Securing Tennessee’s Future

Perception of Preparedness of Novice Teachers from Alternative and Traditional Licensing Programs

TICUA
Perception of Preparedness of Novice Teachers from Alternative and Traditional Licensing Programs

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Lipscomb University

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Perception of Preparedness of Novice Teachers from Alternative and Traditional Licensing Programs

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Programs Perception of Preparedness of Novice Teachers from Alternative and Traditional Licensing

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Doctor of Education

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Perception of Preparedness of First and Second Year Teachers from Alternative and Traditional Licensing Programs

Abstract

Alternative teacher licensing programs have become very popular; however, very little research has been conducted on the efficacy of the programs. Alternative licensing programs (ALPs) have evolved and multiplied rapidly over the last few decades. The Tennessee Independent Colleges and Universities Association (TICUA) is attempting to determine the effectiveness of alternative teacher licensing programs that exist in the state of Tennessee. The purpose of this study was to assess the efficacy of teacher preparation pathways between teachers who received training through ALPs and teachers who received certification through Traditional Licensing Programs (TLPs). This study also examined the perceptions of building principals with respect to efficacy of teachers trained through ALPs compared to the efficacy of teachers trained through TLPs. No significant relationships were found between the amount of teacher training and their perception of self-efficacy in the four domains of professionalism, instruction, environment and planning. There were no statistically significant differences found in the pre-service training (student teaching hours and credit hours) received between alternative non-TFA and alternative TFA trained teachers. There was a significant level of difference in in-service mentoring hours between teachers certified through TFA and teachers certified through a non-TFA alternative program. Future research should focus on comparing traditionally trained teachers’ effects on student achievement to alternatively licensed teachers’ effects on student achievement.

Keywords: alternative teacher certification, efficacy, perception
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Chapter 1

Introduction

Alternative teacher licensing programs (ALPs) have become very popular; however, very little research has been conducted on the classroom efficacy of the teachers prepared in their programs. The Tennessee Independent Colleges and Universities Association (TICUA) is attempting to determine the effectiveness of ALPs that exist in the state of Tennessee. While the Tennessee Higher Education Commission (2010) has started to link teacher preparation programs to a teacher’s academic success and growth in the Report Card on the Effectiveness of Teacher Training Programs, this study will examine teacher and principal perceptions about the level of efficacy seen in new teachers.

Although the majority of new teachers are still traditionally prepared through institutions of higher education, ALPs have evolved and multiplied rapidly over the last few decades, and the number of teachers trained through an alternative pathway are increasing (Goldhaber & Liddle, 2012, p. 1). ALPs are described as routes through which an individual who already has at least a bachelor’s degree can obtain certification to teach without going back to college and completing a college, campus-based teacher education program (“Alternative routes”, 2006). Helton (2008) found that even “No Child Left Behind provisions recognized ALPs as an effective method of training new teachers,” and this recognition spurred states to develop more [of these] programs (p. 53). According to the United States Department of Education (USDOE) the No Child Left Behind Act (NCLB) of 2001:

Defines a highly qualified teacher as one who has met minimum state licensing criteria for the area in which he or she teaches, including completion of a baccalaureate program
in the subject area, as well as passing standardized content-based and pedagogy tests (USDOE, 2011).

The goal of NCLB was to equalize public education offerings across the nation by ensuring that all public schools, and the diverse populations they serve, had highly qualified teachers within their classrooms. This necessitated federal regulations that required “that all teachers complete a teacher preparation program in order to be qualified to teach under federal guidelines” (Goodwin, 2011, p. 1).

In support of this initiative, the Obama administration has devised a plan with the assistance of the USDOE (2011) to help improve teacher efficacy by reforming teacher preparation programs within the United States. The administration based its plan on the research of authors such as Aldeman, Carey, Dillon, Miller & Silva (2011). According to Levine (2006), 62% of new teachers feel unprepared for the classroom, possibly due to the fact that “many programs do not provide teachers with a rigorous clinical experience...” (p. 10). Clinical experiences are thought to be an important aspect of most traditional preparation programs; however, it appears that there is a high degree of inconsistency in the provision of clinical experiences to teachers in their training programs.

The USDOE recognized that there has been very little monitoring of teacher preparation programs that are offered by institutions of higher education. Aldeman et al. (2011) identified that of the approximately 1,400 programs within the nation, only 2%, or 37 were ever identified as being low-performing. In fact, just over 50% of states have failed to identify any low performing teacher preparation programs during the past decade (USDOE). This is concerning because it implies a lack of oversight which may contribute to a more disparate level of preparation seen among graduating teachers.
The Center for American Progress also recently called for radical changes in teacher education programs, whether alternative or traditional (Crowe, 2010). For both types of teacher preparation programs, the same standards of accountability must be adhered to. In Crowe’s recent publication “Measuring What Matters,” they called for five standards of accountability for alternative and traditional teacher program graduates, including: a teacher effectiveness measure; observation criteria and rubrics; public record of retention and attrition rates for all program graduates for up to five years post-completion; feedback surveys from graduates and principals; and a new national and uniform system of teacher licensure testing (Crowe, 2011, p. 7-8).

Although the Obama administration is quick to offer suggestions to improve teacher quality and preparation programs, it should be noted that there are exemplary programs that could serve as a model for other institutions seeking to prepare educators for success within the classroom. These exemplary programs consist of both traditional pathways in institutions of higher education and alternative programs that have been very successful in not only recruiting talent, but in preparing them to be effective within the classroom (USDOE, 2011).

**History and background**

According to Helton (2008), currently alternative pathways are for individuals “who typically, but not always, [hold] an undergraduate degree in a field other than education to learn on the job or complete a shortened training program in order to gain full certification” (p. 52-53). Levine (2006) defined alternative certification programs as “everything under the sun except traditional university programs” (p. 16). Berry (2001) believes that their focus, although varied, encompasses some aspects of “content, duration, rigor, and support for the novice teacher” (p. 33). Ultimately, it is expected that these alternative pathways should be equal in rigor to traditional programs and teachers in training must meet identical standards and measures in order
to obtain a professional teaching license. Additionally, the aforementioned standards and measures should ensure that pathways for teacher licensure adequately address the essential pedagogical skills needed for teaching.

Regarding the effectiveness of alternative routes versus traditional certification programs, research by Darling-Hammond, Holtzman, Gatlin, and Heilig (2005) on Teach for America recruits found that those “who become certified after 2 or 3 years do about as well as other certified teachers in supporting student achievement gains; however, nearly all of them leave within 3 years” (p. 2). A study by Harris (2002) in Texas found that “of the 6,557 employed alternatively certified teachers, 507 left classroom teaching in Texas public schools by the end of the second year” (p. 87). This high attrition rate results in the hiring of new teachers at a lower level of efficacy than the ones leaving. Therefore, new teachers who are at the lowest level of efficacy are rotated through schools on an annual basis.

The populations most affected by this continuous cycling of teachers are traditionally large urban cities, with high minority, low socioeconomic student populations (Darling-Hammond et al., 2005, p. 13). The most affected populations have the greatest number of alternatively trained teachers thus increasing the urgency of examining the efficacy of such programs. Ingersoll (2004) stated in his review of school staffing that “the data indicate that school staffing problems are primarily due to a “revolving door” – where large numbers of qualified teachers depart from their jobs long before retirement” (p. 2). Furthermore, Ingersoll determined that “high-poverty public schools, especially those in urban communities” lose about 20% of their faculty each year (p. 2). It is recognized that there is a two-fold problem at hand, one of high teacher rotation in urban schools, and the other of an increasing number of alternatively trained teachers filling the resulting openings at these schools. This is important
because teachers’ effectiveness appears to be related to years of experience, as well as, “the preparation they have received for teaching” in the classroom (Darling-Hammond, et al, 2005, p. 2).

A report by Constantine, et al. on alternative teacher certification routes was commissioned by the United States Department of Education in 2009. It sought to address the effects on student achievement of teachers who were trained through alternative routes and to determine what aspects of the alternative teacher certification program may be associated with teacher effectiveness (Constantine et al., 2009). Although supporters of traditional teacher certification programs have argued that alternatively certified teachers are insufficiently prepared and therefore less effective than traditionally prepared teachers, the findings of the report indicated:

There was no statistically significant difference in performance between the students of alternatively certified teachers and traditionally certified teachers; and there is no evidence that greater levels of teacher training coursework were associated with the effectiveness of alternatively trained teachers in the classroom, nor is there evidence that the content of the coursework is correlated with teacher effectiveness or that even an undergraduate major in education is correlated with student achievement. (Constantine et al., 2009, p. 69)

Goldhaber and Liddle (2012) examined teacher preparation programs based on student achievement, a current initiative undertaken by many states due to the provision of Race to the Top (RTTT) funds (p. 2). Their study found that much of the research undertaken thus far has been focused on comparing traditionally trained to alternatively trained teacher efficacy. In addition, they found very little difference between the degree of efficacy of teachers produced
through either alternative or traditional teacher training routes. These findings have caused some to question the necessity of traditional teacher training programs that are often longer in length and are considered a more financially burdensome route to becoming an educator (Goldhaber & Liddle, 2012, p. 3).

**Problem**

The efficacy of alternative teacher pathways is currently unknown. According to Zeichner and Cochran (2005), studies on teacher preparation programs have yielded conflicting findings regarding teacher efficacy. Across the studies is a lack of information about the teacher preparation programs, the teachers enrolled in the program, and the places the teachers teach after completion of the program.

**Purpose**

The purpose of this study is to assist TICUA with assessing the efficacy of teacher preparation pathways. TICUA was established in 1956 to promote better cooperation among private institutions throughout the state of Tennessee. The association is governed by a Board of Directors, which is comprised of member college presidents and corporate and civic leaders. There are currently 34 member colleges and universities who educate approximately 76,000 students across the state of Tennessee. Additionally, TICUA works collaboratively with colleges and universities in areas of public policy, cost containment and professional development. This study will hopefully provide credence to recommended public policy changes within the state of Tennessee, as well as provide guidance to the alternative and traditional licensing programs that are graduating many of Tennessee’s novice teachers (Tennessee Independent Colleges and Universities Association).
Strengths and weaknesses as identified by teachers within the state of Tennessee with respect to their teacher preparation programs will be examined. A perceived level of teacher preparedness will be assessed through a mixed methods approach. To accomplish this, the researchers will evaluate the standards and measures used in both ALPs and TLPs, and relevant research will help identify particular traits and characteristics of the programs themselves. Teacher perception of preparedness, along with research about strengths and weaknesses of well-known alternative licensure programs and traditional programs will inform TICUA and policymakers of changes that need to be made to current teacher training programs. This particular study will identify the components of alternative teacher licensing programs, particularly in pre-service or in-service training, that are more effective than others, including those that may be within traditional education programs.

**Theoretical framework**

Because there is limited research in the theory of teacher education, this research study will be viewed as exploratory (Yarger & Smith, 1990). The paradigms for teacher research will focus on components and outcomes rather than the process of educating teachers. This is similar to Bandura’s social cognitive theory (1997), whose influence on assessing teacher quality comprised into two important measures, the examination of teacher efficacy and outcome expectancy (Tschannen & Hoy, p. 787).

Feiman-Nemser (1990) defined a conceptual orientation as “a set of ideas about the goals for teacher preparation and the means for achieving them” (p. 20). This can include practical activities of teacher programs such as planning, course development, instruction, supervision, and evaluation (p. 20). The conceptual framework in this study will examine planning and instruction as components of teacher programs. Specifically, differences in quality or degree of
focus between the two components found in alternative certification programs and traditional teacher training programs will be examined.

Although the researchers had limited access to previous student achievement data and its association with teacher preparation programs based upon the Tennessee Higher Education Commission’s *2012 Report Card on the Effectiveness of Teacher Training Programs*, they were not able to gather student achievement data and teacher effect data for this current year’s study. Therefore, the theoretical framework in this study is based upon the assumption that teacher training and preparation has a direct influence on classroom performance and student learning.

Teacher learning in a teacher preparation program is derived from numerous interdependent variables: prior career before coming into education, prior knowledge and skills, coursework, mentoring, and learning through experience. This study’s framework implies that studying teacher training and learning demands the use of authentic tasks of teaching that measure teacher knowledge and skill growth over time as provided by their pre-service training program and their in-service development and practice.

Grossman, Smagorinsky, and Valencia (1999) propose a different theoretical framework known as activity theory for studying teachers’ professional training. Findings can be viewed as less contradictory and more as pieces to a larger puzzle. Grossman, et al., (1999) define activity theory as “capable of unifying diverse research findings because of its emphasis on the settings in which conceptions of teaching develop” (p. 4). This is due to the fact that “it emphasizes the social settings in which concept development occurs, [therefore it] has the potential to illuminate how teachers’ progression through a series of contexts can mediate their beliefs about teaching and learning and, consequently, their classroom practices” (p. 4).
Also Grossman, et al., identified two additional researchers, Cole (1996) who defined activity theory as “the assumption that a person's frameworks for teaching and learning are developed through problem-solving action carried out in specific settings, whose social structures have been developed through historical and culturally grounded actions” (p. 4). Activity theory can, therefore, help us account for multiple pathways in teacher learning and training. Rather than seeking uniform reasons behind differences in teacher efficacy to institutional values, an approach grounded in activity theory can connect with issues of influences in core values and beliefs and environmental factors. From this theoretical perspective, then, the question is not to discover a single cause that accounts for all differences in growth, but to examine under what circumstances do particular kinds of changes take place.

Within the scope of teacher training, the ultimate goal for teacher candidates is to assume the competencies of an effective teacher and effectively increase student achievement. However, the definition of an effective teacher may differ dramatically in different settings. Similarly, all trainees in teacher preparation and education, including school level educators and university-level educators, hold presuppositions about how someone learns to teach. These beliefs help shape how they interact with and support beginning teachers. These differing and often conflicting belief systems and their relative authority and influence over teachers in training often result in both multiple pictures of an effective teacher and multiple pathways to guide professional development toward those ideals. Teachers in training often find themselves frustrated because what was learned in pre-service programs may not transfer explicitly to the classroom.

Ultimately, this study will mainly focus on Bandura’s social cognitive theory for its theoretical framework, because it aims to measure teacher efficacy and outcome expectancy
In order to validly measure teacher efficacy and outcome expectancy, the researchers used the Tennessee Teacher Evaluation Rubric in the design of the questionnaire. The rubric, based on the Tennessee Educators Acceleration Model, was constructed with the intention of being a comprehensive and valid measure of classroom practice and teacher effectiveness and therefore should be a reliable model for the surveys used within this study. However the researchers acknowledge that by not incorporating measures from Grossman, et al.’s activity theory, they have created potential limitations for this study because different contexts can influence teacher learning and therefore, teacher preparation (Grossman, et al, p. 5).

**Significance of the study**

This research will contribute useful information to many stakeholders. Policymakers will benefit from the study as they draft bills regarding alternative pathways to teacher certification. Alternative licensing providers (e.g., Teach for America) will benefit from the study as they consider the strengths of varying components of ALPs. Kindergarten through 12th grade administrators will benefit from the study as they make employment decisions on candidates with traditional certification versus alternative certification. Universities that host alternative teacher preparation programs will not only benefit from the study as they consider strengths of varying components of ALPs, but they will be able to strengthen traditional pathways by incorporating any identified strengths into their traditional teacher preparation program.

In addition, if this study allows the researchers to pinpoint certain causes of teacher attrition as related to insufficient teacher preparation or mentoring, employers will have the opportunity to remediate these causes and increase teacher retention. Ultimately, it is believed
that this study will contribute to the body of literature on teacher preparation programs, especially ALPs that are contributing to the teacher workforce at a growing rate.

**Research questions**

The research questions that will be addressed in the context of this study are:

1. What components of pre-service training within alternative licensing programs reveal higher levels of effectiveness?
2. What components of in-service training in alternative licensing programs reveal higher levels of effectiveness?
3. What are the current supervising principals’ perceptions of teacher efficacy with respect to both traditionally trained and alternatively trained teachers, with five or less years’ experience within their school regardless of pathway of teacher preparation?
4. What are Tennessee teachers’, with five or less years of experience, perceptions of their own efficacy?

**Hypotheses**

The hypotheses formulated as a result of the research questions are:

1. There is a statistically significant relationship between the amount of teacher training, measured in number of credit hours, whether TFA, or non-TFA alternative or traditional trained teachers, and their perception of self-efficacy in the domain of professionalism.
2. There is a statistically significant relationship between the amount of teacher training, measured in number of credit hours, whether TFA, or non-TFA alternative or traditional trained teachers, and their perception of self-efficacy in the domain of instruction.
3. There is a statistically significant relationship between the amount of teacher training, measured in number of credit hours, whether TFA, or non-TFA alternative or traditional trained teachers, and their perception of self-efficacy in the domain of environment.

