

AN ASSESSMENT OF THE EFFECTIVENESS OF STRATEGIC  
eMENTORING IN IMPROVING THE SELF-EFFICACY  
OF ALTERNATIVELY CERTIFIED NOVICE  
TEACHERS WITHIN AN URBAN  
SCHOOL DISTRICT

A Dissertation

by

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## ABSTRACT

An Assessment of the Effectiveness of Strategic eMentoring  
in Improving the Self-Efficacy of Alternatively  
Certified Novice Teachers Within an  
Urban School District  
(December 2012)

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Educational leaders must be cognizant of creating an environment that is conducive to enhancing the self-efficacy of alternatively certified novice teachers in terms of decision making, school resources, instruction, discipline, enlistment of community involvement, enlistment of parental involvement and a positive school climate. This study investigated the effectiveness of strategic eMentoring on the self-efficacy of alternatively certified novice teachers.

Bandura's Teachers Self-Efficacy Scale was adopted verbatim for data collection. The instrument contains seven sections based on Bandura's conceptual model and its relationship with various personal and contextual variables in a Likert-type format (a 9-point scale that ranged from (1)—strongly disagree to (9)—strongly agree).

From a population of 179 alternatively certified novice teachers in a large Southwestern urban school district, forty (40) subjects were randomly selected

and randomly assigned to the control and treatments groups. Each group was comprised of 20 subjects. Each subject was then randomly assigned to two sub-treatment groups such that eMentor (1) had 10 subjects and eMentor (2) had 10 subjects. The eMentors were randomly selected from the research and evaluation department of the urban school district. The experimental treatment lasted for six weeks during which data were collected at two different time points: prior to treatment (pretest) and post treatment (posttest).

Prior to treatment, Levene's Test for equality of variance found no statistically significant difference between the control and treatment groups ( $F = 1.625$ ;  $P = .210$ ). A two tailed *t-test* for two independent samples found no statistically significant difference between the overall pretest means of the two groups ( $t\text{-value} = -.124$ ;  $p = .902$ ). Therefore, any statistically significant differences identified between the two groups were attributed to treatment effect.

ANCOVA results found no statistically significant differences from pre to post on the following self-efficacy constructs: Decision Making, School Resources, Instruction, Discipline, Enlistment of Community, and a positive School Environment. A significant difference was found on the Enlistment of Parental Involvement, indicating that eMentored teachers are more likely to involve parents in school activities.

It appears that in some instances, eMentoring was found to be as effective as traditional mentoring and in another, statistically more effective. In an era of greater accountability, budget shortfalls, and cut backs, eMentoring

offers an alternative to an antiquated traditional method of providing feedback to novice teachers. This is of particular importance to small school districts where funds are limited, yet there is still a need to attract and retain quality teachers. eMentoring also provides a means of establishing lasting relationships that have proven to be instrumental in helping alternatively certified novice teachers to commit to the teaching profession.

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# CHAPTER I

## INTRODUCTION

Entering the classroom for the first time can produce a reality shock for alternatively certified novice teachers. Oftentimes, they mistake the uneasiness they feel as an indication that they have made a mistake in their professional occupation (Grismer & Kirby, 1991). Alternatively certified novice teachers tend to compare their working conditions with those of other teaching and non-teaching jobs, and they evaluate their expectations about teaching against the realities of the classroom (Arnold, 1993).

Novice teachers leave the profession at rates as high as 50% within 5 years and 80% within 10 years (Boreen & Niday 2000, cited in Hansman, 2002). The National Commission on Teaching and America's Future (1996) affirmed a number of reasons for the high attrition rate among alternatively certified novice teachers: (1) novice teachers are given the most challenging assignments; (2) novice teachers are often placed at disadvantaged schools without additional support; and (3) alternatively certified novice teachers, especially at the high school level, are often given the greatest number of class preparations. Along with receiving the most difficult assignments, novice teachers often feel isolated and alone (Green, 2000).

Other teaching dissatisfaction studies also indicate that alternatively certified novice teachers leave the profession due to a lack of recognition and administrative support (Wiggs, 1998; Karge, 1993). Contrary to the notion of a “graying” teaching force, regular teachers leave the profession primarily due to working and organizational conditions, including a lack of adequate traditional mentoring, low salaries, lack of support from administration, low student motivation, and lack of input into school decision-making processes (Ingersoll, 2002). These seem to mirror some of the causes of attrition among alternatively certified teachers.

In the 2004–05 MetLife “Survey of the American Teacher”, alternatively certified novice teachers reported being greatly stressed by administrative duties, classroom management, and threatening responsibilities, as well as by their relationship (or lack thereof) with parents (Metlife, 2004). The National Center for Education Statistics’ (1999) assessment on teacher quality indicated that mentoring relationships played a key role in the support and retention of alternatively certified novice teachers.

Ultimately, the goal of any academic program is higher achievement for all children regardless of their socio-economic status (Darling-Hammond, 2001; Stone & Mata, 1998). The efforts to attain such a goal should be distinct, with innovative steps taken to ensure equal access for all students to achieve a quality education (Clark & Estes, 2003). Keeping qualified teachers in the classroom ensures this to a degree.

One such possible innovation in keeping qualified teachers in the classroom is mentorship. According to the Education Commission (1999), teacher mentoring is a formalized relationship between a beginning teacher (novice) and a master teacher (mentor) that provides support and assesses teaching. Berliner (1988), states that beginning teachers need emotional support, assistance in learning classroom routines and processes, appropriate materials, and plans and manuals that will help them get started. Mentors are an important factor in providing support for novice teachers as they enter the real world of the classroom (Alliance for Excellent Educators, 2005). Mentoring, then, is providing positive construct feedback that is conducive to the mentee. The mentee will be able to utilize the advice of the mentor in a variety of contextual elements that are geared specifically towards their content areas.

According to the National Center for Education Statistics 2000 -2001 “Public School Teacher Survey”, 47% of public school teachers who worked with a mentor teacher in the same subject area (National Center for Education Statistics, 2002 & NEA, 2003) and 66% of teachers who were formally mentored by another teacher reported that it “improved their classroom teaching” (National Center for Education Statistics, 2002 & NEA, 2003). So there is evidence that mentoring works for regular teachers.



## Background of the Problem

Mentoring programs for new teachers are a common feature of professional development activities (Ganser, 2000). Mentoring programs have been effective in ameliorating some of the problems associated with novice teachers, including lack of support, and high attrition rates (Darling-Hammond, 1997, 2000b; Moir & Gless, 2001; Scherer, 2001; Weiss & Weiss 1999). Mentoring also helps alternatively certified novice teachers become effective practitioners early in their careers (Brennan, Thames, & Roberts, 1999; Darling-Hammond, 1996, 2000a; Feiman-Nemser, 1998; Holloway, 2001; Odell, 1986, 1989; Stupiansky & Wolfe, 1992).

Other studies on mentoring programs indicate that for novice teachers, mentoring can be used as an effective recruitment and retention tool (Feiman-Nemser & Beasley, 1996). Odell & Ferraro (1992) found that the attrition rate for teachers receiving one year of mentoring was 16% after four years of teaching, compared to 50% for alternatively certified novice teachers who did not receive any form of mentoring. Current investigations indicate that mentoring programs help to build the self-confidence of novice teachers (Ackley & Gall, 1992; Martin, 2000). In addition, mentoring programs help novice teachers find materials or resources, aid in the development of thinking about instructional strategies, and guide them toward being efficacious and self-directed educational practitioners.

Previous research asserts that self-efficacy is a strong predictor of teacher success (Bandura, 1977). When teachers feel confident in their

teaching styles and are encouraged by concerned administrators, they experience a sense of satisfaction that is reinforced yearly. Although there is a recent trend by educational leaders to incorporate various mentoring techniques into interactions with novice teachers, several studies have indicated that strategic well-planned mentoring procedures generate long-term gains in teacher self-efficacy.

In effect, by working with mentors, alternatively certified novice teachers should be able to enhance their self-efficacy beliefs in a variety of settings, contexts, and content areas. This expectation is consistent with Bandura's Social Learning and Social Cognitive Theories (Bandura, 2008). Bandura's Social Learning Theory is a theoretical framework that can be applied to explain novice teachers' self-efficacy. It presumes that alternatively certified novice teachers learn within their educational and professional development milieu (Bandura, 1969), thus increasing their self-efficacy. By enhancing teachers' self-efficacy, we can lower the attrition rate of alternatively certified novice teachers, perhaps through practical applications such as mentoring.

Likewise, Bandura's (2001, 2002, & 2004) Social Cognitive Theory emphasizes that when capable educators do not perform up to their potential, despite positive environmental conditions, the lack of performance may be attributed to the self-regulatory process within individuals that promote or inhibit their performance. Bandura's (1989) social cognitive view of self-efficacy is an important factor in which the teacher mediates between cognition and affect, which result in changes in work performance (Zimmerman, Bandura, &

Martinez-Pons, 1992). The growth or reduction of self-efficacy is influenced over time by social comparison with peers, and is theoretically more pronounced as one grows older. Bandura addresses self-efficacy along seven dimensions: decision making, school resources, instructional self-efficacy, disciplinary self-efficacy, efficacy to enlist parental involvement, efficacy to enlist community involvement, and positive school climate.

### Statement of the Problem

One of the most pressing problems facing educational leaders is attracting and retaining highly qualified teachers. The level of self-efficacy and the nature of the relationship between administrators and novice teachers often determine the extent of their long-term commitment to teaching. Therefore, it is plausible that strategies to enhance teacher self-efficacy through innovative strategic mentoring applications should strengthen novice teachers' commitment to teaching.

Because there are not enough mentors to provide the level of mentoring necessary, some schools are experimenting with eMentoring. This is a process by which alternatively certified novice teachers receive mentoring via the internet, through electronic communication such as email. Often, teachers are paired with mentors who are directly associated with the educational leader of the school. These mentors tend to report the mentees' thoughts and feelings about the daily operations of the school, their classrooms, and the overall culture of the school.

This research addresses the effect of eMentoring as an alternative strategy used to build self-efficacy in alternatively certified novice teachers. eMentoring must be connected to a guided vision for teaching, full comprehension of teacher learning, and favored by the specialized culture that supports a working partnership and inquisition among alternatively certified novice teachers. eMentoring may create an atmosphere that is conducive to the novice teacher's learning differing pedagogical styles. With strong leadership, novice teachers may have the ability to incorporate the information into daily practice. It may also play a pivotal role in increasing their self-efficacy, provide a foundation for promoting long term gains in self-efficacy, and ultimately reduce the attrition rate among alternatively certified novice teachers.

### Research Questions

Based on Bandura's conceptual model and its relationship with various personal and contextual variables, the following research questions were developed:

1. Does strategic eMentoring influence the perception of self-efficacy in decision-making of alternatively certified novice teachers?
2. Does strategic eMentoring influence the perception of self-efficacy in the use of school resources in alternatively certified novice teachers?
3. Does strategic eMentoring influence the perception of instructional self-efficacy in alternatively certified novice teachers?
4. Does strategic eMentoring influence the perception of disciplinary self-efficacy in alternatively certified novice teachers?

5. Does strategic eMentoring influence the perception of alternatively certified novice teachers' self-efficacy to enlist parental involvement?
6. Does strategic eMentoring influence the perception of alternatively certified novice teachers' self-efficacy to enlist community involvement?
7. Does strategic eMentoring influence the perception of alternatively certified novice teachers' self-efficacy to foster a positive school climate?

### Null Hypotheses

The following null hypotheses were tested:

Ho<sub>1</sub>: There is no statistically significant difference in self-efficacy about decision making between alternatively certified novice teachers who did and those who did not received strategic eMentoring.

$$Ho_1: \bar{X}_{1a} = \bar{X}_{1b}$$

Ho<sub>2</sub>: There is no statistically significant difference in self-efficacy about school resources between alternatively certified novice teachers who did and those who did not receive strategic eMentoring.

$$Ho_2: \bar{X}_{2a} = \bar{X}_{2b}$$

Ho<sub>3</sub>: There is no statistically significant difference in instructional self-efficacy between alternatively certified novice teachers who did and those who did not received strategic eMentoring.

$$Ho_3: \bar{X}_{3a} = \bar{X}_{3b}$$

Ho<sub>4</sub>: There is no statistically significant difference in disciplinary self-efficacy between alternatively certified novice teachers who did and those who did not received strategic eMentoring.

$$Ho_4: \bar{X}_{4a} = \bar{X}_{4b}$$

Ho<sub>5</sub>: There is no statistically significant difference in self-efficacy to enlist parental involvement between alternative certified novice teachers who did and those who did not received strategic eMentoring.

$$Ho_5: \bar{X}_{5a} = \bar{X}_{5b}$$

Ho<sub>6</sub>: There is no statistically significant difference in self-efficacy to enlist community involvement between alternatively certified novice teachers who did and those who did not received strategic eMentoring.

$$Ho_6: \bar{X}_{6a} = \bar{X}_{6b}$$

Ho<sub>7</sub>: There is no statistically significant difference in self-efficacy to foster a positive school climate between alternatively certified novice teachers who did and those who did not received strategic eMentoring.

$$H_{07}: \bar{X}_{7a} = \bar{X}_{7b}$$

### Purpose of the Study

The purpose of the study was to explore the relevance of strategic eMentoring in affecting alternatively certified novice teachers' self-efficacy. Educational leaders are determined to retain qualified alternative certified novice teachers and so this information is relevant to them. Their roles as educational leaders are significant in creating an environment that is conducive to alternatively certified novice teachers; in terms of school culture, school climate, parents, students, resources, and new strategies in regards to pedagogy.

Alternative certified novice teachers are prone to feel unappreciated (Ozder, 2011). They feel that they are not doing a sufficient job in their teaching assignments, and tend to have low self-esteem as well as low perceptions of self-efficacy. Educational leadership has a profound impact on the success and self-efficacy of alternatively certified novice teachers (Ozder, 2011). eMentoring has been proposed as a strategic technique to promote positive teacher self-efficacy with hopes of retaining alternatively certified novice teachers. This study will establish whether grounds exist for the implementation of strategic eMentoring programs for alternatively certified novice teachers in urban school districts.

### Significance of the Study

Considerable amounts of time, energy, and resources are devoted to recruiting new teachers, yet nearly 50% of teachers in the United States leave teaching within the first five years of entering the profession. Some school districts experience even greater attrition rates (Holloway, 2001). Studies indicate that the most gifted and talented of these new teachers are those most apt to abandon their teaching careers (Halford, 1998). Many school districts have discovered the turnover rate among young and new teachers is high and that the positions they filled one year were open again the next (Holloway, 2001).

This experimental study examined strategic eMentoring as a method of promoting positive teacher self-efficacy thereby reducing teacher attrition. In addition, this study attempted to lay a foundation for future studies on alternatively certified novice teachers' perceptions of self-efficacy, and the value of strategic eMentoring as an innovative practical approach to improving classroom instruction of novice teachers.

### Assumptions

1. eMentors and novice teachers possess certain characteristics that are pivotal in forming a successful eMentoring relationship.
2. The respondents replied truthfully and honestly.
3. The respondents were representative of teachers in inner-city schools.
4. The instruments were reliable and valid.
5. Self-efficacy is a good predictor of alternative certified novice teacher attrition.

### Delimitations of the Study

This study was limited to the following conditions:

1. About ten percent of the entire population of alternatively certified novice teachers in the population of interest were randomly selected and randomly placed in this study.
2. The relationship between the eMentor and the alternatively certified novice teachers fostered the expected outcomes.
3. The respondents' use of technology was adequate.
4. The alternatively certified novice teachers were willing to become self-directed.

### Limitations of the Study

1. Only one urban school district was included in the study, and so generalizability is limited.

### Definitions of terms

Alternatively Certified Novice Teachers –in this study, ACNT is defined as a person who is being certified through a non-traditional program or agency.

Efficacy- Knowing one's self worth.

eMentoring - Electronic communication that is geared towards the enhancement of alternatively certified novice teachers self-efficacy.

Mentee-One who is mentored (Danielson, 1999). In this study, Mentee is defined as an alternatively certified novice teacher who receives individualized guidance and leadership from a more experienced educator.



Mentor -An experienced individual who guides the development of another person (Danielson, 1999).

Mentoring- A process in which a more skilled or more experienced person serves as a role model for the purpose of promoting the learner's professional and personal development (Anderson & Shannon, 1998).

Novice Teacher- The exact definition of "novice" according to Merriam-Webster is "one who is inexperienced or untrained (Darling-Hammond, 2001). In this study, Novice Teacher is defined as a person who is new to teaching in public education.

Perceived Self-efficacy- One's beliefs about their capabilities (Bandura, 1977b). In this study, perceived self-efficacy is the way in which alternatively certified novice teacher's view/feel about their own capabilities.

Self-Directed Learning- Learning in which the individual takes the initiative and the responsibility for what occurs (Knowles, 1984; Kitsantas, Baylor, & Hu, 2001). In this study, *Self-Directed Learning* is the way in which alternatively certified novice teachers initiate and control the teaching process.

Self-Efficacy Beliefs- Provide the foundation for human motivation, well being, and personal accomplishment (Bandura, 1989, 2001, 2002). In this study, *Self-Efficacy Beliefs* refers to the belief system alternatively certified novice teachers possess of their perception of who they are.

Social Cognitive Theory- Human behavior is a triadic, dynamic, and reciprocal interaction of personal factors, behaviors, and the environment

(Bandura, 1989, 2001, 2002). In this study, Cognitive Theory refers to the cognition of alternatively certified novice teachers and their innate ability to process conceptually based knowledge.

Social Learning Theory- has been applied extensively to the understanding of aggression (Bandura, 1973) and psychological disorders, particularly in the context of behavior modification (Bandura, 1969). In this study, *Social Learning Theory* is the process in which alternatively certified novice teachers learn within their educational and professional development milieu.

Strategic eMentoring- in this study, *strategic eMentoring* is mentoring that is specific to the needs of alternatively certified novice teachers.

Structured eMentoring – eMentoring that occurs within a formalized program environment. It provides training, coaching, and structure to increase the likelihood of engagement in the eMentoring process (Single & Muller, 1999). In this study, structured eMentoring is strategic mentoring that is geared towards alternatively certified novice teachers.

Teacher Self-efficacy- Bandura (1971, 1977) described teacher self-efficacy as individual confidence in one's ability to control one's thoughts, feelings, and actions and therefore influence an outcome.

Treatment- Specific combinations of factor levels whose effect is to be compared with other treatments (Campbell & Stanley, 1963).

## Organization of Study

This study consists of five chapters. Chapter I contains an introduction, background of the problem, statement of the problem, research questions, purpose of the study, significance of the study, assumptions, limitations, and definitions of terms. Chapter II presents a review of literature on strategic eMentoring, and Bandura's self-efficacy components; decision making, efficacy of school resources, instructional self-efficacy, efficacy to enlist parental involvement, efficacy to enlist community involvement, efficacy to promote a positive school climate and educational leadership. Chapter III, the methodology section, contains the research design, population, sample, instrumentation, and the collection of data. Chapter IV presents the findings of the study in relation to the posed research questions. Chapter V contains a summary of the study, a conclusion, and recommendations for future research.

## CHAPTER II

### REVIEW OF LITERATURE

Mentoring goes back thousands of years to Homer's epic poem, the *Odyssey*, where Homer tells of a wise old sea captain named Mentor who gives Odysseus's son, Telemachus, guidance in coping with his father's long absence. In modern times, the word mentor has been used to refer to a relationship in which a knowledgeable person aids a less knowledgeable person (O'Neill, Wagner, & Gomez, 1996).

Much has been written about the value of mentoring programs for novice teachers during the critical first year(s) of teaching (Feiman-Nemser & Parker, 1993; Odell, 1989; Ganser, 2000; Odell & Huling-Austin, 2000). The greatest value is that it helps close the gap between pre-service training and the actualities of teaching. It is evident from the research that mentoring programs might provide the kind of on-site support novice teachers need to develop their professional skills in an effective and efficient manner. Danielson (1999) found that mentoring helps novice teachers face their new challenges; through reflective activities and professional conversations, they improve their teaching practices as they assume full responsibility for a class. Other studies have documented the positive effects of mentoring on the mentors themselves, in that, it positively affects teacher efficacy for both the mentor and the novice teacher (Ganser, 1997; Gordon & Maxey, 2000; Holloway, 2001).

