown, Hummel-Rossi, and Tobias (2006) to evaluate the impact that three pilot

induction programs had on teacher development and student achievement. The first

induction program was called the Accelerated Teacher Preparation Program. The

objective of this evaluation was to look at teachers' improvement from the beginning of

their first year of teaching to the end of their first year by using a pre- and post-year

instrument, designed specifically for this study, to test student learning. Results

indicated that there was a small increase in mean scores from the beginning of the year

to the end of the year with statistical significance. Researchers stressed that it was a

small sample size and that test needed to be repeated.

The second induction program was called the Professional Development

Laboratory. The researchers examined "the extent to which the support services

contributed to the retention of beginning teachers, the development of their professional

competency, and their effectiveness with students" (Ashdown, et al., 2006, p. 26). Data

collected to measure professional competency were assessed through the Teacher

Efficacy Scale survey, used at the beginning of the school year as well as the end of the

year to measure growth. Results indicated that of the 67 new teachers in this program,

only 48 completed the survey at the beginning of the year and only 14 completed the

survey at the end of the year. Researchers felt that the surveys were not distributed

correctly; therefore, only the beginning data was reported. Based on a 6-point Likert

scale, the mean score was 4.51. This was interpreted to mean that teachers only

somewhat felt they had an impact on student achievement (Ashdown, et al., 2006).

Data for effectiveness were collected from the state standardized test scores. Results

showed that there was no statistical significance in favor of teachers who participated in

the Professional Development Laboratory as compared to teacher nonparticipants,

based on corresponding student test scores.

      The final study by Ashdown, et al., (2006) examined the New Educator Support

Team (NEST) program. The objective of research on this program was to "examine a

broad range of summative effects of NEST services in participating schools to

determine how NEST impacted the teachers, the schools, and the students served in

those schools" (p. 28). The researchers divided the program participants into two

cohorts. The first cohort consisted of 14 new teachers who received services for up to

four years. The second cohort consisted of 27 new teachers who had limited

experiences with the NEST program. Teachers from both cohorts were observed and

evaluated using the Domain Referenced Teacher Observation tool. Results indicated

that although the mean differences between the cohorts were not statistically significant, there were higher mean item ratings on evaluations of cohort 1 compared to cohort 2.

Ultimately, each induction program examined by the researchers above had a positive effect on the beginning teachers served. However, what the researchers were able to glean from their studies was that mentoring and induction was a complex process (Huling, 1989) and that measuring the effects of mentoring and induction programs on student achievement take multiple methods.

Another study that closely paralleled this dissertation was one conducted by Hayes (2006). As the director of the Transition to Teaching Program and of the Raytheon Teaching Fellows Program, she decided to look at how this mentoring program, over a three-year period, impacted overall teacher performance, feelings of efficacy, and retention rates. The Raytheon Teaching Fellows Program was created at Wichita State University in order to

> encourage more talented people to enter the field of education and obtain the content knowledge and learning strategies necessary to become effective educators in the areas of math and science (Hayes, 2006, p. 216).

Candidates were selected for this program through a stringent application process. Once candidates were selected, mentors were recruited from local school districts and trained. This three-year relationship began at the preservice level and extended into the third year of teaching. Four measurement tools were used to evaluate this program: "supplemental data through administrator evaluations, novice teacher reflections, e-mails, and group interactions" (Hayes, 2006, p. 224).

Results indicated patterns of success in communication and shared learning. This study showed that the program moved from the traditional beginning teacher

viewpoints of instruction and assessment to a more conventional view of reflection (Hayes, 2006). Finally, growth in becoming a reflective practitioner could be seen when partnerships were encouraged rather than isolation, and professionals worked together for the betterment of their own learning as well as student learning (Hayes, 2006). In regard to retention, this program was too new to show results. However, so far in the program, only one person in the three years has dropped out of the teaching profession. This information is valuable because it suggests a link between successful induction programs and teacher effectiveness and retention.

Finally, Project Launch, funded from Goals 2000, provides a mentoring and induction program to meet the unique needs of the rural population. Created by teachers, teacher educators, and administrators, this program was launched in 1996 with the intention of recruiting and maintaining rural teachers. The design of this program consists of one-to-one mentoring conferences. In addition, this program's designers developed a framework for teaching that is a vision each member of the program is committed to. The program framework is outlined below.

1. Understand the content and approach of the subjects taught, and design learning experiences which involve students in learning subjects meaningfully.

2. Understand child and/or adolescent development, and provide learning experiences which support the intellectual, social, and personal development of students.

3. Use cultural appreciation and understanding to enhance student learning and to foster development of learning communities that include students and their families.

4.   Understand how students differ in their approaches to learning and provide
      opportunities for learning which are adapted to individual student differences.

5.   Understand and use a variety of methods or strategies, which include
      applications of technology, to encourage critical thinking, problem solving, and
      demonstration of learning.

6.   Use understanding of individual and group motivation and behavior to create a
      learning environment that encourages students to interact constructively, to
      engage actively in learning, and to accept responsibility.

7.   Use knowledge of communication techniques to foster inquiry, collaboration, and
      supportive interaction in the classroom.

8.   Plan instruction based on knowledge of the subject, the students, the community,
      and the goals of the curriculum.

9.   Use formal and informal assessment to evaluate student learning.

10.   Reflect on their teaching and its effect on students, parents, the school
      community, and the school district, and seek ways to grow professionally.

11.   Foster relationships with school colleagues, parents, and the school community
      to support student learning and well-being (Harris, M., Holdman, Clark, & Harris,
      T., 2005, p. 25).

      Unique to this program was the fact that each of its participants was asked to
develop his/her own three goals that were related to the aforementioned standards.
Results indicated that 42.1% of the rural teachers attained two of their three goals. This
outcome was reflective of rural teachers in this study concentrating more on relationship
building than mere classroom instruction. Another reason for teachers obtaining two of

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out three goals was that the goal itself tends to be generalized to education rather than specific to teaching and instruction. In regard to the framework standards, results indicated that 68.2% of the rural teachers matched one goal in performance. This number indicated that "rural teachers were more likely, at the end of the first year, to show profiles of teaching strengths that support autonomous practice" (Harris, M., et al., 2005, p. 31).

This study has a couple of implications for looking at general mentoring and induction programs. One, establishing a common vision and creating one's own goals, allows the participant to be personally invested in his or her own success. Second, there is a big difference in needs between rural and nonrural teachers and the mentoring/ induction programs that support them.

The CREATE Study

The Center for Research, Evaluation and Advancement of Teacher Education (CREATE), a statewide research consortium of university-based teacher educators in Texas, sponsored a major study of teacher mentoring beginning in 2005. The study developed by Huling and Resta (2007) attempted to build a bridge between two primary fields of research: teacher effectiveness and teacher induction/mentoring.

Through this study, 451 first-year teachers from 14 independent school districts in Texas provided data about the relationship between mentoring and teacher performance. Researchers from four universities assisted in interviewing first-year teachers in the spring of 2006 about what specific types of support they received from their mentors and how the perceived work environment played a key role in their success.

Two instruments were used: a new teacher interview and a mentor survey. Questions in the form of an interview addressed topics such as the frequency of interaction, observational feedback, and supervision from the administrative team. Each answer received was based on a 1-4 Likert scale of idealness, meaning that those who answered 4 received the most ideal mentor support and those who answered 1 received the least ideal mentor support. Mentors for the first-year teacher participants completed a survey about how the mentor/induction program was organized and structured. Question samples include topics such as training, teaching assignments, and documentation. These answers were also based on a 1-4 Likert scale of idealness, meaning that those who answered 4 delivered the most ideal support and those who answered 1 delivered the least ideal support. These two instruments were designed so that specific questions could be categorized into four descriptors: mentor support, mentor infrastructure, workplace ecology, and demographics.

The definitions of terms used in the Huling and Resta (2007) study are the same as the ones employed in the current research, which provides a reanalysis of some of the CREATE study data. The paragraphs that follow describe the important terms used in the CREATE study and tells how they were operationalized in the surveys

Mentor support (MS) refers to the specific duties performed by the mentor teacher to assist the first-year teacher. The duties closely examined and labeled as descriptors in the CREATE study (Huling & Resta, 2007) included the assignment of the mentor teacher, when mentor teacher support began, frequency of mentor teacher/first-year-teacher interaction, modes of mentor teacher/first-year teacher communication, frequency of mentor teacher/new teacher meetings, who typically initiates interaction,

topical focus on mentor teacher/new teacher interactions, mentor teacher observations of new teacher, determination of observation focus, delivery of observation feedback, release time for mentoring, mentor teacher/new teacher sharing of resources, mentor teacher suggestions for professional development, new teacher perception of relationship with mentor teacher, new teacher perception of value of mentoring received, new teacher orientation, and new teacher support sessions. There were 17 items collected from the novice teacher interview to determine mentor support. Each item was scored on a 1-4 scale (with 4 being the most ideal situation and 1 being least the ideal situation).

Mentor support was an important consideration when examining the relationship between mentoring and classroom effectiveness. By exploring this variable extensively, the researchers intended to learn in detail what specific characteristics were helpful in the first-year teacher's success. This knowledge is important in training mentors and establishing expectations for the mentor/induction program.

Mentor infrastructure (MI) as referred to in the CREATE study (Huling & Resta, 2007) is how the mentor program was designed in order to assist the first-year teacher. The descriptors labeled in this study were mentor teacher/new teacher teaching assignments, mentor teacher/new teacher classroom proximity, mentor teacher selection process, initial mentor training, ongoing mentor training, program coordinator, mentor teacher interaction with coordinator, handbook and other materials, suggested time guidelines for mentoring, documentation requirements, release time for mentoring, novice teacher support sessions, mentor teacher/new teacher common planning period, funding for new teacher supplies and materials, mentor stipend, other mentor rewards

and incentives, principal's priority for mentoring, principal's view of mentor teacher role, mentor program evaluation, and use of evaluation data. Information about infrastructure was collected from mentors in section 2 of the Mentor Teacher Survey. There were 20 items, and each was scored on a 1-4 scale (with 4 being the most ideal conditions and 1 being the least ideal conditions).

Mentor infrastructure was considered to be important in informing policy and practice. As stated previously, Huling-Austin (1988) described characteristics for creating an effective mentor/induction program. By looking at the relationship between Mentor Infrastructure and the Classroom Effectiveness Index, the researchers in the CREATE study intended to learn more about how the mentor/induction programs of the teacher participants were structured.

Workplace ecology (WE) refers to the culture, climate, and context in which one is teaching. The various indicators examined in the CREATE study (Huling & Resta, 2007) included faculty collegiality, facilitating style of grade level/department chair, facilitating style of administrative team, student discipline support, supervision from administrative team, lesson plan support, process for determining professional development, facilities and equipment, neighborhood and safety, parental involvement, student motivation and academic preparation, and student behavior. There were 12 workplace ecology items collected from the novice teacher interview. Each workplace ecology item was scored on a 1-4 scale (with 4 being the most ideal situation and 1 being the least ideal situation). Each aspect of workplace ecology is described below.

According to Hall and Hord (2006), culture is the "individually and socially constructed values, norms, and beliefs about an organization and how it should behave

that can be measured only by observation of the setting using qualitative methods" (p. 20). It is very important for a new teacher to investigate fully the culture of a campus and district prior to signing the employment contract. Since the culture can vary from campus to campus, it can contribute to the overall success or failure of a new teacher. Sometimes, though, a teacher does not completely understand the unique dynamics and culture of a particular campus until that contract is signed and the job is taken. These conditions can dramatically affect the first year of a new teacher. Feiman-Nemser (2003) concurred, suggesting that a beginning teacher's overall success relies on the culture of the campus.

The climate of a campus refers to an individual's perception of the attitudes and norms of a campus (Hall & Hord, 2006). Regardless of the commonly understood culture of the campus, the climate refers to perceptions of the new teacher. The climate has a profound impact on the needs of the new teacher and his/her relationship to the mentor. Since this concept is based on personal experiences, prior knowledge, and choices, the new teacher's perceptions can become the climate's reality. Therefore, a strong, effective mentor can assist in developing a positive climate in which the new teacher can grow and become successful.

Although research is not explicit about what makes a positive or negative climate, which varies, according to the definition used here, with the individual beginning teacher, it does suggest that "the context in which a beginning teacher is placed has a major influence on his or her success" (Ishler & Edelfelt, 1989, p. 63). By "context," I mean all the factors that make up the environment and the circumstances in which the teacher works, including the type and the number of students, the teaching assignment

in subject and grade level, the number of preparations, the size and nature of the faculty, the physical work space, the social and psychological climate, the support staff available, and the quality of leadership by the principal (Ishler & Edelfelt, 1989). That being said, mentor support is imperative to assist the new teacher with the culture and climate of a new campus so that the first year can be a success. To support this claim, Huling-Austin (1988) indicated that attention to the factors of context reduces teaching difficulties.

Teacher demographics are a contributing factor to determining teacher effectiveness and are a critical component to this study. Each demographic considered in the CREATE study (Huling & Resta, 2007) is outlined below.

One variable considered was age. The age ranges were: (1) 20-29, (2) 30-39, (3) 40-49, and (4) 50 +. Each first-year teacher selected the appropriate age bracket. This information enabled determination of the possible effect of age on teacher effectiveness and teacher retention. This information might be useful to district administrators for hiring purposes and to teacher education entities in recruitment of candidates.

Another variable considered was gender. In this study, there were both males and females. Typically, there are more females in the education profession than males. It is important to take into consideration the potential effect of gender on teacher effectiveness and retention. This information may be valuable in setting recruitment goals.

A third variable considered was ethnicity. The categories that were self labeled by participants were (1) White, (2) Black, (3) Hispanic, or (4) Other. The category of Other was not defined and could include a variety of ethnic groups not identified. This

information may be helpful in determining the circumstances under which particular

ethnic groups are effective as teachers or are retained in teaching, enabling decision

makers to take a proactive stance in recruitment and specialized training to meet

differentiated professional development needs.

Another variable considered was the school level of the first teaching

assignment: (1) elementary, (2) middle school, or (3) high school. Commonly,

secondary teachers are considered experts in their content, while elementary teacher

can teach a variety of content while focusing on the overall development of the child.

Information about teaching level may be helpful to teacher preparation entities in

determining what knowledge base and instructional needs must be met to facilitate

teacher effectiveness and teacher retention rates at different levels of preparation.

The last variable considered was certification pathway. There were four

pathways considered in this study: (1) traditional college preparation (2) education

service centers, (3) alternative certification programs, and (4) none. This information

might be helpful in determining whether certain pathways are associated with the most

successful teacher effectiveness index scores and/or with teacher retention. This

information can be useful in redesigning teacher education programs.

In addition to the data collected from interviews and surveys,

classroom pass rates (the percentage of students meeting state standard) and
scale scores from the Spring 2006 administration of the Texas Assessment of
Knowledge and Skills (TAKS) were also collected from students of the first- year
teachers and 2,145 comparison teachers who taught at their same campuses
(Huling & Resta, 2007, p. 8).

In combination, these data were used to determine the relationship, if any,

among quality of mentoring, student achievement, and teacher retention. Previous

research linking the effects of mentoring to the achievement of novice teachers' students has been quite limited. The CREATE study found some links between the characteristics of the mentoring of new teachers and the achievement of their students, but these effects were not consistent across subject areas and grade levels.

For example, 64% of first-year teachers who taught English-language arts and who were compared to veteran teachers who taught the same content area had students who performed successfully on the Texas Assessment of Knowledge and Skills (TAKS) test. Conversely, only 11% of first-year teachers who taught science and who were compared to veteran teachers who taught the same content area had students who performed successfully on the TAKS test. However, both groups of first-year teachers had the same mentoring services. The researchers concluded that using the classroom scale scores for the TAKS might have reduced the variability of the sample, thus masking the interaction between mentoring and student achievement. The researchers proposed using a value-added measure in future analysis of this data to determine from a different perspective the possible relationship of mentoring to teacher effectiveness and teacher retention.