4. There is a statistically significant relationship between the amount of teacher training, measured in number of credit hours, whether TFA, or non-TFA alternative or traditional trained teachers, and their perception of self-efficacy in the domain of planning.

5. There is a statistically significant difference between the year of experience, first, second, third, fourth, or fifth year, whether TFA, non-TFA alternative, or traditionally trained, and the teacher’s overall perception of self-efficacy as determined by the self-assessment in the four domains: professionalism, instruction, environment, and planning.

6. There is a statistically significant relationship between the principals’ perception of first, second, third, fourth year and beyond, whether TFA, non-TFA alternative, or traditionally trained teachers, and the teachers’ overall perceptions of self-efficacy as determined by the self-assessment in the four domains: professionalism, instruction, environment, and planning.

7. There is a statistically significant difference identified between alternative and traditionally trained Tennessee teachers’ perception of their self-efficacy.

8. There is a statistically significant difference between the amounts of in-service mentoring, measured in hours per week, received by alternative non-TFA and alternative TFA trained teachers.

9. There is a statistically significant difference between the amounts of pre-service observation hours, measured in hours, received by alternative non-TFA and alternative TFA trained teachers.
10. There is a statistically significant difference between the amounts of pre-service student teaching hours received by alternative non-TFA and alternative TFA trained teachers.

11. There is a statistically significant difference between the amounts of pre-service training credit received by alternative non-TFA and alternative TFA trained teachers.

12. There is a statistically significant difference between principal perception of teacher efficacy of alternatively certified and traditionally certified teachers.

**Variables**

The dependent variables in this study are the perceptions of preparedness of TFA, non-TFA alternative, and traditionally trained teachers. The independent variables will consist of teacher self-efficacy scores, years of experience, principal perceptions of teacher efficacy, and pre-service and in-service training. Additionally, the alternative and traditional licensing programs examined will be independent variables within this study. Efficacy for the purpose of this study will be measured in alignment with current Tennessee teacher evaluation standards and indicators, which include the four domains of professionalism, instruction, environment, and planning.

**Scope and bounds**

Rather than declaring alternative certification a completely good or bad enterprise (as proponents and opponents, respectively, tend to do), the researchers will attempt to identify both the positive and negative aspects of the TFA, non-TFA alternative, and traditionally trained teacher preparation programs as suggested by Hough (2008). It is important to note the delimitations of this endeavor, as teacher development in alternative certification appears to be a function of the interaction between the programs as implemented, the school context in which the on-the-job training occurs, and the career trajectory of the individual participant.
The researchers limited the study to teachers with five or less years of experience since the completion of their teacher preparation program, because teachers beyond the first years may be unable to accurately recall their original perceptions of their training program. In addition, the researchers did not address the age, socioeconomic status, and previous cultural experiences of new teachers in the context of this study.

Alternative programs found within the state of Tennessee, and those from across the nation that have been referenced and commended numerous times, are included within the literature review of this study. Of particular interest will be those programs that have a presence in the state of Tennessee, such as Teach for America, as the findings may help reform traditional and/or alternative programs within the state.

Specifically examined will be the following components of ALPs: a) pre-service training/orientation, b) in-service support/professional development, c) evaluation and assessment practices, d) classroom management curriculum, e) focus on teaching assessment, f) content knowledge, and g) breadth of pedagogy taught.

**Definitions**

There are several variations of terminology used in literature to describe alternative licensing programs. Dial and Stevens (1993), utilized the term “alternative teaching certification” (ATC) in their research studies. The U.S. Department of Education has also used the term “alternate route” to define programs and policies pertaining to alternative licensing programs. Alternative certification is a term used to describe a relatively new way to obtain state-granted teaching certificates through a route, which requires an individual to typically already hold at least a bachelor’s degree (“Alternative routes”, 2006).
Undoubtedly, the variety of terms used to denote alternative teaching certification programs and policies is testament to the diversity across the United States (Hohnstein, 2008, p. 24). For the purpose of this study the acronym “ALP(s)” will be used to refer to alternative licensing program(s), which are defined as routes through which an individual who already has at least a bachelor’s degree can obtain certification to teach without necessarily having to go back to college and complete a college, campus-based teacher education program (“Alternative routes”, 2006).

Likewise, teachers trained in ALPs are referred to as “alternatively trained teachers,” and can be differentiated furthermore as either being Teach for America (TFA) or non-TFA. TFA trained teachers are the result of a well-known and established ALP. They are examined as separate from other ALPs in this study due to the heightened interest in the efficacy of their program. Traditional teacher preparation programs will be used to describe traditionally trained teachers who have completed programs that are offered by universities and colleges to both undergraduate degree holders. These programs consist of conventional curriculum, traditional program length, and student teaching requirements (“Alternative routes”, 2006).

Efficacy is defined for the purpose of this study as the teacher’s ability to perform one’s respective duties and to elicit an effect. In this case, the effect would be the resulting student engagement and learning (Tschannen-Moran & Woolfolk-Hoy, 2001, p. 783). Woodcock (2011) stated that “Teachers’ own judgments of their abilities to enhance students’ learning and achievements can play a vital role in determining a student’s performance in the classroom, even more, perhaps, than student characteristics” (p. 23).

The researchers in this study have also developed several operational terms that will be used. Below are the terms and definitions that pertain to alternative licensing programs.
· Pedagogy - is “for the purpose of this study, the scientific methods and skills of teaching” (Helton, 2008, p. 12).
· Perception - will be used to describe a feeling of self-efficacy or “a feeling of being prepared to do something” (Lowe, 2012, p. 2).
· Pre-service training - will be used to describe the educational training that teachers obtain before beginning formalized teaching (TNTP, 2013).
· In-service training - a curriculum model that provides teachers with both theory and practical application (High/Scope, n.d.).

Summary

The researchers will examine strengths in current ALPs that may help reform traditional and/or alternative programs within the state of Tennessee. Additionally, a secondary purpose for the researchers will be to assess traditionally and alternatively trained teachers’ perceptions of efficacy in the classroom. This particular study will identify the components of alternative teacher licensing programs, particularly in pre-service or in-service training, that are more effective than others, including those that may be within traditional education programs. In order to accomplish this, numerous studies will be analyzed within the literature review to identify innovative ALPs within the nation and the merits and weaknesses of those for the sole purpose of influencing current policy on the regulation of teacher education programs. This study will add to the body of literature and influence future endeavors, such as those proposed by the Obama administration. ALPs tend to attract more males, more minorities, and older applicants (USDOE, 2011) and increasing minority representation within the teacher population is one of the Obama administration’s goals, and this revelation may influence government officials to support and fund a greater number of alternative routes.
Chapter 2

Literature Review

This chapter provides an in-depth examination of ALPs, some traditional Tennessee teacher programs, and a review of current literature on assessing teacher efficacy. ALPs have become very popular; however, very little research has been conducted on the efficacy of the programs and the teachers they produce. The Tennessee Independent Colleges and Universities Association (TICUA) is attempting to determine the effectiveness of alternative teacher licensing programs that exist in the state of Tennessee.

The literature review is divided into two sections. The first section discusses teacher preparation programs with a specific emphasis on ALPs, while the second section discusses the components of these programs. Researchers in this study will begin with the history of alternative licensing programs and then will shift into an overview of current alternative licensing programs, both nationwide and within the state of Tennessee. In addition, some traditional teacher education programs from across Tennessee will be reviewed so that a better idea of successful program components can be gleaned. The research will then delve into the effectiveness of these programs as well as teacher perceptions of these programs.

The second section of the literature review will include relevant research that examines not only teaching efficacy, but also different types of measures that have been used over time to assess efficacy. Studies that discuss perception, self-efficacy, and principal bias will also be included so that the researchers can identify and remediate any possible limitations in their study. In addition, the four separate domains of professionalism, planning, instruction, and environment will be examined with an emphasis on their influence on overall teacher efficacy. Lastly,
literature covering the areas of content knowledge and pedagogical theory will be discussed within this second section.

Throughout this review, literature was chosen with an eye for its potential to add depth to the study. Additionally, literature was selected based on its capacity to contribute to discussion on the rise of alternative teaching certification both in Tennessee and nationwide. Since both traditionally trained and alternatively licensed teachers will be surveyed within this study, it is imperative that some comparison of efficacy, as well as similarities and differences are addressed. Literature selected for review, as distinguished by the aforementioned categories, will be addressed.

**History of alternative licensing programs**

Many states have traditionally required individuals who desire to pursue a career in teaching to enroll in teacher preparation programs. However, some individuals do not follow the traditional path and opt to complete ALPs. Over the last 20 years, the number of individuals who obtain alternative teacher licenses has grown exponentially. According to NCEI (2013) more than 250,000 persons have been licensed through alternative routes to teacher certification programs since the mid-1980s. Approximately 35,000 individuals are entering teaching through alternative teacher certification routes each year. There is great concern about the effectiveness and efficiency of the alternative programs in contrast to the traditional teacher preparation programs. The literature reviewed within this section not only covers the development and growth of ALPs, but also includes the types of candidates attracted to this method of teacher training. In addition, research discussing the efficacy of ALPs is reviewed.

The development of ALPs was a result of two organizations that had a desire to nurture an “alternative certification movement.” One of the leaders of this movement, Emily Feistritzer,
was instrumental in starting the National Center for Educational Information (NCEI) in 1979, which spawned the National Center for Alternative Certification (NCAC) (Tozer, O'Connell, & Burstein, 2006). The purpose of NCAC, which was established in September 2003, is to act as a one-stop, comprehensive clearinghouse for information about alternative routes to certification in the United States. The NCAC website provides information for policymakers, legislators, educators, researchers and members of the public (“Alternative routes”, 2006).

Feistritzer (2005) points out that ALPs are becoming a staple within the realm of education. This may be due to the fact that they can quickly produce qualified candidates for hard to fill teaching positions such as special education, mathematics, and science. In addition, some of the ALPs are designed to specifically meet the needs of large urban school districts within the nation. Due to the success of ALPs at recruiting and placing teachers within hard to fill positions, political parties are seeking to make ALPs more abundant in order to quickly propagate the number of qualified teachers needed in education (Feistritzer, 2005, p. 3).

Furthermore, justification for supporting and creating alternate routes comes from recent research on traditional certification, which suggests that qualified applicants are sometimes discouraged from entering the profession due to the time constraint limitations it places on them, as well as the effects it has on them financially if they were to leave their current place of employment to accommodate the traditional training program (Ballou & Podgursky, 1996; Ehrenberg & Brewer 1994; Goldhaber & Brewer, 2000). The idea that traditional programs may not always be suitable for career changers is supported by research of Feistritzer (2005) that examines profiles of teacher candidates that are attracted to ALPs. The types of candidates that enter the field of education through an ALP may be considered an extraneous variable within the context of this study.
It appears that ALPs appeal to career changing professionals because they are quicker and less expensive than traditional teacher preparation programs. In fact, according to Feistritzer (2005) the older an individual gets tends to correlate with the greater belief in ALPs being their only feasible option (p. vi). Almost half of the individuals entering the teaching profession through alternative routes state that they would not have done so had this option not been available (p. vi), while an additional 25% said that they would not have completed a traditional licensing program, but would have taught within a private school environment instead wherein the certification requirements can sometimes be overlooked (p. 16).

Feistritzer (2005) also reported that the top reasons for individuals entering the field of education through ALPs were that they wanted to work with kids, they valued education, and they had a special interest in the subject area (p. 21). In addition, 22% of career changers liked the idea of a long summer vacation; however, without prior consideration of the demands placed upon a teacher on a daily basis, this may in fact contribute to the high attrition rate (p. 21).

In the research conducted by Feistritzer (2011), it was identified that females and Caucasians dominated the teaching profession (p. x). This is relevant because according to the National Center for Education Information, ALPs seem to be better at recruiting male and minority teachers (National Center for Education Information), which is a demographic historically underrepresented in the teaching profession. As previously stated, the Obama administration had made a commitment to increase minority representation within the teacher population (USDOE, 2011) and this revelation may enhance government support for the establishment of additional ALPs.

The evolution of ALPs began with their initial emergence in the mid-1980s. Some of the first states to partake in this novel certification process were New Jersey and Texas (Helton,
The early to late 1990s saw formulation of a cohesive definition for alternate routes to certification and some commonalities even emerged across ALPs. These commonalities include recruitment, rigorous screening, field-based programs, coursework in education, and mentoring. It is important to note that although these components may be included within most ALPs, their emphasis, design, and implementation may vary considerably from program to program. In addition, Stoddart’s 1990 research as cited in Birkeland and Peske (2004), affirms that each district may have its own unique needs and therefore its district run ALPs may have unique components to meet the specific needs of the school. Specifically, in the Los Angeles Unified District Intern program it was revealed, “that the participants’ coursework is embedded in the district context, and also emphasizes the local and specific needs of an urban multicultural school district and student population” (p. 33).

ALPs actively recruit individuals who have already obtained at least a bachelor’s degree. These individuals often do not have a background in education, but are selected based on their desire to teach and rigorous selection criteria such as, but not limited to, test scores, interviews, and demonstrated mastery of content (“Alternative routes”, 2006). ALP candidates range from new college graduates to experienced professionals who are seeking to make a career change.

Feistritzer (2011) stated that “from 2000 to 2004, the number of alternative program teachers increased almost 40% from 29,671 to 40,925” (USDOE, 2006). Other research conducted in 2011 now places the number of alternatively trained teachers being produced at
However, research indicates that approximately 30% of these 60,000 teachers will leave within the first 3 years of teaching, therefore subjecting schools nationwide to a revolving door of novice educators (“Alternative routes”, 2006).

Current programmatic offerings are found to be diverse among ALPs, but they are, according to Feistritzer (2005), also dissimilar in length of training provided. It was found that 34% of ALPs are one year long, 34% are two years long, 12% are shorter than a year, and 9% are approximately 3 years in length (p. 42). Within this study for instance, the researchers identified that Teach Tennessee had the shortest pre-service training length consisting of 12 days.

Sass (2011) conducted a study to analyze the characteristics of alternative licensing programs in the state of Florida and compare them to student achievement. The state of Florida was chosen for this research study because of the growing number of alternatively certified teachers in the state. Additionally, Florida has one of the “most diverse alternative routes to certification” (p. 2). The researcher in this study examined a large body of literature that discussed the economics of the professional license as well as current evidence that exists on the effectiveness of alternative certifications and pathways to teaching in Florida.

The researcher also found that the most common alternative pathway used in the state of Florida is the district alternative certificate option, which does not require any formal educational coursework. Individuals who pursue this option are required to pass a standardized general knowledge and professional education certificate examination and complete a competency based certification program. These programs are mainly web-based and involve collaborations with community colleges and universities (Sass, 2011, p. 7).

The results from Sass’s (2011) research also revealed that alternatively licensed teachers who enter as a second career were more likely to teach in middle and high school. The
researcher indicated that this finding could potentially skew comparisons because most traditionally prepared teachers were in elementary education. The results found that teachers in ALPs were more likely to pass the general knowledge certification examination on the first try. Other significant findings revealed that alternatively licensed teachers generally hold degrees in math or biology (p. 10).

Regarding the value-added model, alternatively licensed teachers were found to be less productive than traditionally prepared. In addition the alternatively licensed teachers had a value-added score three to six percent lower than the standard deviation. Alternatively licensed teachers also had higher value added scores in math that were about seven to nine percent over traditional prepared teachers. However, there was no statistical significance in reading between alternatively licensed teachers and traditionally prepared teachers (Sass, 2011, p. 12).

Sass (2011) concluded that alternatively certified teachers have stronger pre-service academic skills, as evidenced by higher initial pass rates on certification exams and higher college entrance exam scores than traditionally prepared teachers. Also as mentioned previously, the value-added scores of alternatively licensed teachers were lower than traditionally prepared teachers and varied the most in math scores. However, overall the researcher found that alternatively licensed teachers tend to outperform their traditionally prepared colleagues by a very wide margin. Because of the diversity that exists in the myriad of alternative certification programs, the researcher suggests, “individuals should be cautious about making blanket statements about the relative performance of alternatively certified teachers” (p. 17).