Bandura (1977) defines efficacy as an intellectual activity by which one forges one's beliefs about his or her ability to achieve a certain level of accomplishment. Self-efficacy is grounded in the theoretical framework of social cognitive theory, emphasizing the evolution and exercise of human agency – the idea that people can exercise some influence over what they do (Bandura, 2006a). In contrast, self-efficacy is multidimensional and context-specific (Zimmerman & Clearly, 2006) and there is no all-purpose measure of self-efficacy beliefs (Bandura, 2006a). Bong (2006) highlighted that context specificity should not be confused with level of generality and that self-efficacy beliefs may be skill specific, task specific or domain specific. Therefore, a novice teacher with high self-efficacy tends to exhibit greater levels of enthusiasm, be more open to new ideas, more willing to try a variety of methods to better meet the needs of their students, and more devoted to teaching. They tend to be less judgmental of students and work longer with students who are struggling (Coladarchi, 1992; Tschannen-Moran, and Woolfolk & Hoy, 2001).

Mentoring is a component of induction that attempts to address two problems in teaching: the abrupt and unsupported entry of first-year teachers into the teaching profession; and the challenge of keeping good teachers in the classroom (Feiman-Nemser & Parker, 1993). Anderson and Shannon (1988) define mentoring in the educational setting as: a nurturing process in which a skilled or more experienced person, serving as a role model, teaches, sponsors, encourages, counsels, and befriends a less skilled or less experienced person

for the purpose of promoting the latter's professional and/or personal development.

Mentoring functions are carried out within the context of an ongoing caring relationship between the mentor and the protégé (Feiman-Nemser & Parker, 1993). Evidence suggests that as a result of the guidance and support provided through mentoring, beginning teachers feel more competent and motivated and they are more likely to remain in the teaching profession (Huling-Austin, 1986; Odell & Ferraro, 1992).

Novice teachers have many concerns during their induction years. They tend to have difficult work assignments and start with more responsibilities than veteran teachers. Their comprehension of formal expectations is there but tends to be unclear concerning the conflicting expectations of other administrators, teachers and parents (Moir, Gless, & Baron, 1999). Novice teachers oftentimes step into a classroom afraid and unsure of how to manage a classroom effectively. They can suffer from emotional isolation when they are assigned to physically isolated classrooms.

Mentoring should be structured to assist novice teachers to become better teachers and help develop teaching styles that work best for them and their students. It also allows experienced teachers to reflect upon their own teaching styles. The impact of an effective induction program is so pervasive that it supports not only novice and veteran teachers, but the overall quality of teaching.

Mentoring programs have become increasingly more popular as professional development interventions (Brinks, Laguardia, Grisham, Granby & Peck, 2001). They have proven to be successful with new teacher induction and retention, as well as to allow experienced teachers leadership opportunities and the chance to refresh their skills. However, creating the time and space for sustained face-to-face meetings with mentors can be a challenge for school districts that are geographically dispersed, where funding is limited, or where mentors have a large number of mentees. Online technologies can provide an alternate and additional mean of communication between mentors and mentees that span distance and time, and can be more cost effective (Edutopia, 1995).

Many U.S. school districts offer some mentoring for novice teachers and require them to meet with more experienced educators working within the school (Feiman-Nemser, 1998). Yet, new research is showing that the success of such mentoring efforts is severely constrained by supply, scheduling, and school politics. There are simply not enough highly experienced and communicative mentors available, especially in already-underserved specializations such as mathematics, science and special education. In addition, mentors and novice teachers are not released from their other duties, therefore, limiting the amount of time available for the mentor and novice teacher to engage in the mentoring process (Edutopia, 1995). It has been suggested that eMentoring programs may be the solution to the problem (O'Neill, Wagner & Gomez, 1996). Unlike the face-to-face mentoring,

eMentoring or tele-mentoring offers far more opportunities (Smith, 1998). The word tele-mentoring has been used to refer to the use of e-mail to support a mentoring relationship (O' Neill, et. al., 1996). Although e-mail may seem impersonal, it is important that mentors remain accessible and take the lead in the communication (Monsour, 1994).

Online mentoring can be structured to encourage more frequent and focused interactions than face-to-face mentoring. It allows for mentors to be drawn from a much larger pool of experienced teachers (school, city, county, state or nationally) and provides venues for mentors and novice teachers to engage in both private and public discussion (Merseeth, 1990). Novice teachers no longer have to wait on weekly visits from mentors or rely on local community enterprises as the sole resource for mentors. Interactions between the mentor and the novice teacher are readily available via e-mail and the internet. Online support systems can help novice and experienced teachers overcome many limitations inherent in traditional mentoring programs and can be used in combination with other online tools and resources. This allows for more consistent and focused communication for all participants (Smith, 1998).

Novice teachers in secondary schools tend to feel more isolated than those in elementary settings. Interactions at high schools tend to be superficial with minimal sharing or working collaboratively. Novice teachers tend to teach the lower achieving students who may present more discipline problems than higher achieving students.



Providing sufficient training and adequate support for novice teachers increases the retention of more competent, qualified and satisfied faculty. This process is referred to as induction. Induction is the period, including the first initial years, of teaching after receiving certification or teaching licensure (Odell & Huling-Austin, 2000). Ninety-five percent of beginning teachers who are nurtured through an induction program experience success during their preliminary years. These teachers remain in teaching after three years, and 80% of them remain after five years (Wilkinson, 1994). The feeling of being supported and nurtured is very important for novice teachers at all levels.

Developing effective strategies to support alternatively certified novice teachers is to identify the areas in which they need the most help (Brewster & Railsback, 2001). Most agree that it's daily issues and self-perception (Gordon, 1991). Self-efficacy is a major component of self-perception and social cognitive learning theory (Bandura, 2004). These perceptions of self-efficacy influence individuals' (a) performance (Locke, Frederick, Lee, & Bobko, 1984; Schunk, 1987), (b) emotions (Bandura, Adams, & Beyer, 1977; Stumpf, Brief, & Hartman, 1987), (c) choices of behavior (Betz & Hackett, 1981), and (d) effort and perseverance allotted to complete an activity (Brown & Inouye, 1978). Self-efficacy is defined as people's beliefs about their capabilities to produce high levels of performance that exercise influence over events that affect their lives (Bandura, 2002). Self-efficacy beliefs establish how people feel, think, motivate themselves and behave. Such beliefs produce diverse effects through four major processes. They include cognition, motivation, affective domains and

selection (Bandura, 2004). Bandura (2004) further describes self-efficacy as an individual's confidence in their ability to control their thoughts, feelings and actions that will influence an outcome. According to Bandura (1977a, 1986), individuals obtain information to help assess self-efficacy from four educational leader sources: (a) actual experiences, (b) vicarious experiences, (c) verbal persuasion, and (d) physiological indexes.

The most influential source of self-efficacy beliefs is the actual or mastery experience. When an alternatively certified novice teacher believes they have what it takes to succeed, they develop a resilient sense of efficacy. If faced with difficulties or setbacks, they know that they can be successful through perseverance. The perception that one's teaching has been successful increases efficacy beliefs, raising expectations that future performances will be successful. In contrast, failure, especially if it occurs early in the teaching experience, undermines one's sense of efficacy (Bandura, 2002). Individuals' own performances, especially past successes and failures, offer the most reliable source for assessing efficacy (Lenhardt, 2000).

The second most influential source of these beliefs is the vicarious experience. It is one's direct or vicarious experience with success or failure that will most strongly influence one's self-efficacy. Learning does not need to occur through direct experience. When a person sees another person accomplish a task, the vicarious experience of observing a model can also have a strong influence on self-efficacy (Bandura, 2002; Pararjes, 1997). By observing others succeed, novice teachers' self-efficacy can be raised. The observation of similar

peers performing a task conveys to the observer that they too are capable of accomplishing the same or similar tasks (Goodwin, 1999; Schaffer, Strinfield & Wolfe, 1992; Weiss & Weiss, 1999). According to Parajes (1997), vicarious experience is weaker than enactive attainment, but when novice teachers are uncertain about their own abilities or when they have limited prior experience, they become more sensitive to it. The effects of modeling a veteran teacher is relevant when the novice has little prior experience with the instructional task, but Bandura argues that even the self-assured will raise their perceived self-efficacy if models teach them better ways of doing things.

Social persuasion is a way of strengthening novice teachers' beliefs that they have what it takes to succeed. It does not contribute as much as an individual's own experiences or vicarious experiences and it is more difficult to instill high beliefs of personal efficacy by social persuasion (Bandura, 2002; Pararjes, 1997). Novice teachers who are persuaded verbally that they have the capabilities to master given tasks are likely to put in more effort and continue it over time than if a novice teacher believe self-doubts and dwell on personal deficiencies when they are faced with difficult situations (Bandura, 2002). Social or verbal persuasion may entail a pep talk or specific performance feedback from another person. For example, a mentor might encourage a new teacher to do group work by saying, you were very successful when you had your class work in small groups to prepare their persuasive speeches. You should try having them work in groups again (Bandura, 2002; Pararjes, 1997).

Finally, novice teachers rely partly on psychological indices in evaluating their personal efficacy. Feelings such as anxiety, stress, arousal, and fatigue can provide information about efficacy beliefs. A positive mood increases perceived self-efficacy and a depressed mood weakens it. Emotional states have the weakest influence on self-efficacy (Feiman-Nemser & Parker, 1993).

Alternatively certified novice teachers with high self-efficacy tend to set challenging goals, maintain a strong commitment in achieving those goals and tend to display heightened and sustained efforts in the face of failure (Darling-Hammond, 2010). Nevertheless, teachers who approach threatening situations with assurance believe they can implement control over them and they will not pose a challenge (Bandura, 1986). Having an efficacious outlook produces personal accomplishments, reduces stress and lowers vulnerability to depression (Multon, Brown, & Lent, 1991; Pajares, 1996a, 1997; Bandura, 2000). Teachers who are highly efficacious will quickly recover their sense of efficacy after failures or setbacks and according to Bandura (2002), failure will be attributed to insufficient effort or deficient knowledge and skills. Having an efficacious outlook fosters intrinsic interest, deepens the engrossment of activities, and enhances human accomplishment and personal well-being (Bandura, 2004).

Modern technology and speed of change have dramatically changed the concept of work that alternatively certified novice teachers must handle in the world of work (Akinboye, Akinboye, & Adeyemo, 2002). Winfield (2000) indicated that the prevalence of occupational stress between academics and

general staff from across the globe is alarming, widespread, and increasing. Occupational stress describes physical, mental, and emotional wear and tear brought about by incongruence between the requirements of the job and the capabilities, resources, and needs of the employee to cope with job demands (Akinboye, Akinboye, & Adeyemo, 2002). Alternatively certified novice teachers tend to start with the most difficult assignments and leave the profession within the first three years (DePaul, 2000; Moir, n.d.). Less than 10 % never make it through the first full year (Weiss & Weiss, 1999). According to Anderson & Shannon (1998), after five years, 50 % of alternatively certified novice teachers leave the profession. This does not take in account the number of alternatively certified novice teachers who leave because of lack of confidence, exhaustion, disillusionment and inadequate support (DePaul, 2000).

Developing effective means of supporting and retaining alternatively certified novice teachers is crucial (DePaul, 2000; Kestner, 1994; Torres-Guzman, 1996). Clearly, if we keep up with school reform movements, increasingly diverse student populations, and the growing demand for quality educators, we must find effective ways to retain promising alternatively certified novice teachers (Geringer, 2000).

Providing support to novice teachers is essential for two reasons: the need to retain qualified novice teachers and the need for beginning teachers to become effective practitioners as soon as possible. Feiman-Nemser et al. (1999) offered a third reason: Providing support to beginning teachers is a humane

response to the trials and tribulations associated with the first year of teaching. Induction and mentoring programs have been effective in ameliorating some of the issues faced by novice teachers including lack of support and high attrition rates (Darling-Hammond, 1997, 2000b; Moir & Gless, 2001; Scherer, 2001; Weiss & Weiss, 1999). These programs also help beginning teachers become more effective practitioners sooner (Brennan, Thames, & Roberts, 1999; Darling-Hammond, 1996, 2000a; Feiman-Nemser & Beasley 1996; Holloway, 2001; Odell, 1986, 1989).

It is evident that meeting the needs of alternatively certified novice teachers will foster a high degree of self-efficacy. Research supports the fact that highly efficacious teachers have been linked to more effective job performance, decision making, curriculum development, and creating a positive work environment that allows for professional growth for both the mentor and the novice teacher. For those working in urban schools where budgets are stretched to provide basic educational needs, highly efficacious novice teachers are instrumental in deciding how to reallocate school resources to meet student needs and enlist community involvement. Building efficacy in alternatively certified novice teachers will enable them to become more effective practitioners and they will be less likely to leave the profession.

Moreover, Klassen & Chiu (2010) indicated that self-efficacy researchers are in agreement vis-à-vis teachers' self – efficacy should be operational to reflect their personal beliefs and capabilities. Bandura (2008) asserts that one's self- efficacy is a direct indicator of personal success and student achievement.

According to Darling-Hammond (2012) there is a severe increase in budget shortfalls across the nation that service low-income and minority students. Most educational reformers can attest that student achievement is on the forefront; which in terms stems from producing teachers that are highly effective. As a mechanism of change or a change agent, in producing highly effective teachers, school districts are now focusing on cost effective measures such as eMentoring that enhances the overall performance of all teachers. Anthony & Kritsonis (2007) stated that effective teaching is a central point to student achievement. As a means of enabling effectiveness within the classrooms, school officials are relying heavily on eMentoring. Anthony & Kritsonis (2007) asserted that eMentoring is a convenient effective and efficient way to connect alternatively certified novice teachers to veteran teachers. Anthony and Kritsonis (2007) also suggest that eMentoring is a viable and useful tool to add to the armor of school districts seeking to improve student achievement and retain highly effective teachers.

### Self-Efficacy and Performance

Researchers have established that self-efficacy is a predictor of performance. Multon, Brown, & Lent (1991) reviewed a comprehensive list of studies that examined self-efficacy in achievement situations. Findings suggested that self-efficacy beliefs were positively related to performance. In the same context, Ames (1984), Nicholls & Miller (1994) suggested that teachers' self-perceptions of ability are positively related to achievement and motivation (Gordon, 1991; Kestner, 1994). It is also noted that smaller schools have been

correlated with positive teacher attitudes, which translate into increased student achievement (Lee & Loeb, 2000). Schwarzer & Hallum (2008) asserts that self-efficacy has a direct influence on teachers' actions due to self-related cognitions which are a major ingredient within the process of motivation. In addition, Schwarzer & Hallum (2008) indicated that self-efficacy can enhance or impede teachers' motivation.

Several studies have also established that teachers with a strong sense of efficacy tend to exhibit greater levels of planning, organization, and enthusiasm (Ashton & Webb, 1986; Coladarchi, 1992, Gibson & Dembo, 1984; Tschanhen-Moran & Woolfolk, 1998, 2001). They persist when things do not go smoothly and are more resilient in the face of setbacks. They also tend to be less critical with students who make errors and work longer with students who are struggling (Ashton & Webb, 1986; Coladarchi, 1992, Gibson & Dembo, 1984; Tschanhen-Moran & Woolfolk, 2001). Research has shown that successful teachers not only teach well and are able to create optimal learning environments; they also experience a greater sense of well-being and job satisfaction (Moe, Pazzaglia, & Ronconi, 2010). Moreover, teachers with high self-efficacy (Bandura, 2008) are able to provide better instruction and are typically satisfied with their job. Both high self-efficacy (Bandura, 2008) and job satisfaction (Klassen and Chiu, 2010) are necessary in defining effective teachers (Klusmann et al., 2008).

In contrast, Bandura asserts that people who doubt their capabilities shy away from difficult tasks, which they view as personal threats. Bandura (1995)



suggests that alternatively certified novice teachers with low aspirations are weak in their commitment to the goals they choose to pursue. When faced with difficult tasks, they dwell on personal deficiencies, obstacles they will encounter, and a multitude of adverse outcomes rather than concentrating on how to perform successfully. Alternatively certified novice teachers tend to slack in their efforts and give up quickly when they face obscurity Bandura (1995). They are also slow to recover their sense of efficacy after failure or a setback. Because they view insufficient performance as deficient aptitude, the slightest failure tends to cause them to lose faith in their capabilities. As a result, they can easily become victims of stress and depression (Bandura, 1997).

#### Self-Efficacy and Decision Making

Bandura (2000) suggests that self-beliefs affect behavior in four ways. First, it influences their choice of behavior. More than likely, people will engage in tasks in which they feel competent and confident, and avoid those in which they are not. Therefore, assessing the relationship between self-efficacy, outcome expectations, and knowledge and skills is very important. However, “alternatively certified novice teachers with high efficacy beliefs but poor skills may behave and perform with a sense of efficacy, but the consequences may cause serious, irreparable harm” (Bandura, 2000: (p. 394). Alternatively certified novice teachers with a low sense of efficacy maintain a level of high skills that will suffer from a devastating lack of confidence and fail to embark on instructional tasks they are capable of completing.

Bandura (2000) puts forward that behavior is largely determined by efficacy beliefs rather than by outcome expectations or by the knowledge and skills we possess. Assessment of their own capabilities, he argued, is the basis for the outcomes they expect and for the knowledge and skills they seek and acquire. Subsequently, self-efficacy is a powerful determiner of the choices individuals make rather than their anticipated outcomes or the skills and knowledge relevant to the behavior in question. Pajares (1996a) suggests that a vast number of researchers argue that the potent affective, evaluative, and episodic nature of beliefs makes them a filter through which new phenomena is interpreted. The knowledge and skills, expected outcomes and individual experiences could be the precursors to and creators of self-efficacy beliefs.

Parajes (1996b) states that self-beliefs help determine how much effort people will apply to an activity and how long they will persevere; the higher the sense of efficacy, the greater the effort expenditure and persistence. This function of self-beliefs creates a type of self-fulfilling prophecy for the perseverance associated with high efficacy. They are likely to lead to increased performance that will raise their sense of efficacy. Low self-efficacy in alternatively certified novice teachers creates self-doubt that may provide a need for impetus learning. A high sense of efficacy may mislead an alternatively certified novice teacher into feeling that less effort and preparation is necessary. Therefore, (Kunter, Baumert & Koller, 2007) suggests that successful teachers foster cognitive activation, manage school activities well,

limit disturbance, make good use of time, proceed at an appropriate pace and create an adequate and supportive social environment.

### Self-Efficacy and Instruction

Effective teaching is usually defined by student outcomes and improvements (Ganser, Marchione, & Fleischman, 1999; Geringer, 2000; Goodwin, 1999). Effective teaching is also the results of the right combinations of methods, materials, student and teacher characteristics, and the context in which teaching and learning occurs. Mentor teachers frequently characterize working closely with beginning teachers as a source of new ideas about curriculum and teaching (Ganser, 1997). Functioning as experts, mentors provide authentic, experiential learning opportunities through modeling. Through their actions and articulated ways of thinking, mentors teach novice teachers effective skills and strategies. Peer modeling, can be a powerful influence on developing self-perceptions of competence (Schunk, 1987). Bandura (2008) notes that teacher' beliefs in their instructional efficacy to manage classrooms, motivate and promote learning in their students, and facilitate a collective sense of efficacy, their school can accomplish academic process.

Kitsantas, Baylor, & Hu (2001) suggest that the students' role in learning is to become cognitively active and involved in the knowledge construction process. They also noted that implementing an instructional plan for alternatively certified novice teachers helps them to practice cognitive flexibility. Cognitive flexibility requires one to shift perspectives on a problem

and consider multiple modes of learning in order to convey the inherent complexity in the knowledge domain (Driscoll, 2000; Spiro, Vispoel, Schmitz, Samarapungavan, & Boerger, 1987). Therefore, the role of alternatively certified novice teachers shifts from a dispenser of knowledge to a facilitator of learning (Grabe & Grabe, 2001).

Practicing novice teachers in urban schools repeatedly mention the need for alternatively certified novice teachers to be aware of what they believe about urban children's capabilities (Weiner, 1993; 1999). Those personal values influence perceptions and ultimately affect novice teachers' expectations and practices (Diffily & Perkins, 2002). Knowing what works, but being bound by a system that limits the ability of individuals to make curriculum decisions, means that teachers must know themselves in terms of their levels of frustration and their coping capabilities (Weiner, 2000). Klassen & Chiu (2010) stated that in educational research, self-efficacy beliefs have shown to play an important role in influencing achievement. Furthermore, researchers are finding that teachers' self-efficacy influences their teaching behaviors and their students' motivation and achievement (Skaalivik & Skaalivik, 2007; Tschannen-Moran & Woolfolk Hoy, 2001).

#### Self-Efficacy and a Positive Work Climate

Human functioning is facilitated by a personal sense of control. The evidence thus far clearly indicates that 'performance accomplishment' provides the strongest source of self-efficacy (Morris et.al, 1995). If alternatively certified novice teachers believe that they can take action to solve a problem

instrumentally, they become more inclined to do so and feel more committed to this decision.