The study reported here incorporates a value-added measure, the Classroom Effectiveness Index (CEI), adding another dimension to the CREATE (Huling & Resta, 2007) study's collected data. The relationships between mentor support (MS), mentor infrastructure (MI), and workplace ecology (WE) will be more precisely described when the Classroom Effectiveness Index is factored into these analyses; therefore, this will be valuable information for the district as well as for the field of teacher induction research.

Teacher and Classroom Effectiveness

For the purposes of this study, two distinct and differing definitions of effectiveness are considered. The literature often refers to "teacher effectiveness" by placing the emphasis on the teacher's performance. Huling (2008) uses the term "teacher performance" so that there is no confusion on where the responsibility lies. Although there are varying ideas of what actually makes a teacher effective, the term is widely used in the literature to describe how well a teacher performs his/her own duties. Another term used in the literature is "classroom effectiveness." This often refers to a specific classroom and the factors specific to that classroom that contribute to student success. Because of its use in the Classroom Effectiveness Index, a key measure for this study, the term used in this study is "classroom effectiveness."

Classroom effectiveness is a multifaceted concept that tries to convey two distinct variables: classroom and effectiveness. Classroom effectiveness is different from teacher effectiveness in its consideration for the potential, based on past performance, of the students in the classroom. From this perspective, a "classroom" includes any classroom on a k-12 campus that contains a teacher, students, instructional resources, and administrative support systems. Simply stated, classroom effectiveness is the preparation and support of the teacher resulting in the success of his/her students.

There are differing viewpoints on effective teaching practices. Some research indicates that having a strong theory base and extensive content knowledge renders effective practices. For example, the Yale Education Studies Program (2008) states that

> central to the notion of philosophy is that every action taken by a teacher is a philosophical statement. That is, assumptions about the nature of knowledge, the

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nature of learning, the role of the teacher, are philosophical questions, the answers to which have great importance about how one chooses to teach (p. 5).

Therefore, building a strong, philosophical foundation is at the heart of effective teaching.

Other research includes characteristics of effective teaching such as humor and interpersonal skills. For example, Nodding's (2006) theory of caring pedagogy encompasses the emotional aspect by focusing on the reciprocal relationship between the teacher and the student. Nodding (2006) suggested that caring must be genuine and when a caring relationship occurs, interpersonal skills are improved. Educators have long recognized the importance of caring for their students. Even Maslow (1943) depicted caring and acceptance as a basic human need on his hierarchy of needs pyramid.

Discussing all the various individual skills deemed effective teaching characteristics is cumbersome. Most researchers categorize their findings. One such researcher is Stronge (2002). He characterized effective teaching as those teachers who can articulate their knowledge and recognize that teaching is a highly complex process. The most common agreed-upon attributes of effectiveness were stated by Wong & Wong (1998). These include the three attributes of: (1) positive expectations, (2) classroom management, and (3) lesson mastery. Regardless, each researcher has differing opinions of which attributes constitute teacher and classroom effectiveness.

In an effort to determine what makes a classroom effective, a large, metropolitan, school district in north central Texas has conducted three research-based studies to try to answer this question. The first study was called the Jordan Study (Jordan, Mendro, R, & Weerasinghe, 1997). This study looked at the effects of teachers for a period of

three years by examining student test scores. The teachers were assigned to groups based on their effectiveness. Results indicated that those students who had ineffective teachers lagged behind students who had effective teachers at the end of the three years. In addition, it took almost two years for an effective teacher to erase most of the effects of an ineffective teacher.

The second study was called the Bembry/Mendro Study (Bembry & Mendro, 2007), and it looked at four years of student data. This study confirmed the previous study's results and also showed that those students who continued with an ineffective teacher showed a lasting effect.

The third study was called the Babu/Mendro study (Babu & Mendro, 2003), which examined three years of effectiveness data relative to the Texas Academic Assessment of Skills (TAAS) test. Again, results were similar to the two previous studies except that there was a large difference between those students who scored high on the TAAS test and the actual low passing rate of other students (Babu & Mendro, 2007). This means the researchers were able to determine what characteristics of teacher performance resulted in low-scoring students but not necessarily high-scoring students. Based on the results of three major research studies conducted within this district, the research and development department concluded that effective teachers:

1.   Know content better

2.   Stick with the scope and sequence and teach the whole course evenly

3.   Teach higher order skills regularly

4.   Use assessment to identify weaknesses and students with problems and arrange mediation outside general instruction time (Babu & Mendro, 2007, p. 34)

In relation to the Classroom Effectiveness Index, it was reported that those teachers who were ineffective, remained ineffective for three years. In contrast, those teachers who were effective also remained effective for three years. But, in determining how a teacher can be effective, the data consistently showed that student success ultimately depends upon the teacher's content knowledge of the subject and grade level he/she is teaching.

<div align="center">Value-added and Traditional Concepts of Effectiveness</div>

If education is to be viewed as a causal profession, meaning that teachers cause student success, a tool needs to be designed to evaluate that relationship. This is the premise of value-added measurement. Value-added assessment as a measure of teacher effectiveness looks beyond simple standardized test scores and takes into account the unique qualities and attributes of the teacher in facilitating students' growth. Since this concept is relatively new, only a handful of states and districts have used this model; therefore, research is limited. This section will examine the concept of value-added assessments and their benefits, present current research on value-added assessment, and explain the value-added approach to determining classroom effectiveness that was developed in one school district and subsequently employed in this study.

The leader and creator of value-added assessment is William L. Sanders, a senior research fellow with the University of North Carolina System and manager of value-added assessment and research for Statistical Analysis Software Institute, Inc., in Cary, North Carolina. Sanders and his colleagues have been defining and revising the value-added approach to determine accurately the "value" that a teacher brings to

student learning. When used correctly, the data from the value-added measure can identify weaknesses of teacher performance in relation to student achievement, or lack thereof (Carey, 2004). Then, administrators can effectively design training to address these weaknesses.

The construct of a value-added approach is that, while a student brings an initial academic value, additional value is gained through proper and effective instruction. Doran (2003) defines value-added assessment as a means to correctly identify effective teaching instruction. Therefore, this assessment is designed to measure the relative value gained. A value-added assessment can assist campus leaders and school administrators make concrete, personnel decisions as well as informed curriculum decisions for effective practices (Hershberg, Simon, & Lea-Kruger, 2004). According to its proponents, value-added assessments can change the way educators and stakeholders view the learning process (Hershberg, et al., 2004). Carey (2004) reiterated that incorporating a value-added assessment approach into the schools can distinguish effective teaching from ineffective teaching for diverse students.

Researchers are beginning to evaluate the value-added assessment tool to determine teacher and classroom effectiveness. One example is a pilot study by Noell and Burns (2006) that looked at the methodological and practical issues in using a value-added measurement tool in a Louisiana teacher preparation program. Two scores were used for data analysis: the Iowa Test of Basic Skills and the Louisiana Educational Assessment Program results for all students in grades 4-9. Results indicated that the data collected did not completely depict accurate effectiveness results and that this form of assessment needed to be more fully developed (Noell & Burns, 2006). Simply put,

more studies need to take place before this type of measurement tool can be successful. In addition, specific concerns arose from this study as follows:

1.   There is no evidence that a value-added model assessment of teacher preparation will make teacher preparation stronger.

2.   The system is not complex enough.

3.   An appropriate and attainable goal is that consumers understand a value-added model system.

4.   A value-added model assessment will be harmful to universities in some way.

5.   A value-added model will distort the educational process by focusing attention toward standardized testing and/or encouraging universities to steer graduates to advantaged schools (Noell & Burns, 2006, pp. 46-47).

These concerns, as outlined by Noel and Burns, should be addressed specifically in future research in order to completely adopt the concept of a value-added model as a measurement of teacher effectiveness.

Because value-added assessment is relatively new and somewhat controversial, it has met with much criticism. Amrein-Beardsley (2008) contends that one major criticism of using a value-added approach is that there is little research in the literature to determine the validity of this type of measure. This is problematic because without these studies, the validity of this model in telling which teachers are effective cannot be established. In addition, many researchers believe that a simple standardized test cannot explain the complexities that go into teaching and student learning. Since the value-added model uses the standardized test scores, this may not be enough to give an effective portrayal. Finally, many complain about the computational difficulty of value-

added assessment. The model uses a complex statistical analysis to determine student growth and gain. In speaking with employees of a district that uses a value-added model, it is met with hesitation for the simple reason of the employee not understanding how it is derived.

Taking all the previous research and opinions into consideration, one school district in north central Texas decided to create its own value-added measurement tool based on Sander's (1992) Education Value Added Assessment System (EVASS) model, also known as the Classroom Effectiveness Index (CEI). Developed by the district's research and development team, the Classroom Effectiveness Index is derived from scores from the previous year's Texas Assessment of Knowledge and Skills (TAKS) in combination with student characteristics such as gender, ethnicity, English language proficiency, and socioeconomic variables. From the student population district-wide, administrators identified unique student groups to compare to only like students (school effectiveness, classroom effectiveness, effective teachers, PowerPoint® presentation graphics program [Microsoft Corporation, Redmond, WA, http://www.microsoft.com] presentation at an evaluation and accountability meeting). This means that students in each group share the same demographic characteristics. Then administrators create a predicted TAKS score projecting improvement from the previous year's test.

Once the test has been administered and results complied, the actual score is compared to the predicted score. Ideally, the actual/achieved score is at the predicted level or higher, indicating value added from the teacher. Those actual/achieved scores that are lower than the predicted scores indicate less value added from the teacher. A

percentage score for each teacher is used to determine overall effectiveness. This percentage is known as the teacher's Classroom Effectiveness Index. A high Classroom Effectiveness Index indicates that many of the teachers' students outperformed their peers in the district.

To determine the validity of the Classroom Effectiveness Index, a validation study and post hoc analyses of classroom effective indices was conducted in 2001 by researcher Dr. Dash Weerasinghe. Four validation considerations related to classroom effectiveness indices were addressed in this study:

1. Longitudinal stability of a teacher's classroom effectiveness indices

2. The unique characteristics of CEIs of teachers who teach both regular and honors courses

3. The effect of new principals on the CEIs of teachers who remain at the same school

4. The accuracy of using the mean of the students' value-added gain scores as a measure of central tendency to compute the CEI (Weerasinghe, 2001, pp. 11-13)

Each of these four validation considerations is examined below.

The longitudinal study "identified those teachers that are in most need of assistance in improving their classroom performance" (Weerasinghe, 2001, p. 81). The focus was on low teacher performance and how to remedy this problem. This information has significance and utility for administrative leaders who make tough personnel decisions. This study found that over a span of three years, teachers tended to perform at the same level, not increasing, but rather reaching a plateau. Weerasignhe (2001) speculated that this might be changed through more training, peer review, and/or

mentoring. Still, he concluded that the CEI has stability over time for teachers whose

performance is low.

Data in the performance of teachers with both regular and honors courses

showed that for

> students of equal ability, the opportunity to be in a teacher's honors course
> guarantee[d] higher gain scores than being in the same teacher's regular course.
> Ideally, teachers should expect the same levels of gain from the students in their
> regular courses as students in their honors courses (Weerasinghe, 2001, p. 83).

Weerasinghe (2001) recommended that teachers use the same, effective,

master-level teaching strategies for all students including those in both honors classes

and regular classes.

Consideration of the effects of new principals who remained at the school yielded

mixed results. In the school years that were analyzed, there were 80 new principals.

Having new principals had both positive and negative effects on teacher performance

scores. Results indicated that the new principals had a positive effect on the teachers

who received the lowest Classroom Effectiveness Index scores. This can possibly be

accounted for by the tendency of administrators to focus more on struggling teachers

than on those who were able to jump into the new role effectively. In addition, another

consideration could be the leadership style of the administrator.

Consequently, the results indicated that the new principals did not have an effect

on the teachers who had the highest Classroom Effectiveness Index scores. Again, this

could be the result of the new principals focusing their attention on those new teachers

who needed the assistance. In one of the years studied, the new principals did not

make an impact on any of the new teachers. In another year, all the principals made an

impact on all the new teachers. Results were considered inconclusive as to the impact

of new principals on new teachers. However, Weerasinghe (2001) suggested examining this further and extending the research at least one more year to determine the effect. To date, this research has not been completed.

The final consideration in determining validity of the Classroom Effectiveness Index as a measurement tool involved the accuracy of using the mean of the students' value-added gain scores as a measure of central tendency to compute the Classroom Effectiveness Index. According to Weerasinghe (2001), "the study analyzed different measures of central tendency to be used as the Classroom Effectiveness Index. The ideal properties of a CEI as a measure would be high stability and high reliability" (p. 85). The results indicated that "using the Mean as the measure of central tendency of residualized student gain scores to calculate the Classroom Effectiveness Index offered the best solution" (Weerasinghe, 2001, p. 86).

Therefore, after years of research studies and internal validation processes, this district has successfully implemented its version of a value-added model measurement called the Classroom Effectiveness Index. Studies are continually taking place to determine what works best for the district's teachers, induction and mentoring programs, and student population. In theory, an effective mentor program can elevate a teacher's performance so that his/her instruction can be better, resulting in a higher Classroom Effectiveness Index. Quality mentoring programs can reduce the pressure of the first-year teachers offering confidence and effective teaching practices (Feiman-Nemser, 1998). Therefore, according to this school district, a value-added assessment approach is recommended to determine overall classroom effectiveness.

Summary

In conclusion, this chapter clearly describes the historical perspective of induction, defines the framework and important role of mentoring in an induction program, looks at the economic and policy impact of induction programs from a national and state perspective, reviews the CREATE study by Huling and Resta (2007), defines classroom and teacher effectiveness, and looks at both sides of the controversial assessment mode known as the value-added model. The following chapter outlines the methodology and research questions utilized in this dissertation.

CHAPTER 3

METHODOLOGY

Research Questions

The purpose of this study was to determine the relationship between scores of the new teachers' classroom effectiveness with numerical indexes of mentor support, mentor infrastructure, and workplace ecology. In addition, this study sought to determine the effect of various demographics (i.e., gender, age, race, degree, teaching level, and certification route) on the Classroom Effectiveness Index (CEI) scores of first-year teachers; and to determine the differences, if any, between the Classroom Effectiveness Index scores of first-year teachers who remained on campus, switched campuses, or left the district.

This study aimed to answer the following questions based on data collected from the Classroom Effectiveness Index scores of 68 first-year teachers from a large, metropolitan independent school district who began their induction year in the 2005-2006 academic school year.

1.   What is the relationship between mentor support (MS) and the Classroom Effectiveness Index scores of first-year teachers?

2.   What is the relationship between mentor infrastructure (MI) and the Classroom Effectiveness Index scores of first-year teachers?

3.   What is the relationship between perceived workplace ecology (WE) and the Classroom Effectiveness Index scores of first-year teachers?

4.   What is the relationship between the perceived level of mentor support (MS) received on various mentor support descriptors and the Classroom Effectiveness Index scores of first-year teachers?

5.   What is the relationship between the perceived idealness of various mentor infrastructure (MI) condition descriptors and the Classroom Effectiveness Index scores of first-year teachers?

6.   What is the relationship between the perceived idealness of various workplace ecology (WE) situation descriptors and the Classroom Effectiveness Index scores of first-year teachers?

7.   What is the effect of various demographics (i.e. gender, age, race, degree, teaching level, and certification route) on Classroom Effectiveness Index scores of first-year teachers?

8.   Is there a significant difference between the Classroom Effectiveness Index scores of first-year teachers who (a) remained on campus, (b) switched campuses, or (c) left the district?

Participants

This study began by requesting that a large, metropolitan independent school district approve a dissertation study to extend research that the district participated in through the Center for Research, Evaluation and Advancement of Teacher Education (CREATE) Teacher Induction Study (2007). Through the CREATE study, 68 first-year teachers from a large, metropolitan independent school district in north central Texas were interviewed in spring 2006 about their mentor support and workplace ecology. Campuses with first-year teachers that participated in this study were selected by their

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principals to be a part of the CREATE study. Classroom effectiveness indices were collected from all 68 first-year teachers and were added to the existing CREATE data to determine the relationship and/or effect of mentoring on classroom effectiveness. The impact of various demographics on classroom effectiveness was also explored.