According to Feistritzer (2005), it was found that when asked about teachers’ perceptions of level of competence, approximately 13-30% of alternatively licensed teachers initially felt incompetent in the areas of ability to teach subject matter, ability to motivate students, time
management, classroom management, classroom discipline, and instructional organization. The greatest amount of incompetency felt was in the areas of classroom management and discipline at 30% and 29%, respectively, of the teachers admitting that they lacked in these areas (p. 38). The areas that new alternatively licensed teachers felt most competent in were dealing with fellow teachers and administration, with between 93% and 86% of teachers feeling prepared to function effectively in these areas. However, when assessed later in their careers, almost all teachers felt that they were competent in all areas previously questioned about (p. 38). The impact of these findings on this study are important to note, as the more experience a teacher gets, the more competent he may feel, and the less likely he may be to report feeling initially unprepared in one of the domains of planning, environment, instruction, and professionalism.

The growth of ALPs can be specifically contributed to multiple factors. Frequently, increasing student enrollments and teacher retirements are identified as sources of the current teacher shortage. However, data show these are not the primary causes of the high demand for teachers (Ingersoll, 2003). Research on teacher supply, demand, quality, and shortages demonstrates that simply recruiting more teachers will not fill the need for effective qualified classroom teachers (Ingersoll, 1999).

The revolving door of teacher migration and attrition are issues leading to staffing classrooms with teachers not qualified. According to Ingersoll and Perda (2006), high rates of teacher movement to other schools and the attrition of teachers leaving the profession are the main reasons for teacher shortages. Specifically migration, the movement of teachers from school to school and district to district, accounts for more than half of the turnover that schools and districts experience.
Initially, fewer than 50% of traditionally prepared teachers enter the profession after graduation and of the newly trained teachers many leave the profession before reaching the five-year milestone in their career (Henke, Chen, & Geis, 2000; Ingersoll, 2003). Thirty-three percent of new teachers leave teaching during the first three years and 46% leave in the first five years (USDOE Center on Education Policy, 2006). Teacher attrition is related to issues of low pay, large class size, location, inadequate facilities, lack of preparation, school safety, and increasing opportunities in other fields (Boyd, Grossman, Lankford, Loeb, & Wyckoff, 2008; Futernick, 2007; Gritz & Theobald, 1996; Loeb & Page, 2000; Washburn-Moses, 2005).

Increasing the retention of quality teachers could have a direct impact on student achievement.

Darling-Hammond, et al. (2005) provided research on Teach for America recruits that found those “who become certified after 2 or 3 years do about as well as other certified teachers in supporting student achievement gains; however, nearly all of them leave within 3 years” (p. 2). In addition, a study by Harris (2002) in Texas found that “of the 6,557 employed alternatively certified teachers, 507 left classroom teaching in Texas public schools by the end of the second year” (p. 87). This high attrition rate results in the hiring of new teachers at a lower level of efficacy than the ones leaving. Ultimately, this greatly affects the most disadvantaged student populations found within large urban cities as novice teachers are continuously circulated through their schools. These schools are typically comprised of a high minority and low socioeconomic student population (Darling-Hammond et al., 2005, p. 13).

According to Goldhaber and Liddle (2012):

Students with a teacher who has one to two years of experience outperform students with novice teachers by about 4 percent of a standard deviation (depending on model specification), and students with teachers who have three to five years of experience tend
to outperform those with one to two years of experience by about an *additional* 2 percent of a standard deviation (though the difference is not statistically significant across all model specifications). We find little evidence, however, of statistically significant productivity gains associated with increases in experience beyond five years. (p. 13)

Therefore, the study by Goldhaber and Liddle (2012) substantiates the need to examine the influence of novice teachers on student achievement due to the fact that they are serving a population of students that sometimes have the most challenges.

Constantine et al. (2009) addressed the effects on student achievement of teachers who were trained through alternative routes and determined what aspects of the alternative teacher certification program may be associated with teacher effectiveness. Although supporters of traditional teacher certification programs have argued that alternatively certified teachers are insufficiently prepared and therefore less effective than traditionally prepared teachers, the findings of the report indicated:

There was no statistically significant difference in performance between the students of alternatively certified teachers and traditionally certified teachers; and there is no evidence that greater levels of teacher training coursework were associated with the effectiveness of alternatively trained teachers in the classroom, nor is there evidence that the content of the coursework is correlated with teacher effectiveness or that even an undergraduate major in education is correlated with student achievement. (Constantine et al., 2009, p. 69)

Hohnstein (2008) investigated various dimensions of alternative teaching certification. The researcher examined the impact that alternatively licensed teachers have on ethnic minorities and students who live in poverty. Because the researcher was concerned about
the impact that alternatively licensed teachers have on ethnic minorities, a statistical analysis was conducted that analyzed three relationships. The first relationship examined was between “the numbers of alternative teaching certificates granted in 35 US states and the proportions of students from impoverished backgrounds in each state” (p. 7). In addition, the researcher examined “the relationship between the numbers of alternative teaching certificates granted in 35 US states and the proportions of ethnic minority students in each state” (p. 7). Lastly, the researcher looked at the relationship between “the change in teacher salary in 35 US states in relation to the numbers of alternative teaching certificates granted in each state” (p. 7).

Hohnstein (2008) indicated that the results from this study would aid the educational community in understanding alternate certificate programs. Additionally, the researcher confirms the significance of the study by highlighting current teacher attrition rates and the need for the educational community to find solutions for this ongoing dilemma (p. 5-7).

A quantitative correlation was used in Hohnstein’s (2008) research to analyze programs, students and teacher salaries over a period of time. The researcher did not use participants rather, N=35, or the number of states with alternative certificate programs was used for assessment. The instrument that was used in this study was SPSS (Statistical Package for the Social Sciences). The researcher also explicitly explained that the establishment of causal connection among any of the variables was not the aim of the study (p. 58).

Hohnstein had used research from the National Center for Education Information (NCEI) and the National Center for Education Statistics (NCES) to hypothesize that “the numbers of alternative teaching certificates granted during the 2003-04 public school year in 35 US states would have a moderate to high, positive relationship with the proportions of students who are in poverty in each state” (p. 60). The second hypothesis is similar to the first but considers ethnic
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minorities rather than poverty. The third hypothesis that the researcher theorized is that “the change in teacher salary between the 1979-80 and 2003-04 public school years in 35 US states would have a moderate to high, positive relationship with the numbers of alternative teaching certificates granted during the 2003-04 public school year in each state” (p. 61).

There were three research questions that aimed to discover if the numbers of alternative teaching certificates granted in 35 US states during the 2003-04 public school year relate to the number of impoverished students and to ethnic minorities. The other research question aimed to determine if the change in teacher salary between the 1979-80 and 2003-04 public school years in 35 US states correlated to the numbers of alternative teaching certificates that were granted in each state during the 2003-04 public school year.

While Hohnstein’s (2008) research shows alternative teaching certification has primarily developed in response to the diminished supply and increased demand for certified teachers, teachers from the baby boom generation will continue to retire. Consequently, teaching vacancies throughout the United States could grow well into the twenty-first century. Extrapolating this trail of teacher attrition, 2.2 million teachers will be needed in the US within the next ten years. “This could amount to having to hire 210,000 new teachers per year over the next decade. As established, the need for teachers will continue to be greatest in the fields of mathematics, the sciences and special education as well as in large urban and outlying rural areas” (p. 5).

President Clinton (2000) made a commitment to recruit new teachers to fill the predicted 2.2 million teacher vacancies during the first decade of the 20th century (Birkeland & Peske, 2004, p. 2). Research such as that provided by Hohnstein (2008) and that identified by Birkeland and Peske (2004) link the vast shortage in qualified teachers to: changing demographics in the
nation; an aging teacher workforce approaching retirement; increasing number of students enrolled in public schools; legislation requiring reduced class size in California and Florida; and new legislation stating that every class should have a teacher who is “highly qualified” to teach (Birkeland & Peske, p. 2-5).

It is believed that ALPs have shown continuous growth due to a lack of qualified teacher candidates to fill the current openings resulting from retirement, attrition, and population growth. However, this abridged version of teacher training has led many individuals to believe that ALPs are diluted down versions of traditional programs. The effectiveness of such programs is therefore questioned by organizations such as the American Association of Colleges for Teacher Education (AACTE) (Helton, 2008, p. 54-55). Traditional American teacher programs began in 1839, and covered common areas still relevant such as pedagogy, subject area content, and education foundations; however, the level of emphasis placed on each individual area has fluctuated over time (p. iv). By shortening the time allocated to training alternative teachers, Blazer (2012) believed “that teachers certified through alternative routes have received little training in child development, pedagogy, and classroom management” (p. 2).

However, even the “No Child Left Behind provisions recognized ALPs as an effective method of training new teachers,” and this recognition spurred states to develop more alternative preparation programs (Helton, 2008, p. 53). By 2006, there were 124 ALPs within the United States. At that time 47 states had ALPs and universities/colleges administered half of those, while one-fifth of the programs were run by school districts. The others were run by a variety of organizations, from the state department of education to the regional education centers (p. 54).

As teachers gaining alternative teaching certification continue to fill the shortages and enter the teaching workforce, greater understanding of their influence on public education as well
as student outcomes is warranted. Research on alternative teaching certification is further justified with respect to the fact that ALP programs and policies have established footing in every state in the nation. Therefore, investigation of alternative teaching certification across state lines is timely. In addition, when you consider the breadth and depth of each of the alternative teacher training programs, research into the effectiveness of these types of programs becomes imperative.

Previous research has identified innovative [ALPs] such as: Florida’s school based ALP model, Teach for America, Troops to Teachers, American Board for Certification of Teacher Excellence, New York City Teaching Fellows, and Transition to Teaching Partnership (Cohen, 2004, p. 102). Each of these programs will be examined further within the context of this study.

In addition to those identified within other studies as being innovative and progressive, the researchers will examine all ALPs that are currently in the state of Tennessee. These ALPs include: The New Teacher Project, Memphis and Nashville Teaching Fellows, Teach for America in Memphis and Nashville, Teach Tennessee, Memphis Teacher Residency Program and Troops to Teachers.

Some of the programs specific to Tennessee overlap with national programs that have also been identified. This overlap will help contribute to the validity and application of results to other populations, specifically in the identification of program criteria and the strengths and weaknesses between Tennessee’s ALPs and the nation’s most researched ALPs (2012 Report Card on the Effectiveness of Teacher Training Programs) (Feistritzer, 2011). The following section of the literature review will discuss these identified ALPs and a special focus on their strengths, weaknesses and successes will be made whenever possible.
Florida’s model for school district-based ALPs. As concerns about regulating and assessing ALPs increases, it should be noted that some states have taken initiatives to establish specific criteria for alternative route teachers. According to Birkeland and Peske (2004), Florida appears to have some of the most elaborate school based programs established due to their regulation of ALPs and the demand for qualified teachers. The state’s initiatives may have been heightened by state legislation requiring them to decrease class sizes (p. 2).

Initially, the state of Florida developed a conceptual framework of how they would like school district-based ALPs to look. Three different districts implemented an ALP and each was allowed a certain amount of latitude, provided they met specific requirements. The state also had statutes in place to help guide these districts in their implementation process. Florida Statute 1012.56(7) states that:

By July 1, 2002, the Department of Education shall develop and each school district must provide a cohesive competency-based preparation program by which members of the school district’s instructional staff may satisfy the mastery of professional preparation and education competence requirements specified in rules of the State Board of Education. Participants must hold a state-issued temporary certificate.

(Florida Department of Education, 2002)

The initiative to increase ALPs has now evolved and according to Florida’s alternative certification program website, currently each Florida school district offers “a competency-based, on-the-job alternative certification program - either a district-developed program that has been approved by the Florida Department of Education or Florida's Alternative Certification Program.” The goal of Florida’s alternative certification programs is to effectively prepare new
teachers “who must complete training in education to qualify for a Professional Certificate” (Florida’s Alternative Certification Program).

Florida’s ALP model has established components that they believe will produce an effective classroom teacher, they include: survival training, training for using their web-based learning system, and provision of a support team that will help develop the teacher as they go through the training process. This support team may consist of a peer mentor, an on-line tutor to help with lessons, the school administrator, and outside educators (Florida’s Alternative Certification Program).

The on-line training offered by Florida’s ALPs is meant to develop professional competencies and it focuses on areas such as: assessment, communication, continuous improvement, knowledge of subject matter, human development and learning, learning environments, planning, role of the teacher, technology, critical thinking, diversity, and ethics. A pre-assessment determines what areas should be focused on and an individual learning plan is created for each teacher. Summative assessments are periodically given to ensure mastery of professional education competencies. At the culmination of the training, teachers are expected to take a professional education test that covers pedagogy (Florida’s Alternative Certification Program).

Although the on-line training provided to new teachers in the Florida school district-based ALP appears to offer relevant pedagogy, it should be noted that classroom management is not an area listed within the topics offered on-line. This is concerning because novice teachers often report feeling unprepared for challenges in managing student behavior and motivation within the classroom. In Feistritzer’s 2005 study on alternative route teachers, it was found that when asked about a teacher’s perception of level of competence, the greatest amount of
incompetency felt was in the areas of classroom management and discipline at 30% and 29%, respectively (p. 38). Harry Wong attributes difficulties experienced with respect to classroom management to the teacher preparation pathway, specifically with respect to the creation of established rules and procedures (Wong, 2007, p. 1-2).

Florida believes that it has developed a sound research based program that focuses on effective teacher practices; specifically they state their program focuses on providing best practices in distance learning and that they are a standards-driven assessment program that incorporates the importance of this into their training program. They utilize a database tracking system to document progress of their teachers and therefore, are able to make changes to their model as necessary. In summary, it is believed that Florida's Alternative Certification Program is a continuous improvement model that is still evolving. More importantly, the focus of Florida’s model is based on creating engaging and meaningful learning environments that have effective teachers (Florida’s Alternative Certification Program).

**American Board for Certification of Teacher Excellence (ABCTE).** ABCTE was formed through a grant from the U.S. Department of Education (D.O.E.) in 2001 to meet the needs of the NCLB requirement that every student have a “highly qualified” teacher within the classroom (Blazer, 2012, p. 8). The ABCTE offers alternative certification both for current teachers who needed to earn certification within a subject as well as for professionals seeking to change careers and become teachers. Thus far over 9,000 graduates have completed the ABCTE ALP.

Research has shown that ABCTE-certified teachers produce student achievement gains on par with their non-ABCTE counterparts. According to Anderson, Glazerman, and Tuttle
(2009), students of ABCTE showed no statistical correlation between student achievement and ABCTE teaching:

> On reading measures, the evidence from the Florida data shows that student gains were statistically indistinguishable between students of ABCTE and non-ABCTE teachers. In mathematics, students of ABCTE teachers scored lower than students of non-ABCTE teachers. Controlling for previous performance, district differences, and other background characteristics, students of ABCTE teachers of mathematics scored 0.25 standard deviation units lower than their counterparts in non-ABCTE classrooms in the most plausible of the statistical models we used. The findings are consistent across model specifications and subgroups, although the size of the effect varies somewhat. (p. 14)

Very few programs or organizations offer pure certification as ABCTE does. ABCTE relies more on self-screening and leaves preparation up to the individual. Even ABCTE, however, has found itself conducting active outreach and providing its candidates with mentors and preparation materials, although it maintains its self-guided exam preparation component as opposed to traditional teacher training.

Additionally, Baxter, Glazerman, and Tuttle (2006) evaluated principals’ perceptions of ABCTE passport teachers:

> In terms of the teachers themselves, the supervisors’ experiences were generally positive. Those respondents who hired the ABCTE teachers said that the teachers were stronger than the other job candidates. Those who observed the ABCTE teachers (typically the same respondent) said that they were as or more effective than the average teacher they
had observed during their careers. In terms of specific dimensions of teaching, the
principals gave Passport teachers slightly stronger ratings on their responsiveness to
feedback and their ability to communicate content knowledge and weaker ratings on
classroom management. (p. 21)

The ABCTE teacher preparation program does not require candidates to complete formal
course work, a portfolio, or a student teaching component. In fact, the lack of a student teaching
component may in fact affect the candidate’s ability to truly understand the dynamics of a
classroom, and hence the potential issues related to classroom management (USDOE, 2011).
Instead, this ALP determines candidate success based upon a series of examinations, specifically:
Candidates must pass a subject area exam and a professional teaching and knowledge
exam, both administered by the ABCTE. The program leaves exam preparation up to the
individual, but does provide candidates with mentors and preparation materials. The
ABCTE certificate is accepted in 11 states, including Florida. It affords relatively low-
cost access to the teaching profession. (Blazer, 2012, p. 8)

The ABCTE is obviously appealing to career changing professionals because it offers
“one of the most flexible and affordable ways to earn your teaching certification” (American
Board). Their program is offered online and is a self-paced curriculum and therefore eliminates
concerns an individual may have with returning to school full time in a traditional program.
Candidates on average take 10 months to complete the independent coursework and most
continue to work full time while completing the certification requirements. However, they do
not offer their candidates formal classroom experience, which has been considered an integral
component of most teacher training programs (USDOE, 2011).
**New York City Teaching Fellows.** New York City has also had to launch several ALPs to fill a growing number of teacher vacancies. One of the most recognized programs is the New York Teaching Fellows program, which was launched in 2000 with a goal to address the severe teacher shortage within New York City (NYC) schools (Blazer, 2012, p. 9). The program recruits and prepares high-quality individuals to become teachers who can raise student achievement in NYC classrooms. Students selected for the program must complete an intensive pre-service training program, including a hands-on teaching experience in a New York City classroom. The program offers a master’s degree, which is completed while the candidates teach full time. In addition they are required to pass a content specialty test. In 2008, it was approximated that 11% of all NYC teachers were graduates of the New York City Teaching Fellows (New York City Teaching Fellows).