While outcome expectancies refer to the perception of the possible consequences of one's action (Bandura, 2006a), self-efficacy expectancies refer to personal action and control. Alternatively certified novice teachers who believe in being able to cause an event can conduct a more active and self-determined life course. This cognition mirrors a sense of control over one's environment. It reflects the belief of being able to control challenging environmental demands by means of taking adaptive action. It can be regarded as a self-confident view of one's capability to deal with certain life stressors (Bandura, 1977b, 1982, 1993, 1995, 2004).

According to theory and research, self-efficacy makes a difference in how people feel, think and act (Bandura, 1995, 2004). In terms of feeling, a low sense of self-efficacy is associated with depression, anxiety, and helplessness. Alternatively certified novice teachers who have low self-esteem will harbor pessimistic thoughts about their accomplishments and personal development. In retrospect, a strong sense of competence facilitates cognitive processes and performance in a variety of settings, including quality of decision-making and instructional achievement.

When it comes to alternatively certified novice teachers taking action, self-related cognitions will be a major ingredient in the motivational process (Schwarzer & Hallum, 2008). Self-efficacy levels can enhance or impede that process (Bandura, 1977b, 1982, 1993, 1995, 2004). People with high

self-efficacy tend to perform more challenging tasks and set higher goals. Self-efficacy also allows people to select challenging settings, explore their environments, or create new ones (Bandura, 1977a, 1977b, 1982, 1993, 1995, 2004). Thus, alternatively certified novice teachers with a high degree of self-efficacy will pre-shaped their actions prior to acting and anticipate either optimistic or pessimistic scenarios in line with their level of self-efficacy (Bandura, 1977a, 1977b, 1982, 1993, 1995, 2004).

Once an action has been taken, highly self-efficacious novice teachers will invest more effort and persist longer than novice teachers with low self-efficacy. When setbacks occur, alternatively certified novice teachers can recover more quickly yet maintain their commitment to the goal. Self-efficacy is not the same as positive illusions or unrealistic optimism; it is based on experience and does not lead to unreasonable risk taking. Instead, it leads to venturesome behavior that is within reach of one's capabilities (Bandura, 1977a, 1977b, 1982, 1983, 1995, 2004). It has been found that a strong sense of personal efficacy is related to better health, higher instructional achievement, and social integration (Bandura, 1977, 1995, 2004).

Teachers assigned or choosing to teach in urban schools, where not only students, but the schools themselves typically have fewer resources than suburban middle-class schools, face a challenge far different from other school environments and perhaps much different from their own schooling experiences (Guyton, 1994; Quartz, 2003). Oftentimes, alternatively certified novice teachers in urban schools have to perform juggling acts with the

realities of the context in which they teach or preparing to teach. Then, what is it that enables particular alternatively certified novice teachers to experience success in some of the nation's most difficult schools (Zeichner, 2003)? Those teaching in urban poor schools must reconcile two factors: the desire to meet students' learning needs on an individual personal manner; and the desire to meet the needs of a system that requires uniform conduct, treatment, and outcomes (Weiner, 1993; 1999).

Despite reports of high levels of teachers' job stress (Chaplain, 2008; Schwarzer & Hallum, 2008) many teachers find personal satisfaction in their work. Oftentimes, perceptions of high self-efficacy (Bandura, 2008) and fulfillment are derived from daily work activities are associated with increased levels of job performance and self-belief (Judge, Thoresen, Bono & Patton, 2001). According to Klassen and Chiu (2010) , teachers reported that job satisfaction is gained from the nature of classroom activities, working with students, seeing their students' progress, working with supportive colleagues and the overall school climate (Cockburn & Haydn, 2004).

### Self-Efficacy and School Resources

Highly disadvantaged populations are often located in the poorest urban and rural settings where local school budgets must stretched to provide even the required amount of instruction (Knapp et. al, 1993). In these settings, educational funding is always subject to demands from many sources. In addition, grants expire--and even dedicated volunteers eventually move on (Pringle, B., Spiro, D., Anderson, L., Richardson, L., Rubenstein, M., &

Thompson, M., 1991, April). Bandura (1986) observed that there are a number of conditions under which self-efficacy beliefs do not perform their influential, predictive, or mediational role in human functioning.

Although alternatively certified novice teachers may possess the necessary skills and self-efficacy required to bring about change, they may choose not to do so because of a lack of positive incentives. In prejudicially structured systems (Bandura, 1986: p. 393), alternatively certified novice teachers tend to find that no amount of skillful effort will bring about desired outcomes. Self-efficacy will also have no bearing on performance if schools lack effective teachers, necessary equipment or resources to promote student achievement (Bandura, 2002). Bandura (2006b) further suggest that when social constraints and inadequate resources impede academic performances, self-efficacy may exceed actual performance because it is not so much a matter that alternatively certified novice teachers do not know what to do, but rather that they are unable to do what they know.

In addition, alternatively certified novice teachers' self-efficacy may have little bearing on their performance if schools lack the necessary equipment or resources required to aid students in the adequate performance of academic tasks or if novice teachers find themselves beleaguered day in and day out by practices, policies, or students they cannot control (Bandura, 2002). A sense of coping inefficacy has been linked to teacher burnout (Chwalisz, Altmaier, & Russell, 1992).



Moreover, Klassen and Chiu (2010) indicated that female teachers experience greater workload stress, greater classroom stress from student behaviors and lower classroom management self-efficacy. In spite of evident association between teachers' self-efficacy and student teacher outcomes, limited resources did not factor directly into the teachers' self-efficacy (Tschannen-Moran & Woolfolk Hoy, 2001; Wolters & Daugherty, 2007). It is also noted that teachers with low self-efficacy experience greater difficulties in teaching, higher levels of job-related stress (Betrot, 2006), and lower levels of job satisfaction (Klassen et al, 2009).

#### Self-Efficacy and Community Involvement

Research is clear and consistent regarding the importance of parent involvement in the education of children. Almost from inception, Title I has emphasized the importance of parental involvement in the education of children. It refers to partnerships between home and school that bolster parents' capacity to improve their children's learning. Recent research on youth development argues that pressures faced by American families indicate that they are in need of help in supporting their children's education (Mapp, 2012). This research focuses attention on a "developmental triangle" of support involving schools, families, and communities (Carnegie Corporation of New York, 1992).

Whether or not formal partnerships exist, many community involvement programs include strong community outreach efforts. They solicit professionals, retirees, and college students from the community to serve as

tutors, role models, or guest speakers. In some cases, restaurants and other businesses provide rewards or prizes to students in reading contests or other academic competitions (Bembenutty & Chen, 2005a). Collaboration between schools, parents, and communities widens the pool of resources, expertise, and activities available to any program, giving disadvantaged students greater options.

Parents and other community members play an active role in researching and designing extended learning opportunities (Bembenutty & Chen, 2005b). Alternatively certified novice teachers' belief in their ability to utilize community and parental resources leads to a win-win situation for both the community and the school. Students are afforded meaningful interactions with adults, fostering a sense of belonging, and self-confidence. Communities benefit from the education and support of their citizens, as well as from the services provided by the students (Bembenutty & Chen, 2005a). According to Bringle & Steinberg (2010), communities are strongly implied by the core elements of self-efficacy inside alternatively certified novice teachers. Moreover, the higher the personal self-efficacy of alternatively certified novice teachers the greater the direct impact on their willingness to become more involved with community and understands the impact the community has on the school (Bringle & Steinberg, 2010).

### Self-Efficacy and Teacher Retention

The dilemma of inadequate teacher supply has been a constant distress in public education for decades even though the number of teachers prepared

annually is sufficient to meet marketplace demands (Darling-Hammond, 2001; Ingersoll, 2002). There is a disproportionately higher resignation rate for beginning teachers than for teachers who have been teaching for more than ten years. (Sclan 1993; see also Futrell 1989; Gunderson & Karge 1992; Karge 1993; Haselkorn & Fideler, 1996). With nearly 30 percent of new teachers leaving the profession within five years, and even higher attrition rates in disadvantaged districts, a revolving door of candidates makes recruitment a Sisyphean task (Darling-Hammond, 2001). Nearly half of all new teachers in urban schools quit within five years (Hayock, 1998). Indications are that new teachers leave the profession early-on when mentoring is not utilized at the beginning of their careers. This suggests that there is a serious and immediate need to improve support systems available to new teachers. In retrospect, according to Darling-Hammond (2010), the proposed array of punitive sanctions, coupled with unproven reforms, will increasingly destabilize schools and neighborhoods, making them even less desirable places to work and live and stimulating the flight of teachers and families who have options.

When considering the need to retain potential teachers graduating from our nation's colleges; the need for those teachers to be able to teach to state-mandated standards; and the increasing need for students to perform on standardized/high-stakes exams, it becomes obvious that we need a positive change in the way new teachers are inducted into the teaching profession (Darling-Hammond, 1997, 2000a; Huling-Austin et al, 1989; Moir & Gless, 1999; Shulman, 1999; Sykes, 1999). Mentoring and induction programs have

become essential, based on the belief that the mentor becomes the connection between the teacher-in-training and the teacher-in-charge (Feiman-Nemser & Parker, 1993; Odell, 1989; Ganser, 2000; Odell & Huling-Austin, 2000).

However, novice teachers are frequently unaware of their mentors (Darling-Hammond, 2001).

The optimal mentoring relationship for the beginning teacher may begin as a transmissive relationship, wherein the mentor initiates the discussions, defines the problems and dispenses the remedies. It readily evolves, however, into one that is collaborative, wherein the mentor and mentee interdependently construct, communicate, and validate their pedagogical knowledge (Healy & Welchert, 1990; Zuckerman, 2001). Presumably, such a collaborative relationship is the optimal context for the transformation of the mentor teacher as well (Healy & Welchert, 1990).

In a study of nineteen veteran teachers who served as mentors, it was found that the mentoring experience (a) improved their teaching styles, (b) increased their abilities to address children's needs, and (c) expanded professional development (Davies, Brady, Rodger, & Wall, 1999). Likewise, Wepner & Mobley (1998), conducted an additional study on the impact of 10 student teachers on their mentors and found that the presence of novice teachers enhanced professional development and afforded increased (a) reflection frequency, (b) time for planning and other activities, and (c) self-efficacy (Brink, Laguardia, Grisham, Graham, & Peck, 2001). Additional research by Wood & Lynn (2001) found that the mentoring experience made

mentors more reflective and more conscientious in their own practices. Clearly, these studies suggest that the mentoring process is not only beneficial for novice teachers, but is highly beneficial for mentors as well.

### eMentoring

eMentoring provides a venue allowing convenient, consistent and frequent communication between a mentor and a beginning teacher (Livengood & Moon Merchant, 2004). Alternatively certified novice teachers that are exploring complex curriculum based topics need to actively build a deep and sophisticated understanding of pedagogical techniques and strategies (Harris, J., O'Bryan, E., & Rotenberg, L., 1996). Additionally, expertise must be made directly available to alternatively certified novice teachers longitudinally and on an as needed basis (Harris, J., O'Bryan, E., & Rotenberg, L., 1996). Telecommunication will provide alternatively certified novice teachers, educators and learners strategic eMentoring worldwide (Harris, J., O'Bryan, E., & Rotenberg, L., 1996).

According to Southwest Educational Development Laboratory (Retrieved from <http://www.sedl.org/pubs/sedletter/v13n02/6.html>, 2012), teachers can submit questions that are only related to teaching math and science and questions that are geared towards the way their students are learning math and science. When questions are submitted online, they are simultaneously matched to a mentor teacher's background and expertise. As stated by SEDL (Retrieved from <http://www.sedl.org/pubs/sedletter/v13n02/6.html>, 2012), the database also matches questions to mentors according to the state in

which they teach. In addition, three mentors submit their responses; the responses are compiled into a single answer by the Eisenhower Southwest Consortium for the Improvement of Mathematics and Science Teaching Program (SCIMAST) team member. The SCIMAST team member may also contribute to the answers that are being posted online.

According to the National Heart Lung and Blood Institute, (Retrieved from <http://www.nhlbi.nih.gov/ementoring/>, 2012) benefits of online mentoring are (1) mentoring occurs online, (2) it will enhance the protégé's skills and intellectual growth in science related fields, (3) it will facilitate the protégé's success entry into related research careers, and (4) it promotes interdisciplinary collaborations, trainings, and career development. The National Heart Lung and Blood Institute (Retrieved from <http://www.nhlbi.nih.gov/ementoring/>, 2012 ) also asserts that online mentoring can be utilized globally, (2) the eMentoring initiative is envisioned as a particularly valuable resource for individuals that are located in less-research intensive institutions, and (3) face to face meetings are unnecessary.

The Society of Petroleum Engineers, (Retrieved from <http://www.spe.org/ementoring/index.php>, 2012) suggest that eMentoring benefits everyone. It provides their members a way to contribute to the industry by sharing professional insight and practical career advice with young professionals. The Society of Petroleum Engineers (Retrieved from <http://www.spe.org/ementoring/index.php>, 2012) asserts that eMentoring is a distance mentoring program, which allows participants to communicate at

their convenience across time zones, (2) in order for participants to receive or provide services, the participants must register to become a mentee or mentor, (3) their profile will be tied to a member profile, (4) mentoring relationships will last for one year and (5) mentees have the option to request a one year extension, keep the current mentor or select a new mentor.

### Conclusion

Mentoring is the fiber that binds alternatively certified novice teachers to the profession and enhances professional development for veteran teachers when carried out within the context of an ongoing caring relationship. Likewise, Tschannen-Moran & WoolfolkHoy (1998), stated that the teachers' belief in his or her capability to organize and execute a course of action requires them to successfully accomplish a specific teaching task in a particular context. Research suggests that teacher efficacy belief is a judgment of their capability to influence desired outcomes related to student's performance, behavior, and motivation in the classroom (Tschannen-Moran & Woolfolk Hoy, 2001). Research also suggests that alternatively certified novice teachers with a high sense of efficacy beliefs engage in higher levels of planning and organization (Allinder, 1994).

Although much has been written about the value of mentoring, its greatest value is bridging the gap between pre-service training and the snowactualities of teaching. Online support for novice teachers is not a new idea (Rogers, & Mahler, 1994; Turkle, 1994, 1995). As a solution to the mentoring dilemma, eMentoring will help to build self-efficacy among veteran

and alternatively certified novice teachers. It may also help to reduce teacher attrition while enhancing educators' professional success (Huling-Austin, 1992).



## CHAPTER III

### METHODOLOGY

#### Introduction

As stated in chapter I, the purpose of this study was to determine the effect of strategic eMentoring on alternatively certified novice teachers' self-efficacy. Self-efficacy is described by Bandura as having seven dimensions, each of which was explored in this investigation.

#### Research Questions

Based on Bandura's conceptual model and its relationship with various personal and contextual variables, the following research questions were developed:

1. Does strategic eMentoring influence the perception of self-efficacy in decision-making of alternatively certified novice teachers?
2. Does strategic eMentoring influence the perception of self-efficacy in the use of school resources in alternatively certified novice teachers?
3. Does strategic eMentoring influence the perception of instructional self-efficacy in alternatively certified novice teachers?
4. Does strategic eMentoring influence the perception of disciplinary self-efficacy in alternatively certified novice teachers?
5. Does strategic eMentoring influence the perception of alternatively certified novice teachers' self-efficacy to enlist parental involvement?
6. Does strategic eMentoring influence the perception of alternative certified novice teachers' self-efficacy to enlist community involvement?
7. Does strategic eMentoring influence the perception of alternatively certified novice teachers' self-efficacy to foster a positive school climate?

## Null Hypotheses

The following null hypotheses were tested:

Ho<sub>1</sub>: There is no statistically significant difference in self-efficacy about decision making between alternatively certified novice teachers who did and those who did not received strategic eMentoring.

$$Ho_1: \bar{X}_{1a} = \bar{X}_{1b}$$

Ho<sub>2</sub>: There is no statistically significant difference in self-efficacy about school resources between alternatively certified novice teachers who did and those who did not receive strategic eMentoring.

$$Ho_2: \bar{X}_{2a} = \bar{X}_{2b}$$

Ho<sub>3</sub>: There is no statistically significant difference in instructional self-efficacy between alternatively certified novice teachers who did and those who did not received strategic eMentoring.

$$Ho_3: \bar{X}_{3a} = \bar{X}_{3b}$$

Ho<sub>4</sub>: There is no statistically significant difference in disciplinary self-efficacy between alternatively certified novice teachers who did and those who did not received strategic eMentoring.

$$Ho_4: \bar{X}_{4a} = \bar{X}_{4b}$$

Ho<sub>5</sub>: There is no statistically significant difference in self-efficacy to enlist parental involvement between alternative certified novice teachers who did and those who did not received strategic eMentoring.

$$Ho_5: \bar{X}_{5a} = \bar{X}_{5b}$$

Ho<sub>6</sub>: There is no statistically significant difference in self-efficacy to enlist community involvement between alternatively certified novice teachers who did and those who did not received strategic eMentoring.

$$Ho_6: \bar{X}_{6a} = \bar{X}_{6b}$$

Ho<sub>7</sub>: There is no statistically significant difference in self-efficacy to foster a positive school climate between alternatively certified novice teachers who did and those who did not received strategic eMentoring.

$$Ho_7: \bar{X}_{7a} = \bar{X}_{7b}$$

## Research Methodology

A pretest posttest control-group experimental research design was used in this assessment to gain a comprehensive understanding of the effect strategic eMentoring had on alternatively certified novice teachers' self-efficacy and their willingness to remain in the profession.

R O X<sub>1</sub> O  
R O X<sub>2</sub> O, where

R= random assignment

X<sub>1</sub>= independent variable - type of mentoring intervention received by alternatively certified novice teachers (Strategic eMentoring),

X<sub>2</sub>= independent variable - type of mentoring intervention received by alternatively certified novice teachers (Traditional Mentoring), and

O= dependent variable- scores on Bandura's Teacher Self-Efficacy Scale obtained at pre and post testing.

## Variables

The dependent variables in this assessment were alternative certified novice teachers' self-efficacy scores based on Bandura's Teacher Self-Efficacy Scale (Bandura, 2006b), pre and post survey mean scores. The independent variable was "Type of Mentoring Program." There were two levels of this independent variable: level 1 ( $\bar{X}_{1a}$ ) = strategic eMentoring; level 2 ( $\bar{X}_{1b}$ ) = no strategic eMentoring.

## Subjects of the Assessment

A total of 179 alternatively certified novice elementary and secondary teachers from a large southwestern urban school district were used in the study. From this population, a random sample of subjects was selected and

randomly assigned to both the treatment and control groups. Each sample or group was comprised of 20 subjects.

Approval for the study was sought from the Prairie View A&M University Institutional Review Board for the protection of Human Subjects and the Research Review Committee of the southwestern urban school district (Appendix F). The objective of the study was explained in the letter of consent (Appendix C). Agreement to participate in the study was indicated by the participants' signature on a consent form.

#### Instrumentation

In this assessment, Bandura's Teacher Self-Efficacy Scale (Bandura, 2006b), was used to collect the data. The instrument was adopted verbatim. It was used at two different time points--pretest and posttest. The instrument contained 30 items distributed over seven sections based on Bandura's conceptual model and its relationship with various personal and contextual variables:

- Section 1 -- The efficacy to influence decision making (items 1 & 2),
- Section 2 -- The efficacy to influence school resources (item 3),
- Section 3 -- The efficacy to influence instructional self-efficacy (items 4-12),
- Section 4 -- The efficacy to influence disciplinary self-efficacy (items 13-15),
- Section 5 -- The efficacy to enlist parental involvement (items 16-18),
- Section 6 -- The efficacy to enlist community involvement (items 19 & 22), and
- Section 7 -- The efficacy to create a positive school climate (items 23 & 30).

The instrument contained seven sections with 30 items in the format of a Likert-type scale. The instrument used a 9-point scale that ranged from strongly disagree (1) being the lowest to strongly agree (9) being the highest response.

### Validity

The validity of Bandura's Teacher Self-Efficacy Scale (TSES) has been established nationally. It has a published reliability coefficient (Cronbach Alpha) that ranged between .76 and .82. The TSES used Bandura's (1997) 9-point efficacy scale with anchors at (1) nothing; (3) very little; (5) some influence (7) quite a bit; and (9) a great deal. Tschannen-Moran and Woolfolk Hoy (2001) reported that the TSES had construct validity established by factor analysis and reliability that ranged from 0.92 to 0.95.

### Reliability

Bandura's Teacher Self-Efficacy Scale was used verbatim. It has a published test-retest reliability of .76 (n=193) over a one year period (Tschannen-Moran and Woolfolk Hoy, 2001). Therefore, no measure of reliability was conducted.

### Research Procedures

#### Phase I: The Process

Prior to conducting the study, the researcher submitted a proposal to the selected urban school district's Research Review Committee for approval to conduct research in the district. The executive director of alternative certification program was also contacted to request a list of novice teachers.