Of the 68 first-year teachers, 49 were females and 19 were males. The age groupings of the new teachers were categorized as ages 20-29, 30-39, 40-49, and 50+. The average teaching age was 32. The range of teacher age was 23 to 58. The ethnic composition of the new teachers classified on the survey included White, African American, Hispanic and other. Specifically, 23 identified themselves as White, 26 identified themselves as African Americas, 15 identified themselves as Hispanic, and 4 identified themselves as other. The various school levels include teaching at the elementary, middle, and high school levels. In this study, 24 first-year teachers taught at the elementary level, 26 taught at the middle level, and 18 taught at the high school level.

Demographics also included the degree obtained by time of hire. Of the first-year teachers in this study, 63 had obtained their bachelor's degrees, 5 obtained their master's degrees, and zero obtained their doctorates at time of teaching appointment. Finally, the certification pathway includes the traditional college preparation program, educational service centers, alternative certification programs, and no certification pathway. The participants in this study consists of 17 who followed the traditional college preparation program, 3 who followed the educational service center for certification, 47 who were alternative certified, and 1 who was not certified. In all, this

sample size was very diverse and representative of the district in which they were employed.

<div align="center">Instruments</div>

To answer the above research questions, data was collected using the following instruments:

1.   Classroom Effectiveness Index

2.   CREATE Novice Teacher Interview

3.   CREATE Mentor Survey

The Classroom Effectiveness Index was created by the large, metropolitan independent school district in which this study took place. It is based on a value-added assessment approach to determining the contribution made by a teacher to student success on standardized test scores. Each student is not only compared to himself/herself, but also to others in the same classroom. This index is derived by using previous state standardized test scores and making predictions about students' success in the future. The predicted score is key to how the teacher is measured on effectiveness. If the student score is lower than predicted, the value of the teacher is lower. If the student score is at or above the predicted score, the value of the teacher is higher. Ultimately, teachers want their students to achieve at or above the predicted score. Once test scores are calculated, teachers are given an index based on whether or not their students achieved the predicted scores. This index is called the Classroom Effectiveness Index.

The Novice Teacher Interview and Mentor Teacher Survey instruments used in data collection for the CREATE study (2007) were developed by the principal

investigators of that study, both of whom are experts in the field of mentoring and teacher induction. While determining what instruments to use, many instruments had specific strengths but were insufficient to investigate the range of research questions they wanted to explore. In addition, they felt that using a combination of existing instruments would be too challenging for both the researchers and participants to complete. Therefore, two new instruments, consisting of quantitative data only, were developed.

A panel of researchers and master mentor teachers contributed to developing interview questions and survey items. Question length was taken into consideration to make sure that they were not too long or cumbersome for the participants. Drafts of these instruments were then reviewed by a second panel of educational researchers convened by CREATE. Modifications and accommodations were then taken into consideration from this panel and revisions were made.

> In Spring 2005, the instruments were piloted using participants in the Novice Teacher Induction Program operated by seven universities in the Texas State University System. During the process of item development and refinement, the development team adhered to the guidelines as delineated in the Standards for Educational and Psychological Testing published by the American Educational Research Association (AERA), American Psychological Association (APA), and the National Council on Measurement in Education (NCME, 1999) (CREATE, 2007, pp. 11-12).

As a result, two new instruments, the CREATE Teacher Interview and the CREATE Mentor Teacher Survey, were established. The CREATE Teacher Interview consisted of a university representative asking first-year teachers 46 questions and then interpreting their answer within four choices in the categories of mentor support (MS), workplace ecology (WE), and demographics. The CREATE Mentor Teacher Survey consisted of 28 questions with a forced answer choice that each participating mentor

answered in the categories of demographics and mentor infrastructure (MI). These two new instruments comprised the three categories of mentor support (MS), mentor infrastructure (MI), and workplace ecology (WE) used in this study.

The questions designed for the proposed study is developed as a result of the recent CREATE study (2007) and the need to know whether adding a value-added measure can produce a significant finding on the impact of mentoring of first-year teachers. "It is recommended that future studies use value-added measures of teacher effect" (CREATE, 2007). A review of the current literature portraying significant aspects of this study follows in the next chapter.

To briefly define, the Classroom Effectiveness Index is based on a value-added approach to determining the contributions a teacher makes to his/her students' success on standardized test scores. Each student is not only compared to himself/herself, but also to other students. This index is derived by using previous state standardized test scores and making predictions about students' success on future state standardized test scores. The range from the predicted score to the actual score is key to how the teacher is measured on effectiveness. If the student test score is lower than predicted, the "value" of the teacher is considered lower, thus resulting in a low Classroom Effectiveness Index score. If the student test score is at or above the predicted score, the "value" of the teacher is higher, thus resulting in a high Classroom Effectiveness Index score.

Once test scores are calculated, teachers are given an index based on whether or not their students achieved the predicted scores. This index is called the Classroom Effectiveness Index. Ultimately, teachers want their students to achieve at or above the

predicted score not only for the individual students to show progress, but also to validate the teacher's effectiveness in promoting student progress as well.

The Classroom Effectiveness Index was developed by the large, metropolitan independent school district in which north central Texas, where this study takes place. To determine the validity of this type of assessment, a validation study and post hoc analyses of classroom effective indices was conducted in 2001 by researcher Dr. Dash Weerasinghe. The results of this research concluded that the Classroom Effectiveness Index is a valid measuring tool to determine classroom effectiveness when used in conjunction with other measuring tools such as campus-approved authentic assessments or state-approved yearly assessments.

Design

The research methods used in this study consist of correlational and causal-comparative approaches utilizing a value-added instrument, the Classroom Effectiveness Index. According to Gall, Gall, and Borg (2003), a correlational research approach is "a type of investigation that seeks to discover the direction and magnitude of the relationship among variables through the use of correlational statistics" (p. 622). By using a correlational research approach, in conjunction with Research Questions 1 through 6, I was able to examine the relationship of the new variable, classroom effectiveness, as measured by the Classroom Effectiveness Index (CEI) to the variables of mentor support (MS), mentor infrastructure (MI), and workplace ecology (WE). MS, MI, and WE data were collected during the CREATE study of Huling and Resta (2007), while CEI data was collected during the current study.

A causal-comparative approach is "a type of quantitative investigation that seeks to discover possible causes and effects of a personal characteristic by comparing individuals in whom it is present with individuals in who it is absent or present to a lesser degree" (Gall, Gall, & Borg, 2003, p. 620). Demographics were the alleged cause in Research Question 7, while group membership (remained on campus, switched campuses, and left the district) was the alleged cause in Research Question 8. Demographics and group membership were not manipulated; they have already occurred.

The study used a quantitative research approach so that I could analyze the impact of mentoring on first-year teachers. Research Questions 1 through 3 used correlational research methodology to determine the relationship between the Classroom Effectiveness Index scores of first-year teachers and (1) mentor support, (2) mentor infrastructure, and (3) workplace ecology. Research Questions 4 through 6 used correlational research methodology to determine the relationship between the Classroom Effectiveness Index scores of first-year teachers and (1) the perceived level of mentor support received on various mentor support descriptors, (2) the perceived idealness of various mentor infrastructure condition descriptors, and (3) the perceived idealness of various workplace ecology situation descriptors. Research Question 7 used a causal-comparative methodology to determine which demographic variables had the most significant impact on the classroom effectiveness of first-year teachers. Research Question 8 used causal-comparative research methodology to identify whether or not significant differences existed between first-year teacher retention groups with respect to classroom effectiveness. These results were contrasted with those from the CREATE

Study (Huling & Resta, 2007), which used TAKS scale scores, pass rates, and "gap" scores to compare novice teachers to experienced teachers at the same campus, in order to ascertain what a value-added measure (CEI) contributed to the understanding of the effects of mentor and school support on the classroom effectiveness of novice teachers.

<div align="center">Procedures</div>

To begin this study, an application was submitted to the University of North Texas Internal Review Board, requesting permission to collect data in order to determine the impact of using a value-added approach on measuring the contribution of mentoring of first-year teachers by examining classroom effectiveness, various demographics, and teacher retention. The Internal Review Board accepted this application, noting that this study qualified for an exemption from further review.

In order to obtain the data, I and the research coordinator from CREATE had a telephone meeting with the director of research and development of the large, metropolitan independent school district where Huling and Resta (2007) conducted their initial research. In order to obtain the confidential information, I had to sign a confidentiality agreement with the district. Data was then sent to me through e-mail in Excel® spreadsheet software (Microsoft Corporation, Redmond, WA, http://www.microsoft.com) format. Second, the mentor support (MS), mentor infrastructure (MI), and workplace ecology (WE) quantitative data from Huling and Resta's (2007) initial study was given to me in a CD format at a personal meeting. Then, the CEI data from the current study was added to the previous study's data and analyzed for statistical significance.

Data Analysis

Three quantitative statistics were used in this study to answer the research

questions: Pearson correlation, ANOVA, and multiple regression.

Research Questions 1 through 6 used a correlational statistical measure, the

Pearson R.

Correlational research refers to studies in which the purpose is to discover
relationships between variables through the use of correlational statistics. This
design provides information concerning the degree of the relationship between
the variables being studied (Gall, Gall, & Borg, 2003, p. 323).

Pearson correlations were performed to determine the relationship between the

Classroom Effectiveness Index scores (CEI) and (1) mentor support (MS), (2) mentor

infrastructure (MI), and (3) workplace ecology (WE). In addition, Pearson correlations

were performed to determine the relationship between Classroom Effectiveness Index

(CEI) scores and various (1) mentor support, (2) mentor infrastructure, and (3)

perceived workplace ecology descriptors.

Research Question 7 used a multiple regression statistical measure. Multiple

regression is a univariate analysis using only one dependent variable and many

independent variables. The dependent variable used in this study was classroom

effectiveness as measured by the Classroom Effectiveness Index . The independent

variables used in this study were the various demographics (i.e., age, race, gender,

degree, teaching level, and certification routes) for all 68 new teachers. Multiple

regression was used to determine if any one of these variables had a significant effect

on the Classroom Effectiveness Index scores of mentioned first-year teachers.

Research Question 8 used a one-way ANOVA statistical measure. "An analysis

of variance is a statistical procedure that compares the amount of between-group

variance in individuals' scores with the amount of within-groups' variance" (Gall, Gall &

Borg, 2003, p. 309). Using categorical data from three retention groups, this researcher

was able to use this univariate statistical measure to determine if those first-year

teachers that remained on campus, switched campuses, or left the district had

significantly different scores on Classroom Effectiveness Index.

Summary

This chapter outlined the methodology for this important study. The following

chapter displays the results of the statistical analyses according to each research

question.

CHAPTER 4

RESULTS

The purpose of this study was to identify what aspects of mentoring have a relationship to or impact on classroom effectiveness. The results of this study add to the literature by explaining which quantifiable variables participated in the success of both teachers and students. This information is valuable to university professional development schools, education service centers, and teacher preparation centers as well as local school districts in the preparation and retention of teachers.

This chapter presents the results of the study according to each research question. The data collected were the Classroom Effectiveness Index (CEI) scores from 68 first-year teachers in the 2005-2006 school year from a large, metropolitan school district in north central Texas. The Classroom Effectiveness Index scores are derived from a statistical formula using past standardized test scores and future predicted standardized test scores on students from like subpopulations. According to prior research conducted within this district, this particular form of value-added measure had been determined to be valid (Jordan, Mendro, Weerasinghe, 1997). After receiving the data from the school district, I compiled and analyzed it with the help of a representative from the Center for Interdisciplinary Research and Analysis at the University of North Texas.

This study used a quantitative methodological approach. There were eight research questions developed to uncover relationships and effects that mentoring has on classroom effectiveness.

Research Questions 1-3 employed correlational measures to determine the relationship between the Classroom Effectiveness Index scores of first-year teachers and (1) Mentor Support (MI), Mentor Infrastructure (MI), and Workplace Ecology (WE). To determine if there was a relationship between these variables, the r values were analyzed to determine statistical significance at the probability level of $p \leq .05$. Each correlation result is shown in table form with further written explanations.

Research Questions 4-6 used correlational measures to determine the relationship between (a) mentor support descriptors, perceived workplace ecology descriptors, and mentor infrastructure descriptors and (b) the Classroom Effectiveness Index scores of first-year teachers. To determine if there was a relationship between these variables, the r values were analyzed to determine statistical significance at the probability level of $p \leq .05$. Each correlation result is shown in table form with further written explanations.

Research Question 7 utilized a regression model to determine the effect that various demographics (such as age, gender, ethnicity, degree, school level, and certification pathway) had on the Classroom Effectiveness Index of the first-year teachers. After initial investigation of the results, an additional regression was performed on the demographic variable *degree* because of the significant level of unexplained variation in the dependent variable. Both regression measures are examined further in tables with accompanying written explanations.

Lastly, Research Question 8 used a one-way ANOVA to examine the possible cause-effect relationship between first-year teachers' membership in the three retention groups and their Classroom Effectiveness Index scores. The three groups examined

were those teachers who remained at the same campus, those who remained in the district but left the current campus, and those who left the district. Each research question is examined below with a written explanation and a table and/or figure to convey the results.

Research Questions 1 through 3: What is the relationship between the Classroom Effectiveness Index scores of first-year teachers and (1) mentor support, (2) mentor infrastructure, and (3) perceived workplace ecology?

According to the Pearson r correlation measure used to determine if there was a relationship between mentor support and the Classroom Effectiveness Index scores, the correlation value was -.008, which means that there was an extremely low inverse correlation or virtually no correlation. The p-value was .952, which means that the correlation was not statistically significant. Therefore, there was no significant relationship between mentor support and the Classroom Effectiveness Index scores of first-year teachers. The Pearson r correlation measure was also used to determine if there was a relationship between mentor infrastructure and the Classroom Effectiveness Index scores. The correlation value was .090, which means that there was a very low positive correlation. The p-value was .503, which means that it was not statistically significant. Therefore, there was no significant relationship between mentor infrastructure and the Classroom Effectiveness Index scores of first-year teachers.

Finally, the Pearson r correlation measure was used to determine if there was a relationship between the perceived workplace ecology and the Classroom Effectiveness Index scores. The correlation value was .060, which means that there was a very low positive correlation. The p-value was .625, which means that it was not statistically

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significant. Therefore, there was no significant relationship between workplace ecology and the Classroom Effectiveness Index scores of first-year teachers.

The researcher sought answers for Research Questions 1 through 3 and the findings are represented in Tables 1 and 2. Table 1 represents the correlational relationship between mentor support, mentor infrastructure, workplace ecology and Classroom Effectiveness Index scores. Table 2 depicts the means and standard deviations of the variables mentor support, mentor infrastructure, workplace ecology, and Classroom Effectiveness Index scores.

Table 1

Intercorrelations between Mentor Support, Mentor Infrastructure, Workplace Ecology, and Classroom Effectiveness Index scores

Subscale	1	2	3	4
First-year teachers (n = 68)				
1. Mentor Support	-	-.129	.362	-.008
2. Mentor Infrastructure	-.129	-	-.228	.090
3. Workplace Ecology	.362	-.228	-	.060
4. Classroom Effectiveness Index	-.008	.090	.060	-

Table 2

Means and standard deviations for variables

Variables	*M*	*SD*
Classroom Effectiveness Index (CEI)	49.873	6.868
Mentor Support (MS)	48.410	11.564
Workplace Ecology (WE)	38.522	6.879
Mentor Infrastructure (MI)	49.628	8.230

Research Question 4: What is the relationship between the perceived level of mentor support received on various mentor support descriptors and the Classroom Effectiveness Index scores of first-year teachers?

There was no mentor support descriptor that was statistically significant. Out of the 17 descriptors of mentor support, 9 of them resulted in an inverse correlation, but all were very low, negative correlations. The positive correlations were also very low. The ranges of positive and negative correlations were: negative: -.01 to -.169; positive: +.036 to + .129. Mentor support data were obtained through an interview completed by the first-year teacher on the perceived level of mentor support received.