The New York Teaching Fellows Program is an ALP that specifically “targets mid-career professionals, recent college graduates, and retirees to teach in New York City’s hardest-to-staff schools” (Blazer, 2012, p. 9). The program includes pre-service training and in-service support. The pre-service training component is approximately six weeks in length, and helps develop instructional and behavior management skills in their candidates. In addition, the pre-service training provides the candidate with an opportunity to observe and teach in NYC during summer school, with the direct support of an experienced teacher (New York City Teaching Fellows).

The NYC Teaching Fellows program has many components of current ALPs that are considered beneficial in ensuring teacher success and effectiveness. Specifically, they ensure their candidates can pass a content area test, have experience in a classroom prior to entering the field, and offer not only pre-service support, but in-service support to their teachers upon completion of the six week program. Stafford and Barrow (1994) “observed the importance of
the balance between program components, and identify four “essential components”: Screening, training, supervision, and support” (p. 194). They conclude that the four components are so vital that if just one of them is weak or lacking, “the success of the entire program is in jeopardy” (p. 194). It appears that NYC Teaching Fellows meet each of the four essential components to some degree.

**Transition to Teaching Partnership (TTP).** The Nebraska Department of Education (NDE) was awarded one of the several Transition to Teaching grants distributed by the USDOE in 2002. Upon the award of the grant, NDE partnered with the University of Nebraska at Kearney (UNK) to implement a TTP alternative certification program via the establishment of a State Assessment Center within the UNK College of Education. The center’s director was hired to recruit to the program mid-career professionals along with recent college graduates with baccalaureate degrees that wanted to become teachers in the state of Nebraska, particularly in high-need areas (rural) and subjects (math, science, foreign language) unique to Nebraska at grades 7-12.

Specifically, the requirements of the TTP program include: completion of a bachelor degree with at least 75% of coursework in content area; a written request asking to employ the teacher; assessment of transcripts; a plan to complete a teacher certification program; and completion of pre-service teaching seminar. The pre-service seminar provides information to candidates “in the areas of diversity, classroom management, curriculum planning, and instructional strategies” (Nebraska Educator Preparation).

Dietz and McCarty (2011) conducted a study that compared TTP participants to traditional teacher candidates. TTP participants were evaluated by university supervisors on their abilities in the areas of lesson planning for desired outcomes and objectives, assessment and
evaluation, instructional planning and materials, instructional delivery, classroom management, and teaching dispositions (collaboration, reflection, responsibility) at the culmination of their student teaching experience during a five semester period (Spring 2009 through Spring 2011). This is similar to the evaluation that traditional undergraduate teacher candidates are subjected to.

According to Dietz and McCarty (2011), TTP participant quality was comparable to traditionally prepared teachers at the conclusion of student teaching and their first year of employment. However, further study is warranted to determine what variables may contribute to higher skill ratings such as demographic factors (age, gender, ethnicity), subject areas, or specific aspects of the teaching training itself (face-to-face, online) (p. 45-56).

**Memphis Teacher Fellows.** Memphis Teaching Fellows (MTF) was established in 2007 and is a highly competitive and selective program that seeks professionals and college graduates who are interested in obtaining teacher licensures. It works with The New Teacher Project (TNTP), which is a national non-profit organization that has trained approximately 49,000 teachers thus far. This program values individuals of diverse backgrounds who can bring their unique perspectives and experiences into the classroom to substantially improve student achievement. TNTP program is currently “active in more than 25 cities, including 10 of the nation's 15 largest” (Nashville Teaching Fellows).

In 2012, the MTF program admitted only 15% of applicants due to their selection requirements. According to their website, they seek candidates that are:

Highly-motivated individuals with diverse personal and professional backgrounds who have the capacity to be successful teaching in one of the districts’ critical-need subjects: these change annually but typically include biology, chemistry, English as a second
language, middle school, math, and Spanish. They review every application carefully, looking for candidates with the knowledge, skills and attitudes needed to thrive in some of our city’s most-challenging classrooms. (Memphis Teaching Fellows, 2013)

The specific requirements sought by MTF in their applicants include: completion of a bachelor’s degree, a minimum GPA of 2.75, and passing of content area Praxis. In addition, they do not want candidates who have already obtained a teacher license or are already participants in another ALP. Furthermore, they do not want applicants that have already earned more than 12 credits in education coursework (Memphis Teaching Fellows).

MTF is a joint partnership between Memphis City Schools and The New Teacher Project (TNTP), a national nonprofit organization dedicated to closing the achievement gap by providing excellent teachers to the students who need them most and by advancing policies and practices that ensure effective teaching in every classroom. Because the number of high school graduates in Memphis is low, the MTF has a goal to train individuals who can help to bolster the number of graduates in schools that serve disadvantaged populations (Memphis Teaching Fellows).

Selected candidates participate in a very intense 6-week pre-service “Fast Start” training. The training includes a combination of field teaching experience, coaching, and skill building that will benefit future teachers on their first day in the classroom. In order for Fellows to become teachers in Memphis, they must clearly communicate academic content, ensure that class time is used well, ensure full student engagement during a lesson, and ensure that student behavior is positive, respectful and productive. Fellows are formally evaluated during Pre-Service Training on their proficiency in the Fast Start skills, based on observations of their field experience with summer school students; demonstrated professionalism; and fulfillment of program expectations (Memphis Teaching Fellows).
The 2012 Report Card on the Effectiveness of Teacher Training Programs identified that during the 2010-2011 school year the program had 63 program completers. Three quarters of their completers were females and the program appears to accept white and black applicants fairly equally. According to reported data, MTF found statistically significant negative effects in two areas of student achievement and had no statistically significant positive effects attributed to their teachers (Tennessee Higher Education Commission, p. 260). Specifically:

Program completers from The New Teacher Project, Memphis are less effective than veteran teachers in 4th-8th grade Math, Reading/Language and TCAP composite scores. The New Teacher Project, Memphis fellows are less effective than other beginning teachers in 4th-8th grade Math and Reading/Language. The New Teacher Project fellows have more completers in the least effective percentile of 4th-8th grade Reading/Language and TCAP composite scores as compared to beginning teacher performance distributions across the state. (p. 261)

The MTF program has specific selection criteria. However, their requirement that applicants do not have more than 12 credits in education coursework, which equates to four courses, is interesting. The researchers would assume that any previous coursework in education would only strengthen the pedagogical skillset of their candidate and not take away from their ability to be successful within the MTF program.

Nashville Teaching Fellows. Similar to the Fellows program in Memphis, Nashville Teaching Fellows (NTF) is also a joint partnership between MNPS and TNTP (Nashville Teaching Fellows). The requirements and evaluation processes are consistent among the various TNTP fellows programs (The New Teacher Project). Therefore, the teacher preparation provided in the NTF program should be comparable to the MTF program discussed within this
study. The demographic of a typical NTF candidate is slightly different than that found in the MTF program. For instance, the NTF population was comprised of 80% female, 67% white, and 23% black candidates in 2010-2011. MTF had a population that consisted of 70% female candidates, and approximately equal numbers of white and black candidates (Tennessee Higher Education Commission, 2012, p. 259-267).

Similar to the MTF program, the ALP offers select candidates an intensive 6-week pre-service training prior to teaching in the classroom. The candidates then teach full time, with full pay, while completing coursework through the TNTP Academy. TNTP utilizes a research-based curriculum “Teaching for Results” to train their teachers. In the document, “Leap Year: Assessing and supporting effective first-year teachers” they also purport to use an extensive teacher evaluation system based on multiple measures of performance which include “classroom observations and student learning outcomes—based on student surveys and achievement data,” along with principal ratings and successful completion of program requirements to assess whether or not a candidate can obtain certification at the completion of their training (TNTP, 2013, p. 4).

The program has rigorous selection criteria, recruiting both new college graduates and career changing professionals. It starts off with an intensive five week long pre-service training offered online and covering areas such as: lesson delivery, demanding high expectations for learning and behavior, and time management. In addition, these online modules are reinforced through a combination of field teaching and coaching (Nashville Teaching Fellows, 2013).

The fellows work full time as classroom teaching after completing their pre-service training. However, they continue to attend bi-monthly evening classes throughout their first year of teaching at The New Teacher Project (TNTP) Academy. In addition, the fellows are observed
by a TNTP mentor who not only evaluates but offers suggestions for improvement. Only after one year of supervised teaching and completion of TNTP classes is a teacher recommended for advanced to a Tennessee Apprentice License (Nashville Teaching Fellows, 2013). The program costs are about $5,000 for the one year of training. Although this may seem costly compared to some other alternative programs, teaching fellows are paid full-time salaries while working at a rate of approximately $40,000 in MNPS (Nashville Teaching Fellows, 2013).

According to the 2012 Report Card on the Effectiveness of Teacher Training Programs, NTF had 64 program completers in 2010-2011. They were found to be “as effective as veteran teachers and other beginning teachers in 4th-8th grade: Math, Reading/Language, Science and TCAP composite scores, [as well as in], high school end of course exam composite scores” (Tennessee Higher Education Commission, 2012, p. 266).

**Memphis Teacher Residency Program (MTR).** The Memphis Teacher Residency (MTR) has a mission to positively impact students’ achievement in Memphis' urban schools through recruiting, training, and supporting teachers, all within a Christian context. The organization is a partnership between MTR, Union University, and the urban schools in which it serves in Memphis (Tennessee Higher Education Commission, 2012, p. 175).

MTR believes that trained teachers are the answer to improving the public education system in United States. Within their core beliefs section, they have listed that “teachers matter more to student learning than anything else schools do. Indeed, studies have found that high-quality teachers can offset—or even eliminate—the disadvantage of a low socioeconomic background” (Memphis Teacher Residency, 2013). The organization has a desire to recruit, equip and retain dedicated teachers who can help improve the conditions of the education system in Memphis and does so by offering a 12-month program that integrates a Masters in Urban
Education coursework through Union University. Additionally, selected participants are equipped with extensive classroom experience are provided with a $12,000 stipend. After completion of the MTR program, residents must commit to teaching in a high-need Memphis school for 3 consecutive years (Memphis Teacher Residency, 2013).

In 2010-2011, their program was comprised of 68% females, 72% white, and 28% black candidates (Tennessee Commission of Higher Education, p. 176). They have a much smaller population of black candidates than MTF, which was composed of 43% black candidates. This is relevant because ALPs are supposed to be better at attracting minority populations (USDOE, 2011, p. 10-12), and this low proportion of black representation in the Memphis programs does not reflect the city’s 61.1% black population (Simpson, T.R., 2013, para. 2).

The MTR program only had 25 program completers in 2010-2011, a number much smaller than some of the other ALPs within the state. According to the 2012 Report Card on the Effectiveness of Teacher Training Programs, MTR teachers “are more effective [than] veteran teachers and other beginning teachers in 4th-8th grade Math, Social Studies and TCAP composite scores” (Tennessee Higher Education Commission, 2012, p. 175). In addition, MTR “program completers teaching 4th-8th grade Math and Social Studies have more completers in the highest performing percentile in comparison to beginning teacher performance distributions across the state” (p. 175).

**Nashville Teacher Residency Program.** The MNPS Teacher Residency Program is an initiative aimed at recruiting, developing, and retaining exemplary teachers. In partnership with Trevecca Nazarene University, this yearlong residency partners veteran teachers with novice teachers in high-priority elementary schools. The veteran teacher-leaders earn one year of graduate level coursework followed by a full academic year of site-based mentoring in district
identified high-priority, high-need elementary schools with the greatest percentage of novice
teachers. Beginning with the coursework phase of the project in 2011, this cohort model will
provide a balance between theory and practice for a total of 36 teacher-leaders, 12 each academic
year, to increase the retention of teachers (Metro Nashville Public Schools, 2013).

Teach for America (TFA) was the innovative and entrepreneurial idea of Wendy Kopp.
Currently, TFA is one of the largest and most well known ALPs within the United States.
Sawchuk (2011) noted that this could be due to their rigorous selection process, which consists
of interviews, essays, group activity, recommendations, and a sample teacher lesson (Sawchuck,
2011, para. 3). TFA specifically looks for qualities such as academic achievement, leadership,
perseverance, critical thinking, organization, motivational ability, respect and fit when selecting
candidates for their program (Sawchuck, 2011, para. 4). This multifaceted selection process has
captured the attention of some school districts that want to incorporate similar selection criteria
into their teacher recruitment process (Sawchuck, 2011, para. 10). The THEC (2012) found that
the average GPA of a TFA candidate is 3.6 (p. 2).

According to Blazer (2012), TFA actively recruits new college graduates, “who are
willing to commit at least two years to teaching in impoverished communities are considered for
the program” (p. 8). In addition, Blazer found that the TFA program consisted of “five weeks of
intensive training [in] courses on teaching practice, classroom management, diversity, learning
theory, literacy development, and leadership” (p. 8). After the five-week training period, the
candidates are placed in a teaching position. They are offered ongoing support and are still
required to attend professional development workshops while they are in-service (p. 8).
TFA began placing corps members in Nashville in 2009. TFA Nashville has specifically had “97 program completers and an average final GPA above the state average for 2010-2011” (Tennessee Higher Education Commission, 2012, p. 15). “There are currently teachers in 70 schools across the [middle Tennessee] area, which includes Davidson, Cheatham and Rutherford Counties thus reaching nearly 13,000 students” (p. 213). Corps members are required to pass content-specific Praxis exams prior to and during the school year. Within the Nashville area, TFA teachers take uniquely designed courses at Lipscomb University in order to receive a transitional teaching license. By taking additional courses, TFA candidates not only have the option to earn a traditional license, but a master’s of education from Lipscomb University as well (Teach for America, 2013).

TFA also has an established presence within the Memphis City Schools since 2006. Corps members teach within 88 of the lowest-performing schools and therefore reach over 18,000 students. TFA Memphis teachers are partnered with Christian Brothers University and have an option to pursue a master’s degree, similar to TFA Nashville’s agreement with Lipscomb. TFA Memphis had 147 program completers in 2010-2011, which is approximately 50% more than the number of TFA program completers from the Nashville cohort (Tennessee Higher Education Commission, 2012, p. 213).

TFA has been credited with producing teachers in the Nashville area that have positively affected student achievement in a statistically significant way. Specifically, TFA teachers within the state of Tennessee with up to three years of experience have had a statistically significant positive effect on TCAP scores for grades 4-8, and on end of course scores in Algebra I and English I (Tennessee Higher Education Commission, 2012, p. 12-15). When comparing the Memphis program to the Nashville program, it was found that “program completers [from both
coHORTS] are more effective than veteran teachers and other beginning teachers in … 4th-8th grade Math, Social Studies and TCAP composites scores” (p. 213-223). However, it appears that the TFA Memphis has greater success in producing statistically significant gains in English I, while TFA Nashville has greater success in producing statistically significant gains in Algebra I. Both TFA cohorts were found to be less effective than their counterparts in making gains in high school Algebra II (p. 213-223).

When examining the data contained within the 2012 Report Card on the Effectiveness of Teacher Training Programs, it appears that the TFA Memphis program has “more completers in the highest performing percentile of in 4th-8th grade Social Studies and TCAP composite scores in comparison to beginning teacher performance distributions across the state,” whereas the TFA Nashville program has “more completers in the highest performing percentile of 4th-8th grade Science, Social Studies and TCAP composite scores in comparison to beginning teacher performance distributions across the state” (p. 213-233).

Studies by Mathematica found that students taught by TFA teachers made larger math gains than students of other teachers (US Department of Education, 2013). Although this study, along with others, has purported the benefits of TFA, numerous individuals have criticized the high turnover of TFA teachers. Some researchers claim, however, that TFA teacher turnover is no different than that seen of traditionally trained teachers. Also, there is some evidence that some TFA teachers stay within education related fields even after their teaching commitments have been fulfilled.