Upon approval and receipt of the requested information, the researcher input the total number of alternatively certified novice teachers into an Excel database and created a table of random numbers. A sample of 20 % was deemed sufficient to represent the total population (Forcese & Richer, 1973). Therefore, the researcher randomly selected 40 subjects from a population of 179 alternatively certified novice teachers. The subjects were randomly assigned to the control and treatments groups. Each group was comprised of 20 subjects.

### Phase II: Groups

Once the groups were formed, the researcher ensured that every subject in the experimental or treatment group had an active district email account and address. In the event that a subject did not have an active email account, the researcher contacted the Technical Assistance Center in the selected school district to assign an active email account. Once the researcher had a valid email address for all subjects, the researcher made initial contact with the subjects and proceeded with the assessment process. Each subject was emailed all documents necessary to conduct the assessment.

Each subject was then randomly assigned to two sub-treatment groups such that eMentor (1) had a group of 10 alternatively certified novice teachers and eMentor (2) had a group of 10 alternatively certified novice teachers.

### Phase III: Initial Email

The researcher emailed all documents including instructions pertaining to timelines, pre- and posttest administration, expectations, termination rights,

consent form, and anonymity and security information to each subject. Subjects were also informed that participation in the study was strictly voluntary.

#### Phase IV: Selecting eMentors

The researcher solicited participation of 15 Ph. D. level researchers employed in the Department of Research and Evaluation of the selected school district. The following criteria were used in the selection process:

1. Must have an earned doctorate degree;
2. Must have extensive experience in education ( $\geq 5$  years);
3. Must have extensive knowledge of district policy;
4. Must have better than adequate skills in the use of computer technology and the ability to solve complex problems;
5. Must have better than average oral and written communication skills;
6. Must have better than average knowledge and experience in the use of MS Office applications – word, excel, PowerPoint—and other software packages {mydata portal, oracle, etc.};
7. Must have the demeanor to promote positive self-efficacy and positive instructional changes that yield good results;
8. Must have the ability to work with a diverse group of teachers; and
9. Must be available in real-time to provide ongoing communication that is safe, non-threatening and supportive.

Upon consent, two (2) participants were randomly selected from a pool of candidates to serve as eMentors. The researcher selected two (2) eMentors from a pool of Ph.D. persons within the research and evaluation department of the southwestern school district utilized in the study. The researcher decided to use two eMentors due the fact that the eMentors were not being compensated to participate in the study and the eMentors were still responsible for their

duties, roles and responsibilities of their respective job assignments. Therefore, it was logical to utilize two eMentors instead of one. The researcher did not want the eMentors to become overwhelmed with the duties and responsibilities of eMentoring while fulfilling the obligations of their jobs.

Once the eMentors had been selected, the researcher trained them according to the following guidelines:

#### Outline

1. Overview of expectations
2. Define their role
3. Explain objectives

#### Initiate

1. Make initial contact
2. Establish rules and procedures
3. Build trust
4. Outline confidentiality

#### Execute

1. Explain the eMentoring process
2. Effective classroom management
3. District policy and procedure – how to follow protocol
4. Maintaining and creating a positive work environment

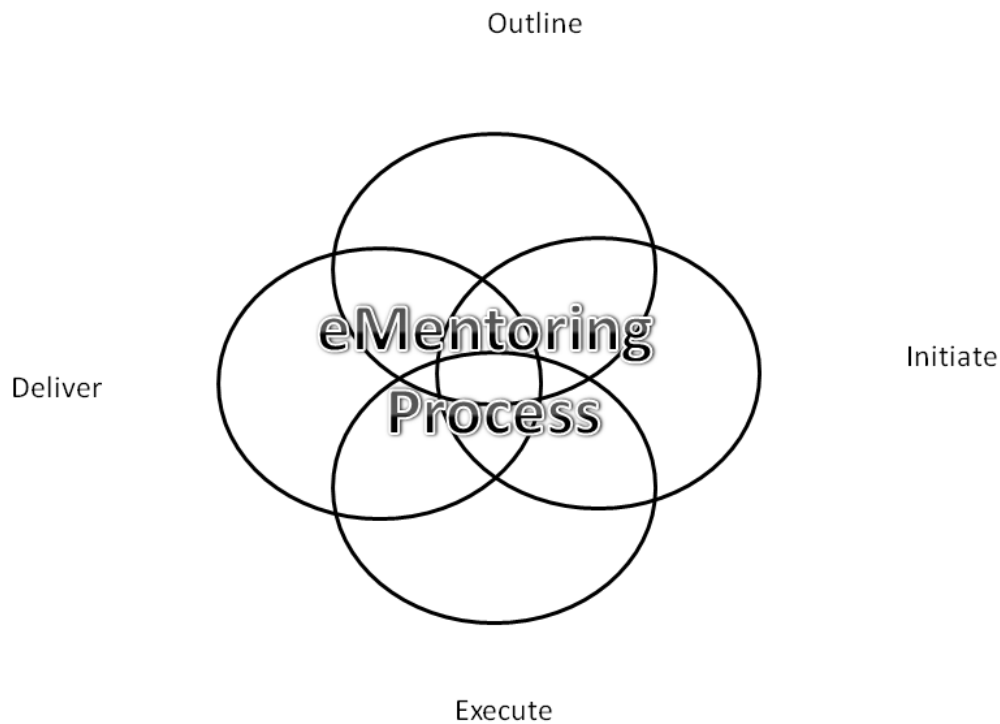
#### Deliver

1. Provide positive feedback (minimum 2 emails/day)
2. Provide feedback in real-time daily (include researcher)
3. Non-judgmental responses
4. Non-biased responses



Figure 1 illustrates the training paradigm of the eMentoring process.

Figure 1.3 eMentoring training paradigm.

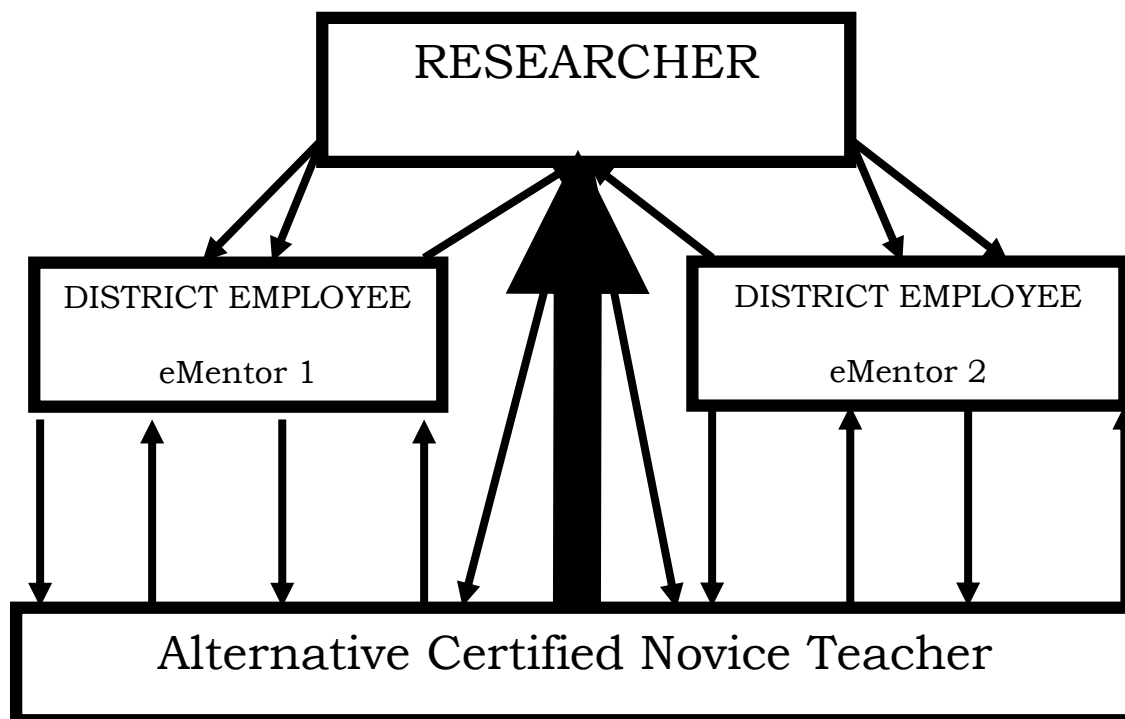


#### Phase V: eMentoring Process

The eMentors' role was to enhance the quality of the mentoring process and develop a high degree of self-efficacy in alternatively certified teachers. eMentors were online in real-time to answer questions and provide feedback as necessary. The researcher was also online and in the feedback loop to monitor all communications between the eMentors and the novice teachers.

Figure 2 illustrates the eMentoring process.

Figure 2.3 Flow Chart of the eMentoring Process



The eMentoring process lasted for a total of six weeks. The mentees were required to email the eMentors at least twice a day. Additional questions or emails varied from respondent to respondent. Each respondent's needs varied according to their individual situations. Their responses to emails were not the same.

Unlike eMentoring, the alternative certification department provided prospective alternatively certified teachers training in preparation for the initial generalist examination. Upon successful completion of the exam, teachers were accepted into the alternative certification (AC) program. Once accepted,

interns were provided follow-up training for all certification exams they will take during their one-year internship. Classroom supervision was provided by mentor teachers who helped with classroom management, intervention strategies, teaching pedagogy, and day-to-day classroom activities. Additional training was provided for professional growth and additional intervention.

Interns along with mentors were required to participate in small group sessions to address issues encountered in the classroom. Mentors were also required to meet with AC staff to document progress and to determine if an intervention plan was necessary. AC staff was also in constant contact with principals and school administrators to ensure progress was being made by interns and that interns were following district and programmatic requirements. All documentation necessary for certification were maintained in the AC department until the interns were eligible for certification.

#### Phase VI: Pretest – Posttest

Bandura's Teacher Self-Efficacy Scale (Bandura, 2006b, Appendix F) was adopted verbatim and used as the pre- and posttest measure. The instrument contained seven sections with 30 items in a Likert-type format. It is based on Bandura's conceptual model and its relationship with various personal and contextual variables. The instrument used a 9-point scale that ranged from strongly disagree (1) to strongly agree (9).

#### Data Collection and Recording

Bandura's Teacher Self-Efficacy Scale (Bandura, 2006b) was used to collect the data. Upon receiving written consent from all subjects, instructions

for completing the self-efficacy scale were sent via email. Data were collected at two different points in time, prior to treatment (pretest) and post treatment (posttest). An initial internet link to the online instruments (Bandura's Teacher Self Efficacy Scale, 2006b) was made available at the same time as the instructions were mailed to the subjects. Subjects had a 5-day window to complete the scale. Follow-up emails were sent to all subjects not responding to the scale until a return rate of 90% or greater had been achieved.

At the conclusion of the six week treatment, a second link to the online scale was made available. Again, subjects had a 5-day window to complete the sale. Follow-up emails were sent to all subjects not responding to the scale until a return rate of 90% or greater had been achieved.

#### Data Analysis

Statistical Package for the Social Sciences version 18 (SPSS 18.0) was used to conduct data analyses. Crosstabs of responses by participant and group were used to identify response rates and means for each group (control and treatment). No dichotomy existed between the participants. eMentor 1 and eMentor 2 were service providers of a single treatment.

Prior to treatment, a two tailed *t-test* for independent samples was conducted between the pretest means of the control and treatment groups ( $p \leq 0.05$ ) to substantiate the assumption that no statistically significance difference existed between the control and experimental groups prior to treatment. This was done to ensure that there were no inter-group differences prior to treatment. An Analyses of Covariance (ANCOVA) were used to access

the differences in the mean scale score on each self-efficacy construct between the control and experimental groups.

### Trustworthiness

The researcher adhered to all policies and procedures, maintained confidentiality, and established and maintained a sense of trustworthiness that was conducive to success for all individuals involved in the study.

### Summary of Methodology

A detailed description of procedures and methodologies used to conduct the study has been presented. These included the research questions, null hypotheses, research design, experimental and control group selection processes, eMentor selection and training, and data analyses. In addition, information about the instrument used for data collection was also presented (Bandura's Teacher Self-Efficacy Scale, 2006b). The eMentoring process lasted for a total of six weeks. The mentees were required to email the eMentors at least twice a day. Additional questions or emails varied from respondent to respondent. The researcher ensured confidentiality and compliance with IRB requirements.

## CHAPTER IV

### ANALYSIS OF DATA

The purpose of the study was to investigate the effect of strategic eMentoring on the self-efficacy of alternatively certified novice teachers. Educational leaders are determined to retain highly qualified alternative certified novice teachers, therefore their roles as educational leaders are significant in creating an environment that is conducive to alternatively certified novice teachers; in terms of school culture, school climate, parent involvement, student relationships, resources, and new innovative pedagogy.

From a population of 179 alternatively certified novice teachers, a random sample of 40 subjects were selected to be used in the study. Twenty subjects were randomly assigned to both the treatment group and the control group. The control group was comprised of 20 subjects and the treatment group was comprised of 20 subjects. An assumption of random assignment is that the process will essentially level the variance between the control and treatment groups (no statistically significant difference between the two groups).

The Bandura Teacher Self-Efficacy Scale was used to collect the data. The instrument was used at two different time points during the study (pre-test

for the control and treatment group and post-test for the control and treatment group). The experiment was conducted over a six weeks period.

For the pretest, a total of two links to an online survey was submitted electronically to the alternatively certified novice teachers. Forty (40) out of 40 pretest surveys were completed—20 were completed by the control group and 20 were completed by the treatment group.

During the study, teachers in the treatment group were provided feedback online to issues pertaining to decision making, efficacy of school resources, instructional pedagogy, discipline, and community and parental involvement. No feedback was provided to the control group.

For the posttest, two additional links were opened to the online survey so that teachers would be able to complete the posttest survey. Forty (40) out of 40 posttest surveys were completed—20 were completed by the control group and 20 were completed by the treatment group. All statistical analyses were conducted with the Statistical Package for the Social Sciences version 18 (SPSS 18.0). Crosstabs of questions by participant and by group (control and treatment) were used to compute descriptive statistics.

Levene's Test for equality of variance was conducted to determine homogeneity of variance (Levene, 1960). The findings indicated no statistically significant difference between the control and treatment groups prior to treatment ( $F = 1.625$ ;  $P = .210$ ). A two tailed *t*-test for two independent samples was also conducted between the pretest survey means of the two groups to

substantiate no statistically significant difference between the overall perceptions of self-efficacy prior to treatment. Table 1 illustrates the comparison between the overall pretest means of the control (5.830) and treatment (5.793) groups ( $p \leq 0.05$ ). The findings indicated that there was no statistically significant difference between the two groups' overall perceptions of self-efficacy prior to treatment ( $t\text{-value} = -0.124$ ;  $p = .902$ ).

Table 1: Comparison of Control and Treatment Groups Pretest Survey Means

Group	N	MEAN	STD.	Df	<i>t</i>	<i>P-value</i>
Control	20	5.830	1.068	38	-0.124	.902
Treatment	20	5.793	0.784			

To determine whether eMentoring influenced the self-efficacy of alternatively certified novice teachers (treatment group), a univariate Analysis of Covariance (ANCOVA) was used with the treatment group's post survey mean score on each self-efficacy construct as the dependent variable and the pretest mean score as the covariate. A *post hoc* two tailed *t-test* for two independent samples ( $p \leq 0.05$ ) was also used to determine statistical significance in lieu of ANCOVA findings. The results for each research question are presented below:

Research Question 1: Does strategic eMentoring influence the perception of self-efficacy in decision-making of alternatively certified novice teachers?



The following hypothesis was tested:

Ho<sub>1</sub>: There is no statistically significant difference in self-efficacy about decision making between alternatively certified novice teachers who did and those who did not received strategic eMentoring.

$$H_{01}: \bar{X}_{1a} = \bar{X}_{1b}$$

Table 2 compares the pre- and post-survey results of the control and treatment groups on self-efficacy in decision making. The control group showed a mean negative gain (-0.10) from pre to post while the treatment group showed a mean positive gain (0.45). The pre-survey standard deviation (SD) for each group indicated approximately the same amount of variance among the scores for each group. The post-survey SD for each group indicated a greater amount of variation among the scores than was seen in pre-survey results but still showed relatively the same amount of variance among the scores for each group.

Table 2: Pre and Post Comparison of Control and Treatment Groups Means on Decision Making

Group	Time		Change
	Pre Mean (SD)	Post Mean (SD)	
Control	5.600 (1.456)	5.500 (2.444)	-0.10
Treatment	5.175 (1.379)	5.625(2.675)	0.45

ANCOVA results can be seen in Table 3. The overall F (2, 37) for the corrected model was .508 with a *p* of .606. Therefore, the null hypothesis was retained. There was no statistically significant difference in the treatment groups' mean score on decision making from pre to post. In other words,

eMentoring had no statistically significant influence on alternatively certified novice teachers' self-efficacy on decision making.

Table 3: ANCOVA for Change in Treatment Group Decision Making Mean Score from Pre to Post with the Pre Score as Covariate

Source	df	F	<i>P-value</i>
Corrected Model	2	.508	.606
Covariate	1	.922	.326
Treatment Group	1	.092	.763
Error	37		

Research Question 2: Does strategic eMentoring influence the perception of self-efficacy in the use of school resources in alternatively certified novice teachers?

The following hypothesis was tested:

Ho<sub>2</sub>: There is no statistically significant difference in self-efficacy about school resources between alternatively certified novice teachers who did and those who did not receive strategic eMentoring.

$$H_{O2}: \bar{X}_{2a} = \bar{X}_{2b}$$

Table 4 shows the pre- and post-survey results of the control and treatment groups on self-efficacy in the use of school resources. Both groups (control=-0.05; treatment=-0.40) showed a mean negative gain from pre to post. The pre-survey standard deviation (SD) for each group indicated approximately the same amount of variance among the scores for each group. The post-survey SD for each group indicated a greater amount of variation among the scores than was seen in the pre-survey. However, the post survey scores of the treatment group showed slightly more variation among the scores than the control group.

Table 4: Pre and Post Comparison of Control and Treatment Groups Means on School Resources

Group	Time		Change
	Pre Mean (sd)	Post Mean (sd)	
Control	5.000 (2.077)	5.050 (2.064)	-0.05
Treatment	4.950 (1.905)	5.350 (2.560)	-0.40

ANCOVA results are presented in Table 5. The overall F (2, 37) for the corrected model was .292 with a *p* value of .749. Therefore, the null hypothesis was retained. There was no statistically significant difference in the treatment groups' mean score on self efficacy in the use of school resources from pre to post. eMentoring had no statistically significant influence on alternatively certified novice teachers' self-efficacy in the use of school resources.

Table 5: ANCOVA for Change in Treatment Group School Resources Mean Score from Pre to Post with the Pre Score as Covariate

Source	df	F	<i>P-value</i>
Corrected Model	2	.292	.749
Covariate	1	.420	.521
Treatment Group	1	.157	.694
Error	37		

Research Question 3: Does strategic eMentoring influence the perception of instructional self-efficacy in alternatively certified novice teachers?

The following hypothesis was tested:

Ho<sub>3</sub>: There is no statistically significant difference in instructional self-efficacy between alternatively certified novice teachers who did and those who did not received strategic eMentoring.

$$Ho_3: \bar{X}_{3a} = \bar{X}_{3b}$$

Table 6 displays the pre- and post-survey results of the control and treatment groups on instructional self-efficacy. From pre to post, the control group showed a negative mean gain (-0.300) while the treatment group showed a positive mean gain (0.438). The SDs from pre to post indicated a slight increase in variance among the scores for each group.

Table 6: Pre and Post Comparison of Control and Treatment Groups Means on Instructional Self-efficacy

Group	Time		Change
	Pre Mean (SD)	Post Mean (SD)	
Control	5.678 (1.249)	5.378 (1.506)	-0.300
Treatment	5.606 (1.058)	6.089 (1.385)	0.483

ANCOVA results are presented in Table 7. The overall  $F(2, 37)$  for the corrected model was 1.181 with a  $p$  of .318. Therefore, the null hypothesis was retained. There was no statistically significant difference in the treatment group's mean score on instructional self-efficacy from pre to post. eMentoring had no statistically significant influence on alternatively certified novice teachers' instructional self-efficacy.

Table 7: ANCOVA for Change in Treatment Group Instructional Self-Efficacy Mean Score from Pre to Post with the Pre Score as Covariate

Source	df	F	<i>P-value</i>
Corrected Model	2	1.181	.318
Covariate	1	0.010	.923
Treatment Group	1	2.360	.133
Error	37		

Research Question 4: Does strategic eMentoring influence the perception of disciplinary self-efficacy in alternatively certified novice teachers?