The researcher sought to examine the correlational relationships between the various mentor support descriptors and Classroom Effectiveness Index scores and the findings are in Table 3.

Table 3

Intercorrelations between Mentor Support descriptors and Classroom Effectiveness

Index scores

	Subscale	CEI
	First-year teachers ($n = 68$)	
1.	Assigned mentor	.117
2.	MT start date	-.055
3.	Communication 1	-.030
4.	Communication 2	.036
5.	MT/NT mtg. freq.	.129
6.	Mtg. initiator	.067
7.	Communication	.113
8.	Observation freq.	-.071
9.	Observation focus	-.169
10.	Observation feedback	-.099
11.	Release time	-.116
12.	Resources	.076
13.	Professional development	-.046
14.	MT/NT relationship	-.034
15.	MT benefit	.098
16.	NT orientation	.121
17.	NT meetings	-.010
18.	CEI	1.000

It is important to unpack each descriptor to examine more closely a plausible

explanation for each correlation. Each item from the interview was answered with 4

choices ranging from most ideal to least ideal. Below is a table that lists each question,

the percentage of first-year teachers who selected each answer choice, and the

corresponding mean of CEI scores of each answer choice across all first-year teachers. This table was created to try to understand more fully the implications of the relationship between Mentor Support and the Classroom Effectiveness Index scores.

Table 4

Relationships between mentor support descriptors and Classroom Effectiveness Index scores

Item	Question	Answer choices and percentages of first-year teachers who selected each choice	CEI scores (Mean of CEI scores by answer choice)
1	Do you have a mentor assigned to you? If so, is he/she based at your campus or based on a different campus? Does your mentor serve as a mentor for first-year teachers other than yourself?	4. Campus-based teacher colleague or full-time mentor with multiple mentees (98.52%) 3. Off-campus-based teacher with similar teaching assignment (0%) 2. No designated mentor but informal mentor has emerged (0%) 1. No mentor (1.47%)	4. 49.97 3. 0 2. 0 1. 43.33
2	When did your assigned mentor begin work with you?	4. Prior to school opening.(23.52%) 3. Within first 3 weeks of school opening.(58.82%) 2. After the 3rd week of school. (17.64%) 1. Mentor does not meet with teacher. (0%)	4. 50.68 3. 48.82 2. 52.30 1. 0.00
3 (-)	About how often do you and your assigned mentor interact about teaching?	4. Several times per week or more (45.58%) 3. Once weekly (17.64%) 2. Every 2 – 3 weeks or monthly (19.11%) 1. Less frequently than monthly or not at all (17.64%)	4. 49.02 3. 52.02 2. 50.74 1. 48.97
4(+)	What modes of communication do you use with your assigned mentor?	4. Face-to-face and other supporting avenues such as phone, email, journaling, etc. (33.82%) 3. Face-to-face only (55.88%) 2. Email and/or phone but rarely face-to-face (2.94%) 1. No interaction occurs (4.41%)	4. 55.04 3. 45.58 2. 45.16 1. 49.00

(table continues)

Table 2 *(continued.)*

Item	Question	Answer choices and percentages of first-year teachers who selected each choice	CEI scores (Mean of CEI scores by answer choice)
5	About how often does your assigned mentor meet with you? Are your meetings scheduled or is it informal?	4. Regularly scheduled in advance (25%) 3. Frequent but random and unexpected (42.64%) 2. Infrequent, random, and unexpected (25%) 1. Does not meet (7.35%)	4. 51.85 3. 49.26 2. 49.09 1. 49.30
6	Who initiates interaction most frequently, you or your assigned mentor?	4. Interactions were initiated by teacher and mentor equally frequently (54.41%) 3. Mentor typically initiates contact (20.58%) 2. Teacher typically initiates contact (17.64%) 1. Neither mentor nor teacher initiates interaction (7.35%)	4. 49.95 3. 50.66 2. 49.87 1. 47.09
7	When you work together with your assigned mentor, what do you usually work on or talk about?	4. A variety of topics including curriculum/instructional strategies, lesson & unit planning, student behavior/classroom management, and emotional support (72.05%) 3. Typically focus on student behavior/classroom management (16.17%) 2. Typically social (4.41%) 1. No interaction occurs (7.35%)	4. 50.24 3. 49.85 2. 47.43 1. 47.78
8	Does your assigned mentor ever spend a period or more in your classroom watching you teach? If so, about how often?	4. Mentor observes teacher teach 3 or more times (61.76%) 3. Mentor observes teacher teach 2 times (13.23%) 2. Mentor observes teacher teach once (8.82%) 1. Mentor does not observe teacher teach (14.7%)	4. 49.71 3. 48.31 2. 52.18 1. 50.10
9	Sometimes new teachers tell their mentors what they would like to have feedback on when being observed. Is that how you and your mentor usually determine the focus of the observation?	4. Focus determined mutually by teacher and mentor (27.94%) 3. Focus determined by teacher (17.64%) 2. Focus determined by mentor or administration (7.35%) 1. Observation is non-focused (35.29%) 0. Mentor never observed (17.64%)	4. 48.24 3. 48.94 2. 51.51 1. 50.66 0. 51.18

(table continues)

Table 2 *(continued.)*

Item	Question	Answer choices and percentages of first-year teachers who selected each choice	CEI scores (Mean of CEI scores by answer choice)
10	When your assigned mentor observes you teach, does s/he give you feedback following the observation(s)?	4. Mentor gave feedback following each observation (77.94%) 3. Mentor gave feedback following most observations (1.47%) 2. Mentor rarely gave feedback (5.88%) 1. Mentor never gave feedback (13.23%)	4. 49.37 3. 60.35 2. 51.26 1. 51.00
11	Are there days when a substitute or another teacher can take your class or your mentor's class so that you can work with your mentor, or observe your mentor or other teachers? If so, how many days were used for this purpose this year? (release days)	4. 3 or more days utilized (30.88%) 3. 2 days utilized (10.29%) 2. 1 day utilized (16.17%) 1. No days utilized (42.64%)	4. 49.76 3. 47.19 2. 47.55 1. 51.47
12	Does your assigned mentor share resources with you? If so, what types of resources are shared?	4. Shares a wide variety of resources including professional books & articles, electronic resources, and supplies (29.41%) 3. Shares instructional materials and supplies (35.29%) 2. Shares supplies but not instructional materials (2.94%) 1. No resources are shared (23.52%)	4. 50.28 3. 49.99 2. 51.48 1. 48.82
13	Does your assigned mentor suggest professional development activities for you? If so, what types of professional development does your mentor suggest?	4. Mentor suggests a variety of professional development activities such as regional, state or national conferences, district workshops, online workshops, journal articles, and professional books (23.52%) 3. Mentor suggests local professional development activities such as district workshops and professional books (22.05%) 2. Professional development suggestions were limited to print materials (2.94%) 1. Mentor did not suggest professional development activities (51.47)	4. 48.03 3. 52.03 2. 47.87 1. 49.89

(table continues)

Table 2 *(continued.)*

Item	Question	Answer choices and percentages of first-year teachers who selected each choice	CEI scores (Mean of CEI scores by answer choice)
14 (-)	How would you describe your relationship with your assigned mentor?	4. Close (35.29%) 3. Professional but not close (55.88%) 2. Indifferent (5.88%) 1. Hostile (2.94)	4. 49.56 3. 49.92 2. 51.75 1. 48.87
15	How would you rate the overall value of the mentoring support you received from your assigned mentor?	4. Enormously beneficial (48.52%) 3. Moderately beneficial (29.41%) 2. Minimally beneficial (16.17%) 1. Not beneficial (5.88%)	4. 49.80 3. 51.48 2. 48.41 1. 46.40
16	Does your campus or district provide orientation for first-year teachers at the beginning of the school year? If so, did you participate at the district or campus level or both?	4. Teacher participates in district and campus orientation (51.47%) 3. Teacher participates in campus orientation but not district orientation (8.82%) 2. Teacher participates in district but not campus orientation (8.82%) 1. No orientation was provided (30.88%)	4. 50.64 3. 49.23 2. 50.17 1. 48.68
17 (-)	In addition to the beginning of year orientation, has your campus or district provided special meetings for first-year teachers? If so, are the topics mostly about instructional issues or more about your well-being or your acculturation into the community? How often do you participate in meetings for first-year teachers?	4. Teacher participates at least once per month in a novice teacher meeting focused on teacher well-being, community acculturation or instructional support (50.00%) 3. Teacher participates at least once per semester in a novice teacher meeting focused on teacher well-being, community acculturation or instructional support (23.52%) 2. Teacher participates in novice teacher meetings that are focused totally on instructional issues (7.35%) 1. There are no meetings specifically for novice teachers (19.11%)	4. 49.98 3. 50.06 2. 45.30 1. 51.10

Note: (+) Low positive correlation; (-) Low negative correlation

There appears to be no real pattern discernable with the low negative and positive correlations. There may simply be a lack of variability in scores, making it impossible to get a strong/high positive correlation that is statistically significant. Since the Classroom Effectiveness Index score means are relatively close in range, it is too difficult to determine which Mentor Support attributes contributed to the success of the first-year teacher.

Research Question 5: What is the relationship between the perceived idealness of various mentor infrastructure condition descriptors and the Classroom Effectiveness Index scores of first-year teachers?

There was no mentor infrastructure condition descriptor that was statistically significant. Out of the 20 descriptors of perceived idealness of various mentor infrastructure conditions, 8 of them resulted in an inverse correlation, but all were very low negative correlations. The positive correlations were also very low. The ranges of the positive and negative correlations were: negative: -.012 to - .266; positive: +.028 to +.242. The mentor infrastructure condition data were obtained through a survey completed by the mentor teacher on the perceived level of mentor infrastructure received.

The researcher sought to examine the correlational relationships between the various mentor infrastructure descriptors and Classroom Effectiveness Index scores and the findings are in Table 5

Table 5

Intercorrelations between Mentor Infrastructure descriptors and Classroom

Effectiveness Index scores

Subscale	CEI
First-year teachers (*n* = 68)	
1. Assignment	.064
2. Proximity	.045
3. Selection	.028
4. Training prior to assignment	-.266
5. Training on-going	.037
6. Coordination	.122
7. Frequency coordination interaction	.209
8. Handbook/materials	-.135
9. Time guidelines	-.049
10. Documentation submission freq.	-.176
11. Release time	-.076
12. Freq. of NT group sessions	.242
13. Common planning period	-.035
14. Materials/supplies funding	.149
15. Mentor stipends	-.012
16. Mentor rewards	.125
17. Principal advocacy	.043
18. Principal views of MT role	.210
19. Freq. of program eval.	-.043
20. Use of program eval. results	.058

It is important to unpack each descriptor to examine more closely a plausible

explanation for each correlation. Each item from the interview was answered with four

choices ranging from most ideal to least ideal. Below is a table that lists each question,

the percentage of mentor teachers who selected each answer choice, and the
corresponding mean of CEI scores of the mentor's first-year teachers' answer choice
across all first-year teachers. This table was created to try to understand more fully the
implications of the relationships between mentor infrastructure and the Classroom
Effectiveness Index scores.

Table 6

Relationships between infrastructure descriptors and Classroom Effectiveness Index
scores

Item	Question	Answer choices and percentages of mentor teachers who selected each choice	CEI scores (Mean of CEI scores by answer choice)
1	Do you have the same teaching assignment as your mentee? If not, explain.	4. Same grade level or exact course match (29.41%)	4. 49.12
		3. Different grade level or different discipline (14.70%)	3. 53.93
		2. Same discipline but different course assignments (20.58%)	2. 48.32
		1. Different discipline and different course assignments (25%)	1. 48.94
		0. No answer (10.29%)	0. 51.53
2	Are you in close proximity to your mentee? If not, explain.	4. Same campus; classrooms in close proximity (55.88%)	4. 49.98
		3. Same campus; classrooms not in close proximity (32.35%)	3. 49.34
		2. Different campus within same district (0%)	2. 0
		1. Different campus in another district or entity (0%)	1. 0
		0. No answer (11.76%)	0. 50.70

(table continues)

Table 6 *(continued.)*

Item	Question	Answer choices and percentages of mentor teachers who selected each choice	CEI scores (Mean of CEI scores by answer choice)
3(+)	How were you selected as a Mentor?	4. Volunteered and completed a formal application (13.23%)	4. 50.29
		3. Volunteered with no application (1.47%)	3. 36.81
		2. Was asked to serve as a mentor (61.76%)	2. 50.14
		1. Was assigned a mentee (14.70%)	1. 48.48
		0. No answer (8.82%)	0. 51.86
4	How much, if any, initial training did you receive prior to becoming a mentor?	4. Two or more days prior to assignment to mentee. (36.76%)	4. 49.76
		3. 1 day prior to assignment (58.82%)	3. 50.25
		2. .5 day prior to assignment (2.94%)	2. 45.16
		1. No training prior to assignment (4.41%)	1. 49.00
5(+)	How frequently, if at all, do you have ongoing mentor training?	4. Mentors meet together at least monthly throughout the school year (39.70%)	4. 49.16
		3. Mentors meet together at least 3 times, but less often than monthly, during the school year (23.52%)	3. 51.09
		2. Mentors meet together 1or 2 times during the school year (11.76%)	2. 51.43
		1. Mentors never meet together beyond initial training (14.70%)	1. 47.41
		0. No answer (10.29%)	0. 51.53
6	Who, if anyone, coordinates the mentor program?	4. District level coordinator and campus coordinator (50%)	4. 49.96
		3. Campus only coordinator (not principal) (36.76%)	3. 49.82
		2. Principal or other full time administrator (2.94%)	2. 48.07

(table continues)

Table 6 *(continued.)*

Item	Question	Answer choices and percentages of mentor teachers who selected each choice	CEI scores (Mean of CEI scores by answer choice)
		1. No program coordinator (1.47%)	1. 39.50
		0. No answer (8.82%)	0. 51.86
7	How often do you interact with the mentoring program coordinator about mentoring-related issues?	4. More than twice a month (19.11%)	4. 50.62
		3. About once a month (42.64%)	3. 50.85
		2. Less than once a month (19.11%)	2. 47.82
		1. No interaction (10.29%)	1. 46.95
		0. No answer (8.82%)	0. 51.86
8	Is there a mentor handbook or other program materials?	4. Printed materials are rich and include program expectations, role descriptions, mentoring strategies, coaching materials, mentoring case studies, calendar. (55.88%)	4. 49.08
		3. Materials are program specific but limited to program expectations, role descriptions, calendar. (26.47%)	3. 49.99
		2. Materials are general in nature but not program specific. (5.88%)	2. 51.68
		1. No program materials. (1.47%)	1. 55.04
		0. No answer (10.29%)	0. 52.04
9	Are there clear guidelines specifying the amount of time per week mentors are expected to work with mentees? If so, how many hours per week are suggested?	4. More than 2 hours per week.(8.82%)	4. 49.83
		3. 1 to 2 hours per week. (36.76%)	3. 49.76
		2. Less than 1 hour per week. (7.35%)	2. 49.85
		1. No guidelines. (36.76%)	1. 47.70
		0. No answer. (10.29%)	0. 52.04
10	Are you required to keep documentation of your work with	4. More frequently than monthly. (14.70%)	4. 48.70

(table continues)