Edsource (2012) reported that new teachers hired in Los Angeles Unified School District from Teach for America had a positive effect - equal to two months and one month extra of instruction respectively in math - compared with other novice teachers. However, about two-
thirds of Teach for America teachers, recruited from top colleges nationwide, leave the district after the required two-year commitment is completed.

ALPs are often credited with attracting applicants of a diverse background, but when examining the diversity of applicants in TFA, the researchers found that black candidates seem to be an underrepresented minority within the program. TFA Memphis had 16% black representation in its 2010-2011 cohort, compared to TFA Nashville, which had 7% black representation in its 2010-2011 cohort. These proportions do not reflect the demographics of the communities in which they are found, as Memphis’ population is 61.1% black (Simpson, 2013) while Nashville’s population is approximately 28.1% black (U.S. Census Bureau, State and County Quick Facts Section, 2013).

Ultimately however, it should be noted that TFA has positively impacted many students in high-need schools. Its success has also reshaped broader policy conversations around the recruitment and preparation of teachers for high-need urban and rural settings due to the positive effects on student achievement (Xu, Hannaway, & Taylor, 2007, p. 24-26). Some TFA alumni are now in political positions that allow them to have a considerable impact on future education policy (Teach for America). For instance, Kevin Huffman is the state of Tennessee’s education commissioner and has a strong political voice in the education arena (Tennessee Department of Education, 2012). Commissioner Huffman’s role may, therefore, bring much more attention to the alternative versus traditionally trained teacher debate within the state of Tennessee.

The program does not have course costs associated with it like the NTF program, but they do require some personal expense due to costs associated with flying to a training destination and living expenses while being trained. TFA candidates, like NTF teachers, however, do receive a comparable salary to traditionally trained teachers while they work full-time.
**Troops to Teachers (TTT).** This is a federally funded program originally established by the U.S. Department of Defense in 1994, but now overseen by the USDOE. The goal of the program was to assist eligible military personnel to transition into a new career, as public school teachers in “high-need” schools (Blazer, 2012, p. 9). Counseling, referral, and placement assistance in Tennessee is provided through the Office of Teacher Licensing (Tennessee Department of Education, 2012).

It was estimated in 2008 that more than 11,000 TTT program graduates had been placed in public schools across the nation (Blazer, 2012, p. 9). TTT has assisted over 11,000 former military personnel become classroom teachers in public schools nationwide (Miles, 2008). Approximately half of all TTT program completers work within a high school environment, about 30% work within middle schools and about 20% in elementary schools (Owings, Kaplan, & Chappel, 2010, p. 5).

According to Owings, et al. (2010), “research has shown the TTT program produces high quality educators with a positive effect on student achievement, both in surveys and in measured academic achievement” (p. 5). In addition, 90% of principals surveyed felt that TTT educators had a more positive impact on student achievement when compared to traditionally trained teachers with the same number of years of experience within the classroom. This perception may be influenced by studies that found, “TTT educators exhibit research based best instructional classroom management practices linked with increased student achievement, and work well within the school environment at a higher rate than do other teachers with similar years of experience” (p. 5-6).

In addition, a 2008 study examined by Owings, et al. (2010) highlights the effectiveness of TTT educators:
[When] comparing measured academic achievement of elementary, middle, and high school students taught by TTTs, results indicate that compared to all teachers, students served by Troops teachers performed about equally well in Reading and achieved a small but statistically significant advantage in Mathematics. In comparisons where each Troop teacher was individually matched to another teacher, teaching the same subject in the same school, with approximately the same amount of teaching experience, students served by Troops teachers achieved substantially and statistically significantly higher in both Reading and Mathematics. (p. 5-6)

In addition, it has been reported by TTT educators that they plan on staying within the profession past 5 years, which would help diminish the effects of high attrition rates that are attributed to decreasing student achievement (Owings et al., p. 6). Overall this program appears to provide schools with a high caliber dedicated teacher that will withstand the challenges of the field.

**Teach Tennessee.** Teach Tennessee began with the goal of creating a statewide program that challenged mid-career professionals and others to pursue teaching jobs. It is designed to get teachers in the classroom in hard-to-fill areas of math, science and foreign language for grades 7-12. The Tennessee Department of Education seeks individuals who are dedicated, motivated and have a desire to help the children of this state. Since the program began in 2005, over 300 fellows have received their Tennessee teacher’s license and the state maintains an 83% retention rate of these teachers (Tennessee Department of Education, 2012).

The selection process requires that applicants hold a Bachelor’s degree from an accredited institution of higher learning, with a minimum GPA of 3.0. Applicants must also have a minimum of 24 semester hours of college credit in the subject area they want to teach or
pass the Praxis content knowledge exam. However, the candidates are not required to have completed any coursework in education prior to applying to Teach Tennessee (Tennessee Department of Education, 2012).

The Teach Tennessee pre-service training consists of a 12-day institute, followed by either 40 hours of professional development, or eight monthly weekend sessions during their first year of teaching. The program touts its benefits as being a customized individualized accelerated program that places qualified teacher candidates in the classroom on a transitional license, after they have participated in the 12-day mandatory pre-service training. The focus of the pre-service training is on “effective teaching strategies, state and federal requirements, planning and instruction, and classroom management” (Tennessee Department of Education, 2012). In addition, to the individualized professional development plan that is required for the first year of teaching, the program requires in-service mentors to be provided to Teach Tennessee teachers for up to 25 days during their first year of teaching.

According to the 2012 Report Card on the Effectiveness of Teacher Training Programs, Teach Tennessee had 54 program completers for 2010-2011. In addition, their program completers appeared to “perform at the same level as veteran teachers and other beginning teachers in the following areas of 4th-8th grade: Science and TCAP composite scores [and] High school Algebra I, Biology I and end of course exam composite scores” (Tennessee Higher Education Commission, 2012, p. 228). It should also be noted that candidates from Teach Tennessee have fewer teachers in the most “effective percentile of 4th-8th grade TCAP composites scores as compared to beginning teacher performance distributions across the state” (p. 228). The majority of their candidates are white (91%) (p. 229). Therefore, this ALP does not seem to contribute to increasing minority representation in the field of education.
Teach Tennessee has a very short period of pre-service training that is required to be taken prior to entering the field. It is unclear to the researchers if this limited amount of pre-service training and the amount of material said to be covered within it can truly prepare a teacher for efficacy within the classroom. However, the idea of an individualized professional development plan is intriguing provided that it is truly designed to remediate or strengthen any weaknesses in pedagogy the teacher may have.

**Teacher education and licensure**

As new teacher training programs emerge in education, a need for monitoring efficacy has emerged. These new licensure programs are sponsored through public, private, for-profit, and non-profit organizations alike. They range from traditional Bachelor degree teaching programs, Master’s programs, and doctoral teaching programs to accelerated alternative programs offered by a variety of organizations. The accelerated programs can range from a few weeks to a period of 1-4 years, with each program offering its own unique approach to teacher training, both pre-service and in-service (Feistritzer, 2011).

According to Gitomer and Qi (2010), in order to monitor and ensure appropriate teacher preparation, a number of new policies have been established during the past decade. These policies have included the 1998 reauthorization of the Higher Education Act, the Elementary and Secondary Education Act (ESEA, 2002), and increased program accreditation requirements as advised by the National Council for Accreditation of Teacher Education (NCATE, 2006), and the Teacher Education Accreditation Council (TEAC, n.d.). These policies were enacted to increase accountability of teacher education programs, expand upon teacher licensing testing meant to assess new teacher competencies, and increase admission standards (GPAs) for education programs (p. 1).
Since teacher certification can only be obtained through individual state licensing departments, which vary in requirements, there is currently no consistency across the nation with respect to teacher qualifications and licensing. In addition, there is no standard national teacher certification process that all teachers must succumb to (Feistritzer, 2005, p. 1).

Organizations such as the National Board of Professional Teaching Standards (NBPTS) seek to advance student learning and achievement by establishing definitive standards and systems for certifying educators, and by providing programs and advocating policies that support excellence in teaching and leading and engaging National Board Certified Teachers (NBCTs) and leaders in that process.

The National Board seeks to elevate the status, voice and role of teachers in shaping a true profession. This includes 1) raising public awareness with respect to the cognitively complex, collaborative and expertise-driven nature of teachers' work; 2) setting higher standards for entry and advancement into the profession; and 3) recognizing accomplished teaching through a rigorous professional certification process comparable to those found in other premier professions, such as medicine, engineering and law (http://www.nbpts.org/mission-history). While some have criticized NBPTS by pointing out that the certification effects are small (Cunningham & Stone 2005), early findings generally suggest that the effects are positive.

There have been numerous recent studies on National Board certification and several others are in progress (Cavalluzzo, 2004; Goldhaber & Anthony, 2004). These studies typically examine the student achievement gains for certified and non-certified teachers, including failed applicants and non-applicants to the program. These studies are non-experimental and rely on student and teacher background variables as controls to adjust for any differences in test scores
between certified and non-certified teachers that are caused by factors other than certification status or teacher quality.

According to research by Goldhaber and Liddle (2012), the United States government policymakers are looking at ways to improve education. As part of their endeavor, they are specifically interested in making changes in licensure and training programs in order to improve teacher efficacy (p. 1). The State of Tennessee has committed to holding teacher preparation programs accountable by enacting accountability measures such as examination of student achievement on standardized tests, teacher attrition, and data regarding placement of teachers in high-needs schools (Crowe, p. 12). Tennessee has started to link this data to the programs that the teachers received their training from (Tennessee Higher Education Commission, 2012).

The results of this initiative have created a valuable resource within Tennessee called the “2012 Report Card on the Effectiveness of Teacher Training Programs.” This report “contains information designed to inform the public of the effectiveness of teacher training programs and to provide preparation programs with the opportunity to improve the quality of programs through the use of data” (Tennessee Higher Education Commission, p. 3). In addition, the data contained within the report identify strengths and weaknesses of the 44 different teacher preparation programs within the state (Appendix H). Furthermore, program quality is determined by comparing the levels of teacher effectiveness with established reference levels of effectiveness. Specifically, the 2012 Report Card on the Effectiveness of Teacher Training Programs “differentiates between the performance of traditionally licensed and alternatively licensed teachers in comparison to two reference populations: veteran teachers and beginning teachers” (p. 4).
Of the 44 different teacher training programs offered within the state of Tennessee in 2010-11, 27 were offered through TICUA, six were offered through the Board of Regents, three through the University of Tennessee, six through alternative routes, and two through private for profit institutions (p. 7). Approximately a quarter of all teachers in 2010-11 were alternatively licensed within the state of Tennessee, and the Praxis pass rate (Appendix H) for traditionally and alternatively trained teachers were equivalent, at 97% (p. 8).

The 2012 Report Card also found that five programs had the tendency to “produce teachers with higher gains in student achievement data in the endorsement areas in which adequate value added data are available for that program” as compared to other beginning teachers (Tennessee Higher Education Commission, p. 6). These programs were of both traditional and alternative backgrounds and included: Freed-Hardeman University, Memphis Teacher Residency, Teach for America Memphis, Teach for America Nashville and the University of Tennessee, Knoxville. The report also identified programs that are producing less successful teachers under the same criteria. These beginning teachers were products of the following programs: East Tennessee State University, Lincoln Memorial University, Middle Tennessee State University, South College, Tennessee Tech University, Tennessee Wesleyan College, TNTP Memphis Teaching Fellows, Tusculum College, University of Memphis, University of Tennessee-Chattanooga, University of Tennessee-Martin, and Victory University (p. 6).

Additionally, the THEC 2011 Report Card found that only three programs in the state tended to produce teachers (traditionally and alternatively licensed teachers combined) with higher student achievement gains than veteran teachers: Teach for America Memphis, Teach for America Nashville, and Lipscomb University (THEC 2011 Report Card, 2011).
Tennessee also has accountability measures for its individual teachers, in the form of a standardized evaluation rubric found within the Tennessee Educator Acceleration Model (TEAM) on the state’s website. TEAM has an emphasis on value-added measures such as student growth, which comprises 35% of the overall evaluation score, and student achievement, which makes up an additional 15% of the evaluation score. The remaining 50% of the evaluation score is derived from the observation process using the TEAM rubric that encompasses four different domains of teaching: professionalism, instruction, planning, and environment. Each domain has specific indicators that are used during the observation process (Tennessee Educator Acceleration Model, 2013).

Research conducted by Crowe (2011) examines state strategies for ensuring accountability in teaching programs. Some of the accountability steps recommended and used within this study are use of teacher effectiveness measures, reliable and valid classroom observation instruments, attrition rates for up to five years post degree completion, and feedback from current teachers and their principals (pp. 6-12). Currently certification exams are used to establish baselines for entering into the teaching profession, but no concrete data is available that proves scores on such exams are directly linked to increased student achievement.

A growing body of research is evaluating the extent to which certification exams are good signals of teacher effectiveness by examining the relationship between teachers’ exam scores and the achievement gains of their students (Jencks & Phillips, 1998). In general, this research finds that exam scores are positively linked to teacher effectiveness, but the size of the effect varies widely.

**Praxis examinations.** It is unclear if a Praxis examination can truly help determine the readiness of teachers for the classroom. This is currently one of the most popular standardized
testing measures used by most states to determine teacher readiness. Currently, only California, New York, Texas, Michigan, and Florida have state-specific licensure tests and do not use the Praxis assessments for licensure (Gitomer & Qi, 2010, p. 2).

A report by Gitomer and Qi (2010) examines “trends in a systemic outcome that all of these policies have aimed to influence—the content knowledge of prospective teachers” (p. xv). In addition, Gitomer and Qi found that “the adoption of tests by states varies widely, [and] states have adopted different tests at different times and frequently applied different passing standards” (p. xvi). In addition:

Passing scores that define the Pass-Fail status of an individual on a test are established by the individual states through a formal standard-setting process. In this study, we consider passing status only on the basis of individual tests, although recognizing that in many cases, candidates need to pass multiple tests in order to meet state certification requirements. (p. 9)

For instance, in the report by Gitomer and Qi (2010), it was found that the passing scores for different Praxis tests had ranges as low as 13 to as high as 37 points (p. 101-110). According to the 2012 Report Card from THEC, both traditional and alternative teacher training programs within the state of Tennessee, had teachers achieving a similar pass rate on the Praxis of 97% (Appendix G) (Tennessee Higher Education Commission, 2012, p. 6). Within the state of Tennessee, educators wanting to obtain a teaching license “must pass all applicable portions of the Praxis Series Exams, developed and administered by the Educational Testing Service (ETS)” (Tennessee D.O.E., Teacher Licensing Section, n.d.). If these individuals complete all requirements and achieve the minimum score on the Praxis examinations, then a recommendation for licensing will be sent to the Tennessee Office of Teacher Licensing.
Angrist and Guryan (2007) investigated the impact of the use of tests to certify teachers for employment in public schools. Their body of research suggests state requirements increase the use of tests by about 50 percentage points. Testing requirements were also associated with higher teacher wages, consistent with a supply-shift story. Taking estimates from models that control for state-specific linear trends as representative, the reduced form effect of testing on wages is 3–5%. There was little evidence of an impact of testing on teacher quality, at least as measured in their research. It bears emphasizing that their quality measures are proxies at best. Still, similar outcomes are widely used in the literature as determinants of teacher quality.

Due to the numerous and unique ways one can enter the field of teaching, it has become more imperative that some assessment and derivation of policies are made to ensure efficacy and validity of teaching credentials. What influences the future policies with respect to licensure is dependent on research, such as this study, that focuses not only on identifying the components of several well known teacher preparation programs, but also on the strengths and weaknesses of them. Currently, according to Goldhaber and Liddle (2012), the standard accountability measure for teacher preparation programs seen across the United States consists of evaluation and accreditation for institutions offering teaching programs (p. 1).

**Current traditional teacher licensing programs**

According to Helton (2008), traditional American teacher preparation programs began in 1839 and focused on common areas still relevant such as pedagogy, subject area content, and education foundations; however, the level of emphasis placed on each individual area has fluctuated over time (p. iv). In addition, the level of emphasis placed on the different facets of traditional teacher preparation programs varies. This includes the amount of pre-service and in-service training provided in traditional pathways. With this much latitude in teacher preparation,
the concern is that training that may affect the quality of the teachers produced by the individual programs.

As cited in Hauck (2010), Sanoff reported “the overwhelming majority of the more than 1,200 teacher preparation programs in the nation’s colleges and universities range from mediocre to poor” (p. 20). In addition, Levine (2006) believes “that the vast majority of the nation’s teachers are prepared in programs that have low admission and low graduation standards” (p. 16). This leads the researchers to believe that not only are the teacher preparation pathways subpar in some cases, but they also have a low caliber student body that may graduate from them.