The following hypothesis was tested:

Ho<sub>4</sub>: There is no statistically significant difference in disciplinary self-efficacy between alternatively certified novice teachers who did and those who did not received strategic eMentoring.

$$Ho_4: \bar{X}_{4a} = \bar{X}_{4b}$$

Table 8 displays the pre- and post-survey results of the control and treatment groups on disciplinary self-efficacy. The mean scores for the control and treatment groups showed slightly positive mean gains from pre to post, 0.10 and 0.02, respectively. The SD for the control group showed a slight increase in variance from pre to post while the treatment group remained relatively stable.

Group	Time		Change
	Pre Mean (SD)	Post Mean (SD)	
Control	5.850 (1.584)	5.950 (1.745)	0.100
Treatment	6.467 (1.424)	6.517 (1.481)	0.050

ANCOVA results are displayed in Table 9. The overall F (2, 37) for the corrected model was 1.359 with a *p* of .269. Therefore, the null hypothesis was retained. There was no statistically significant difference in the treatment groups' mean score on disciplinary self-efficacy from pre to post. eMentoring had no statistically significant influence on alternatively certified novice teachers' disciplinary self-efficacy.

Table 9: ANCOVA for Change in Treatment Group Disciplinary Self-Efficacy Mean Score from Pre to Post with the Pre Score as Covariate

Source	df	F	<i>P-value</i>
Corrected Model	2	1.359	.269
Covariate	1	1.476	.232
Treatment Group	1	.707	.406
Error	37		

Research Question 5: Does strategic eMentoring influence the perception of alternatively certified novice teachers' self-efficacy to enlist parental involvement?

The following hypothesis was tested:

H<sub>05</sub>: There is no statistically significant difference in self-efficacy to enlist parental involvement between alternative certified novice teachers who did and those who did not received strategic eMentoring.

$$H_{05}: \bar{X}_{5a} = \bar{X}_{5b}$$

Table 10 shows the pre- and post-survey results of the control and treatment groups on self-efficacy to enlist parental involvement. The control group showed a negative mean gain (-1.250) from pre to post while the treatment group posted a positive mean gain (0.317). This represented a significant shift in the likelihood that the treatment group was more likely to involve parents in school activities. The SD for the control group indicated a greater dispersion between the scores from pre to post while the dispersion between the scores in the treatment group remained relatively small.

Table 10: Pre and Post Comparison of Control and Treatment Groups Means on Parental Involvement Self-efficacy

Group	Time		Change
	Pre Mean (sd)	Post Mean (sd)	
Control	6.467 (1.775)	5.217 (2.137)	-1.250
Treatment	6.500 (1.881)	6.817 (1.424)	0.317

ANCOVA results are presented in Table 11. The overall  $F(2, 37)$  for the corrected model was 4.572 with a  $p$  of .017; therefore, the null hypothesis was rejected. There was a statistically significant difference in the treatment groups' mean score on parental involvement from pre to post. Thus, eMentoring had a statistically significant influence on alternatively certified novice teachers' self-efficacy to enlist parental involvement. eMentored teachers were more likely to involve parents in school activities than traditionally mentored teachers.

Table 11: ANCOVA for Change in Treatment Group Parental Involvement Self-Efficacy Mean Score from Pre to Post with the Pre Score as Covariate

Source	df	F	<i>P-value</i>
Corrected Model	2	4.572	.017
Covariate	1	1.314	.259
Treatment Group	1	7.769	.008
Error	37		

Research Question 6: Does strategic eMentoring influence the perception of alternatively certified novice teachers' self-efficacy to enlist community involvement?

The following hypothesis was tested:

Ho<sub>6</sub>: There is no statistically significant difference in self-efficacy to enlist community involvement between alternatively certified novice teachers who did and those who did not received strategic eMentoring.

$$Ho_6: \bar{X}_{6a} = \bar{X}_{6b}$$

Table 12 shows the pre- and post-survey results of the control and treatment groups on community involvement self-efficacy. The control group showed a negative mean gain (-0.175) from pre to post while the treatment group posted a positive mean gain (0.463). The SD for both groups indicated a shrinkage or narrowing of the variance between the scores from pre to post.

Table 12: Pre and Post Comparison of Control and Treatment Groups Means on Community Involvement Self-efficacy

Group	Time		Change
	Pre Mean (SD)	Post Mean (SD)	
Control	5.800 (1.980)	5.625 (1.586)	-0.175
Treatment	5.050 (2.045)	5.513 (1.793)	0.463

ANCOVA results are presented in Table 13. The overall F (2, 37) for the corrected model was .169 with a *p* of .846. Therefore, the null hypothesis was retained. There was no statistically significant difference in the treatment groups' mean score on self-efficacy to enlist community involvement from pre to post. eMentoring had no statistically significant influence on alternatively certified novice teachers' self-efficacy to enlist community involvement.



Table 13: ANCOVA for Change in Treatment Group Community Involvement Self-Efficacy Mean Score from Pre to Post with the Pre Score as Covariate

Source	df	F	<i>P-value</i>
Corrected Model	2	.169	.846
Covariate	1	.294	.591
Treatment Group	1	.011	.919
Error	37		

Research Question 7: Does strategic eMentoring influence the perception of alternatively certified novice teachers' self-efficacy to foster a positive school climate?

The following hypothesis was tested:

Ho<sub>7</sub>: There is no statistically significant difference in self-efficacy to foster a positive school climate between alternatively certified novice teachers who did and those who did not received strategic eMentoring.

$$H_{07}: \bar{X}_{7a} = \bar{X}_{7b}$$

Table 14 shows the pre- and post-survey results of the control and treatment groups on school climate self-efficacy. The control group showed a negative mean gain (-0.350) and a slight increase in the SD while the treatment group showed a positive mean gain (0.231) and a slight decrease in the SD. There was a bit more dispersion between the scores for the control group from pre to post than that observed for the treatment group.

Table 14: Pre and Post Comparison of Control and Treatment Groups Means on School Climate Self-efficacy

Group	Time		Change
	Pre Mean (SD)	Post Mean (SD)	
Control	5.931 (1.199)	5.581 (1.389)	-0.350
Treatment	6.119 (0.961)	6.350 (0.853)	0.231

ANCOVA results are presented in Table 15. The overall  $F(2, 37)$  for the corrected model was 2.165 with a  $p$  of .129. Therefore, the null hypothesis was retained. There was no statistically significant difference in the treatment groups' mean score on school climate from pre to post. eMentoring had no statistically significant influence on alternatively certified novice teachers' self-efficacy to foster a positive school climate.

Source	df	F	<i>P-value</i>
Corrected Model	2	2.165	.129
Covariate	1	0.000	.986
Treatment Group	1	4.290	.045
Error	37		

### Overall Results

Table 16 illustrates the comparison between the pre and posttest statistics of the control (5.503) and treatment (6.142) groups for the entire survey. The findings indicated a slightly negative gain for the control group and a slightly positive gain for the treatment group. The SDs for the control group indicated relative stability in the variance between the scores, while the treatment group showed a slight increase. Essentially, there was no significant difference between the two groups' self-efficacy from pre to post.

Group	Time		Change
	Pre Mean (SD)	Post Mean (SD)	
Control	5.830 (1.068)	5.503 (1.045)	-0.327
Treatment	5.793 (0.784)	6.142(1.119)	0.349

## Discussion

Levene's Test (1960) for equality of variance indicated no statistically significant difference between the control and treatment groups prior to treatment ( $F = 1.625$ ;  $P = .210$ ). A two tailed *t*-test for two independent samples also indicated no statistically significant difference between the two groups' overall self-efficacy prior to treatment ( $t$ -value =  $-0.124$ ;  $p = .902$ ).

A univariate Analysis of Covariance (ANCOVA) was used to determine if the change indicated in the treatment group's post mean score on each self-efficacy construct was significant with the pretest mean score as the covariate.

Research Question 1: Does strategic eMentoring influence perception of self-efficacy in decision-making of alternatively certified novice teachers?

The null hypothesis was retained, indicating that eMentored and traditionally mentored teachers were similar in their self-efficacy on decision making.

Research Question 2: Does strategic eMentoring influence the perception of self-efficacy in the use of school resources in alternatively certified novice teachers?

The null hypothesis was retained, indicating that eMentored and traditionally mentored teachers were similar in their self-efficacy on the use of school resources.

Research Question 3: Does strategic eMentoring influence the perception of instructional self-efficacy in alternatively certified novice teachers?

The null hypothesis was retained, indicating that eMentored and traditionally mentored teachers were similar on instructional self-efficacy.

Research Question 4: Does strategic eMentoring influence the perception of disciplinary self-efficacy in alternatively certified novice teachers?

The null hypothesis was retained, indicating that eMentored and traditionally mentored teachers were similar in their self-efficacy on discipline.

Research Question 5: Does strategic eMentoring influence the perception of alternatively certified novice teachers' self-efficacy to enlist parental involvement?

The null hypothesis was rejected, indicating that eMentored teachers were more likely to enlist parental involvement than traditionally mentored teachers.

Research Question 6: Does strategic eMentoring influence the perception of alternative certified novice teachers' self-efficacy to enlist community involvement?

The null hypothesis was retained, indicating that eMentored and traditionally mentored teachers were similar in their self-efficacy to enlist community involvement.

Research Question 7: Does strategic eMentoring influence the perception of alternatively certified novice teachers' self-efficacy to foster a positive school climate?

The null hypothesis was retained, indicating that eMentored and traditionally mentored teachers were similar in their self-efficacy to foster a positive school environment.

### Overall Results

Post survey results indicated that there was no statistically significant difference between the two groups' overall perceptions of self-efficacy as measured by Bandura's Teacher Self-Efficacy Scale (*t-value*= -1.83; *p*=.0749).

### Summary and Findings

Data in Chapter IV were obtained from 40 subjects that were randomly selected from a population of 179 alternatively certified novice teachers. The subjects were randomly assigned to two experimental groups (control group=20 and treatment group=20). Bandura's Teacher Self-Efficacy Scale was used to collect the data. Data were collected at two different time points; prior to treatment (pretest) and post treatment (posttest). The experimental condition lasted six weeks. All statistical analyses were conducted with the Statistical Package for the Social Sciences (SPSS), Version 18.0. Levene's Test (1960) for equality of variance was conducted to determine homogeneity of variance. A two tailed *t-test* for two independent samples was conducted between the pretest survey means of the two groups to substantiate no statistically significant difference between the self-efficacy of the two groups prior to treatment. A univariate Analysis of Covariance (ANCOVA) was used to determine if the changes in the treatment group's post survey mean score on

each self-efficacy construct was statistically significant. The treatment group's posttest mean score on each self-efficacy construct was used as the dependent variable and the pretest mean score was used as the covariate.

Prior to treatment, Levene's Test (1960) for equality of variance found no statistically significant difference between the control and treatment groups ( $F = 1.625$ ;  $p = .210$ ). A two tailed *t*-test for two independent samples found no statistically significant difference between the overall pretest means of the two groups ( $t$ -value =  $-.124$ ;  $p = .902$ ). Therefore, any statistically significant differences identified between the two groups were attributed to treatment effect.

No statistically significant differences were found from pre to post on the following self-efficacy constructs: Decision Making, School Resources, Instruction, Discipline, Enlistment of Community, and a Positive School Environment. These findings indicated that traditionally mentored and eMentored teachers were similar in their self-efficacy on the aforementioned constructs. A significant difference was found on the Enlistment of Parental Involvement, indicating that eMentored teachers were more likely to involve parents in school activities.

## CHAPTER V

### SUMMARY, CONCLUSION, AND RECOMMENDATIONS

#### Introduction

Chapter V presents a summary of the study including the problem, purpose of the study, research questions, methodology, conclusions and recommendations. Conclusions were drawn from each research question and hypotheses tested. Implications and recommendations for future research are also included.

#### Summary

##### Problem

One of the most pressing problems facing educational leaders is attracting and retaining highly qualified teachers. Oftentimes, novice teachers are paired with mentors that are directly associated with school leadership. These mentors tend to report mentees' performance in regards to daily operations of the school, classroom management, and the overall culture of the school with little to no concern about relationships. The level of self-efficacy and the nature of the relationship between mentors and mentees often determine the extent to which novice teachers develop their long-term commitment to teaching. The fact is, there are not enough mentors to provide the level of mentoring necessary to positively affect alternatively certified novice

teachers' self-efficacy and promote their long-term commitment to the teaching profession.

### Purpose of the Study

The purpose of the study was to investigate the effectiveness of strategic eMentoring on the self-efficacy of alternatively certified novice teachers. This study will establish grounds for the implementation of strategic eMentoring as an alternative method of mentoring alternatively certified novice teachers in urban school districts.

### Research Questions

The following research questions guided the study:

1. Does strategic eMentoring influence the perception of self-efficacy in decision-making of alternatively certified novice teachers?
2. Does strategic eMentoring influence the perception of self-efficacy in the use of school resources in alternatively certified novice teachers?
3. Does strategic eMentoring influence the perception of instructional self-efficacy in alternatively certified novice teachers?
4. Does strategic eMentoring influence the perception of disciplinary self-efficacy in alternatively certified novice teachers?
5. Does strategic eMentoring influence the perception of alternatively certified novice teachers' self-efficacy to enlist parental involvement?
6. Does strategic eMentoring influence the perception of alternatively certified novice teachers' self-efficacy to enlist community involvement?
7. Does strategic eMentoring influence the perception of alternatively certified novice teachers' self-efficacy to foster a positive school climate?



## Null Hypotheses

The following null hypotheses will be tested:

Ho<sub>1</sub>: There is no statistically significant difference in self-efficacy about decision making between alternatively certified novice teachers who did and those who did not received strategic eMentoring.

$$Ho_1: \bar{X}_{1a} = \bar{X}_{1b}$$

Ho<sub>2</sub>: There is no statistically significant difference in self-efficacy about school resources between alternatively certified novice teachers who did and those who did not receive strategic eMentoring.

$$Ho_2: \bar{X}_{2a} = \bar{X}_{2b}$$

Ho<sub>3</sub>: There is no statistically significant difference in instructional self-efficacy between alternatively certified novice teachers who did and those who did not received strategic eMentoring.

$$Ho_3: \bar{X}_{3a} = \bar{X}_{3b}$$

Ho<sub>4</sub>: There is no statistically significant difference in disciplinary self-efficacy between alternatively certified novice teachers who did and those who did not received strategic eMentoring.

$$Ho_4: \bar{X}_{4a} = \bar{X}_{4b}$$

Ho<sub>5</sub>: There is no statistically significant difference in self-efficacy to enlist parental involvement between alternative certified novice teachers who did and those who did not received strategic eMentoring.

$$Ho_5: \bar{X}_{5a} = \bar{X}_{5b}$$

Ho<sub>6</sub>: There is no statistically significant difference in self-efficacy to enlist community involvement between alternatively certified novice teachers who did and those who did not received strategic eMentoring.

$$Ho_6: \bar{X}_{6a} = \bar{X}_{6b}$$

Ho<sub>7</sub>: There is no statistically significant difference in self-efficacy to foster a positive school climate between alternatively certified novice teachers who did and those who did not received strategic eMentoring.

$$Ho_7: \bar{X}_{7a} = \bar{X}_{7b}$$

## Methodology

Forty (40) subjects were randomly selected from a population of 179 alternatively certified novice teachers in a large southwestern urban school district. The subjects were randomly assigned to the control and treatments groups. Each group was comprised of 20 subjects. Each subject was then randomly assigned to two sub-treatment groups such that eMentor (1) will have a group of 10 alternatively certified novice teachers and eMentor (2) will have a group of 10 alternatively certified novice teachers. Bandura's Teacher Self-Efficacy Scale was used to collect the data. Data was collected at two different points in time, prior to treatment (pretest) and post treatment (posttest). The experimental condition lasted six weeks.

Levene's Test (1960) for equality of variance was conducted to determine homogeneity of variance. A two tailed *t-test* for two independent samples was conducted between the pretest means of the two groups to substantiate no statistically significant difference existed between the two groups overall perceptions on self-efficacy. A univariate Analysis of Covariance (ANCOVA) was used to determine statistically significant from pre to post using the pretest mean as the covariate.

## Conclusion

It appears that in some instances, eMentoring was found to be as effective as traditional mentoring and in another, statistically more effective. A statistically significant difference was found on the construct "enlistment of

parental involvement”. This indicated that eMentors made a conscious decision, in the absence of administrator influence, to utilize community resources in the educational process. The use of this resource helped with day-to-day classroom management, fostered a positive work environment, gave immediate feedback, established community relationships, ensured self-confidence, and laid the foundation to build a professional learning community.

In an era of greater accountability, budget shortfalls, and cut backs, eMentoring offers an alternative to an antiquated traditional method of providing feedback to novice teachers. This is of particular importance to small school districts where funds are limited, yet there is still a need to attract and retain quality teachers. eMentoring also provides a means of establishing lasting relationships that have proven to be instrumental in helping alternatively certified novice teachers commit to the teaching profession.

#### Recommendations for eMentors

1. Alternatively certified novice teachers should be paired with an eMentor that is certified in the subject(s) being taught and at the grade level(s) as that of the novice teachers.
2. eMentors should be seasoned professionals with experience in their respective area(s).
3. Alternatively certified novice teachers should have a clear understanding of the school’s expectations and guidelines associated with the eMentoring process.
4. Alternatively certified novice teachers should have mandatory trainings in classroom management and pedagogical methods.
5. eMentors should develop, modify and incorporate existing mentoring best practices into the eMentoring process.

6. eMentors should be trained on eMentoring best practices prior to being assigned to a mentee.
7. School administration should support current trends, practices, and new techniques geared towards mentoring and the retention of alternatively certified novice teachers.

### Recommendations for Further Research

The study focused on eMentoring and its effect on the self-efficacy of alternatively certified novice teachers. The results led to the following recommendations for further research:

1. A comprehensive study should be conducted to compare and contrast the effect of eMentoring on the self-efficacy of alternatively certified novice teachers in private, public, and charter schools.
2. Compare and contrast the classroom effectiveness of alternatively certified novice teachers who participated in the eMentoring process with those who participated in face-to-face mentoring.
3. Compare and contrast the retention rates of alternatively certified novice teachers who participated in the eMentoring process with those who participated in face to face mentoring.

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APPENDICES

**PRAIRIE VIEW A&M UNIVERSITY  
OFFICE OF RESEARCH AND DEVELOPMENT**

*INSTITUTIONAL REVIEW BOARD*

**HUMAN PARTICIPANT PROTECTIONS**

**Office of Research Compliance**

Marcia C. Shelton, Research Compliance Officer

[mcshelton@pvamu.edu](mailto:mcshelton@pvamu.edu)

Anderson Hall Room 311

POB 4149

Prairie View, TX 77446

**936.857.2431**

**Application/Protocol to Involve Human Participants in Research Checklist**

Checklist for Human Subject Protocols

The following is a checklist of the items you must provide to the IRB in order for the committee to review and approve your research protocol application. **Please check and attach all items that apply to your research.**

**FOR FULL REVIEW:** Submit an electronic copy of the Application/Protocol to the Office of Research Compliance at [mcshelton@pvamu.edu](mailto:mcshelton@pvamu.edu) and an **original printed form** and 10 copies of the **IRB Protocol/**

**Application** to Marcia Shelton, Research Compliance Officer, Rm 311 Anderson Hall. The protocol application is due in the office by the close of business on the 15<sup>th</sup> of each month. If the fifteenth is on a weekend or holiday, the protocol application is due prior to that scheduled holiday or weekend. The protocol review will be delayed if it is missing any of the required information. If you have any questions after reading the application, call 936.857.2431 for assistance. The ability to execute a protocol is contingent upon satisfactory completion and subsequent approval of all applicable elements of compliance to include Biosafety and Animal Welfare Board approval. *Allow sufficient time for protocol processing as it may take several months to obtain IRB Approval.*

**NOTICE: All submitted protocols require the following, when applicable.**

Part A: Summary Cover Sheet

Part B: Protocol Format

Signature Page

Conflict of Interest Statement

Education/Training Certificate(s) (See ATTACHMENTS)

Informed Consent Document (with all elements of consent)

Consent Form (See ATTACHMENT A)

Videotape/audio tape release form (if not included in the consent/assent form)

Information Sheet (See Attachment B)

Telephone script for telephone surveys

Cover Letter for mail out surveys (See ATTACHMENT C)

Justification for Waiver of Signed Consent (*Required if using an Information Sheet*)

Assent form if research involves minors, ages 7-17

Note: If consent or assent form is longer than one page, number each page in the format, "page x of y", and leave blank space for date and initial "Date \_\_\_\_ Initial \_\_\_\_". Page #'s will be separate from IRB Application

- Debriefing form (if deception is used)
- Survey/Assessment Instruments (See ATTACHMENT D)
- Recruitment Media/Newspaper Advertisements
- Compensation conditions, schedule of payment
- FDA Form 1572 (for investigators involved in drug or biologic studies)
- Drug or Device Accountability Record
- Animal Welfare approval required
- Biosafety Committee approval required
- Other Human Participant University Boards involved

### Part A. Summary Cover Sheet

<b>An Assessment of the Effectiveness of Strategic eMentoring in Improving the Self-Efficacy of Alternatively Certified Novice Teachers within a Inner City School District</b>			
<b>Principal Investigator(s):</b> TaiwanaDe'Shone Anthony			
<b>Physical Campus Address:</b> P.O. Box 578 Prairie View, Texas 77446			
<b>Campus Phone:</b> (936) 857-2952	<b>Fax:</b> (936) 857-2638	<b>Cell:</b> (469) 438-8370	<b>E-mail:</b> taiwana_anthony@yahoo.com
<b>Campus Phone:</b> (202) 729-3270	<b>Fax:</b> (202) 729-3254	<b>E-mail:</b> Taiwana.Anthony@dc.gov	

New Submission

Resubmission (Revised and submitted for Board reconsideration)

## SECTION I : PRINCIPAL INVESTIGATOR/FACULTY ADVISOR AGREEMENT

As the Principal Investigator or Faculty Advisor for this research project, I certify the following:

- The information provided in this application is complete and accurate.
- That I assume full responsibility for the protection of human participants /subjects and the proper conduct of the research.
- I have read the [Belmont Report](#).
- That participant/subject safety will be of paramount concern, and every effort will be made to protect subjects'/participants' rights and welfare.
- That the research will be performed according to ethical principles and in compliance will all federal, state and local laws, as well as TAMUS system policies, PVAMU institutional rules and guidelines regarding the protection of human subjects/participants.
- That all members of the research team will be kept apprised of research goals and current education certificate(s) are on-file with the Office of Research Compliance.
- That I will obtain approval for this research study and any subsequent revisions prior to initiation.
- That I will report to the IRB any serious injuries or other unanticipated problems involving risk to participants.
- I will not conduct, participate, support, present, or publish, research involving human participants that has not undergone the formal federal review process and received approval.
- I am responsible for annual updates for approved protocol.
- I will assure that students are adequately prepared to conduct research responsibly.