Table 6 *(continued.)*

Item	Question	Answer choices and percentages of mentor teachers who selected each choice	CEI scores (Mean of CEI scores by answer choice)
10	your mentee and if so, how often is it submitted?	3. Approximately monthly. (58.82%) 2. Once per semester. (8.82%) 1. At the end of the year. (7.35%) 0. No answer (10.29%)	3. 49.09 2. 52.59 1. 52.62 0. 52.04
11	Does the program provide release time (sub days) for you to work with your mentee? If so, how often?	4. 3 or more days. (13.23%) 3. 2 days. (13.23%) 2. 1 day. (13.23%) 1. No days. (50%) 0. No answer (10.29%)	4. 48.15 3. 50.80 2. 47.60 1. 50.23 0. 52.04
12	Beyond the opening of school orientation, does the mentoring program conduct sessions specifically for novice teachers? If so how often?	4. At least once per quarter (48.52%) 3. Once per semester (13.23%) 2. One per year (11.76%) 1. None (14.70%) 0. No answer (11.76%)	4. 50.92 3. 49.52 2. 51.70 1. 47.69 0. 51.40
13 (-)	Do you and your mentee have a planning period in common? If so, how often?	4. More than 1 hour per day. (2.94%) 3. One period per day. (30.88%) 2. One period per week. (2.94%) 1. No common planning period. (52.94%) 0. No answer (10.29%)	4. 49.18 3. 49.51 2. 45.69 1. 49.93 0. 52.04
14	Are there funds readily available through the mentoring program or school to help the novice teacher buy teaching supplies and materials?	4. NTs get a set amount to enhance the classroom (33.82%) 3. Funds are available but difficult to access (8.82%) 2. Funding is on a case by case basis (16.17%) 1. No funds are available (30.88%) 0. No answer (10.29%)	4. 50.57 3. 49.52 2. 51.70 1. 47.69 0. 51.40

(table continues)

Table 6 *(continued.)*

Item	Question	Answer choices and percentages of mentor teachers who selected each choice	CEI scores (Mean of CEI scores by answer choice)
15 (-)	Do you receive a stipend for mentoring? If so, how much?	4. $1000 per year or more.(8.82%)	4. 48.88
		3. More than $300 but less than $1000 (73.52%)	3. 49.98
		2. $100 - $300. (5.88%)	2. 45.20
		1. No stipend available (1.47%)	1. 57.40
		0. No answer. (10.29%)	0. 52.04
16	Are there other rewards or perks provided to recognize your contribution as a mentor? If so, what are the rewards or perks offered?	4. Extra release period per day (0%)	4. 0
		3. Gift certificate, movie passes, day off, etc. (1.47%)	3. 53.10
		2. Recognition at district or campus level (wall plaque, board meeting recognition, letter from administrator, etc.) (4.41%)	2. 53.18
		1. No rewards or perks (83.82%)	1. 49.43
		0. No answer (10.29%)	0. 51.53
17	Describe your mentee's building Principal in regard to his/her advocacy of mentoring practices.	4. Principal plays an active role in supporting mentoring of NTs (20.58%)	4. 50.98
		3. Principal regularly recognizes program priority but delegates specific tasks related to program (30.88%)	3. 48.69
		2. Principal is in favor of program but has little support structure in place (29.41%)	2. 49.78
		1. Principal support is not evident or undermines mentoring of NT (8.82%)	1. 49.58
		0. No answer (10.29%)	0. 51.67
18	Describe how you perceive your mentee's building Principal views your role as a mentor	4. Principal has a realistic view of novice teacher development and encourages mentor to patiently guide novice through teaching challenges (48.52%)	4. 50.88

(table continues)

Table 6 *(continued.)*

Item	Question	Answer choices and percentages of mentor teachers who selected each choice	CEI scores (Mean of CEI scores by answer choice)
18		3. Principal views mentor as a conditional helper depending upon NTs attitude, maturity, abilities, and competencies. (32.35%)	3. 48.59
		2. Principal expects mentor to identify and report novice teacher weaknesses (4.41%)	2. 47.20
		1. Principal holds mentor accountable for "fixing" NTs identified weaknesses (2.94%)	1. 45.23
		0. No answer (11.76%)	0. 51.40
19	Is the mentor program evaluated? If so, when is data collected and who participates?	4. Data is collected several times a year from multiple role groups. (17.64%)	4. 47.89
		3. Data is collected at the end of the year from multiple role groups. (5.88%)	3. 53.38
		2. Data is collected from novice teachers only or mentors only. (7.35%)	2. 52.23
		1. Mentor is not aware of program evaluation. (58.82%)	1. 49.53
		0. No answer (10.29%)	0. 52.04
20	How are results of the mentor program evaluation used?	4. Results are used to guide program refinement and improvement (23.52%)	4. 50.22
		3. Results are compiled and shared but aren't used for program refinement and improvement (1.47%)	3. 49.26
		2. Results are compiled and available but not disseminated (5.88%)	2. 51.50
		1. No results available (58.82%)	1. 49.29
		0. No answer (10.29%)	0. 51.53

Note: (+) Low positive correlation; (-) Low negative correlation

There was no real pattern discernable with the low negative and positive correlations. There may simply be a lack of variability in scores, making it impossible to get a strong/high positive correlation that is statistically significant. Since all Classroom Effectiveness Index score means were very close in range, there is no true way to determine which mentor infrastructure descriptors contributed to the success of the first-year teacher.

Research Question 6: What is the relationship between the perceived idealness of various workplace ecology situation descriptors and the Classroom Effectiveness Index scores of first-year teachers?

There was no workplace ecology situation descriptor that was statistically significant. Out of the 12 descriptors of various Workplace Ecology situations, 5 of them resulted in an inverse correlation, but all were very low, negative correlations. The positive correlations were also low. The ranges of positive and negative correlations are: negative: -.008 to -.124; positive: +.042 to +.175. The workplace ecology situation data were obtained through a survey completed by the first-year teacher on the perceived idealness of various workplace ecology situations. I sought to examine the relationships between workplace ecology situation descriptors and Classroom Effectiveness Index scores and the findings are below in Table 7.

Table 7

Intercorrelations between workplace ecology descriptors and Classroom Effectiveness Index scores

Subscale	CEI
First-year teachers (*n* = 68)	
1. Faculty collegiality	.150
2. DC/GR focus	-.100
3. Administrative focus	.175
4. Discipline support	.067
5. Supervision focus	.092
6. Lesson plan support	.061
7. Professional development	.042
8. Physical environment	-.124
9. Neighborhood	-.054
10. Parents	-.076
11. Student prep.	.051
12. Student behavior	-.008

It is important to uncover each descriptor to examine more closely a plausible explanation for each correlation. Each item was answered with four choices ranging from most ideal to least ideal. Below is a table that lists each question, the percentage of first-year teachers choosing each alternate, and the corresponding mean CEI scores of first-year teachers choosing each answer choice.

Table 8

Relationships between workplace ecology descriptors and Classroom Effectiveness

Index scores

Item	Question	Answer choices and percentages of first-year teachers who selected each choice	CEI scores (Mean of CEI scores by answer choice)
1	Think about your faculty as a whole. Would you characterize the majority of your faculty as being collaborative and cooperative and inclusive to new teachers or do they tend to exclude new teachers?	4. Collaborative and intentionally inclusive *(teachers go out of their way to include FYTs)* (48.52%)	4. 50.63
		3. Cooperative *(teachers are willing to include FYTs but don't go out of their way to do so)* (35.29%)	3. 50.18
		2. Collaborative/cooperative with experienced faculty but not with FYTs (8.82%)	2. 45.26
		1. Little interaction among teachers (7.35%)	1. 48.90
2	Talk about your grade level leader or department chair's style. For example, some grade level leaders or chairs are typically focused on promoting instructional improvement, while others are focused more on the smooth operation of the grade level or department, and still others seem to be mostly responding to immediate problems. How would you characterize the	4. Team leader/ department chair actively facilitates quality instruction in a caring and productive manner *(visionary leader)* (48.52%)	4. 49.19
		3. Team leader/ department chair is primarily focused on the smooth operation of the grade level or department *(on-going helper)* (38.23%)	3. 48.36
		2. Team leader/ department chair focus is limited primarily to responding to immediate problems *(fire fighter)* (8.82%)	2. 45.76
		1. Team leader/ department chair is not designated or creates an adversarial environment for the new teacher *(adversary)* (4.41%)	1. 40.17

(table continues)

Table 8 *(continued.)*

Item	Question	Answer choices and percentages of first-year teachers who selected each choice	CEI scores (Mean of CEI scores by answer choice)
2	working style of your grade level leader or department chair? Do you feel his/her style of working with you was caring or adversarial?		
3	Talk about the style of your Administrative team in general. For example, some administrative teams are typically focused mostly on promoting instructional improvement, while others are focused more on the smooth operation of the school, and still others seem to be mostly responding to immediate problems. How would you characterize the working style of your administrative team? Do you feel their work with you was caring or adversarial?	4. Administrative team actively facilitates quality instruction in a caring and productive manner *(visionary leader)* (47.05%) 3. Administrative team primarily focuses on the smooth operation of the school *(on-going helper)* (23.52%) 2. Administrative team's focus is limited primarily to responding to immediate problems *(fire fighter)* (22.05%) 1. Administrative team creates an adversarial environment for the school staff *(adversary)* (7.35%)	4. 50.42 3. 52.40 2. 46.28 1. 49.00

(table continues)

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Table 8 *(continued.)*

Item	Question	Answer choices and percentages of first-year teachers who selected each choice	CEI scores (Mean of CEI scores by answer choice)
4	Talk about the student discipline support provided by your administrative team. If you had a student discipline issue that needed administrative involvement, how was it typically handled	4. Administrators actively work with new teachers to seek solutions to student discipline problems *(coaches and seeks to facilitate growth on the part of the FYT)* (4.41%)	4. 50.93
		3. Administrators deal with student on discipline matters in a timely fashion *(admin solves the problem w/o coaching FYT)* (32.35%)	3. 49.18
		2. Administrators provide little back-up support with discipline *issues (admin does little with regard to discipline issues)* (23.52%)	2. 48.31
		1. Administrators undermine teachers' authority *(admin actively works against FYT)* (39.70%)	1. 55.47
5	Think about the supervision you received from your administrative team this year. For example, some administrators provide on-going substantive and constructive supervision, while others are focused on completing supervisory requirements, and still others seem focused on "weeding out" weak new teachers. How would you characterize the supervision you received?	4. Supervision is substantial and constructive and is targeted towards building new teacher confidence (35.29%)	4. 49.60
		3. Supervision is adequate; feedback is specific (25%)	3. 52.47
		2. Supervision is conducted to comply with guidelines and feedback is non-specific (26.47%)	2. 48.54
		1. Supervision is targeted toward "weeding out" weak new teachers (13.23%)	1. 48.33

(table continues)

Table 8 *(continued.)*

Item	Question	Answer choices and percentages of first-year teachers who selected each choice	CEI scores (Mean of CEI scores by answer choice)
6	Tell me about the lesson plan support provided by your administrative team. *(probe)*	4. Lesson plans are collected in advance and are reviewed by a member of the administrative team and feedback is given (32.35%)	4. 51.30
		3. Lesson plans are collected in advance but feedback is not given (47.05%)	3. 48.60
		2. Lesson plans must be available and subject to review by administrators (19.11%)	2. 50.47
		1. Lesson plans are collected after lessons are taught (at end of week) or are not collected at all (1.47%)	1. 51.13
7	Let's talk about professional development. Did your administrative team make available professional development, beyond the required district in-service that was specifically targeted to your needs?	4. Administrators actively sought to provide professional development targeted to needs identified by both new teacher and administrator(s) (implies shared discussion & negotiation to identify appropriate in-service) (22.05%)	4. 51.04
		3. Administrators provided for professional development targeted to new teacher needs as identified by the new teacher (11.76%)	3. 51.44
		2. Administrators provided for professional development targeted to new teacher needs as identified by the administrator(s) (32.82%)	2. 47.45
		1. Administrators did not make professional development available to the new teacher beyond the district in-service (32.35%)	1. 51.03
8	How new or well maintained are the school buildings and equipment on your campus?	4. Building and equipment is new or fairly new and well-maintained (22.05%)	4. 47.49
		3. Building and equipment are old but well-maintained (32.35%)	3. 46.84
		2. Building or equipment are not well-maintained (22.05%)	2. 51.26
		1. Building needs major repairs, equipment usually needs repairs and disrupts instruction (23.52%)	1. 47.93

(table continues)

Table 8 *(continued.)*

Item	Question	Answer choices and percentages of first-year teachers who selected each choice	CEI scores (Mean of CEI scores by answer choice)
9	Did you feel that the neighborhood surrounding your campus was friendly and safe all or most of the time? If not, explain.	4. Friendly and safe (47.05%) 3. Safe during school hours but unsafe evenings & weekends (38.23%) 2. Unsafe most of the time (11.76%) 1. Hostile and unsafe (2.94%)	4. 49.31 3. 49.63 2. 45.16 1. 34.26
10	To what extent did you feel that the majority of parents of your students were involved? Did you find them to be mostly cooperative and pleasant or demanding or even hostile?	4. Majority of parents are cooperative, pleasant, and involved (27.94%) 3. Majority of parents are involved, but somewhat demanding (2.94%) 2. Majority of parents have minimal involvement (67.64%) 1. Substantial numbers of parents are hostile and uncooperative (2.94%)	4. 49.22 3. 46.22 2. 50.17 1. 50.39
11	Did you feel that the majority of students in your class were well prepared or underprepared? Were they motivated to learn or unmotivated?	4. Majority of students are academically prepared and motivated (16.17%) 3. Majority of students are underprepared but motivated (17.64%) 2. Majority of students are adequately prepared but unmotivated (8.82%) 1. Majority of students are underprepared and unmotivated (57.35%)	4. 47.96 3. 53.08 2. 52.14 1. 49.07
12 (-)	Did you feel that student behavior was typically manageable or disruptive? If student behavior challenges occurred, did they take up a substantial amount of instructional time?	4. Occasional behavior disruptions occur but are not serious and don't significantly impact instruction *(disruptions didn't occur every period of every day)* (35.29%) 3. Dealing with student behavior is somewhat challenging but manageable *(might occur every period of every day but were manageable)* (38.23%) 2. Dealing with behavioral issues is a serious challenge and takes up a substantial amount of instructional time. (19.11%) 1. Majority of students is behavior problems and seriously diminishes instructional time (7.35%)	4. 49.89 3. 49.52 2. 50.88 1. 48.95

Note: (-) Low negative correlation

There was no real pattern discernable with the low negative and positive correlations. There might simply be a lack of variability in scores, making it impossible to get a strong/high positive correlation that is statistically significant. Since the Classroom Effectiveness Index score means were all very close, it is too difficult to tell the true meaning of which workplace ecology attributes contributed most to the first-year teachers' success.

Research Question 7: What is the effect of various demographics (i.e., gender, age, race, degree teaching level, and certification route) on Classroom Effectiveness Index scores of first-year teachers?

The model summary of the regression in Table 9 indicates the R square was .143. Thus, demographics explained roughly 14% of the variance in Classroom Effectiveness Index scores. Although this number was relatively small, it was close to statistically significance at $p < .05$. Further investigation of each variable and its level of variance by B weight are depicted in Table 10. According to Table 10, the variable *degree* had a B weight of 7.311. The B weight could be an important predictor to determine the Classroom Effectiveness Index scores. This variable was larger than the other variables.