Having just reviewed the diverse number of ALPs and the components of them, it should be noted that a similar amount of diversity is seen within traditional programs as well. As stated in Hauck (2010), Levine (2006) believes that many traditional teacher programs have diminished standards with many of the nation’s programs having low admission and low graduation standards (p. 76). Therefore, a growing concern about the quality of teacher preparation regardless of pathway has developed.

A table was generated (Appendix H) listing different highlights from some of the state of Tennessee’s institutions of higher education currently offering teacher preparation programs. Specifically, Lipscomb University, Middle Tennessee State University, Milligan College, University of Memphis, and University of Tennessee Knoxville are highlighted within the appendix, due to their ability to graduate teachers who can make statistically significant positive gains with their students (Tennessee Higher Education Commission, 2012).

**Lipscomb University.** Lipscomb University is a private, Christian four-year institution of higher education. It is a member of TICUA and is accredited by the Southern Association of
Colleges and Schools (SACS), as well as by the National Council for Accreditation in Teacher Education (NCATE). The University was established in 1891 and since then has seen tremendous growth, especially in their education programs (Lipscomb University, n.d.-a).

Currently, Lipscomb has 47 approved teacher education programs (Tennessee Higher Education Commission, 2012, p. 147). Most recently they were rated as one of four top providers of teacher education programs in the nation (Lipscomb University, n.d.-b).

In 2010-2011, Lipscomb University had 148 completers from their education programs. The top endorsement areas were for Elementary K-6 and high school English 7-12. The 2012 Report Card on Teacher Effectiveness of Teacher Training Programs found that graduates “from Lipscomb University are less effective than veteran teachers and other beginning teachers in 4th-8th grade Social Studies” (p. 146). However, it was also found that graduates from Lipscomb University were more effective than other beginning teachers in 4th-8th grade reading/language and TCAP composite scores, and in high school Algebra I and end of course composite exam scores. Furthermore, many graduates from Lipscomb were in the “highest performing percentile in comparison to beginning teacher performance distributions across the state” in 4th-8th grade reading and language arts (p. 146). The majority of graduates in education from Lipscomb are white (87%) females (79%). Lipscomb has only about 5% of their education cohort represented by black graduates (p. 146). In addition, it should be noted that Lipscomb University is the host school for TFA Nashville.

**Middle Tennessee State University.** Middle Tennessee State University (MTSU) is a part of the Tennessee Board of Regents system. It is a public four-year institution of higher education and is accredited by SACS and NCATE. It was originally established as a result of a legislative act known as the General Education Bill of 1909. In 1911 its original form was as
two-year teacher institute and did not evolve into a four-year teacher training program until 1925 (Middle Tennessee State University, 2013).

MTSU has 47 approved teacher education program and the top endorsement areas for their graduates are Elementary K-6, early childhood education, and high school English (7-12). MTSU had 540 program completers in 2010-2011 and the majority of them (90%) were white, while 5% of their program completers were black (Tennessee Higher Education Commission, 2012, p. 183).

The 2012 State Report Card on Teacher Effectiveness found that graduating teachers from MTSU had an overall Praxis passing rate of 94%. In addition, MTSU was found to have “less effective [teachers] than veteran teachers and other beginning teachers in 4th-8th grade Math, Science, Social Studies and TCAP composite scores” (p. 182). However, for “high school English I, Middle Tennessee State University’s program completers are more effective than veteran teachers and other beginning teachers” (p. 182). Overall, the report showed that MTSU had many graduates in the least effective percentile of “4th-8th grade Math, Social Studies and TCAP as compared to beginning teacher performance distributions across the state,” and contrastingly had a smaller number of graduates “in the most effective percentile of 4th-8th grade Math, Science, and TCAP composite scores as compared to beginning teacher performance distributions across the state” (p. 182).

Milligan College. Milligan College is a private, Christian four-year institution of higher education established in 1866 (Milligan College, 2013). It is a member of TICUA and is accredited by SACS and NCATE. Milligan has 21 approved teacher education programs and it had 62 graduates in the field of education in 2010-2011. The top endorsement areas for their graduating students were in the areas of elementary K-6 education, early childhood education,
and high school history (7-12). The vast majority of their graduates were white (98%), however, they have a slightly lower number of female graduates (66%) than other traditional programs within the state (Tennessee Higher Education Commission, 2012, p. 193).

Milligan had a 100% Praxis passing rate in 2010-2011 by their graduates (Tennessee Higher Education Commission, 2012, p. 192-193), which implies that their students were well prepared for this assessment. In addition, the 2012 Report Card on Teacher on the Effectiveness of Teacher Training Programs found that graduates from Milligan “are less effective than veteran teachers as seen in their in 4th-8th grade TCAP composite scores” and in high school Biology I scores (p. 192). However, their graduates were “more effective than veteran teachers and other beginning teachers in 4th-8th grade Reading/Language” (p. 192). It should be noted that Milligan College’s graduates have had few teachers performing in the lowest percentile when compared “to beginning teacher performance distributions across the state as seen in the high school end of course exam composite scores” (p. 192).

**University of Memphis.** The University of Memphis is a part of the Board of Regents system, and is also accredited by SACS and NCATE. The university was founded in 1912 under the guidance of the General Education Bill (University of Memphis, n.d.). The University of Memphis currently has 37 approved teacher education programs, with the majority of the endorsements in the areas of Elementary education K-6, middle grades, and special education. In 2010-2011, the university had “466 program completers and a passage rate of 97% on the Praxis exam” (Tennessee Higher Education Commission, 2012, p. 295-296).

The 2012 report on teacher effectiveness found that program completers from the University of Memphis were less effective than their counterparts in the areas of 4th-8th grade Reading/Language and TCAP composite scores, and high school English III and end of course
exam composites scores (p. 295). However, the university’s graduates were more effective than their counterparts in high school English I. The University of Memphis, however, has the highest representation of black education graduates at 27%, when compared to similar institutions within the state of Tennessee (Tennessee Higher Education Commission, 2012 p. 296). However, the number of female program completers is similarly high to other programs at 85%.

**University of Tennessee Knoxville.** The University of Tennessee, Knoxville (UTK) is a four-year institution of higher education and also is one of the oldest public institutions in the nation. It was established in 1794 under the name of Blount College. In 1879, the state legislature changed its name to the University of Tennessee. The school makes up a part of the conglomerate called the University of Tennessee (UT) system. The UT system consists of the four campuses in Knoxville, Memphis, Martin, and Chattanooga (University of Tennessee Knoxville, n.d.) UTK is a SACS and NCATE accredited institution. It currently has thirty-seven approved teacher education programs (Tennessee Higher Education Commission, p. 310-311).

Ninety-one percent of UTKs graduates from their education programs are white. In addition, 85% of their program graduates are female. Both of these statistics reflect the majority of graduates produced from all of the programs within the state of Tennessee (Tennessee Higher Education Commission, 2012, p. 311). The university has seen an increasing number of applicants over the years, and therefore an increase in admission competitiveness has developed (University of Tennessee, n.d.).

In 2010-2011, UTK had 256 program completers and they were endorsed most commonly in the areas of elementary education K-6, special education, and early childhood education (Tennessee Higher Education Commission, 2012, p. 311). The 2012 report card on
teacher effectiveness found that its program completers were “less effective than veteran teachers in teachers in 4th-8th grade TCAP composite scores” (p. 310). However, program completers from UTK were found to be “more effective than veteran teachers in high school Biology I and U.S. History,” and were “more effective than other beginning teachers in U.S. History and end of course exam composite scores” (p. 310). Lastly, it was found that UTK produced more beginning high school Biology I teachers “in the highest performing percentile in comparison to beginning teacher performance distributions across the state” (p. 310).

Commonalities among traditional programs within Tennessee. Each institution highlighted within this study has its strengths and weakness as determined by the teacher effects on student achievement on standardized tests. All programs had a majority of white and/or female program completers. The main area of endorsement consistently was in Elementary education K-6. However, three of the traditional programs did produce teachers endorsed in high school content areas (English and history). Unfortunately, these two content areas do not address the growing need for high school teachers certified in the areas of science and mathematics. This acknowledgement is part of the reason for the growing numbers of ALPs, which are thought to attract career changers in these high need fields.

Perception and teacher self-efficacy

Perception. Perception can be a difficult to assess, but it is relevant to this study because how one perceives their ability to do a job, can have an impact their actual job performance (Lowe, 2012, p. 2). According to Corbell, Reiman, and Nietfeld (2008), “teacher perception is considered to be the awareness of the professional knowledge a teacher feels is needed to be successful in completing the many required job tasks,” (p. 2). According to Lowe (2012), a teacher’s stage of development is an influencing factor on their perception (p. 24-33).
Lowe (2012) discussed teacher development stages utilizing the theories of Katz (1972) and Fuller (1969). Katz outlined the stages of development for teachers beginning with the survival stage, progressing through the consolidation stage, into the renewal stage, and lastly ending in the maturity stage. Fuller’s model does not deviate too much from Katz’s model, except the stages are consolidated into three. The first stage is still about self-survival and just getting through the year. The second stage is more concerned with the tasks of teaching, which encompasses some of the 2nd and 3rd stages of Katz’s model. The last stage of Fuller’s model mirrors Katz’s, wherein teachers are concerned about making a long lasting impact on their students (Lowe, 2012, p. 24-33).

Lowe (2012) measures teacher perception through the use of a questionnaire developed and centered on exit surveys given at the completion of teacher training programs and teacher job evaluation instruments. For the pilot study, Cronbach’s alpha was examined for internal consistency (p. 62). Initial queries on the questionnaire asked how many years of experience the teacher had, and whether or not they had traditional teacher preparation or alternative teacher preparation. The researcher realized that this method would offer a broad background on perception, but may not deliver the depth due to the type of instrument used and the expectation that the researchers could not clarify or expand upon answers given (Lowe, 2012, p. 62).

The data revealed that only 42% of the surveys were completed satisfactorily, and of those returned, the majority came from teachers with equal to or greater than 5 years of experience. This is problematic in that other research has shown that almost 100% of alternatively licensed teacher leave education within the first three years of teaching. Therefore, representation of alternatively licensed teachers in the sample may not be substantial enough to make any real correlations (Lowe, 2012, p. 62).
Helton (2008) examined a report authored by the National Center for Education Statistics in 1988, wherein teacher perceptions were surveyed with respect to:

Maintaining order and discipline in the classroom, implementing new methods of teaching, implementing state or district curriculum and performance standards, using student performance assessment techniques, addressing the needs of students with disabilities, integrating educational technology into the subject or grade level taught, and addressing the needs of students with limited English proficiency or from diverse cultures. (p. 59)

The results of this study revealed that most “teachers felt either moderately or somewhat well prepared for most classroom activities” (Helton, 2008, p. 59). These activities included the implementation of new teaching strategies, state and district curriculum and performance standards, and student assessment.

With respect to discipline and classroom management, the National Center for Education Statistics (1999) found most teachers had the perception of being well prepared (NCES, The Condition of Education 1999, p. 48-49). Teachers of varying years of experience were included in this study, and the only significant difference seen was in the area of classroom management. Perception of preparedness to deal effectively with classroom management increased with the number of years of teaching experience (Helton, 2008, p. 60).

Other researchers, such as Rosas and West (2011), examined teachers’ perceptions of their ability to teach math. Their study’s design was based upon a review of literature, which indicated that there was “heightened concern for both the quantity and quality of teachers to fill mathematics teaching positions” (p. 4). Specifically, their study explored Ohio pre-service teachers’ perceptions regarding their readiness to teach mathematical concepts and their
preparation to integrate mathematical topics in instruction. Rosas and West discovered, “pre-service teachers rate their perception of readiness to teach mathematics only in the adequate range” (p. 16). This is concerning because research has shown that a teacher’s lack of mathematical understanding “significantly impacts students’ opportunities for learning” (p. 4). Therefore, it is predicted that a teacher’s perception of partial readiness to teach math concepts would have at least some impact on student learning and achievement.

Ultimately, the researchers in this study believe that a teacher’s perception of events may be influenced by the context of their environment and this may affect their feelings of self-efficacy and hence student learning and achievement. The researchers are also cognizant that the term self-efficacy can sometimes be seen as an elusive construct. The following section therefore explores current definitions and beliefs about self-efficacy and its use as a measurement of teacher effectiveness.

**Efficacy.** The concept of teacher efficacy is widely accepted as the belief that an individual teacher can make a significant impact on a student’s learning, behavior, and achievement in spite of outside circumstances (Hoy, 2000). The term teacher efficacy was first coined by Bandura in 1997, when he stated that a person’s evaluation of their own talents to complete future tasks or assignments would directly impact the likelihood of their actually accomplishing the task or assignment. He further concluded that higher levels of self-efficacy resulted in the setting of and achieving higher goals. This concept was applied to teaching and became known as teacher efficacy.

Therefore, teachers with high levels of teacher efficacy set higher goals for both themselves and their students and believe they can achieve those goals. They work harder to achieve their goals and persevere toward successful completion of them regardless of external
forces or setbacks (Ross 1994). Labone (2004) and Wheatley (2005) found that teachers who reported a higher sense of efficacy tended to be more likely to stay in the profession, report higher job satisfaction, exhibit more effort and motivation, take on additional roles in their schools, and display a greater degree of resiliency throughout their teaching career.

In a study conducted by Tschannen-Moran and Hoy in 2001, the researchers referred to the term “efficacy” as a construct comprised of “teacher persistence, enthusiasm, commitment, and instructional behavior, as well as student outcomes such as achievement, motivation, and self-efficacy beliefs” (p. 1). They believed self-efficacy was an important construct to define and wanted to explore and create effective measurement tools for it. This is because a teacher’s sense of efficacy directly influences teacher effort, planning, organization, aspirations, goals and level of investment and resilience (p. 783-784).

The study by Tschannen-Moran and Hoy (2001) includes a purposeful review of literature on the validity and design of various instruments created to measure teacher efficacy. One of the initial measures examined in their study was the Rand measure, which was grounded in Rotter’s social learning theory (p. 784). This measure sought to identify teachers’ feelings of efficacy, and to determine whether these teachers felt that external influences or internal factors affected their sense of efficacy more (p. 785). In addition they explored Guskey’s instrument, which examined teachers’ perceptions of their responsibilities for student achievement. Guskey’s research showed that there was a statistically significant positive correlation between teacher efficacy and the teacher’s feelings of responsibility or control over student success or failure (p. 785). However, it was found that “in general, teachers assumed greater responsibility for positive results than for negative results …” (p. 786). This meant that teachers attributed student success more to their efficacy, while student failure was due to external influences.
Tschannen-Moran and Hoy (2001) also looked at the *teacher locus of control* model of measuring teacher efficacy. Specifically, they reviewed a study by Rose and Medway in which a 28-item measure was used to assess how teachers attribute success and failures of their students to their internal ability or to external factors beyond the teacher’s control (p. 786). The results of this study were found to be significantly related to the individual Rand items rooted in Rotter’s social learning theory (p. 786).

A second conceptual strand based on Bandura’s social cognitive theory was also examined within the study by Tschannen-Moran and Hoy (2001). Bandura’s study looked at self-efficacy as “a future oriented belief about the level of competence a person expects he or she will display in a given situation” (p. 787). Bandura’s ultimately believed that the two factors that should be examined are the teacher’s perception of efficacy and outcome expectancy. This model was modified in later years by Gibson and Dembo (1984), whose research into the concept of efficacy eventually led to changes in the original instrument created by Bandura. The new instrument looked at the teacher’s sense of self-efficacy in particular curriculum areas (p. 787).

Tschannen-Moran and Hoy (2001) also examined Myer and Foster’s 1988 research within their study. Their approach to measuring self-efficacy was to use a four-point Likert scale linked to specific questions meant to probe personal teaching beliefs (p. 791). This model was later adapted and used by other researchers attempting to measure teacher efficacy.

Lastly, Tschannen-Moran and Hoy (2001) looked at a new model developed by The Ohio State University College of Education participants. The model was named the Ohio State Teacher Efficacy Scale (OSTES) and it was tested in three different studies (p. 795-796). The results of the studies indicate that OSTES is clearly best devised to assess personal teaching
efficacy. However, it is not effective in capturing the essence of efficacy (p. 801). Ultimately, the researchers believed “that the OSTES could be considered reasonably valid and reliable” (p. 801). Although previous measures examined by Tschannen-Moran and Hoy are believed to also validly assess teacher efficacy, the OSTES model is meant to capture a broader range of teaching tasks that include instructional strategies, student engagement, and classroom management (p. 801). Although OSTES is based on Bandura’s previous work in measuring teacher efficacy, it is believed to be “superior to previous measures of teacher efficacy in that it has a unified and stable factor structure and assesses a broad range of capabilities that teachers consider important to good teaching, without being so specific as to render it useless for comparison of teachers across contexts, levels, and subjects” (Tschannen-Moran & Hoy, 2001, p. 802).