Taiwana D. Anthony 10-13-08

Signature

Date



## SECTION II: FUNDING, TRAINING/EDUCATION AND PROTOCOL-RELATED CONFLICT OF INTEREST

1. **Funding Source:** Please describe the funding source(s) for this study. Check all boxes that apply:

External\*       Internal/Departmental      X Investigator Initiated \_\_\_\_\_       Other \_\_\_\_\_

\*For externally funded studies, please supply the following information:

- PI on Contract or Grant: **Not Applicable.**
- Funding Source: **Not Applicable.**
- Contract or Grant Title: **Not Applicable.**
- Contract or Grant #: **Not Applicable.**

If using more than one funding source for this study, list all funding sources on an attached sheet. For grants: attach those sections from the grant application/agreement that pertain to the technical and human subject's/participant's portion of this protocol.

2. **Human Participant/Subject Protection Education/Training:** All investigators and key study personnel (persons involved in the design and/or conduct of research involving human subjects/participants) are required to complete human subject protection education/training (HSPET). This education/training requirement can be met through the web-based NIH program at <http://www.cancer.gov/clinicaltrials/learning/page3>. Please note that investigators who have not completed this education/training requirement cannot participate in study activities until this training is completed. All investigator and key personnel certificates must be on file in the Compliance Office to receive an approval letter.
3. **Conflict of Interest Statement:** All investigators and key study personnel (those persons involved in the design and/or conduct of the research involving human subjects) are required to read a copy of the Prairie View A&M University Institutional Review Board Committee Policy on Protocol-Related Conflict of Interest ("IRB COI Policy"). *Please note that the IRB COI Policy addresses protocol-related conflict of interest, and is distinct from the annual disclosure required by the Prairie View A&M University Policy on Conflict of Interest and Conflict of Commitment.*

All investigators and key study personnel are required to sign their name in the space provided below. Those who have answered "no" to all screening questions asked in the IRB COI Policy should indicate below that no Protocol-Related COI exists. Those who answered "yes" to any question in the IRB COI Policy should download a copy of the Protocol-Related Conflict of Interest Disclosure Form, which must be submitted to the IRB along with this Application.

	Name	Signature ***	Protocol-Related COI?	HSPET Certificate on file
<b>Principal Investigator</b>	Taiwana D. Anthony		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	<b>Co-Investigator(s)</b>		<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>Key Study Personnel</b>			<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No

\*\*\* My signature here indicates that I have read and am in compliance and will continue to be with the IRB's Protocol-Specific Conflict of Interest Policy.

4. **Department Chair's and /or Unit Administrator Conflict of Interest Statement (to be completed by the Chair of each department with which the Principal Investigator and co-investigators are affiliated and/or which the research affects):** Do you know of any real or apparent institutional conflict of interest (e.g., Prairie View A&M University ownership of a sponsoring company) that might compromise this research?

Yes No

See Original Hard Copy  
 Signature of Department Chair\*\*\*

Educational Leadership & Counseling  
 Department

\*\*\*My signature here indicates that I have read and am in compliance with the IRB's Protocol-Related Conflict of Interest Policy. I further agree to submit a Protocol-Related Conflict of Interest Disclosure Form if I am aware of any real or apparent institutional conflict of interest.

**Principal Investigator/Graduate Student Assurance Statement:**

**SIGNATURE:** \_\_\_\_\_ **DATE:** 10-13-08

**TYPED NAME:** Taiwana D. Anthony

**Faculty/Research Advisor's Assurance Statement:**

I certify that I have read and agree with this proposal, that the PI has received adequate training/education to perform this research, and will receive adequate supervision while performing this research.

**SIGNATURE:** See original hard copy **DATE:** 10-13-08

**TYPED NAME:** Dr. Douglas Hermond

- If the principal investigator is completing this project to meet the requirements of a Prairie A & M University academic program (i.e. thesis or dissertation), the student's faculty/research advisor, the departmental head and graduate student coordinator should sign the Signature Assurance Sheet.

**\*\*Department Head**

This is to certify that I have reviewed this research protocol and agree that the research activity is within the mission of the Department and appropriate for the responsibilities and assigned duties of the principal investigator.

**SIGNATURE:** See original hard copy **DATE:** 10-13-08

**TYPED NAME:** Dr. Pamela Freeman

**\*\*If the principal investigator is also the Head of the Department, the College Dean or equivalent should sign the Assurance Sheet for this section.**

**APPROVED FOR SUBMISSION TO IRB:**

---

*Signature of Primary Reviewer*

---

*Printed Name of Primary Reviewer*

---

*Date*

---

**For IRB Use Only**

---

**Date Approved**

---

**Institutional Review Committee Chair**

Protocol is valid until: \_\_\_\_\_

## PART B. PROTOCOL FORMAT

### SECTION III : GENERAL INFORMATION

1. **Choose all that apply:** (\* See indicated section in IRB Guidelines for Investigators)

- |   |  |
|---|--|
| <input type="checkbox"/> Children/minors* (Section E.1)       | <input type="checkbox"/> Pregnant women/fetuses/placenta |
| <input type="checkbox"/> Decisionally impaired* (Section E.2) | <input type="checkbox"/> Prisoners                       |
| <input type="checkbox"/> Females of childbearing potential    | <input type="checkbox"/> Non-English Speaking            |
| <input type="checkbox"/> Radioactive Materials                | <input checked="" type="checkbox"/> Use of Employees     |
| <input type="checkbox"/> IND # _____                          | <input type="checkbox"/> Students                        |
| <input type="checkbox"/> IDE # _____ A or B (Section C.1)     |  |

2. **Location of study:** Please identify the facility, school, or other agency that will serve as the location of the research.

PVAMU – main campus     PVAMU College of Nursing,  
Houston     PVAMU Northwest

Other locations, **Specify** (Please indicate the location(s) where the research will take place):

\_\_\_\_\_

\_\_\_\_\_

NOTE: When other institutions are engaged in the research, it may be necessary to secure the approval of their Institutional Review Boards (IRB) and/or to insure that the institution has obtained a Federal Wide Assurance (FWA).

3. **Probable Duration of Project:** Please state the expected duration of the project, including all follow-up and data analysis activities. *[Please answer this and all other questions on this form with a size 12 font.]*

Date the proposed research will begin?

May, 2008.

Date the proposed project will end?

May, 2008.

4. **Number of Subjects:** Please state the number of subjects to be enrolled at PVAMU. For multi-center studies, indicate the total number of subjects to be enrolled across all sites. If different subject populations will participate, state the anticipated number in each group.

A population of 1096 alternatively certified novice elementary and secondary teachers from a large mid-western urban school district will be used in the study. From the population, a random sample of subjects will be selected and randomly assigned to a treatment and a control group. Each group will be comprised of 55 subjects.

### SECTION IV : RESEARCH PLAN

1. **Statement of Purpose:** What are the scientific aims of the study, or the hypotheses to be tested?

*As a result of eMentoring, there will be significant increase in the self-efficacy of alternatively certified novice teachers.*

*If self-efficacy is related to teacher retention, then alternatively certified novice teachers with a high degree of self-efficacy will express a higher willingness to remain in the teaching profession.*

2. **Background:** Describe the background information that led to the plan for this project. Please provide references to support the expectation of obtaining useful scientific data. When available, previous work in animal and/or human studies should be included.

Mentoring programs for new teachers are a common feature of professional development activities (Ganser, 2002). Mentoring programs have been effective in ameliorating some of the problems associated with novice teachers, including lack of support and high attrition rates (Darling-Hammond, 1997, 2000b; Moir, 2001; Scherer, 2001; Weiss & Weiss 1999). Mentoring also helps alternatively certified novice teachers become effective practitioners early in their careers (Brennan, Thames, & Roberts, 1999; Darling-Hammond, 1996, 2000a; Feiman-Nemser, 1996; Holloway, 2001; Odell, 1986, 1989; Stupiansky & Wolfe, 1992).

Other studies on mentoring programs indicate that novice teachers showed that mentoring could be used as an effective strategy to recruit and retain teachers (Feiman-Nemser & Beasley, 1996, Odell, 1992). It was also found that after four years on the job, the attrition rate among alternatively certified novice teachers who received one year of mentoring was 16% compared to 50% for alternatively certified novice teachers that did not receive any form of mentoring. Current investigations indicate that mentoring programs help to build the self-confidence of novice teachers (Ackley & Gall, 1992; Martin, 2000). In addition, mentoring programs help novice teachers find materials or resources, aids in the development of instructional strategies, and guides them toward being efficacious and self-directed educational practitioners.

Bandura's Social Learning Theory is a theoretical framework that can be applied to explain novice teachers' self-efficacy. By understanding teachers' self-efficacy, we can enhance the development of instructional strategies and lower the attrition rate among alternatively certified novice teachers through the practical application of eMentoring. Bandura's (1963) social cognitive theory emphasizes that when capable educators do not perform up to their potential, despite positive environmental conditions, one should place emphasis on the self-regulatory process within the individual that promote or inhibit their performance. Bandura's (1989) social cognitive view of self-efficacy is an important factor in which the teacher mediates between cognition and affect, which result in changes in work performance (Zimmerman, Bandura, & Martinez-Pons, 1992). The growth and reduction of self-efficacy is influence over time by social comparison with peers and it is theoretically more pronounce as one grows older.

Mentoring is a vital entity in the field of education as it pertains to alternatively certified novice teachers. As stated before, appropriate mentoring improves the self-efficacy of teachers, thus improving their performance in the classroom and increases their tendency to remain as teachers. Previous research has shown self-efficacy to be a strong predictor of teacher success. When teachers feel confident in their teaching styles and are encouraged by concerned administrators' they experience a sense of satisfaction that is reinforced yearly.

Although there is a recent trend by educational leaders to incorporate various mentoring techniques into interactions with novice teachers, several studies have indicated that strategic, well-planned mentoring procedures generate long-term gains in teacher self-efficacy. By working with mentors, alternatively certified novice teachers will be able to enhance their self-efficacy beliefs in a variety of settings, contexts, and content areas. This conclusion is consistent with Bandura's Social Learning Theory and Social Cognitive Theory. eMentoring is a new innovative method that will employ mentees with a variety of facets that will engage their self-efficacy, enhance their willingness to become self directed, and promote the development of their pedagogical techniques.

3. **Research Plan:** Please provide an orderly scientific description of the study design and research procedures as they directly affect the subjects.

A pre- and posttest experimental research design and will be used to assess the effect of eMentoring on alternatively certified novice teachers. From a population of 1096 alternatively certified teachers, 110 subjects will be randomly selected and assigned to both a treatment and a control group (55 subjects each).

4. **Statistical Considerations:** Describe the statistical analyses that support the study design. This section should include: ( See ATTACHMENT I )

A Statistical Package for the Social Sciences (SPSS) will be use to conduct data analyses. Descriptive statistics and Pearson's  $r$  correlation coefficients will be calculated to determine the relationship between the pre- and posttest scores on the questionnaires. Due to inter-group differences on the pretest, an Analysis of Covariance (ANCOVA) will be used to determine group differences across all items and the mean total scale scores on the questionnaires. A  $t$ -test will be conducted between the total mean scale scores for each group on each questionnaire. All analyses will be conducted at the .05 level (P) of significance. Cohen's  $d$ , a measure of effect size, will be used to determine the significance of the magnitude of the difference between the total mean scale scores for each group on each questionnaire. Effect size helps to determine whether a statistically significance difference is a difference of practical concern. The most accepted interpretation of effect size is that of Cohen (1992) where 0.2 is indicative of a small effect, 0.5 a medium and 0.8 a large effect size. The larger the effect size the more likely the treatment had the desired effect.

## SECTION V : HUMAN PARTICIPANTS / SUBJECTS

1. **Recruitment Procedures:** How will potential subjects/participants be identified, contacted and recruited? Attach copies of any recruitment materials – such as flyers, telephone scripts, or introductory letters – that will be used.

See TEA ATTACHMENT for a sample of data for the quantitative part of the study.

Please note that a researcher may not use an individual's Protected Health Information (PHI) for recruitment into research without first obtaining an authorization from the individual, or a Waiver of Authorization from the IRB. A treating provider does, however, have the option to: **Not Applicable**

- Discuss with his/her own patients the option of enrolling in a study. **Not Applicable**

- Obtain written authorization from the patient for referral into a research study. **Not Applicable**
- Provide background information about the study to the patient so that the patient can initiate contact with the researcher. **Not Applicable**
- Provide the individual's PHI to a researcher without authorization when the researcher has obtained an approved Waiver of Authorization for recruitment purposes from the IRB. **Not Applicable**

If PHI will be accessed without subject authorization, please state whether any member of the research team has an existing clinical relationship with the potential subject. Researcher-clinicians are permitted to access the PHI of their own patients, or patients of co-investigators listed on the protocol, for recruitment purposes. **Not Applicable**

2. **Inclusion/Exclusion Criteria:** What are the criteria for subject inclusion or exclusion? How will eligibility be determined, and by whom?
3. **Subject Population:** Provide a detailed description of the proposed involvement of human subjects/participants. Describe the characteristics of the subject population, including their anticipated number, age range and health status.  
NOTE: The selection of subjects should be equitable. Generally speaking, the subject selection should reflect a reasonable cross-section of the population that is being studied. In research that requires a more restricted population, the rationale for this need should be fully justified. Investigators must also provide scientific justification for the exclusion of underrepresented populations such as women, children, or minorities.
4. **Vulnerable Subjects:** Certain populations are considered to be vulnerable and require special protections when asked to participate in a research study. (*Vulnerable populations include, but are not limited to pregnant women, fetuses, human embryos, prisoners, children, and cognitively impaired individuals or persons with questionable capacity to consent. Others which may require special consideration include elderly persons, economically disadvantaged persons and educationally disadvantaged persons.*) **Not Applicable**

*Children include all persons who have not attained the legal age for consent to treatments or procedures involved in the research under the applicable law of the jurisdiction in which the research will be conducted (the age of majority is 18 years in Texas). Parental permission and the child's assent is required for participation in the study. (Assent is defined as "a child's affirmative agreement to participate in research" and should be sought in addition to parental permission when the minor subject is sufficiently mature to understand the nature of his or her participation in a research study.) Please refer to the IRB Guidelines for Investigators at NIH.* **Not Applicable**

Will vulnerable subjects be enrolled in the study? If so, identify the vulnerable population and provide a justification for their involvement. Also address any additional safeguards necessary to protect the rights and welfare of vulnerable subjects.

**Not Applicable**

5. Do you have a relationship with any or all of your participants, other than an investigatory role? [X] No   
Yes

If yes, explain the source of participant selection and the participant will be protected from coercion or undue influence. (teacher /faculty-student, counselor- student, etc.)

## SECTION VI : CONSENT/ASSENT PROCEDURES

1. **Consent Personnel:** Please list all personnel who will be obtaining consent.

Taiwana D. Anthony is the principal investigator and the only person obtaining consent from the subjects.

2. **Assessment of Capacity to Consent:** For research involving subjects with limited decision-making capacity, how will the capacity to consent be assessed?

Not Applicable.

3. **Process of Consent:** Describe the setting and conditions under which consent will be obtained, including any steps taken to enhance subjects' independent decision-making. A [consent form checklist](#) is available to guide you through the process.

A letter of consent will be sent to each participant via email.

4. **Non-English-Speaking Subjects:** For research involving non-English-speaking subjects, fully explain provisions in place to ensure comprehension. In addition, please submit translated copies of all consent materials.

Not Applicable.

5. **Parental Permission and Assent:** For research involving minors, please explain how parental permission and child assent will be obtained.

Not Applicable.

6. **Documentation of Consent:** Specify the forms that will be used among the following: adult consent form, parental permission form, LAR (Legally Authorized Representative) permission form, adult assent form, adolescent assent form (ages 13-17 inclusive), child assent form (ages 7-12 inclusive), and information sheet. Copies of all forms should be appended to the protocol, in the same format that they will be given to subjects.

Not Applicable.

7. **Waiver of Consent:** Will you request either a waiver of consent, or a waiver of signed consent, for this study? If so, please address the following:

Not Applicable

*Waiver of consent:*

- a) Does the research pose greater than minimal risk to subjects?
- b) Will the waiver adversely affect subjects' rights and welfare?
- c) Why would the research be impracticable without the waiver?
- d) How will pertinent information be returned to subjects, if appropriate at a later date?

*Waiver of signed consent:*

- a) Does the research pose greater than minimal risk? If so, does a breach of confidentiality constitute the principal risk to subjects?
- b) Would the signed consent form be the only record linking the subject and the research?
- c) Does the research include any activities that would require signed consent in a non-research context?

8. **HIPAA Authorization:** If the research involves the creation, use or disclosure of PHI, separate authorization is required under the HIPAA Privacy Rule. Please provide the HIPAA Research Authorization Form and/or a request for waiver of HIPAA authorization.

Not Applicable

## SECTION VII : PROTECTION OF RESEARCH SUBJECTS

1. **Risks:** What are the reasonably foreseeable risks, discomforts, or inconveniences associated with participation in the research?

Not Applicable



Please note: Potential research risks include more than physical harm; risks may also include, for example, emotional or psychological harm, risk of social stigmatization, economic or legal risk.

2. **Minimizing Risks:** How will the above-mentioned risks be minimized?  
All data will be destroyed after seven years.
3. **Data and Safety Monitoring Plan:** Please include a Data and Safety Monitoring Plan (DSMP) that includes an explicit statement of overall risks, addresses attribution and grading of adverse events and describes procedures for monitoring the ongoing progress of the research and reporting adverse events.

4. **Confidentiality:**

- a) Will private identifiable information about individuals be collected and used?  
NO
- b) How will research data be collected and recorded?

Upon receiving written consent from all subjects, instructions for completing the self efficacy scale and the 9-item questionnaire will be delivered via email. Bandura's Teacher Self-Efficacy Scale and a 9-item self developed questionnaire will be used to collect data. Data will be collected at two different points in time, prior to treatment (pretest) and post treatment (posttest). An initial internet link to the online instruments (Bandura's Teacher Self Efficacy Scale and the 9-item questionnaire) will be opened at the same time as the instructions are delivered to the subjects. Subjects will have a 5-day window to complete the initial questionnaires (pretest). Follow-up emails will be sent to all subjects not responding to the questionnaires until a return rate of 90% or greater has been achieved. At the conclusion of the treatment, a second link will be open to the online questionnaires. Again, subjects will have a 5-day window to complete the survey. Follow-up emails will be sent to all subjects not responding to the questionnaires until a return rate of 90% or greater has been achieved. All data will be recorded and stored in an online data bank.