Table 9

Model summary of regression of various demographics (i.e., gender, age, race, degree, teaching level, and certification route) on Classroom Effectiveness Index scores of first-year teachers

Model	R	R^2	Adj. R^2	SE
1	.378	.143	.058	6.665

Table 10

Regression of level of variance for various demographics (i.e., gender, age, race, degree, teaching level, and certification route) on Classroom Effectiveness Index scores of first-year teachers

Variable	B	SE B	β
Gender	.902	1.1931	.062
Age	.400	.529	.092
Race	.410	.373	.135
Degree	7.311	2.571	.345
Teaching level	1.218	1.126	.147
Certification Route	-.617	.939	-.080

After visual inspection of the *B* weight of the various demographics in Figure 1, the variable *degree* represented a higher percent of variance compared to the other variables. Therefore, an additional regression was performed to determine the significance, if any, of *degree's* contribution to the Classroom Effectiveness Index scores.
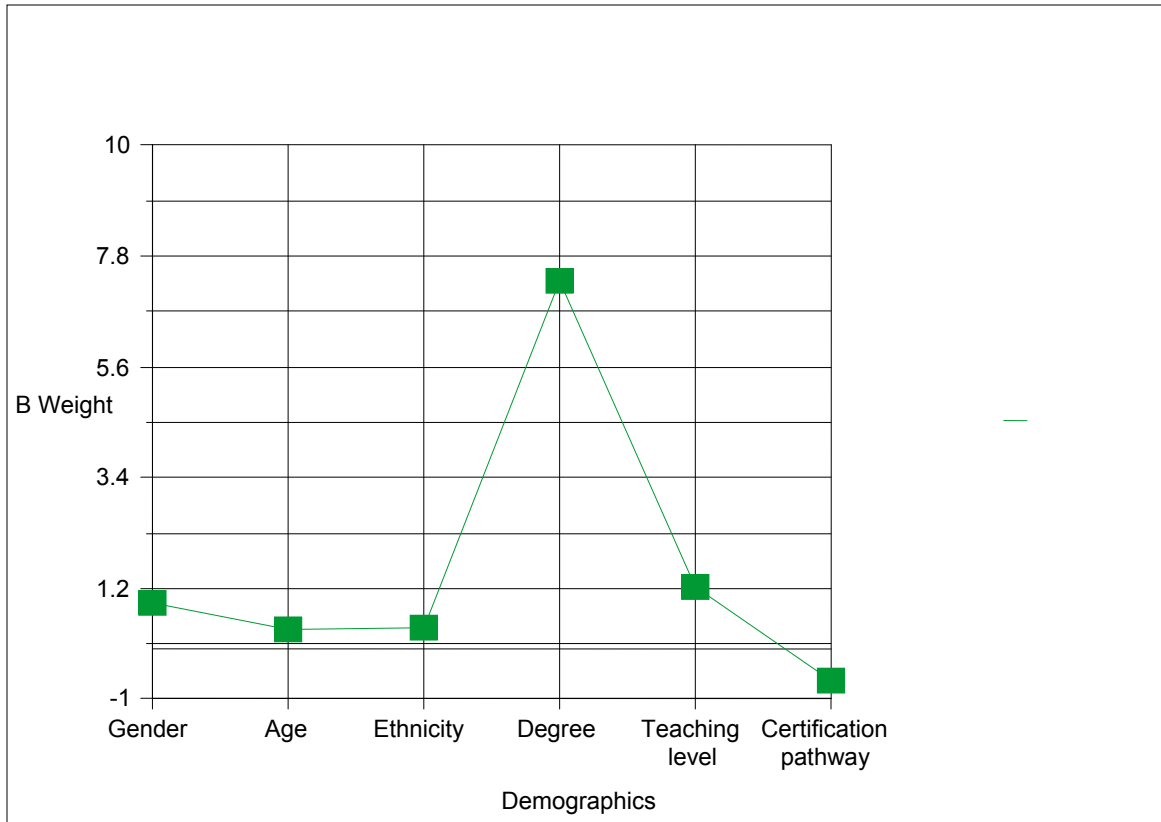
Figure 1. Summary of *B* Weights on various demographics by gender, age, ethnicity, degree, teaching level, and certification pathway.

According to Table 11, the variable *degree* had an *R* square of .100. This denotes that *degree* explains 10% of the variance in Classroom Effectiveness Index scores. Since demographics can account for a little more than 14% of the score variance, this test established that *degree* was the most important variable that contributed to Classroom Effectiveness Index score variance. The variable *degree* accounts for those first-year teachers who held either bachelor's or master's degrees during their first-year.

Table 11

Contribution of degree as most important variable to Classroom Effectiveness Index

score variance

Model	R	R²	Adj. R²	SE
1	.317	.100	.087	6.564

Research Question 8: Is there a significant difference between the Classroom Effectiveness Index scores of first-year teachers that (a) remained on campus, (b) switched campuses, or (c) left the district?

An ANOVA was performed to examine mean score differences in the Classroom Effectiveness Index scores of three groups: first-year teachers who remained on campus, first-year teachers who switched campuses, and first-year teachers who left the district. All groups had an equal error of variance, and there was no group difference. The effect size of *Eta2* = .019 indicates that retention group membership had a small effect size, with somewhat practical significance. There was no significant effect for retention group membership on Classroom Effectiveness Index scores, with $F_{(2, 65)}$ = 1.085, $p > 0.05$. Tables 12 and 13 examine the difference between retention groups and the Classroom Effectiveness Index scores.

Table 12

Percentages, means and standard deviations for retention groups

Retention Groups	n	%	Mean of CEI	SD
Not retained (NR)	15	22.05%	48.567	7.141
Retained different campus (RD)	7	10.29%	52.113	3.336
Retained same campus (RS)	46	67.64%	49.959	7.178

Table 13

ANOVA summary table of retention groups and Classroom Effectiveness Index Scores

Source	df	SS	MS	F	Eta2
Between groups	2	61.060	30.530	.640	.019
Error (between)	65	3099.654	47.687		

Summary of Results

The following chapter will discuss implications of the results depicted in this chapter. In addition, it ties this study to past studies, and suggests future research.

CHAPTER 5

DISCUSSION

This study confirmed that the phenomena of mentoring, effectiveness, and achievement is highly complex. Therefore, the measures used to unpack these phenomena need to be as equally complex. In addition, this study contributes to the literature in the constructs of mentoring, effectiveness and achievement. This section outlines the above concepts.

First, the Classroom Effectiveness Index (CEI) is a measure designed to depict a "value" the teacher added to a particular student's learning in a particular classroom for a particular year. This measurement tool itself has been determined through research studies to do exactly what it sets out to do: measure classroom effectiveness. However, this study added the Classroom Effectiveness Index to the existing mentoring data, mentor support (MS), mentor infrastructure (MI), and workplace ecology (WE), to predict effectiveness and retention. It was determined that mentoring might contribute to some but not powerfully enough for statistical significance. Therefore, the findings suggest that the Classroom Effectiveness Index score might not be an appropriate tool for uncovering which aspects of mentoring contribute to student achievement and retention.

The second notion of this study is that since the Classroom Effectiveness Index controls for many factors, future research needs to look at additional factors, along with mentor support (MS), mentor infrastructure (MI), and workplace ecology (WE), to determine what mix of factors can predict the CEI scores. If this can be done, programs can be designed and implemented in such a way to increase classroom effectiveness, student achievement, and teacher retention.

The act of mentoring is beneficial not only to the new teacher, but also to the mentor teacher, the administration, the campus, and ultimately the student. As educators, this is known to be a fact. However, in order for policy makers to take notice and fund programs, large-scale, empirical research needs to take place to prove the effects of mentoring. The literature clearly states that mentoring is a highly complex process. In order to unpack the multiple dimensions of mentoring, its evaluation tool needs to be as equally complex. This study contributes to the literature by reinforcing the complex nature of mentoring and its need to be evaluated so that effective programs can be designed and implemented.

This study also suggests multiple viewpoints of effectiveness. This study adds to the literature not only by using current research to define effectiveness, but also by suggesting a mix of methods and an authentic approach to define the changing term of effectiveness and to evaluate this phenomenon.

A discussion of the findings of mentoring relationship to and impact on classroom effectiveness is presented in this chapter according to each research question. The research methodology utilized in this study quantified the impact of mentoring in relation to classroom effectiveness. Following the discussion, limitations of this study and comparisons to the Center for Research, Evaluation and Accountability in Teacher Education (CREATE) study will be addressed. Lastly, implications for educational practice and future recommendations for research are presented.

Overview of Findings

Research Questions 1 through 3: What is the relationship between the Classroom Effectiveness Index (CEI) scores of first-year teachers and (1) mentor support (MS), (2) mentor infrastructure (MI), and (3) perceived workplace ecology (WE)? Inspection of the correlational data showed no statistical significance ($p > .05$). One factor (MS) had an extremely low, negative correlation to CEI. The other two factors (MI & WE) had very low, positive correlations to CEI. None of the correlations were statistically significant.

Research Question 4: What is the relationship between the perceived level of mentor support received on various mentor support descriptors and the Classroom Effectiveness Index scores of first-year teachers? Inspection of the correlational data showed low positive or negative correlations with no statistical significance ($p > .05$). This finding means that the individual mentor support descriptors resulting from the interview conducted by the first-year teachers showed no significant relationship to the first-year teachers' Classroom Effectiveness Index scores.

Research Question 5: What is the relationship between the perceived idealness of various mentor infrastructure condition descriptors and the Classroom Effectiveness Index scores of first-year teachers? Inspection of the correlational data showed low positive or negative correlations with no statistical significance ($p > .05$). This finding means that the individual mentor infrastructure descriptors resulting from the survey conducted by the mentor teachers showed no significant relationship on the first-year teachers' Classroom Effectiveness Index scores. However, there were 8 out of 20 unexpected, low, negative correlations present.

Research Question 6: What is the relationship between the perceived idealness of various workplace ecology situation descriptors and the Classroom Effectiveness Index scores of first-year teachers? Inspection of the correlational data showed low positive or negative correlations with no statistical significance ($p > .05$). This finding means that the individual workplace ecology descriptors resulting from the interview conducted by the first-year teachers showed no relationship to the first-year teachers' Classroom Effectiveness Index scores.

Research Question 7: What is the effect of various demographics (i.e., gender, age, race, degree teaching level, and certification route) on Classroom Effectiveness Index scores of first-year teachers? Although, based on a regression analysis, no demographic variable resulted in statistical significance; one variable did have a larger B weight than the others. The variable degree had a beta weight of 7.311. Since this variable's number is significantly higher than the other variables' numbers, the beta weight tells us that it could be an important predictor to determine the Classroom Effectiveness Index scores. Since this number was significantly larger than the rest, it was best to run another regression on that individual variable to determine how much it specifically contributed to the amount of score variance.

Overall, the variable that contributed most to the Classroom Effectiveness Index scores was degree, which accounted for almost 10% of score variance. This result tells us that those first-year teachers who received their graduate degrees first, before they taught, had higher Classroom Effectiveness Index scores than those who just received their bachelor's degrees. The higher scores might possibly be explained by the possible rigor, expectations, and research and theory-based content in graduate level courses

that these individuals received over the other individuals. However, without knowing if the graduate degree was in education or the exact nature of the classes, it is challenging to speculate on the exact reasons for the higher Classroom Effectiveness Index scores. One can safely say that having multiple degrees means receiving additional knowledge and experiences that could positively affect Classroom Effectiveness Index scores. Regardless, degree was the variable that explained the most (i.e., the greatest percentage) of variance in the first-year teachers' Classroom Effectiveness Index scores.

Research Question 8: Is there a significant difference between the Classroom Effectiveness Index scores of first-year teachers that (a) remained on campus, (b) switched campuses, or (c) left the district? The results from the one-way ANOVA indicated that there was no statistically significant difference between the Classroom Effectiveness Index score means of the three retention groups.

The mean CEI scores of the three retention groups indicated no true pattern other than all three groups were relatively close, ranging from 49.95 to 52.11. This was an unexpected finding, likely to have arisen by chance. The low *n* makes it difficult to get statistical significance.

There were four types of certification status of first-year teachers in this district: (a) not certified (1.47%), (b) alternative certified (69.11%), service center certified (4.41%), and (d) college prep (25%). The highest percentage of first-year teachers in the district were alternative certified (69.11%). The explanation for this high percentage is that a low-cost, convenient program was created specifically for this large school district in conjunction with a small university. Therefore, I expected that the first-year

teachers who went through this program would either stay on campus or move to a different campus in the same district because the fact they were trained specifically for the district. Data confirms this expectation by indicating that 51.46% of the teachers who were alternative certified by the district either remained on campus or switched campuses within the district.

<p style="text-align:center">Limitations of the Study</p>

To begin, the conclusions need to be interpreted with caution given the limitations of this study. The first limitations of this study were the Classroom Effectiveness Index scores. Scores for this index were derived from a series of complex statistical analyses which converted student standardized test scores and removed demographical differences. This final number score ranged from 1 to 100. The higher the score, the higher the level of teacher value based on student performance. The range of numbers collected for this study was from 36.813 to 75.111. But, the numbers were compared across all teachers by using the standard deviation of 10, with a mean score of 50. Therefore, if a first-year teacher's scores were a 50, numerically they were considered successful. Anything below that number greater than 10 points was something to be concerned about.

Knowing the range of scores, initial interpretation of the scores collected for this study might be alarming for some. It is perhaps understandable why some districts want to use this measure as a pay-for-performance tool. But, is this a true measure of teacher performance? One significant limitation in this study was the true value of the value-added measurement tool. Since this research study was not designed to validate this measurement tool, it is necessary to note its controversial status not only with

administrators, but also with teachers. This study assumed the instrument had value/worth based on the validation study that was conducted by one school district

A second limitation of this study was the fact that research indicated that when using a value-added measure, it is most often used longitudinally. This study was a snapshot of a first-year teacher for a one-year period. Although this study specifically looked at the first-year induction period of the new teacher, a true measure of a teacher's performance is best evaluated over time (Sanders, 2003). Therefore, there is a possibility that the outcomes are skewed and not a true representation of the teacher's performance. However, the purpose of this study was to determine the effects of mentoring on first-year teachers in the hopes of identifying specific attributes of effective mentoring that influence the classroom effectiveness of this special group.

Another limitation of this study is that one measure might be inadequate for explaining the impact of mentoring on classroom effectiveness. Instead, it is more likely that multiple measures, both quantitative and qualitative, are needed to explain the impact of mentoring on classroom effectiveness. Like uniqueness and diversity of individual teachers, students, and campuses, the individual impact of mentoring is unique and diverse as well. Many mentoring programs in the literature constitute success stories, but these programs were designed in such a way to fit the unique and diverse needs of particular climates and campuses. It was my intention to find variables that contribute to the success of first-year teachers for all climates and campuses. Since this did not occur, further research is needed.

Finally, this study is limited to data collected from one school district. Additionally, this one school district is the same school district that happened to be using a value-added assessment instrument.

Comparisons to CREATE Study

The initial CREATE study (Huling & Resta, 2007) was designed to look at the unique attributes of mentoring and their effects on student achievement and teacher retention. This study involved 451 first-year teachers from 14 school districts. CREATE's primary research questions included the following:

1.   What is the relationship between mentor program infrastructure and mentoring support provided to novice teachers?

2.   What is the relationship between mentoring support and novice teacher retention?

3.   What is the relationship between mentoring support and student achievement?

4.   What is the relationship of perceived workplace ecology to novice teacher retention?

5.   What is the relationship of perceived workplace ecology to novice teacher student achievement? (Huling & Resta, 2007, p. 1)

In order to answer the above research questions, the CREATE study developers, Huling & Resta (2007), designed the data instruments to best identify these important attributes. They classified the data into three categories: mentor support, mentor infrastructure, and workplace ecology. The names for these categories were derived from their expertise and lifelong research in the field of mentoring and induction. Among

their findings to date according to each category in relation to this study are the following:

1.   Mentor support

a.   There is a statistically significant relationship (< .05) between mentor support and the retention of novice teachers within the district.

b.   Item analyses reveal that the mentor support components that factor most heavily in novice teacher retention include the frequency of interaction with the mentor, the perceived value of mentor support, and participation in novice teacher meetings beyond orientation.

c.   There is a statistically significant relationship between mentor support and workplace ecology (< .01).

2.   Mentor infrastructure

a.   There is a statistically significant relationship (< .01) between mentor program infrastructure and mentor support received by novice teachers.

b.   There is a statistically significant relationship (< .01) between mentor program infrastructure and the district retention of novice teachers.

c.   Item analyses reveal that the mentor program infrastructure features that factor most heavily in novice teacher retention relate to the mentor stipend, requirements for documentation of mentor/mentee work, and the availability of a common planning period.

3.   Workplace ecology

a.   There is a statistically significant relationship between workplace ecology and novice teacher retention within the district (< .01).

b.	Item analyses reveal that the workplace ecology features that factor most heavily in teacher retention relate to the focus and supervision of the administrative team, discipline support, and student behavior.

4.	Retention

a.	There is a statistically significant relationship between novice teacher retention within the district and mentor program infrastructure, mentor support and workplace ecology.

b.	77.3% of novice teachers were retained in the same district. The vast majority remained at the same campus; 4.2% changed campuses within the district.

c.	Elementary novice teachers were retained at a slightly higher rate (79%) than those at middle school (76.5%) and high school (74.7%).