Overall, Tschannen-Moran and Hoy (2001) present a history of instruments designed to measure self-efficacy. The multitude of approaches discussed within their study culminates in the belief that measures of teacher efficacy should both look at personal competence and a breakdown of specific tasks required of them in relation to their role. In addition to exploring the concept of self-efficacy, the researchers in this study also identified through a review of research that teachers expressed the lowest feelings of self-confidence and preparation in the area of technology, and in dealing with English language learners, students of diverse cultures, and special education students (Helton, 2008, p. 60). However, this may not be applicable to current graduating teachers who are much better prepared in utilizing technology in the classroom.

Novice teacher perception of insufficient preparation in dealing with special education students is supported by research conducted by Wall (2007), who investigated the relationships between early childhood teacher training programs and levels of perceived efficacy beliefs regarding the inclusion of young children with disabilities. Participants in this study were pre-
service teachers who were enrolled in general early childhood education, early childhood special education, and unified teacher preparation programs. Teachers were measured using a four-layer subscale that analyzed the following:

   Knowledge of procedures related to special education, knowledge of young children with disabilities, teaching confidence with young children having a disability and who are included into the general education classroom, and perceptions of their abilities to implement both effective teaching strategies and modification to the general education curriculum to meet the needs of young children with disabilities. (p. 100)

The findings revealed that pre-service teachers who were enrolled in general early childhood teacher training programs had significantly lower levels of perceived efficacy beliefs regarding the inclusion of young children with disabilities on all four subscales in comparison to their early childhood special education and unified counterparts (Wall, 2007, p. 106). The results of study indicated that pre-service teachers who participated in separate early childhood education teacher training programs lacked confidence in their beliefs concerning their skills and performances with regards to children with disabilities in their future general education classroom. Wall concluded that, “more instruction concerning special education evaluation and drafting individualized education and service plans in unified teacher training programs” (p. 124).

Lastly, research by Fox and Peters (2013) identified that “compared to the alternative certification teachers, traditional route teachers report having greater confidence in their teaching ability to make a difference” (p. 5). Blazer’s (2012) research similarly found that “alternatively certified teachers have lower levels of self confidence and [perceptions] of efficacy than those prepared in traditional programs,” especially in areas of instructional planning, differentiation,
creating a positive learning environment, classroom management, and student assessment (p. 5). Helton also looked at “teacher knowledge voids: [which included] student behavior management, time management, organization, dealing with parents, motivating students, and meeting individual students’ needs to determine which aspects of teacher education could improve teachers’ skills in these areas” (Helton, 2008, p. iii). Principals were also surveyed in the study and it was identified that they perceived classroom management and lesson plan implementation as the weakest areas for new teachers (p. 60).

The researchers in this study specifically look at identifying novice teachers’ perception of self-efficacy. The hope is to assess if the perception of efficacy is greater in traditional or alternative novice teachers. However, previous research that assessed the self-efficacy of first year teachers using a two-tailed independent t-test found “that there were no statistically significant mean differences in reported self-efficacy between first year teachers graduating from a traditional certification program as compared to those certified through an alternative certification program” (Fox & Peters, 2013, p. 7).

The researchers in this study understand that although examining teacher perception is valuable, it should not be the only tool used to make inferences regarding teacher effectiveness in the classroom. For this reason, principal perceptions of the teachers surveyed should also be examined. Principals are directly involved in the supervision and evaluation of teachers and therefore are able to offer a unique perspective on the abilities of their teachers.

**Principal perception, bias, and evaluation of teacher efficacy**

When looking at teacher efficacy and effectiveness, it is important to understand the perceptions of principals who are in a position to directly evaluate and assess teachers on an annual basis throughout their career. This is typically done at a greater frequency at the start of a
teacher’s career and therefore, the principal should have a fairly well developed estimation about a teacher’s efficacy as it relates to their initial preparation. It is currently recommended that apprentice teachers, who are categorically within their first three years of teaching, are formally evaluated a minimum of four times, two of which should be announced visits and two of which should be unannounced visits.

Specifically, within the state of Tennessee the principal evaluates teachers based upon the Tennessee Educator Acceleration Model (TEAM). This evaluation model focuses on three domains: instruction, planning, and environment. Each of the domains contains specific criteria that must be assessed and a clear rubric to guide the evaluator in the assessment process (Tennessee Department of Education, Team Evaluation System Handbook, 2012, p. 20). The evaluation process itself can only be completed by principals who have completed a three day training and have passed a certification test through the National Institute for Excellence in Teaching (NIET) website. NIET is “a public non-profit organization committed to improving education effectiveness,” and they accomplish this through training leaders in effective evaluation and assessment with the goal of improving teacher instruction and student learning (NIET, n.d).

In a 2005 study by Feistritzer, alternatively licensed teachers entering the profession were questioned about what good assessments would validly measure their ability to teach. Approximately 34-37% of these teachers thought that teaching experience, evaluation by peers and/or an administrator via direct observation, and passing a subject test would be the best assessments to measure their qualifications and abilities. In addition, it was found that 23-29% of alternatively trained teachers felt that successful completion of the program, passing a proficiency test in teaching skills, and obtaining state certification would be a valid assessment
of one’s qualifications to teach. Fewer than 16% of these same teachers felt that National Board Certification, videos of teacher performance, and their student standardized test scores, were valid assessments of their abilities and qualifications to teach (p. 51).

When examining principals’ preconceived ideas about teacher efficacy based on their teacher preparation program, it was found that many principals automatically assume that ALPs do not produce quality teachers. Nusbaum (2002) conducted a study in Virginia assessing principal perception of ALPs. In this study, 211 principals participated by completing a survey with 40 different comparative statements that were used to determine teacher efficacy. Alternatively licensed teachers were compared quantitatively to traditionally licensed teachers based on principal perception responses. The study showed that “a significant difference existed between the effectiveness of teachers certified through traditional licensure programs, and those certified through alternative licensure programs” (p. 113).

The data identified that traditionally certified teachers are perceived as more effective than alternatively trained teachers. The greatest significance was seen in content area knowledge, as traditionally trained teachers seemed to convey a greater mastery of the subject matter that they taught (Nusbaum, 2002, p. 115). In addition, in those cases where the alternatively certified teachers did “come to the classroom with an adequate knowledge base, they were found to lack the skills required to impart this knowledge to students at grade level” (p. 116). Skills of instructional delivery and planning are an integral part of teaching pedagogy and the study identified a statistically significant difference in the level of efficacy between alternatively trained teachers when compared to traditionally trained teachers. Traditionally trained teachers seem to have a greater understanding of lesson planning, differentiated instruction, and assessment (Nusbaum, p. 117).
An additional discovery made within the study by Nusbaum (2002), and perhaps the most concerning, is “the perceived inability to plan for the instructional differences of students due to cultural diversity, socio-economics and learning abilities” (p. 118). Teachers must be able to successfully plan and differentiate instruction to meet the needs of students. The inability to effectively differentiate instruction exasperates the growing achievement gap seen in many schools. Furthermore, research shows that most alternatively trained teachers are teaching within urban schools with diverse populations of students; students who may have external challenges that influence their ability to learn and who may need the experience of a teacher that can accommodate and attend to individual and unique learning challenges (Darling-Hammond et al., 2005, p. 13).

In a report by Blazer (2012), it was identified that many principals rate alternatively trained teachers high in their professionalism. However, these same principals seem to concur that traditionally trained teachers have better “instructional skills, instructional planning, and classroom management” (p. 5-6). More specifically, Blazer found that alternatively trained teachers have greater “difficulty with curriculum development, teaching methods, student motivation, organizing and sequencing lessons, responding to students’ learning needs, and encouraging higher level thinking” (p. 5-6). The discernment between levels of efficacy in this study contradicts results of previous studies. Specifically, according to Nusbaum (2002) “of 93 comparative studies which to some degree related to effectiveness of traditional and alternative licensure programs, approximately two thirds supported the contention that alternatively certified teachers were equal or more effective than traditionally certified teachers” (p. 114). This discrepancy of perception may be due to the following factors: small sample size, limited number of sampling techniques, author bias, vague results based on non-quantifiable
assessments, and examination of a single facet of teaching only and not the overall efficacy (p. 114-115).

The issue of principal bias in hiring practices and perception is of concern when making assumptions about teacher efficacy and ALPs. For instance, as cited in the 2012 study by Blazer, Feistritzer (2008) found preconceived notions might play a role in principals' reservations about hiring alternatively certified teachers. Her evaluation of Mississippi's Alternate Route Teacher Preparation Program found that 90 percent of principals said they would prefer to hire a traditionally trained teacher. When asked for evidence to support this preference, the interviewed principals stated that hiring a traditionally trained teacher just made more sense to them because they have had more education and are better equipped as a result (p. 6).

A study conducted by Militello, Gajda and Bowers (2009) found that principals from schools in Massachusetts had different perceptions of alternative licensing depending upon when the participants were certified and the type of certification program. The researchers sent out a statewide online survey to school principals that explored the “nature and perceived helpfulness of alternative licensing program courses and skill development” (Militello et al., p. 46). The survey was comprised of five main components: (1) participant demographics (including when participants were certified); (2) institution participants were certified from; (3) indication of courses taken and how helpful the courses were to the participant’s practice (a set of 13 courses were provided); (4) ranking of skills school principals find important in their work, along with a ranking of how well their preparation program developed these skills (a list of 20 skills were provided); and lastly, (5) suggestions for improving preparation programs. The results from the survey also found that principal perception in Massachusetts is changing because the programs are offering more courses that emphasize reform content (p. 46).
Lowe’s (2012) study examined the work of other researchers such as, Torf and Sessions, who had surveyed principals about their perceptions of the causes of teacher ineffectiveness. Their study sought to identify whether principals felt teacher ineffectiveness was due to lack of pedagogy or content knowledge. Ultimately, it was identified that overall principals believed “a lack of pedagogical knowledge reflected that the teacher was ineffective more than the lack of content knowledge did” (p. 8).

The implications of the reviewed research on this study are that principal biases and perceptions may directly impact their responses to the surveys on teacher efficacy. The researchers will need to identify this as part of the limitations of this study. In addition since the TEAM evaluation rubric is used by principals to evaluate teachers and has been used in the formation of this study’s surveys, it is important to explain and examine its current use in education. A more developed explanation of the four domains of measurement in the TEAM evaluation rubric follows.

Effective teacher strategies and the four domains of measurement

The Tennessee Educator Acceleration Model (TEAM) has a validated rubric to assess teacher efficacy. It is a student learning result based assessment, and it has been used as the guide to which the researchers have developed their efficacy measures for the teacher perception surveys in this study. According to the 2012 Report Card on the Effectiveness of Teacher Training Programs, TEAM was originally implemented by the state of Tennessee as a “new individual teacher evaluation system,” and it is meant to give the state a “more robust view of teacher effectiveness in Tennessee” (p. 5).

According to the TEAM website, there are three domains of measurement within the rubric: instruction, planning, and environment. However, professionalism is included in the
overall evaluation score and is included as a domain in this study (TN DOE, Team Evaluation System Handbook, p. 20). This study examines each of the domains of instruction, planning, environment, and professionalism similar to Nusbaum’s research in 2002. However, Nusbaum utilized 40 different comparative statements to assess efficacy, while this research study utilizes the TEAM evaluation rubric and Likert scales to compare teacher efficacy (p. 119-120). The results of Nusbaum’s research identified that 95% of all comparative statements answered were in support of traditionally trained teachers as far as ability, and these “areas that reflected particularly substantial differences were [in] content knowledge, instructional planning, and classroom discipline” (p. 2).

The TEAM rubric looks at a broad range of teaching practices and capabilities in order to assess efficacy. It is similar to the OSTES model previously cited within the literature review. In the study by Tschannen-Moran and Hoy (2001), it was found that OSTES is “superior to previous measures of teacher efficacy in that it has a unified and stable factor structure and assesses a broad range of capabilities that teachers consider important to good teaching, without being so specific as to render it useless for comparison of teachers across contexts, levels, and subjects” (p. 802). Likewise, the TEAM rubric can be used to evaluate teachers across different content areas and within different school contexts, thereby making its use conducive to this study.

**Efficacy as a part of professionalism.** Nusbaum (2002) identified two elements that could be used to ascertain if a teacher was exhibiting professionalism within the workplace. These elements were with respect to scheduling time away from work during the contract hours and one’s ability to conduct themselves in a professional manner, including appropriate dress for their particular work environment (p. 119-120). The study’s data indicated that principals did
not perceive “a substantive difference with relation to professionalism as it relates to the difference between alternatively and traditionally certified teachers” (p. 119-120). This consistency among teachers, regardless of pathway of preparation, may be due to the fact that professionalism is an attribute that most adults would already be aware of, and this factor would be identified and cultivated in the teaching candidate selection process itself. Therefore, for the purposes of this study, the domain of professionalism does not seem to be of great consequence in the assessment of teacher efficacy.

**Efficacy as a part of instruction.** Knowing what to teach, how much to teach and how to assess students’ levels of understanding is a challenge for all teachers, particularly when one considers the most integral factor underlying all teaching, which is to get students to listen, assimilate and hopefully accommodate the information. The ability of the student to assimilate and accommodate information cannot easily be accomplished without first engaging the students. According to Marzano, Pickering, and Heflebower (2010), student engagement encompasses emotions, interest, perceived importance, and the student’s perception of self-efficacy (p. 2). In addition, Marzano, et al. (2010) make reference to other literature that cite student engagement as involving “elements of: motivation, engagement, attention, interest, effort, enthusiasm, participation, and involvement” (p. 2). Their definition of engagement is multi-factorial and it encompasses so much more than simply attracting and holding a student’s attention while giving meaningful instruction. Student engagement is vital to successful learning, as it increases student achievement while decreasing classroom discipline problems (Wong, 2007, p. 1-2). Since classrooms are very dynamic environments, lack of student engagement can ultimately influences other factors within the classroom, such as student assessment.

Nusbaum (2002) found that the ability to assess students was also an integral part of
teacher efficacy in instruction. Specifically,

District evaluation report forms stressed assessment as a crucial element of the teacher’s ability to evaluate the student’s progress, the teacher’s instructional strengths and weakness, and the ability to reteach unmastered instructional objectives. Ineffective assessment of student progress greatly denigrated the classroom teaching process. (p. 118)

In addition, a teacher’s ability to clearly deliver instruction is based upon his capacity to formatively check for understanding during the lesson, and to illustrate and convey material in a relevant way that is meaningful and appropriate for the students. This capacity is further affected by the teacher’s level of content knowledge and pedagogy as it relates to differentiation and assessment (Lowe, 2012, p. 14-15). The TEAM rubric has twelve separate components that help with measuring a teacher’s ability to effectively deliver instruction. The components of the rubric are broad, assessing a teacher’s capabilities across a spectrum of skills covering areas of instruction such as: standards and objectives, motivating students, presenting instructional content, lesson structure and pacing, activities and materials, questioning, academic feedback, grouping students, teacher content knowledge, teacher knowledge of students, thinking, and problem solving (Tennessee Educator Acceleration Model, 2012).

**Efficacy as part of planning.** Planning is an integral part of instruction, as it serves as a guide that ensures consistency across grade levels and among similar content areas within schools. Planning also helps ensure that state standards and objectives are being met. Nusbaum (2002) identified that principals believe that the ability to plan for individual student achievement, along with the implementation of effective strategies was imperative to a student’s
success. These skills also contributed to a teacher’s ability to deliver content knowledge, thereby affecting individual student achievement (p. 119-120).

According to Lowe (2012), researchers have advised that, “Teachers need to create lessons based on their students’ needs rather than let graded or standard measures dictate where they should be” (p. 18). Appropriate objectives in planning what students should learn must be selected and teachers should be clear about their goals and standards by consistently validating with the students if the goals are being achieved. In addition, a direct correlation is seen between effective planning and a diminished number of student behavioral and discipline issues. As previously stated, Wong (2007) believes that difficulties experienced with respect to classroom management may be directly related to the lack of well-established rules and procedures that should be incorporated into lesson planning (p. 1-2).

The TEAM rubric evaluates three different components of planning. These include instructional plans, student work, and assessment. All of which are important determinants of teacher efficacy. In addition, it is important to remember that the domain of planning directly impacts the domains of instruction and environment.