- c) What methods and procedures will be used to safeguard the confidentiality of subjects and their data?

The researcher will adhere to all policies and procedures outlined in the IRB. All online data will be password protected. All participants will have a logon ID and password that will only allow them access to their individual information. The primary investigator will have a logon ID and password that will allow access to all data.

- d) What mechanisms are in place to ensure proper use and continued protection of these data?

The principal investigator specifically indicated in the letter of consent the criteria concerning the confidentiality and use of the data. At the conclusion of the research, the collected data will be downloaded and kept in a safe home vault for a period of seven years. No one else will have access to the data.

- e) Do any limits to confidentiality exist?  
No

- f) What will be done with the data when the research is completed?  
At the conclusion of the research, the collected data will be downloaded and kept in a safe home vault for a period of seven years. After that time, the data will be destroyed.
- g) Will any external individuals or agencies (such as the study sponsor, FDA, etc.) have access to study data?  
No
- h) If appropriate, has a Certificate of Confidentiality been obtained?  
Not Applicable
5. **Potential Benefits:** Please identify any benefits that may be reasonably expected to result from the research, either to subjects/participants or to society at large.

## SECTION VIII : RESEARCH ALTERNATIVES AND ECONOMIC CONSIDERATIONS

1. **Alternatives:** For studies offering treatment, what treatment alternatives are available outside of the research?  
*Please note: Some categories of non-treatment research may also require a section outlining alternatives to participation. For example, a study that provides screening for a particular illness or condition should state whether testing is available outside of the research.*  
Not Applicable
2. **Payments for participation (Economic Considerations):** Describe any payments that will be made to subjects/participants (including direct monetary payment, payment in the form of a gift, or reimbursement for costs such as travel, parking, childcare, etc.), and the conditions for receiving this compensation.

Participants in this study will not receive monetary payment.

**Costs for participation (Economic Considerations):** Clearly describe the subject's/participant's costs associated with participation in the research. If it is possible that the subject's insurance, health plan benefits, or other third party payers will not cover research procedures or tests, this should be indicated. Clearly describe the parts of the research visits (drugs, tests, procedures, etc.) that will be provided at no cost to the subjects.

*Please note: If payment will be prorated for subjects who do not complete the study, this should be clearly explained. If payment is conditional on completing the study, this should be clearly explained.*

Participants will not incur any expense for this study.

**In Case of Injury:** Will medical treatment be available if injury occurs? Where and from whom may treatment be obtained? Are there any limits to the treatment being provided? Who will pay for this treatment? How will it be accessed by subjects?

Not Applicable (No medical treatment will be available to participants during the study.)

## SECTION IX : FORMATTING

Please ensure that your protocol contains the header and footer formatting as demonstrated on this document and version date. Consent, assent, permission, and information sheets must also contain these headers, footers and version dates.

## SECTION X: RESEARCH INVOLVING DRUGS, DEVICES OR BIOLOGICS

Please note: protocols using chemicals, hormones, other natural substances, or devices not regulated by the U.S. Food and Drug Administration (FDA) must still complete this section of the application form. Based upon the information provided in items 1-4, the IRB will determine whether an Investigational New Drug (IND) or Investigational Device Exemption (IDE) application must be submitted to the FDA.

*Not Applicable*

1. **Identification of Drug, Device or Biologic:** What is the name of the drug, device or biologic being used? Please identify whether FDA approval has been granted, and for what indication(s).

*Not Applicable*

2. **Background Information:** Please provide a description of previous human participation/involvement, known risks, and data addressing dosages, intervals, routes of administration, and any other factors that might influence risks.

*Not Applicable.*

3. **Source:** Please identify the source of the drug, device or biologic to be used.

*Not Applicable.*

4. **Preparation and Use:** Please describe the method of preparation, storage, stability information, and for parenteral products, method of sterilization and method of testing sterility and pyrogenicity.

*Not Applicable.*

5. **Use of an Investigational Drug, Device or Biologic:** Protocols which utilize a drug, device or biologic not approved by the FDA must provide the following information.

*Not Applicable.*

- What is the Investigational New Drug (IND) or Investigational Device Exemption (IDE) number assigned by FDA?

*Not Applicable.*

- For IDE's: Did the FDA approve this IDE as a Category A (experimental/investigational) or as a Category B (non-experimental/investigational)?

*Not Applicable.*

- Who holds the IND or IDE?

*Not Applicable.*

- Is the drug or device provided free of charge by the Sponsor? Yes \_\_\_ No \_\_\_

*Not Applicable.*

6. The FDA requirements to qualify for an exemption from filing an IND are as follows [21 CFR 312.2(b)]:

Exemptions – The clinical investigation of a drug product that is lawfully marketed in the United States is exempt from the requirements filing for an IND if ALL the following apply:

- i. The investigation is not intended to be reported to FDA as a well controlled study in support of a new indication for use nor intended to be used to support any other significant change in the labeling for the drug;
- ii. If the drug that is undergoing investigation is lawfully marketed as a prescription drug product, the investigation is not intended to support a significant change in the advertising for the product;
- iii. The investigation does not involve a route of administration or dosage level or use in populations or other factor that significantly increases the risks (or decreases the acceptability of the risks) associated with the use of the drug product;
- iv. The investigation is conducted in compliance with the requirements for institutional (IRB) review and with the requirements for informed consent of the FDA regulations (21 CFR Part 50 and 21 CFR Part 56);

- v. The investigation is conducted in compliance with the requirements regarding promotion and charging for investigational drugs and
- vi. The investigation is not emergency research (21 CFR Part 50.24).

Not Applicable.

7. Use of Placebo: Does any part of the study involve placebo? Yes \_\_\_ No X

- a. If yes, please address each one of the following:
  - i. The safety and efficacy of other available therapies (if any).
  - ii. The maximum total length of time a participant may receive placebo on study.
  - iii. The greatest potential harm that may come to a participant as a result of not receiving effective therapy (immediate or delayed onset).
  - iv. Protocols in place to safeguard participants receiving placebo.

Taiwana Anthony (ID: 243547)

Saturday, March 31, 2012

# CITI Collaborative Institutional Training Initiative

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**Institution: Texas A&M University**
**Human Research Curriculum** (ID: 5416)

## IRB Reference Resource

Stage	Ref #	Start Date	Required Modules	Elective Modules	Score	Passing Score	Completion Date	Expiration Date	Modules Completed	Print Completion Report
1. Basic Course	1356706	01/17/06	Completed	Completed	90	80	01/17/06	01/17/08	<a href="#">Modules Completed</a>	<a href="#">Print Completion Report</a>
1. Basic Course	1747351	04/18/08	Completed	Completed	94	90	04/19/08	04/19/10	<a href="#">Modules Completed</a>	<a href="#">Print Completion Report</a>
2. Refresher Course	3992978	03/02/10	Completed	Completed	100	90	03/03/10	03/02/12	<a href="#">Modules Completed</a>	<a href="#">Print Completion Report</a>
3. Refresher Course	7107103	02/13/12	Completed	Completed	97	90	02/14/12	02/13/14	<a href="#">Modules Completed</a>	<a href="#">Print Completion Report</a>

**AN ASSESSMENT OF THE EFFECTIVENESS OF STRATEGIC E-MENTORING IN IMPROVING  
THE SELF-EFFICACY OF ALTERNATIVELY CERTIFIED NOVICE TEACHERS WITHIN AN  
INNER CITY SCHOOL DISTRICT**

I, Taiwana D. Anthony, a doctoral candidate at Prairie View A&M University, am conducting a research study on Strategic eMentoring as a method of building self-efficacy in alternatively certified novice teachers. You are being asked to participate in the study because; (1) you are new to the teaching profession, (2) you have enrolled in an alternative certification program, and (3) your input will help validate eMentoring as an effective methodology for building self-efficacy in alternatively certified novice teachers.

As a participant, you will not be asked to provide your name and address. You will be provided an email address and a password that will be used for all aspects of the study; i.e., responding to questionnaires and communicating with the principal investigator and eMentors. The study will last for six weeks of the certification program. There will be no cost or direct benefit to you as a result of participating in the study.

PARTICIPATION IN THE STUDY IS STRICTLY VOLUNTARY. You are free to decline or withdraw from the study at any time. Your decision to participate or not to participate will have no influence on your present or future status as a teacher. All information provided or obtained while conducting the study will be held in the strictest confidence. The information will remain in the sole possession of the principal investigator for seven years. No identifying information will be shared with or sold to any outside entity or used in the publication of the findings.

If you have questions about this research study, you can contact me at [taiwana\\_anthony@yahoo.com](mailto:taiwana_anthony@yahoo.com) (Phone: 469-355-4910), or Dr. Douglas Hermond at [dshermond@pvamu.edu](mailto:dshermond@pvamu.edu).

Sincerely,

*Taiwana D. Anthony*

**Consent Statement:**

If you understand the conditions of the study and agree to participate, please sign and date below. You will be given a copy of this consent letter to keep. This study has been approved by the Institutional Review Board at Prairie View A&M University. Information on Prairie View A&M University policy and procedure for research involving humans can be obtained from Dr. Marcia C. Shelton, Director, Regulatory Research Compliance, Office of Research & Development P.O. Box 519; MS 1200 Anderson Hall Room 104 Prairie View, Texas 77446 telephone 936.261.1588 or fax 936.261.1599 or via email [mcselton@pvamu.edu](mailto:mcselton@pvamu.edu).

\_\_\_\_\_  
Date

06-14-2009

\_\_\_\_\_  
Signature of Participant

*Taiwana D. Anthony*

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature of Principal Investigator

BANDURA'S INSTRUMENT  
TEACHER SELF-EFFICACY SCALE  
PERMISSION OF USE

From: Albert Bandura <[bandura@psych.stanford.edu](mailto:bandura@psych.stanford.edu)<<mailto:bandura@psych.stanford.edu>>>

To: Taiwana Anthony

<[taiwana\\_anthony@yahoo.com](mailto:taiwana_anthony@yahoo.com)<[mailto:taiwana\\_anthony@yahoo.com](mailto:taiwana_anthony@yahoo.com)>>

Sent: Tuesday, February 20, 2007 5:19 PM

Subject: Re: seeking permission to use the Bandura Teacher Self-Efficacy Scale Instrument

Permission granted to use the teacher self-efficacy scale.

Albert Bandura

Taiwana Anthony wrote:

>Dr. Bandura,

It is with great humbleness and esteem gratification that I am presented with the opportunity to inscribe this email to request permission to use the Bandura Teacher Self-Efficacy Scale. Let me start off by saying that I have enjoyed the many long hours of research on novice teacher self-efficacy. I have enjoyed reading the extensive amount of literature that supports your Social Learning Theory as well as The Social Cognitive Theory. I have learned so much from reading your work, Vygotsky, Lave, Knowles and many others that have contributed a significant amount of literature in this particular area.

> My proposal is "AN ASSESSMENT OF THE EFFECTIVENESS OF STRATEGIC EMENTORING IN IMPROVING THE SELF-EFFICACY OF ALTERNATIVELY CERTIFIED NOVICE TEACHERS WITHIN AN INNER CITY SCHOOL DISTRICT". With your permission, the Bandura Teacher Self-Efficacy Scale will be used as a pretest/posttest for the alternatively certified novice teachers. The test will be administered in the beginning of the study as well as at the end of the study to measure their teacher self-efficacy, in this experimental treatment of Strategic eMentoring. There are 179 participants in the initial group --of that group 20 % of the ACNT's will be utilized to complete the study -- 40 will be randomly selected for the general group -- 2 groups of 20 will be randomly selected and randomly assigned to either the control group or the treatment group so that the study will remain as a true experimental study and to ensure that each of the participants have an equal opportunity to be randomly selected as well as randomly assigned to either the control or the treatment group.

> If you are in need of additional information, please feel free to contact me through email at [taiwana\\_anthony@yahoo.com](mailto:taiwana_anthony@yahoo.com) or by phone at [469-355-4910](tel:469-355-4910). I look forward to hearing from you in the near future.

**BANDURA'S INSTRUMENT  
TEACHER SELF-EFFICACY SCALE**

This questionnaire is designed to help us gain a better understanding of the kinds of things that create difficulties for teachers in their school activities. Please indicate your opinions about each of the statements below by circling the appropriate number. Your answers will be kept strictly confidential and will not be identified by name.

**Efficacy to Influence Decision making**

How much can you influence the decisions that are made in the school?

1	2	3	4	5	6	7	8	9
Nothing		Very Little		Some Influence		Quite a Bit		A Great Deal

How much can you express your views freely on important school matters?

1	2	3	4	5	6	7	8	9
Nothing		Very Little		Some Influence		Quite a Bit		A Great Deal

**Efficacy to Influence School Resources**

How much can you do to get the instructional materials and equipment you need?

1	2	3	4	5	6	7	8	9
Nothing		Very Little		Some Influence		Quite a Bit		A Great Deal

**Instructional Self-Efficacy**

How much can you do to influence the class sizes in your school?

1	2	3	4	5	6	7	8	9
Nothing		Very Little		Some Influence		Quite a Bit		A Great Deal

How much can you do to get through to the most difficult students?

1	2	3	4	5	6	7	8	9
Nothing		Very Little		Some Influence		Quite a Bit		A Great Deal

How much can you do to promote learning when there is lack of support from the home?

1	2	3	4	5	6	7	8	9
Nothing		Very Little		Some Influence		Quite a Bit		A Great Deal

How much can you do to keep students on task on difficult assignments?

1	2	3	4	5	6	7	8	9
Nothing		Very Little		Some Influence		Quite a Bit		A Great Deal

How much can you do to increase students' memory of what they have been taught in previous lessons?

1	2	3	4	5	6	7	8	9
Nothing		Very Little		Some Influence		Quite a Bit		A Great Deal

How much can you do to motivate students who show low interest in schoolwork?

1	2	3	4	5	6	7	8	9
Nothing		Very Little		Some Influence		Quite a Bit		A Great Deal

How much can you do to get students to work together?

1	2	3	4	5	6	7	8	9
Nothing		Very Little		Some Influence		Quite a Bit		A Great Deal

How much can you do to overcome the influence of adverse community conditions on students' learning?

1	2	3	4	5	6	7	8	9
Nothing		Very Little		Some Influence		Quite a Bit		A Great Deal



How much can you do to get children to do their homework?

1	2	3	4	5	6	7	8	9
Nothing		Very Little		Some Influence		Quite a Bit		A Great Deal

### **Disciplinary Self-Efficacy**

How much can you do to get children to follow classroom rules?

1	2	3	4	5	6	7	8	9
Nothing		Very Little		Some Influence		Quite a Bit		A Great Deal

How much can you do to control disruptive behavior in the classroom?

1	2	3	4	5	6	7	8	9
Nothing		Very Little		Some Influence		Quite a Bit		A Great Deal

How much can you do to prevent problem behavior on the school grounds?

1	2	3	4	5	6	7	8	9
Nothing		Very Little		Some Influence		Quite a Bit		A Great Deal

### **Efficacy to Enlist Parental Involvement**

How much can you do to get parents to become involved in school activities?

1	2	3	4	5	6	7	8	9
Nothing		Very Little		Some Influence		Quite a Bit		A Great Deal

How much can you assist parents in helping their children do well in school?

1	2	3	4	5	6	7	8	9
Nothing		Very Little		Some Influence		Quite a Bit		A Great Deal

How much can you do to make parents feel comfortable coming to school?

1	2	3	4	5	6	7	8	9
Nothing		Very Little		Some Influence		Quite a Bit		A Great Deal

### **Efficacy to Enlist Community Involvement**

How much can you do to get community groups involved in working with the schools?

1	2	3	4	5	6	7	8	9
Nothing		Very Little		Some Influence		Quite a Bit		A Great Deal

How much can you do to get churches involved in working with the school?

1	2	3	4	5	6	7	8	9
Nothing		Very Little		Some Influence		Quite a Bit		A Great Deal

How much can you do to get businesses involved in working with the school?

1	2	3	4	5	6	7	8	9
Nothing		Very Little		Some Influence		Quite a Bit		A Great Deal

How much can you do to get local colleges and universities involved in working with the school?

1	2	3	4	5	6	7	8	9
Nothing		Very Little		Some Influence		Quite a Bit		A Great Deal

### **Efficacy to Create a Positive School Climate**

How much can you do to make the school a safe place?

1	2	3	4	5	6	7	8	9
Nothing		Very Little		Some Influence		Quite a Bit		A Great Deal

How much can you do to make students enjoy coming to school?

1	2	3	4	5	6	7	8	9
Nothing		Very Little		Some Influence		Quite a Bit		A Great Deal

How much can you do to get students to trust teachers?

1	2	3	4	5	6	7	8	9
Nothing		Very Little		Some Influence		Quite a Bit		A Great Deal

How much can you help other teachers with their teaching skills?

1	2	3	4	5	6	7	8	9
Nothing		Very Little		Some Influence		Quite a Bit		A Great Deal

How much can you do to enhance collaboration between teachers and the administration to make the school run effectively?

1	2	3	4	5	6	7	8	9
Nothing		Very Little		Some Influence		Quite a Bit		A Great Deal

How much can you do to reduce school dropout?

1	2	3	4	5	6	7	8	9
Nothing		Very Little		Some Influence		Quite a Bit		A Great Deal

How much can you do to reduce school absenteeism?

1	2	3	4	5	6	7	8	9
Nothing		Very Little		Some Influence		Quite a Bit		A Great Deal

How much can you do to get students to believe they can do well in schoolwork?

1	2	3	4	5	6	7	8	9
Nothing		Very Little		Some Influence		Quite a Bit		A Great Deal

## RESEARCH PROPOSAL FORM (continued)

## Part II. Information About the Study

## Study Overview

Study Title: § A Mixed Methods Assessment of The Effectiveness of Strategic eMentoring in Improving The Self-Efficacy and Persistence (or Retention) of Alternatively Certified Novice Teachers Within An Inner-City School District

Area of Study: § Strategic eMentoring \_\_\_\_\_

Specific Topic: § Teacher Self Efficacy \_\_\_\_\_

If "cut-and-pasting" text to complete the items below, make sure the text appears as Arial 10pt, line spacing 1.5.

1. **Abstract—including (but not limited to) the nature and rationale of the study, its primary supporting references in the literature, its need and expected applied or theoretical value:**

§"People who regard themselves as highly efficacious act, think, and feel differently from those who perceive themselves as inefficacious. They produce their own future, rather than simply foretell it." Albert Bandura.

This mixed methods assessment will constitute a broad spectrum of practical research that stems from, Malcolm Knowles Adult Learning Theory, Albert Bandura's Social Cognitive Theory, Albert Bandura's Social Learning Theory, Lev Vygotsky's Social Development Theory, and Lave's Situated Learning Theory. The theoretical framework stems from Bandura Teacher Self-Efficacy Scale. When capable teachers do not perform up to their potential despite positive environmental conditions, we must give more attention to the self regulatory process within individuals that promote or inhibit their performance. From the social cognitive view, self efficacy is an important factor that resides within the alternatively certified novice teacher and mediates between cognition and affect which result in changes in work performance (Zimmerman, Bandura, & Martinez-Pons, 1992). The growth and reduction of self efficacy is influenced over time by social comparison with peers and is therefore more pronounced as one grows older. Bandura states that a sense of efficacy enhances human accomplishment and personal well-being. Bandura put forward that behavior is largely determined by efficacy beliefs rather than by outcome expectations or by the knowledge and skills we possess. Assessment of one's own capabilities, he argued, is the basis for the outcomes they expect and for the knowledge and skills they seek and acquire.

Teachers are important figures in society. It is difficult to imagine society without effective teachers. Teachers educate, enhance students' motivation, and maintain effective and enactment goals. Bandura (1986) observed that there are a number of conditions under which self-efficacy beliefs do not perform their influential, predictive, or mediational role in human functioning. In prejudicially structured systems (p. 393), alternatively certified novice teachers tend to find that no amount of skillful effort will bring about desired outcomes. Bandura's (1989), Social Cognitive Theory is founded on a model which views self-efficacy beliefs as proximal determinants of human action. Expectation of efficacy affects thought patterns that stimulate a person to set high goals when confident in the ability to succeed, or to limit activities as a result of self-doubt.