5.	Demographics – certification pathway

a.	The students of traditional university prepared novice teachers had higher Texas Assessment of Knowledge and Skills (TAKS) classroom mean scale scores in every subject than the students of novice teachers prepared through other preparation pathways.

b.	Traditional-university prepared novice teachers had better scale score "gaps" in language arts, writing, and social studies than novice teachers prepared through other preparation pathways (Huling & Resta, pp. 80-83, 2007).

With the desire to add to the depth and breadth of their study, Huling & Resta (2007) suggested applying a value-added measure to the existing data to provide more insight on the impact of mentoring on first-year teachers. This study added the value-added measure, the Classroom Effectiveness Index, to the existing data categories of

mentor support, mentor infrastructure, and workplace ecology with the specific intent of examining further the relationship between mentoring and classroom effectiveness. There are several findings in this dissertation study that relate to the items measured in the original CREATE study (Huling & Resta, 2007). Each set of findings is outlined below according to the main categories (mentor support, mentor infrastructure, workplace ecology, retention, and demographics) of this study.

1.   Mentor support

a.   The correlation value between mentor support and the Classroom Effectiveness Index score was -.008, which means that there was an extremely low inverse correlation or virtually no correlation.

b.   The *p* value was .952, which means that the correlation was not statistically significant.

c.   Therefore, there was no significant relationship between mentor support and the Classroom Effectiveness Index scores of first-year teachers.

2.   Mentor infrastructure

a.   The correlation value between mentor infrastructure and the Classroom Effectiveness Index score was .090, which means that there was a very low positive correlation.

b.   The *p* value was .503, which means that the correlation was not statistically significant.

c.   Therefore, there was no significant relationship between mentor infrastructure and the Classroom Effectiveness Index scores of first-year teachers.

3. Workplace ecology

a.   The correlation value between workplace ecology and the Classroom Effectiveness Index score was .060, which means that there was a very low positive correlation.

b.   The p value was .625, which means that the correlation was not statistically significant.

c.   Therefore, there was no significant relationship between workplace ecology and the Classroom Effectiveness Index scores of first-year teachers.

4.   Retention

a.   The largest retention group membership was Retained Same Campus (RS) at 67.64%, with a mean CEI score of 49.959.

b.   The smallest retention group membership was Retained Different Campus (RD) at 10.29%, with a mean CEI score of 52.111.

c.   There was no statistical significance for retention group membership on the Classroom Effectiveness Index scores of first-year teachers.

5.   Demographics (i.e., gender, age, race, degree, teaching level, and certification pathway)

a.   Demographics were not a significant predictor of Classroom Effectiveness Index scores of first-year teachers. The R^2 was .143, which means that demographics explained roughly 14% of the variance in Classroom Effectiveness Index scores.

b.   One demographic variable, degree, had a higher percent of variance (.100 or 10% of the total 14%) which confirmed that degree was the most important variable that contributed to Classroom Effectiveness Index score variance.

c.   No demographic variable (i.e., gender, age, race, degree, teaching level, and certification pathway) was statistically significant.

The above findings suggest that the Classroom Effectiveness Index scores may not be an appropriate tool for uncovering which aspects of mentoring contribute to student achievement and retention. Adding the value-added measurement tool to the categories of mentor support, mentor infrastructure. and workplace ecology, rendered no statistically significant results.

<div align="center">Implications for Educational Practice</div>

This study has several implications for educational practice. The main implication of this study is that the Classroom Effectiveness Index might not be a valuable measure in judging the relationship/impact of mentoring or teacher performance and student outcomes. Another implication of this study is that advanced degrees might be a predictor of greater classroom effectiveness. Each implication is described below.

The main implication of this study involves the value-added measurement tool, the Classroom Effectiveness Index. As defined in Chapter 2, the Classroom Effectiveness Index is a measurement tool that is derived from a statistical formula whose variables include standardized test scores and other contributing variables. This measurement tool was designed from the influence of Sander's Tennessee Value-Added Assessment System. In theory, "value-added methodologies allow richer analyses of test score data" (Amrein-Beardsley, 2008, p. 65). But, since many variables (i.e., socioeconomic status, ethnicity, and gender) are controlled for and eliminated from the formula, this is a narrower analysis, not a richer analysis. In addition, in order for a measurement system to gain wide acceptance, validity studies need to occur. In the

district where this measurement tool is being utilized, one such study has taken place. However, state and national studies have yet to occur, leaving this method of measurement with more questions than answers.

Finally, the perception of this measurement tool in this district is that of judgment. Teachers and administrators know that this formula is calculated in order to determine the "value" that the teacher added to student achievement, but many do not understand the formula or how it is derived. An interview was conducted with the director of the Mentoring and Induction Program for the district to look at what the induction period consisted of and how first-year teachers are prepared. When asked for the definition of classroom effectiveness, the answer was "CEI." Much stock is put into this score but little information and communication is translated to those it affects – the teachers. The lack of statistically significant results in this study casts doubt on this instrument as a predictor of the impact of mentoring. Therefore, use of this instrument as a tool for measuring the "value" of a teacher's effectiveness or student achievement in connection with mentoring warrants caution and perhaps severe criticism.

Second, although the CREATE study (Huling & Resta, 2007) favors university-prepared novice teachers, this study suggests an advantage for novice teachers with advanced degrees. Results from this study indicate that those first-year teachers who had advanced degrees also had higher Classroom Effectiveness Index scores. Additional degrees mean additional experiences and knowledge that can perhaps be useful in the classroom in promoting student achievement.

Finally, this study implies the potential benefit of five-year teacher preparation programs resulting in advanced degrees. Suggested over 20 years ago by the Holmes

Group (1986), these programs offer many benefits over a traditional master's or post-baccalaureate degrees. With the additional knowledge gained, this study implies that student achievement will increase.

Recommendations for Further Research

There are several recommendations for further research. First, this study did not confirm the importance and impact that mentoring is said to have on classroom effectiveness. It is my professional opinion that mentoring is crucial to the success of first-year teachers. Past research agrees with this statement (Darling-Hammond, 1983; Feiman-Nemser, 1999; Huling & Resta, 2007). However, identifying what specific mentoring factors contribute to the success of the first-year teacher is difficult to uncover. Effective mentor programs are identified frequently in the literature, but they are context specific, not universal. It was my hope that by using a value-added measure to determine the relationship and impact of various aspects of mentoring to classroom effectiveness, quantifiable evidence would illuminate which mentorship variables are necessary to harness and develop in order to increase classroom effectiveness and teacher retention. Since this did not occur, there are several recommendations for future research.

The first recommendation is to use a different measure to determine the impact of mentoring on first-year teachers. This measure could be the state-approved teacher appraisal system, the Professional Development Appraisal System (PDAS). As the commissioner's recommended teacher-appraisal system, PDAS was developed in accordance with Texas Education Code §21.351.This measurement tool is designed to evaluate the Texas teacher in eight domains (active, successful student participation in

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the learning process, learner-centered instruction, evaluation and feedback on student progress, management of student discipline, instructional strategies, time/materials, professional communication, professional development, compliance with policies, operating procedures and requirements, improvement of academic performance of all students) which encompasses all aspects of teaching.

This measurement tool covers all aspects of teaching and can determine which aspects are necessary and important to the success of first-year teachers. According to its developers and the Texas Administrative Code, PDAS data "shall describe teacher contributions in increasing student achievement, making the whole school safe and orderly, and creating a stimulating learning environment for children" (TAC, Chapter 150, Subchapter AA, c). Since PDAS is already in place in most districts in Texas, it can easily be used as a measure to evaluate mentoring effects on first-year teachers' classroom effectiveness.

This tool can also link mentoring to student achievement in looking specifically at Domain VIII: Improvement of academic performance of all students. This domain has an added subcategory for teachers to receive additional points under both (a) campus performance rating and (b) adequate yearly progress. Therefore, Texas teachers' overall scores are based on both their performances and their students' performances. This score can help bridge the gap between mentoring and student achievement.

The second recommendation is the use of a mixed methods approach to determine both the impact of mentoring on first-year teachers as well as classroom effectiveness. One example is using an individual teacher performance portfolio with professional development workshops, additional graduate coursework, student grades

and/or test scores. This authentic approach allows for more of a personal insight to the individual factors that contribute to the overall success of teachers and students. It was confirmed in this study that the Classroom Effectiveness Index was not an effective predictor of mentoring and its impact on first-year teachers. Therefore, I suggest using multiple measurement tools that take into account all the unique variables of teacher and student success, including mentor support, mentor infrastructure, workplace ecology, retention, and demographics into an authentic assessment tool.

Summary

Trying to determine what factors constitute a global, effective mentoring program is as difficult and controversial as measuring classroom effectiveness. This study aimed to do both. To date, there is a plethora of literature describing effective mentoring and effective programs but all fail to reveal what global characteristics account for success. A synthesis of the results of this study leads one to conclude that mentor support, mentor infrastructure, and workplace ecology are not predictors of performance on this particular value-added measurement. Although this study did not render the results as expected, this study does contribute to the literature in an important way.

One important finding of this study is that performance on the Classroom Effectiveness Index, as used in this study, is not a predictor of effective mentoring or teacher retention. This study also confirmed that mentoring is a highly complex process (Huling-Austin, 1998) and that in order to determine which qualities of mentoring render success, one needs to create an equally complex evaluation system. The limitations and recommendations for future research should be considered.

APPENDIX A

CREATE TEACHER INTERVIEW

CREATE Teacher Interview

Instructions to the Interviewer: The purpose of this interview is to collect data that describes novice teachers' perceptions of the support they received during their induction year in teaching and also to describe their perceptions of their working conditions. In this study, novice teacher refers to teachers who are in their first year of teaching (FYT). Use a conversational style so that the novice teachers will feel like the interview is a conversation rather than an interrogation. Probe for more information as is appropriate, but avoid suggesting an answer or leading the teacher to an answer. Assure the novice teacher that the information they share will remain confidential and that their names will not be used in any resulting research reports. Keep the interview focused on the questions at hand. After listening to the answer to each question, mark the response listed that best matches the novice teacher's response.

Say: *"Hi, I'm (your name) from (your university). My university and your school district have agreed to partner in a research study that investigates the impact of mentoring programs. First-year teachers are being interviewed about experiences this year with their mentor and at their school. The interview will take about 20 minutes. I need to let you know that everything you say will be confidential and will not be shared with anyone in your school or district or with your mentor. The study is not in any way evaluating individual teachers or mentors, but rather is a study of mentoring practices. Do you have any questions before we begin?*

Interviewer's Name: _____   Date of Interview: _____

Teacher's Name: _____   District: _____

Teacher's Campus: _____   Mentor Name: _____

Section 1: Support: Say: *We will start with some questions about how you and your mentor work together. You might have more than one mentor. For this part of the interview, I'd like you just to focus on the mentor who has been assigned to you by your district or administrator.*

1.1 Do you have a mentor assigned to you? If so, is he/she based at your campus or based on a different campus? Does your mentor serve as a mentor for first-year teachers other than yourself?
   ❑ Campus-based teacher colleague or full-time mentor with multiple mentees
   ❑ Off-campus-based teacher with similar teaching assignment
   ❑ No designated mentor but informal mentor has emerged
   ❑ No mentor
1.2 When did your assigned mentor begin working with you?
   ❑ Prior to school opening
   ❑ Within first 3 weeks of school opening
   ❑ After the 3rd week of school

❑ Mentor does not meet with teacher

1.3 About how often do you and your assigned mentor interact about teaching?
❑ Several times per week or more
❑ Once weekly
❑ Every 2 – 3 weeks or monthly
❑ Less frequently than monthly or not at all

1.4 What modes of communication do you use with your assigned mentor?
❑ Face-to-face and other supporting avenues such as phone, email, journaling, etc.
❑ Face-to-face only
❑ Email and/or phone but rarely face-to-face
❑ No interaction occurs

1.5 About how often does your assigned mentor meet with you? Are your meetings scheduled or is it informal?
❑ Regularly scheduled in advance
❑ Frequent but random and unexpected
❑ Infrequent, random, and unexpected
❑ Does not meet

1.6 Who initiates interaction most frequently, you or your assigned mentor?
❑ Interactions were initiated by teacher and mentor equally frequently
❑ Mentor typically initiates contact
❑ Teacher typically initiates contact
❑ Neither mentor nor teacher initiates interaction

1.7 When you work together with your assigned mentor, what do you usually work on or talk about?
❑ A variety of topics including curriculum/instructional strategies, lesson & unit planning, student behavior/classroom management, and emotional support
❑ Typically focus on student behavior/classroom management
❑ Typically social
❑ No interaction occurs

1.8 Does your assigned mentor ever spend a period or more in your classroom watching you teach? If so, about how often?
❑ Mentor observes teacher teach 3 or more times
❑ Mentor observes teacher teach 2 times
❑ Mentor observes teacher teach once
❑ Mentor does not observe teacher teach

1.9 Sometimes new teachers tell their mentors what they would like to have feedback on when being observed. Is that how you and your mentor usually determine the focus of the observation?
❑ Focus determined mutually by teacher and mentor
❑ Focus determined by teacher
❑ Focus determined by mentor or administration
❑ Observation is non-focused
❑ Mentor never observed

1.10 When your assigned mentor observes you teach, does he/she give you feedback following the observation(s):

- ❑ Mentor gave feedback following each observation
- ❑ Mentor gave feedback following most observations
- ❑ Mentor rarely gave feedback
- ❑ Mentor never gave feedback

1.11　Are there days when a substitute or another teacher can take your class or your mentor's class so that you can work with your mentor, or observe your mentor or other teachers? If so, how many days were used for this purpose this year? (release days)
- ❑ 3 or more days utilized
- ❑ 2 days utilized
- ❑ 1 day utilized
- ❑ No days utilized

1.12　Does your assigned mentor share resources with you? If so, what types of resources are shared?
- ❑ Shares a wide variety of resources including professional books & articles, electronic resources, and supplies
- ❑ Shares instructional materials and supplies
- ❑ Shares supplies but not instructional materials
- ❑ No resources are shared

1.13　Does your assigned mentor suggest professional development activities for you? If so, what types of professional development does your mentor suggest?
- ❑ Mentor suggests a variety of professional development activities such as regional, state or national conferences, district workshops, online workshops, journal articles, and professional books
- ❑ Mentor suggests local professional development activities such as district workshops and professional books
- ❑ Professional development suggestions were limited to print materials
- ❑ Mentor did not suggest professional development activities

1.14　How would you describe your relationship with your assigned mentor?
- ❑ Close
- ❑ Professional but not close
- ❑ Indifferent
- ❑ Hostile

1.15　How would you rate the overall value of the mentoring support you received from your assigned mentor?
- ❑ Enormously beneficial
- ❑ Moderately beneficial
- ❑ Minimally beneficial
- ❑ Not beneficial

1.16　Does your campus or district provide orientation for first-year teachers at the beginning of the school year? If so, did you participate at the district or campus level or both?
- ❑ Teacher participates in district and campus orientation
- ❑ Teacher participates in campus orientation but not district orientation
- ❑ Teacher participates in district but not campus orientation
- ❑ No orientation was provided

1.17 In addition to the beginning of year orientation, has your campus or district provided special meetings for first-year teachers? If so, are the topics mostly about instructional issues or more about your well-being or your acculturation into the community? How often do you participate in meetings for first-year teachers?

- ❑ Teacher participates at least once per month in a novice teacher meeting focused on teacher well-being, community acculturation or instructional support
- ❑ Teacher participates at least once per semester in a novice teacher meeting focused on teacher well-being, community acculturation or instructional support
- ❑ Teacher participates in novice teacher meetings that are focused totally on instructional issues
- ❑ There are no meetings specifically for novice teachers

Instructions to the Interviewer: Note: *Before moving to Section 2 quickly return to any items that need clarification from Section 1. Then move on to Section 2. Say: This next set of questions is about the school where you teach.*

Section 2: Workplace Ecology as Perceived by the First-Year Teacher (FYT)

2.1 Think about your faculty as a whole. Would you characterize the majority of your faculty as being collaborative and cooperative and inclusive to new teachers or do they tend to exclude new teachers?