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RESEARCH PROPOSAL FORM (*continued*)

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The pre-test/ post-test experimental design is more complex. It is called pre-test/ post-test because there are two points of measurement, one before the experimental treatment and one after the experimental treatment. Experimental research design will be used in this mixed methods assessment to gain a comprehensive understanding of Strategic eMentoring and the influence it has on alternatively certified novice teachers' self efficacy during their induction years of teaching. This mixed methods assessment will involve 30 alternatively certified novice teachers, randomization of selection and randomization of assignment, pre-test / post-test, control/treatment group design. A semi-structured interview will be triangulated with changes found in the scales and subscales of the Bandura Teacher Self Efficacy Scale and a qualitative section to determine alternative certified novice teachers, experience with strategic eMentoring with intent to remain in the profession in the short run as well as the long run. Bandura's instrument of teacher self efficacy will be used to measure, efficacy to influence decision making, efficacy to influence school resources, instructional self efficacy, disciplinary self efficacy, efficacy to enlist parental involvement, efficacy to enlist community involvement, and efficacy to create a positive school climate. A qualitative research methodology will be utilized to address the research questions to guide a section of the assessment. Since it is virtually unrealistic to test every member of a population, a sample from the population will be the greatest approach. The target population will include educational personnel from elementary and secondary education. 30 alternatively certified novice teachers will be asked to participant in the research assessment. These 30 teachers will be randomly assigned, 15 teachers to the treatment condition and 15 teachers to the control group. The treatment will consist of six weeks of strategic eMentoring. Both groups will be tested with a pretest at the beginning of the six weeks period and a posttest at the end of the six weeks. Pretest and posttest will include the Bandura Teacher Self Efficacy Scale and a scale to measure teacher intent to remain in the teaching profession. Questions related to the effectiveness of strategic eMentoring experience will be included in a semi-structured interview with respondents. The mixed method assessment will attempt to gain an extensive comprehensive knowledge base of strategic eMentoring and the influence it has on alternatively certified teacher self efficacy with efforts afforded to lowering the retention rate as well as implementation of strategic eMentoring as a practical application within an inner-city school district.

**2. Major hypotheses/questions to be investigated:**

This mixed methods assessment will be designed to research, analyze, both quantitative and qualitative approaches to offer a review of literature that focuses on teachers' self efficacy, mentoring that will aid the research analysis of strategic eMentoring for alternatively certified novice teachers with hopes and efforts afforded towards lowering the attrition rate among alternatively certified novices. Research compiled in the review of literature from empirical studies on teacher self efficacy, will help utilize viable efforts to provide a solid foundation on raising alternatively certified novice teacher self efficacy through a practical application called strategic eMentoring. This mixed methods assessment will guide its research by Bandura's conceptual model and the construct's relationship with various personal and contextual variables will drive the research questions posed for this mixed methods assessment.

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 RESEARCH PROPOSAL FORM *(continued)*


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## Research Questions

1. Does strategic eMentoring influence the instructional self efficacy in alternatively certified novice teachers?
2. Does strategic eMentoring influence the disciplinary self efficacy in alternatively certified novice teachers?
3. Does strategic eMentoring influence efficacy to create a positive climate in alternatively certified novice teachers?
4. Does strategic eMentoring influence the teachers self efficacy in alternatively certified novice teachers?
5. Does strategic eMentoring influence efficacy to enlist community involvement in alternatively certified novice teachers?
6. Does strategic eMentoring influence the efficacy of mentoring in alternatively certified novice teachers?
7. What observations did alternatively certified novice teachers who participated in eMentoring make regarding their experiences?

**3. Population(s) or data desired (describe in detail):**

A population consists of a set of objects, observations, or scores that have something in common. Since it is virtually unrealistic to test every member of a population, a sample from the population will be the greatest approach. The target population will include educational personnel from elementary and secondary education. There will be a total of 30 alternatively certified novice teachers ask to participant in the assessment.

The selected inner city school district is known to have a mentoring department as well as programs. The pool of potential inner city school district to research will not become a barrier. With the number of identifying mechanisms, criteria for selecting the inner city school district will not pose a challenge. The sample population in the assessment will be 30 alternatively certified novice teachers. Emails as well as written letters will be mailed through regular mail and sent via email to respondents in the assessment. The list of respondents will be generated from the designated inner school district selected for the assessment.

The researcher for this mix methods assessment will assign the subjects to groups on a random basis. The term random; essentially means that every subject has an equal chance of being assigned to any group. The intent is to equalize the groups however; there is no guarantee that the groups will be equal. The chance of obtaining unequal groups diminishes as the sample size increases. Researchers generally use a table of random numbers to facilitate the randomization process, for this mix method survey a table will not be used.

Respondents will be randomly selected from the list provided by the selected inner city school district alternative certification department using SPSS software. Upon receiving a response from the participants confirming their willingness to participate in the assessment, the participants will be provided a link to an online questionnaire. Instructions for completing the survey will be emailed and sent via regular mail to each participant. The sample population of the assessment will consist of 30 respondents varying from alternatively

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 RESEARCH PROPOSAL FORM *(continued)*


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certified novice teachers in elementary and secondary education. The participants will be required to complete the online questionnaire as well as any other forms associated with the data collection of this assessment. The qualitative section of the assessment will include interviews from the alternatively certified novice teachers. Sample selections will be based on the random sampling technique, due to the simple fact that a small random sample range of data show evidence of an increase in the researchers' ability to obtain accurate, valid and reliable data is maximized.

**4. Titles of instruments (forms, questionnaires, tests, etc.) to be used for data collection:**

§ Bandura's Instrument Teacher Self - Efficacy Scale

A questionnaire, called The Bandura's Instrument Teacher Self-Efficacy Scale, will be used to collect data in this mixed methods assessment. The instrument contains seven sections: Section one consists of items pertaining to the efficacy to influence decision – making. Section two consists of items pertaining to efficacy to influence school resources. Section three consists of items pertaining to instructional self-efficacy. Section four consists of items pertaining to disciplinary self-efficacy. Section five consists of items pertaining to efficacy to enlist parental involvement. Section six consists of items pertaining to efficacy to enlist community involvement. Section seven consists of items pertaining to efficacy to create a positive school climate. The Bandura Instrument is a 31 item, Likert-type scale instrument ('1' nothing '9' A Great Deal) that was constructed to measure self-efficacy in alternatively certified novice teachers. The questionnaire is designed to gain a comprehensive understanding of the kinds of things that create difficulties for alternatively certified novice teachers in their school activities.

Interview questions, in an open ended style, will be used to provide the researcher with additional data pertaining to the respondent's perceptions of their strategic eMentoring experience. Upon collecting the data, a panelist of peers will be used to provide credibility for the qualitative research questions.

In addition, to receiving and analyzing the data, additional interviews with alternatively certified teachers maybe conducted. The interviewees will be chosen randomly according to their survey responses, availability, and willingness to participate in the final segment of the mixed methods assessment. If any questions are ask following the written format, responses will be recorded manually by the researcher

**5. Procedures planned for implementing treatment(s), administering instruments, and/or collecting data from school records:**

In this mixed methods assessment, experimental research design will be employed to guide the assessment. This mixed methods assessment will examine a research population in which it is intended to generalize a target population of educational personnel in the selected inner city school district such as alternatively certified novice teachers at elementary and secondary levels. Educational research is a structured scientific inquiry into an educational question that provides an answer contributing toward increasing the body of generalized knowledge about educational concerns (Hopkins & Antes, 1990). All aspects of research activities connected to inquiry must be open to scrutiny by experts (Hopkins & Antes, 1990). The quantitative

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RESEARCH PROPOSAL FORM *(continued)*

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data that will be used in the mix-method assessment, will not consist of categorical data such as race, gender, these factors will not be used on a scale that indicates amount or degree.

The quantitative component of the assessment will be used to identify preventative measures for alternatively certified novice teachers. A factorial analysis will be conducted to evaluate the different research variables. Bandura's instrument of teacher self efficacy will be used to scale alternatively certified novice teachers' efficacy to influence decision making, efficacy to influence school resources, instructional self efficacy, disciplinary self efficacy, efficacy to enlist parental involvement, efficacy to enlist community involvement, and efficacy to create a positive school climate.

A qualitative research methodology will be utilized to address the research question to guide a section of the assessment. A qualitative inquiry will be used to determine the best method for obtaining the data that would yield in the answers to the research questions. Primarily every part of the qualitative data will be obtained through a semi-structured interview. Prior to the survey, the respondents will be asked to complete a demographic questionnaire and the respondents will be asked to not issue any identifying information on the demographics survey.

The qualitative component of the assessment will consist of interviews in order to gain feedback on the alternatively certified novice teacher experience with strategic eMentoring in relation to their self efficacy.

**6. Design and statistical techniques planned for data analysis:**

The pre-test-post-test experimental design is more complex. It is called pre-test-post-test because there are two points of measurement, one before the experimental treatment and one after the experimental treatment. Experimental research design will be used in this mixed methods assessment to gain a comprehensive understanding of Strategic eMentoring and the influence it has on alternatively certified novice teachers' self efficacy during their induction years of teaching. It is hypothesized that mentors and novice teachers differ on certain characteristics and these characteristics or qualities are pivotal in forming a successful mentoring relationship.

**7. Expected beginning date and completion date of study:**

§ February – April – The assessment and treatment will last for six weeks. The primary researcher will use part of April to bring the assessment to a close.

**8. Form in which findings will be reported:**

§ By working with eMentors, alternatively certified novice teachers; will be able to contribute to teachers' self efficacy beliefs in a variety of settings, contexts, and content areas, this assessment will constitute a spectrum of practical research using Bandura's Social Learning Theory - - the theoretical framework of teachers self efficacy scale in order to understand alternatively certified novice teachers' self efficacy in relation to lowering the attrition rate of alternatively certified novice teachers through a practical application called strategic eMentoring.





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Vice President for Research & Development  
Office of Research Compliance**

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[mcshelton@pvamu.edu](mailto:mcshelton@pvamu.edu)

Institutional Biosafety Committee   Institutional Animal Care and Use Committee   Institutional Review Board

**DATE: May 11, 2009      APPROVED  
MEMORANDUM**

**TO:    Taiwana Anthony, Doctoral candidate - COE- Principal Investigator  
         Douglas Hermond, PhD – Committee chair/advisor -EDLC**

**FROM: Marcia C. Shelton, PhD, Director, Research Regulatory Compliance**

**SUBJECT: Initial Review and Determination**

**PROTOCOL NUMBER: 2009- 0401-110 Initial Review**

**TITLE:**

An Assessment of the Effectiveness of Strategic eMentoring in Improving the Self-Efficacy of Alternatively Certified Novice Teachers Within an Inner City School District.

**REVIEW CATEGORY: Full Board Review– Reviewer: BA Spears (2/09/2009)**

**APPROVAL PERIOD: April 13, 2009 through April 12, 2010**

**Determination was based on the following Code of Federal Regulations:**

45 CFR 46.110 (b) (1) – Some or all of the research appearing on the list and found by the reviewer(s) involve no more than minimal risk.

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(7) Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation or quality assurance methodologies.

(Note: Some research in this category may be exempt from the HHS regulations for the protection of human subjects. 45 CFR 46.101 (b) (2) and (b) (3). This listing refers only to research that is not exempt.)

**Funded: - N/A**

**Provisions:**

**This research project has been approved for one (1) year. As principal investigator, you assume the following responsibilities:**

1. **Continuing Review:** The protocol must be renewed each year in order to continue with the research project. A Continuing Review along with required documents must be submitted 30 days before the end of the approval period. Failure to do so may result in processing delays and/or non-renewal.
2. **Completion Report:** Upon completion of the research project (including data analysis and final written papers), a Completion Report must be submitted to the IRB Office.
3. **Adverse Events:** Adverse events must be reported to the IRB Office immediately.
4. **Amendments:** Changes to the protocol must be requested by submitting an Amendment to the IRB Office for review. The Amendment must be approved by the IRB before being implemented.

**TAIWANNA DE'SHONE ANTHONY**

Ph. (469) 355-4910

Washington, DC 20003

Taiwanna.Anthony@gmail.com

**DOCTORAL RESEARCH FOCAL POINT**

An Assessment of the Effectiveness of Strategic eMentoring in Improving the Self-Efficacy of Alternatively Certified Novice Teachers within an Inner - City School District

- Strategic eMentoring
- Teacher Self Efficacy

Taiwanna Anthony  
Albert Bandura

**EMPLOYMENT**

District of Columbia Public Schools

08/2008 – Present

**Instructional Technology Coordinator ~ Technology Applications Teacher ~ Athletic Administrator ~ Dean of Students**

- Assist the principal in coordinating, directing and planning the STEM academic activities
- Handle technology needs for the entire staff including the teachers, counselors and students
- Review and recommend innovative modifications to upgrade existing programs
- Provide integrated instructional support to teachers by modeling, co-teaching, or coaching
- Conduct pre- and post- conferences with teachers to review observations and evaluations
- Facilitate staff development workshops
- Taught in low-income, high-minority neighborhoods
- Develop school-wide technology resources
- Collect and report assessment data to reflect student benchmarks
- Provide support services to individual students, small groups and whole classrooms
- Serve as a member of the support team for students interested in STEM pursuits
- Develop and maintain outreach programs and community partnerships
- Integrate technological materials into the curriculum
- Implement new technology in the classroom
- Manage a staff of 10 to 15 coaches
- Manage all athletics
- Manage athletic budget
- Supervise facility

Independent Contractor

07/2006 – Present

**Educational Consultant**

- Provide consulting in the public education and higher education environments related to the content areas of STEM and regular education
- Serve as a content expert
- Authored scholarly journal articles
- Provide consulting in the public education and higher education environments related to low-income, high-minority neighborhoods
- Provide consulting in the public education and higher education environments related to at-risk students
- Provide consulting in the public education and higher education environments related to African American males
- Provide consulting in the public education and higher education environments related to integration of technology in the bilingual classroom
- Provide consulting in the public education and higher education environments related to integration of technology in special education

Dallas ISD Adult Basic Education Program

01/2005 – 05/2008

**Instructional Coordinator ~ Curriculum Specialists ~ GED**

- Planned, developed, promoted, implemented and evaluated state testing programs
- Provided training for educators
- Reviewed products for students
- Planned training for teachers
- evaluate how well a school or training program's curriculum, or plan of study, meets students' needs
- Taught in low-income, high-minority neighborhoods
- Implement new technology in the classroom
- Facilitate and coordinate multiple GED sites
- Recruited, trained and managed contracted teachers
- Administer the TABE and BEST Plus test
- Review textbooks, software, and other educational materials to make recommendations
- Plan and provide onsite education for teachers

Dallas Independent School District

08/2004 – 05/2008

**Technology Applications ~ System Administrator ~ Fine Art Department Head**

- Manage an instructional program targeted to improve student achievement
- Supervise teachers,
- Mentor teachers
- Taught in low-income, high-minority neighborhoods
- Evaluate classroom environment and instruction
- Establish and enforce discipline procedures
- Provided consultation and consequences for students with attendance or behavior issues
- Report student performance and enrollment
- Monitor the ways in which teachers use materials in the classroom

- Integrate technological materials into the curriculum
- Implementing new technology in the classroom
- Coordinators also may develop questionnaires and interview school staff about the curriculum
- Collaborated with Pearson's in the development of technology based lessons

Dallas Independent School District

08/2000 – 05/2003

### **Technology Applications ~ Instructional Team Leader**

- Taught in low-income, high-minority neighborhoods
- Designed standards-based lesson plans according to District and state guidelines
- Provided instruction using research-based best practices in pedagogy
- Utilized the constructivist approach to facilitate hands-on technology lessons
- Utilized data to make instructional decisions
- Promoted a positive learning environment for students
- Maintained appropriate student records
- Modified assignments and assessments to meet the needs of all learners
- Collaborated with administrators, teachers, resource professionals, instructional coaches, and central office staff
- Evaluate classroom environment and instruction
- Establish and enforce discipline procedures
- Collaborated in developing computer curriculum for Dallas ISD regular education students and students with learning disabilities; such as but not limited to autism, ADD, ADHD, Dyslexia
- Participated in on-going professional development
- Coordinator of after school computer education program
- Coordinator of Sarah Zumwalt cheerleaders and pep squad
- Collaborated in developing and obtaining computers for Zumwalt computer labs

Red River Parish School Board

08/1999 – 05/2000

### **Technology Applications ~ Instructional Team Leader**

- Taught in low-income, high-minority neighborhoods
- Designed standards-based lesson plans according to District and state guidelines
- Provided instruction using research-based best practices in pedagogy
- Utilized the constructivist approach to facilitate hands-on technology lessons
- Utilized data to make instructional decisions
- Promoted a positive learning environment for students
- Maintained appropriate student records
- Modified assignments and assessments to meet the needs of all learners

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**EDUCATION & CERTIFICATION**


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Prairie View A&M University  
PhD Educational Leadership, 2012

Prairie View, Texas

Instituto de Mexico  
Spanish, 2004

Cuernavaca, Mexico

Southern Methodist University  
Bilingual Education, 2003

Dallas, Texas

Texas A&M University  
Technology Applications, 2003

Commerce, Texas

Northwestern State University  
Specialist in Education, 2001

Natchitoches, Louisiana

Northwestern State University  
Master of Arts in Education, 2000

Natchitoches, Louisiana

Northwestern State University  
Bachelor of Arts in Social Work, 1997

Natchitoches, Louisiana

District of Columbia  
Computer Education Laboratory/ K-12

Expires 2013

District of Columbia  
Educational Technology Teacher/Trainer

Expires 2013

Louisiana  
Computer Science

Expires 2013

Texas  
Technology Applications

Expires 2013

Texas  
Probationary Mid-Management Certification

Texas  
Professional Development Appraisal System (PDAS)

Texas  
Instructional Leadership Development

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**PROFESSIONAL PUBLICATIONS**

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**ED493137:** National Implications: An Analysis of E-Mentoring Induction Year Programs for Novice Alternatively Certified Teachers

**ED492240:** National Outlook: An Epistemological Approach to Educational Philosophy

**ED492142:** Education in a Test Taking Era

**ED492546:** Bilingualism and How it Impacts the African American Child

**ED494448:** A Mixed Methods Assessment of the Effectiveness of Strategic eMentoring in Improving the Self-Efficacy and persistence (or Retention) of Alternatively Certified Novice Teachers

**ED495291:** National Implications: Postmodernism and the Implications for Educational Leadership

**ED495293:** National Impact: How to Implement the “Ways of Knowing through the Realms of Meaning” in Human Resource Management - - Ten Recommendations

**ED495294:** National Focus: An Analysis of Human Resource Management: Involving Administrative Leadership as a Means to Practical applications

**ED495296:** National Cry For help: Psychological issues as They Relate to Education; A realistic Approach to understanding and Coping with the African American Male

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**CITED IN PROFESSIONAL PUBLICATIONS**

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Carpentier, D. 2012. Bilingual education as it relates to African-Americans: the Ebonics debate. Retrieved from: <http://sfbayview.com/2012/bilingual-education-as-it-relates-to-African-Americans-the-ebonics-debate.htm>

Akin, L. & Hillbun, J. 2009. E-Mentoring in Three Voices. Retrieved from: <http://www.westga.edu/~distance/ojdla/spring101/akin101.htm>

Taylor, L.J., Mills, E. & Merino, B. 2007. Applying Goldratt’s Root-Cause Analysis Theory to the problems associated with a West Texas County elementary School System. Retrieved from: [http://sbaer.uca.edu/wpcontent/plugins/st\\_newsletter/stnl\\_iframe.php?newsletter=114](http://sbaer.uca.edu/wpcontent/plugins/st_newsletter/stnl_iframe.php?newsletter=114)

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**EDUCATIONAL TRAINING**

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Administrator - Probationary Principalship

Amistad Commission Summer Institute at Montclair State University

Computer Education Laboratory/ K- 12 Grade Level

Educational Technology Teacher/Trainer K-12 Grade Level

National Interscholastic Athletic Administrator

Teacher - Technology Applications

8 – 12 Bilingual Education

Instructional Leadership Development (ILD)

Professional Development Appraisal System Training (PDAS)

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**PROFESSIONAL AFFILIATIONS**

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American Civil Liberties Union

Commission on Adult Basic Education

International Society of Poets

League of Black Women

National Alliance of Black School Educators

National Association of Disability Benefits Specialists

National Association of Independent Living

National Association of Multicultural Rehabilitation Concerns

National Association of Rehabilitation Counselors and Education Association

National Association of Rehabilitation Leadership

National Association of Rehabilitation Support Staff

National Association of Service Providers in Private Rehabilitation

National Association of Vocational Evaluation and Work Adjustment Association

National Business Education Association

National FORUM Society of Educators

National Rehabilitation Association Job Placement and Development  
 National Rehabilitation Counseling Association  
 United Nations Associations of the United States of America

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## PROFESSIOANL ACALADES

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Academic Keys Who's Who

Cambridge Who's Who

Chi Sigma Iota

Division Winner - - Graduate Poster Presentation - - Texas A & M Pathway Student  
 Research Symposium - - Fall 2006

Madison Who's Who

International Society of Poets

Kappa Delta Pi

Prairie View Who's Who

Who's Who in Administration and Supervision

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## PROFESSIOANL REFERENCES

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