- ❑ Collaborative and intentionally inclusive *(teachers go out of their way to include FYTs)*
- ❑ Cooperative *(teachers are willing to include FYTs but don't go out of their way to do so)*
- ❑ Collaborative/cooperative with experienced faculty but not with FYTs
- ❑ Little interaction among teachers

2.2 Talk about your grade level leader or department chair's style. For example, some grade level leaders or chairs are typically focused on promoting instructional improvement, while others are focused more on the smooth operation of the grade level or department, and still others seem to be mostly responding to immediate problems. How would you characterize the working style of your grade level leader or department chair? Do you feel his/her style of working with you was caring or adversarial?

- ❑ Team leader/ department chair actively facilitates quality instruction in a caring and productive manner *(visionary leader)*
- ❑ Team leader/ department chair is primarily focused on the smooth operation of the grade level or department *(on-going helper)*
- ❑ Team leader/ department chair focus is limited primarily to responding to immediate problems *(fire fighter)*
- ❑ Team leader/ department chair is not designated or creates an adversarial environment for the new teacher *(adversary)*

2.3 Talk about the style of your Administrative team in general. For example, some administrative teams are typically focused mostly on promoting instructional improvement, while others are focused more on the smooth operation of the school, and still others seem to be mostly responding to immediate problems. How would

you characterize the working style of your administrative team? Do you feel their work with you was caring or adversarial?

- ❑ Administrative team actively facilitates quality instruction in a caring and productive manner *(visionary leader)*
- ❑ Administrative team primarily focuses on the smooth operation of the school *(on-going helper)*
- ❑ Administrative team's focus is limited primarily to responding to immediate problems *(fire fighter)*
- ❑ Administrative team creates an adversarial environment for the school staff *(adversary)*

2.4 Talk about the student discipline support provided by your administrative team. If you had a student discipline issue that needed administrative involvement, how was it typically handled?

- ❑ Administrators actively work with new teachers to seek solutions to student discipline problems *(coaches and seeks to facilitate growth on the part of the FYT)*
- ❑ Administrators deal with student on discipline matters in a timely fashion *(admin solves the problem w/o coaching FYT)*
- ❑ Administrators provide little back-up support with discipline *issues (admin does little with regard to discipline issues)*
- ❑ Administrators undermine teachers' authority *(admin actively works against FYT)*

2.5 Think about the supervision you received from your administrative team this year. For example, some administrators provide on-going substantive and constructive supervision, while others are focused on completing supervisory requirements, and still others seem focused on "weeding out" weak new teachers. How would you characterize the supervision you received?

- ❑ Supervision is substantial and constructive and is targeted towards building new teacher confidence
- ❑ Supervision is adequate; feedback is specific
- ❑ Supervision is conducted to comply with guidelines and feedback is non-specific
- ❑ Supervision is targeted toward "weeding out" weak new teachers

2.6 Tell me about the lesson plan support provided by your administrative team. *(probe)*

- ❑ Lesson plans are collected in advance and are reviewed by a member of the administrative team and feedback is given
- ❑ Lesson plans are collected in advance but feedback is not given
- ❑ Lesson plans must be available and subject to review by administrators
- ❑ Lesson plans are collected after lessons are taught (at end of week) or are not collected at all

2.7 Let's talk about professional development. Did your administrative team make available professional development, beyond the required district inservice, that was specifically targeted to your needs?

- ❑ Administrators actively sought to provide professional development targeted to needs identified by both new teacher and administrator(s) (implies shared discussion & negotiation to identify appropriate inservice)

- Administrators provided for professional development targeted to new teacher needs as identified by the new teacher
- Administrators provided for professional development targeted to new teacher needs as identified by the administrator(s)
- Administrators did not make professional development available to the new teacher beyond the district inservice

2.8 How new or well maintained are the school buildings and equipment on your campus?
- Building and equipment is new or fairly new and well-maintained
- Building and equipment are old but well-maintained
- Building or equipment are not well-maintained
- Building needs major repairs, equipment usually needs repairs and disrupts instruction

2.9 Did you feel that the neighborhood surrounding your campus was friendly and safe all or most of the time? If not explain.
- Friendly and safe
- Safe during school hours but unsafe evenings & weekends
- Unsafe most of the time
- Hostile and unsafe

2.10   To what extent did you feel that the majority of parents of your students were involved, and did you find them to be mostly cooperative and pleasant or did you find them demanding or even hostile?
- Majority of parents are cooperative, pleasant, and involved
- Majority of parents are involved, but somewhat demanding
- Majority of parents have minimal involvement
- Substantial number of parents are hostile and uncooperative

2.11   Did you feel that the majority of the students in your class were well prepared or under-prepared? Were they motivated or unmotivated to learn?
- Majority of students are academically prepared and motivated
- Majority of students are under-prepared but motivated
- Majority of students are adequately prepared but unmotivated
- Majority of students are under-prepared and unmotivated

2.12   Did you feel that student behavior was typically manageable or disruptive? If student behavior challenges occurred, did they take up a substantial amount of instructional time?
- Occasional behavior disruptions occur but are not serious and don't significantly impact instruction *(disruptions didn't occur every period of every day)*
- Dealing with student behavior is somewhat challenging but manageable *(might occur every period of every day but were manageable)*
- Dealing with behavioral issues is a serious challenge and takes up a substantial amount of instructional time.
- Majority of students are behavior problems and seriously diminish instructional time

Instructions for the Interviewer: Say: *Okay, we are nearly finished. I just need to get some demographic information from you and then we will be done. I appreciate your patience.*

Section 3: Demographics

3.1 What is your gender?
- ❑ Male
- ❑ Female

3.2 What is your age?
- ❑ 21-24
- ❑ 25-29
- ❑ 30-34
- ❑ 35-39
- ❑ 40-44
- ❑ 45-50
- ❑ 50 or above

3.3 To what racial/ethnic group do you belong? (mark all that apply)
- ❑ White/Caucasian
- ❑ African American/Black
- ❑ American Indian
- ❑ Asian American/Asian
- ❑ Pacific Islander
- ❑ Mexican American
- ❑ Other Latino
- ❑ Other

3.4 What is the highest degree you have earned?
- ❑ Baccalaureate
- ❑ Masters
- ❑ Doctorate

3.5 Have you completed the requirements for full Texas certification:
- ❑ Yes, fully certified
- ❑ Currently enrolled in alternative or post-bac program
- ❑ Not yet enrolled in a teacher certification program
- ❑ Not certified

3.6 Through which entity did you earn your certification? Specify by name of entity.
- ❑ College preparation program _____
- ❑ Regional Service Center

    _____
- ❑ Alternative Certification Program

    _____
- ❑ Not certified

3.7 Did your preparation for teaching include supervised student teaching: If so, what was the duration (approximate number of weeks)?
- ❑ Full semester during fall or spring semester (approximately 14-15 weeks in duration)

- ❑ Summer school (less than 14 weeks)
- ❑ No supervised student teaching

3.8 What grade level did you teach this year?
- ❑ Pre-K level
- ❑ Elementary level
- ❑ Middle school level
- ❑ High school level

3.9 If you teach at the elementary level is it:
- ❑ Self-contained
- ❑ Departmentalized
- ❑ Bilingual or special education

3.10 If you teach middle or high school, what content field do you teach? (check as many as apply)
- ❑ English/Language Arts
- ❑ Social Studies
- ❑ Math
- ❑ Science
- ❑ Other: specify

_____

3.11 If you teach at the secondary level how many different courses do you teach *(# of preps)*
- ❑ 1
- ❑ 2
- ❑ 3
- ❑ 4
- ❑ 5 or more

3.12 Do you have your own classroom or do you have to change classrooms during the day? (floating)
- ❑ Has own classroom
- ❑ Floats between classrooms within school
- ❑ Floats between campuses

3.13 Do you work with any extra curricular or after school programs? If so, approximately how many hours per week do you spend doing this?
- ❑ Less than 3
- ❑ 3-5
- ❑ 6-10

3.14 About how many minutes do you travel to get to school?
- ❑ 10-30 minutes
- ❑ 30-45 minutes
- ❑ 1 hour
- ❑ More than an hour

3.15 Compared to your most recent full-time job, does your teaching position pay more or less?
- ❑ No previous full-time job
- ❑ Teaching pays more
- ❑ Teaching pays about the same

- ❑ Teaching pays less
3.16 (*Note: Skip if answer to 3.15 was "no previous full-time job.*) Is the difference in your previous most recent full-time job more or less than $5,000? More than $10,000?
- ❑ Difference in salary is less than $5,000
- ❑ Difference in salary is more than $5,000-10,000
- ❑ Difference in salary is more than $10,000
3.17 Along with teaching, do you have any part-time employment during the school year? If so approximately how many hours per week do you spend at your part-time job?
- ❑ None
- ❑ 5-10 hours per week
- ❑ More than 10 hours per week
- ❑ Occasional (non-regular)

Instructions to the Interviewer: Say: *I really appreciate your time and want to thank you for talking with me. This is a Participant Agreement Form. It just shows that you agreed to be interviewed and that you have received information about the study. We need you to sign and return it so that the study records will all be in order. Please take a few minutes to read over the Participant Agreement Form. Do you have questions? You may sign the Participant Agreement Form and give it to me now and here's a copy for your records. Thank you again for your time and your willingness to be interviewed.*

Instructions to the Interviewer after ending each interview:

1. Check to make sure you have completed ALL the information at the top of the interview on page 1.
2. Check to make sure that you have marked each response clearly.
3. Give your completed interview and any notes you may have taken to your Interview Team Leader.
4. Give signed Participant Agreement forms to your Interview Team Leader.

APPENDIX B

CREATE MENTOR TEACHER SURVEY

Name: _____ Mentee's Name: _____

Mentee's District: _____Mentee's Campus: _____

Instructions: The purpose of the CREATE Induction Study is to collect data that describes the structure of induction support that first year teachers in your district receive. This study is not in any way evaluating individual teachers or mentors, but rather is a study of mentoring practices. This information is confidential and will not be shared with anyone in your school or district and your name will not be used in any resulting research reports. You have been chosen to participate because you are the assigned mentor for a first-year teacher who is included in the study. Please complete this survey by marking the item that best matches your response to each of the items below.

Section I: Demographics
1.1 What is your gender?
   o Male
   o Female
1.2 What is your age?
   o 21-24
   o 25-29
   o 30-34
   o 35-39
   o 40-44
   o 45-49
   o 50 or above
1.3 To what racial/ethnic group do you belong? (mark all that apply)
   o White/Caucasian
   o African American/Black
   o American Indian
   o Asian American/Asian
   o Pacific Islander
   o Mexican American
   o Other Latino
   o Other
1.4 What is the highest degree you have earned?
   o Baccalaureate
   o Masters
   o Doctorate
1.5 What is your current assignment?
   o Full time mentor w/o classroom responsibilities
   o Teacher
   o Campus-based leader
   o Campus Administrator
   o District Administrator
   o District-based specialist

1.6 How many years of teaching experience do you have?
- o   3 or less
- o   4-10
- o   11- 15
- o   more than 15

1.7 How many years of mentoring experience do you have?
- o   1
- o   2
- o   3
- o   4
- o   5 or more

1.8 How many first year teachers do you currently mentor?
- o   1
- o   2
- o   3
- o   4 or more

Section 2 Support Infrastructure

2.1 Do you have the same teaching assignment as your mentee? If not, explain.
- o   Same grade level or exact course match
- o   Different grade level or different discipline
- o   Same discipline but different course assignments
- o   Different discipline and different course assignments

2.2 Are you in close proximity to your mentee? If not, explain.
- o   Same campus; classrooms in close proximity
- o   Same campus; classrooms not in close proximity
- o   Different campus within same district
- o   Different campus in another district or entity

2.3 How were you selected as a Mentor?
- o   Volunteered and completed a formal application
- o   Volunteered with no application
- o   Was asked to serve as a mentor
- o   Was assigned a mentee

2.4 How much, if any, initial mentor training did you receive prior to becoming a mentor?
- o   Two or more days prior to assignment to mentee
- o   1 day prior to assignment
- o   .5 day prior to assignment
- o   no training prior to assignment

2.5 How frequently, if at all, do you have ongoing mentor training?
- o   Mentors meet together at least monthly throughout the school year
- o   Mentors meet together at least 3 times, but less often than monthly, during the school year
- o   Mentors meet together 1or 2 times during the school year
- o   Mentors never meet together beyond initial training

2.6   Who, if anyone, coordinates the mentor program?
- o   District level coordinator and campus coordinator

- o Campus only coordinator (not principal)
- o Principal or other full time administrator
- o No program coordinator

2.7 How often do you interact with the mentoring program coordinator about mentoring-related issues?
- o More than twice a month
- o About once a month
- o Less than once a month
- o No interaction

2.8 Is there a mentor handbook or other program materials?
- o Printed materials are rich and include program expectations, role descriptions, mentoring strategies, coaching materials, mentoring case studies, calendar.
- o Materials are program specific but limited to program expectations, role descriptions, and calendar.
- o Materials are general in nature but not program specific
- o No program materials

2.9 Are there clear guidelines specifying the amount of time per week mentors are expected to work with mentees? If so, how many hours per week are suggested?
- o More than 2 hours per week
- o 1 to 2 hours per week
- o Less than 1 hour per week
- o No guidelines

2.10 Are you required to keep documentation of your work with your mentee and if so, how often is it submitted?
- o More frequently than monthly
- o Approximately monthly
- o Once per semester
- o At the end of the year

2.11 Does the program provide release time (sub days) for you to work with your mentee? If so, how often?
- o 3 or more days
- o 2 days
- o 1 day
- o No days

2.12 Beyond the opening of school orientation, does the mentoring program conduct sessions specifically for novice teachers? If so how often?
- o At least once per quarter
- o Once per semester
- o One per year
- o None

2.13 Do you and your mentee have a planning period in common? If so, how often?
- o More than an hour per day
- o One period per day
- o One period per week
- o No common planning period

2.14   Are there funds readily available through the mentoring program or school to help the novice teacher buy teaching supplies and materials?
- NTs get a set amount to enhance the classroom
- Funds are available but difficult to access
- Funding is on a case by case basis
- No funds are available

2.15   Do you receive a stipend for mentoring? If so, how much?
- $1,000 per year or more
- More than $300 but less than $1,000
- $100 - $300
- No stipend available

2.16   Are there other rewards or perks provided to recognize your contribution as a mentor? If so, what are the rewards or perks offered?
- Extra release period per day
- Gift certificate, movie passes, day off, etc.
- Recognition at district or campus level (wall plaque, board meeting recognition, letter from administrator, etc.)
- No rewards or perks

2.17   Describe your mentee's building Principal in regard to his/her advocacy of mentoring practices.
- Principal plays an active role in supporting mentoring of NTs
- Principal regularly recognizes program priority but delegates specific tasks related to program
- Principal is in favor of program but has little support structure in place
- Principal support is not evident or undermines mentoring of NT

2.18   Describe how you perceive your mentee's building Principal views your role as a mentor.
- Principal has a realistic view of novice teacher development and encourages mentor to patiently guide novice through teaching challenges
- Principal views mentor as a conditional helper depending upon NTs attitude, maturity, abilities, and competencies.
- Principal expects mentor to identify and report novice teacher weaknesses
- Principal holds mentor accountable for "fixing" NTs identified weaknesses

2.19   Is the mentor program evaluated? If so, when is data collected and who participates?
- Data is collected several times a year from multiple role groups
- Data is collected at the end of the year from multiple role groups
- Data is collected from novice teachers only or mentors only
- Mentor is not aware of program evaluation

2.20   How are results of the mentor program evaluation used?
- Results are used to guide program refinement and improvement
- Results are compiled and shared but aren't used for program refinement and improvement
- Results are compiled and available but not disseminated
- No results available

Thank you for your participation in the CREATE Induction Study.

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