**Efficacy as part of environment.** The ability of a teacher to effectively manage their classroom has a direct correlation to the degree of student learning. According to Nusbaum (2002), it was perceived by the surveyed principals that alternatively licensed teachers were not able to effectively manage the classroom environment, nor the conduct of the students within it. Nusbaum stated that if a “teacher could not control the environment, demeanor, and conduct of the class, then instruction [would] become degraded or impossible” (p. 119-120).

The idea of classroom management is not limited to the control of student behavior alone, but includes, according to Lowe (2012),
The totality of how a teacher prepares for her class – how she arranges her physical environment, how she plans her students’ activities and groupings, how she budgets the time for all the planned activities and discussions, how she prepares the teaching and learning materials, how she uses transitions to glide from one activity to the next, how she encourages cooperative learning among her students and how harmony and productivity is sustained in an ambience of active learning. (p. 13-14)

Lowe (2012) therefore believed that classroom management is tightly linked to a teacher’s ability to plan and instruct lessons that are appropriate for his students. Additionally, a teacher’s organized classroom environment can help eliminate certain student behaviors that can ultimately undermine a well-structured lesson (p. 13-14). Nusbaum (2002) also supported this belief that well-ordered and structured classrooms are important for efficient student instruction (p. 119-120).

The TEAM rubric covers four different variables within the domain environment in its evaluation of teacher efficacy. These include classroom and student expectations, managing student behavior, organization of environment, and cultivation of a respectful culture (TN DOE, Team Evaluation System Handbook, 2012, p.20). These variables obviously impact the domains of instruction and planning, and therefore some overlap in assessment of efficacy is seen. However, the researchers have included environment in the survey in order to remain aligned with the TEAM rubric as designed.

**Pedagogical theory**

Pedagogy is the scientific methods and skills of teaching. Its importance in teacher education programs has been highly debated over the last century. When pedagogy has been included in teacher preparation programs, the emphasis and time spent on this area of the
program varied. Many believe that “the most effective teachers combined the content and method to deliver an engaging lesson; however, it was unclear how such knowledge and skills were best acquired” (Helton, 2008, p. 48).

Nusbaum’s study (2002) showed that when alternatively certified teachers lacked pedagogical training, they came “to the classroom with an adequate knowledge base … [however, they] lacked skills required to impart this knowledge to students at grade level” (p. 116). Skills of instructional delivery and planning are an integral part of teaching pedagogy, and Nusbaum’s study showed that traditionally trained teachers were significantly better able to plan lessons, differentiate instruction, and assess students when compared to alternatively trained teachers (p. 117).

Pedagogy encompasses a variety of teacher practices, one of which is grouping. Lowe (2012) believed that grouping can be “used as a pedagogical instrument to promote collaborative learning, active engagement with material, critical thinking and communication as a strategy” (p. 15). In addition, having a broad base of pedagogical knowledge helps to alleviate issues that may arise during a lesson. This is because the strength of the teacher often lies in the ability to draw upon a variety of teaching strategies to overcome unforeseen problems (p. 18-19).

Some believe that lack of pedagogical knowledge and training was the main threat to teacher efficacy and that this could be interpreted as a sign of failure on the part of the teacher preparation programs (Torff, 2005, p. 304). Pedagogy may seem very different and difficult to what most individuals experience during their education. When asked, principals stated they wanted teachers to undergo more training in pedagogy and therefore recommended continuance of this segment of teacher preparation programs (Helton, p. 61).
The researchers have noted that there is a vast difference in the amount of pedagogy included within teacher training programs. At this time, it appears that the literature would support the inclusion of pedagogical training in teacher preparation programs. Therefore, an effective ALP would have some amount of pedagogy included within its training.

**Importance of content knowledge in teaching**

Schnabel’s (2009) research found that the Educational Testing Service Pre-Professional Skills test results indicated program entrance reading, writing, and mathematics score are equal between traditional and alternatively certified candidates. Therefore, the results indicated that candidates who entered a traditional path to secondary teacher preparation entered their studies with measurable content knowledge in reading, writing, and mathematics that was congruent with the content knowledge of post-baccalaureate candidates who entered an alternative certification program. This should mean that each teacher’s level of content knowledge is fairly equivalent, independent of his or her teacher preparation pathway. Additionally, Schnabel (2009) reported that teachers, both traditionally and alternatively prepared, had similar grade point averages in their initial coursework in their content area.

The study by Schnabel (2009) suggests that both traditionally and alternatively trained teachers appear to be ready to teach the content when entering the field. This is relevant because as identified in the study by Rosas and West (2011), the self-perception of pre-service teachers can have a direct and negative impact on student learning if they perceive their understanding of the content and their ability to effectively teach it is substandard (p. 4). This means that a teacher’s perception of ability or self-efficacy impacts the student’s ability to learn from them.

**Pre-service teacher preparation**
Pre-service education is important to examine for any education program. In 1997, Norton suggested six pre-service activities, which, as judged by first year veteran educators, were significantly related to growth in effective, reflective professional practice. As cited in Helton (2008), these activities included “clinical field experiences during methods and foundations courses, microteaching lessons, video analyses of student teaching performances, weekly seminars during full-time student teaching, reflective journals, and professor-modeled reflective thinking” (p. 57). Two years ago the National Council for Accreditation of Teacher Education (NCATE) released a recommendation that indicated that “supervised, structured work of teacher-candidates in diverse classroom settings must be the foremost component of pre-service teacher training, with other aspects like coursework embedded in that training” (Sawchuk, 2010, para.4).

Veenman conducted a study in 1984 on beginning teachers in order to identify the areas of greatest need for training of new teachers. He identified these areas by looking at the weaknesses of beginning teachers. These weaknesses included classroom discipline, motivating students, assessing student work, relationships with parents, organization of class work, dealing with individual differences among students, dealing with problems of individual students, and insufficient materials and supplies.

Although Veenman’s study (1984) is informative, it may not be applicable to the current issues teachers face in the diverse student population that they now teach with unique needs and challenges. However, in a study conducted approximately 14 years after Veenman’s initial one, Gratch found that five of Veenman’s eight major themes were still exactly the same (Helton, 2008, p. 58). In addition, researchers such as Hauck (2010) believe that inadequate pre-service preparation results in a higher attrition rate (p. 17). This highlights the ramifications of pre-service training and how it impacts all facets of the educational process.
In a 2005 study by Feistritzer, it was found that the most important components of an alternative teacher licensing program, as identified by those surveyed, was revealed to be the teaching experience gained while completing their licensure program. Approximately, 92% of these alternatively trained teachers valued this experience and found it somewhat to very helpful to them (p. 43). After teaching experience, 58% of those surveyed stated that one of the most valuable parts of their alternative programs were the college education courses in methodology and pedagogy (58%) (p. 44).

**In-service teacher preparation and professional development**

Feistritzer (2005) found that 69% of new teachers surveyed found the provision of mentors to be very beneficial to them. In addition, 66% of new teachers found the support of district staff as being valuable to them. Interestingly, only 19% of respondents felt that working with college faculty in their school was beneficial to them (p. 44). Therefore, the most helpful support received by newly trained alternatively licensed teachers was from mentors, followed by school principals, non-college instructors, and college/university personnel (p. 46). The amount of support received was greatest from mentors and principals within the school they worked (p. 48).

Fox and Peters (2013) found a common theme expressed by first year teachers was the positive support received from being mentored. Specifically, “the different types of mentoring the participants discussed … include support from supervising teachers during student teaching, assigned mentors as first year probationary teachers, and fellow coworkers” (p. 9). Therefore, any high-quality teacher preparation program should have a well-designed mentoring program.

According to Levine (2006), 62% of new teachers feel unprepared for the classroom, possibly due to the fact that “many programs do not provide teachers with a rigorous clinical
experience...” (USDOE, 2011, p. 10). Clinical experiences are thought to be an important aspect of most traditional preparation programs; however, it appears that there is a high degree of inconsistency in the provision of clinical experiences to teachers in their training programs. Educators across the nation continue to develop the most effective methods for evaluating teacher performance. In addition, both pre-service programs and in-service support for new teachers are being examined and compared to teacher efficacy in the classroom. According to research, prolonged apprenticeships and mentoring programs for in-service teachers are gaining the attention of policymakers (Sawchuk, 2010, para.4).

Ingvarson, Meiers, and Beavis (2005) analyzed four studies conducted by the Australian Government Quality Teacher Programme which were designed to improve teacher quality. The survey study included 3,250 teachers who participated in various professional development activities. The purpose of the study was to evaluate and examine the effectiveness and quality of various forms of professional development for teachers. The results revealed that the level to which an approach to professional development influences knowledge and application is increased when participants have opportunities to communicate about their personal teaching practices, assess student learning, develop ideas collaboratively, and support each other in the implementation of innovative strategies. This approach had an effect on teacher knowledge. As teacher knowledge increased, the impact on teacher practice increased, as did student learning and teacher efficacy (p. 1-29).

The most effective models of professional development provided teachers opportunities to work collaboratively and to reflect on their craft. Furthermore, effective approaches engaged participants in a process of trying new strategies; provided ongoing support and coaching when problems or issues arose; and allowed teachers to —deprivatize their practice and gain feedback
about their teaching from colleagues (Ingvarson et al., 2005, p. 16). This model has implications for this research, as the researchers look at how certification programs can incorporate effective professional development strategies into their programs. It is believed that an increased amount of teacher preparation and support will also ultimately help reduce teacher attrition.

Additional research indicates differences in the in-service needs of traditionally versus alternatively certified teachers (Roberts & Dyer, 2004, p. 58). It was found that the biggest differences between traditional and alternative teachers were with respect to their “teacher skills,” the greatest similarities between the two groups of teachers were in “people skills” (p. 58). This is supported by research from Truell (1999), as cited in Roberts and Dyer, that:

Traditionally certified teachers had a higher level of concern for understanding community relations, cultures, and traditions; formulating instructional objectives; sequencing instruction; explaining subject matter; planning and preparing lesson plans; and handling controversial topics. Alternatively certified teachers reported greater concern for such simple tasks as grading tests. (p. 58)

It appears that both alternatively and traditionally trained teachers are open to professional development opportunities and therefore, some consideration should be made about the unique needs of the teachers due to the apparent diversity of the preparation programs. As cited in a study by Duncan and Ricketts (2008), Wash, Lovedahl, and Paige (2000) found no differences in receptivity to change and involvement in professional development activities of traditionally and alternatively certified technology education teachers. Alternatively certified teachers were found to be as likely to participate in in-service activities and make appropriate changes as traditionally certified teachers (p. 39).
Teacher attrition

Although teacher attrition was previously discussed as a contributing factor to the increase of ALPs within the nation, it is important to examine how these programs may be contributing to the high teacher attrition rates. An increasing amount of criticism has been verbalized in relation to the multitude of teacher preparation programs, each with their own unique curriculum that may not be adequately preparing new teachers for success. Gaps in teacher preparation may correlate to higher attrition rates. The researchers in this study have therefore examined literature that looks at some of the concerns related to insufficient teacher preparation.

Hauck (2010) identifies the most common reasons reported by teachers that leave the profession in his research study. They include gaps in teacher preparation programs that leaves them unprepared, lack of principal support, feelings of isolation, lack of community and collaboration, safety concerns, and lastly, discipline and motivation issues with students (p. 13). In examining teacher attrition and the influences surrounding it, it appears that most of the reasons are not directly related to the teacher preparation program, but to the working conditions that they endure once in the field itself. It could be argued that issues with discipline and motivation are directly related to the domain instruction.

Difficulties experienced with respect to classroom management may be directly related to the teacher preparation pathway, as research has shown that an organized, engaged classroom with well established rules and procedures has less disciplinary and behavior problems (Wong, 2007, p. 1-2). However, lack of principal support, community, isolation, and safety may not be attributed directly to the teacher preparation program but to the already established school culture and the leadership within it.
According to the 2012 Report Card on the Effectiveness of Teacher Training Programs, “teacher retention [Appendix H] within the first four years after completing the teacher training program is comparable to the national trends” (p. 6). This allows the researchers to generalize their findings to the nation with respect to teacher retention. In addition, the 2012 Report Card found that just over half (53%) of all new teachers teach within a state public school their first year. Approximately, 57% of these new teachers will continue to teach “three out of the following four years” and “almost 48% [of these teachers will] teach for three consecutive years” (p. 6).

In 2012, Blazer reported her findings on the retention rates of alternatively licensed teachers. Blazer stated that overall “studies suggest that the retention rates of teachers certified through alternative routes are comparable to, and often exceed, those of traditional route graduates” (p. 3). However, TFA teachers are one exception to this finding, as many of their teachers leave the profession after completing their required two-year commitment (p. 3). In contrast, Donaldson and Johnson’s research found that although TFA teachers did have higher attrition rates than other new teachers, the TFA attrition rate was comparable to the overall attrition rate in high-poverty schools in which they are most often placed (Blazer, p. 3).

Summary

ALPs have quickly evolved to fill a growing number of teacher shortages in certain geographic locations, such as urban city schools with large numbers of ethnic minority students. These students from impoverished and ethnic backgrounds are the most at-risk for school failure and are in need of well-qualified teachers (National Center for Alternative Certification, 2006, Chapter 2). This has created a concern regarding the impact that alternative licensed teachers have on the aforementioned demographic. Additionally, it is feared that the timing of
community knowledge will occur well after ethnic minority students have failed in their scholastic endeavors (Hohnstein, 2008).

Although ALPs were created to alleviate teacher shortages, about 33% of the graduates from the programs leave the profession within the first three years of teaching (Carroll & Hunt, 2003, p. 12). This high teacher attrition rate impacts minority and high-poverty students in urban schools, which have a greater percentage of alternative teachers employed within them. The attrition rate may be due to inadequate preparation for the challenges of the profession. The researchers hope to identify some of the most common reasons for teacher attrition so that recommendations for remediation to teacher training can be made.

When examining different elements of ALPs, certain components were identified as being essential to developing effective classroom teachers. The domain of instruction is one of these essential components that need to be taught via pedagogy or modeling in supervised teaching placements, because how effectively a teacher delivers instruction has a direct impact on student learning and achievement. This includes the teacher’s ability to clearly deliver content, formatively check for understanding, and to illustrate and convey material in a relevant and meaningful way to students. This capacity is further affected by the teacher’s level of content knowledge and pedagogy as it relates to differentiation and assessment (Lowe, 2012, p. 14-15). Research reviewed herein identified that the understanding of content knowledge is fairly equal between traditional and alternatively trained teachers. Therefore, this should not have a huge impact on teacher efficacy. However, many researchers believe that lack of pedagogical knowledge and training was the main threat to teacher efficacy and that this could be interpreted as a sign of failure on the part of the teacher preparation programs (Torff, 2005, p. 304).
Planning is also believed to be an important aspect of teaching. This pedagogical component should be taught in all alternative and traditional programs due to its relevance to effective pacing in instruction. In addition, a well-planned lesson has been shown to help decrease unwanted student behaviors (Lowe, 2012, p. 13-14). Essentially, Lowe believed that classroom management is tightly linked to a teacher’s ability to plan and instruct lessons that are appropriate for their students. The domain of environment overlaps that of planning and instruction as it specifically looks at classroom relationships. As previously stated, the environment can be affected by inadequately planned lessons and the resulting instruction.

Since it appears that the domains of instruction, planning, and environment are all important components of a teacher preparation program, their inclusion should be in all ALPs. Most researchers concur that pedagogical training is important and that some component of it should be included in all programs. However, the question remains of how to effectively develop these pedagogical skills in teachers. This is especially relevant when you consider that a wide range of emphasis is placed on pedagogy within the various ALPs and that each program did not have the same breadth or depth in topics covered. Ultimately, this translates into a high degree of variance in teacher preparation in the domains of instruction, planning, and environment.

Another opportunity to present pedagogy is through supervised teacher placements. However, many ALPs do not have a school placement component in their design. Although Boyd, Goldhaber, Lankford, and Wyckoff (2007) stated that researchers have not produced evidence that teacher field experiences affect student outcomes, most teachers and other close observers see a strong link between the two. As cited by the USDOE, Levine (2006) found that
62% of new teachers feel unprepared for the classroom, possibly due to the fact that “many programs do not provide teachers with a rigorous clinical experience...” (USDOE, 2011, p. 10).

The domain of professionalism was also discussed within the literature of this study. However, for the purposes of this study, the domain of professionalism does not seem to be of great consequence in the assessment of teacher efficacy. This may be attributed to the fact that most adults are already aware of the expectation to be and act professional at work. In addition, the rigorous selection process may in fact identify and admit candidates that already possess this characteristic.

Additionally, it is suggested that educational background, school context, previous teaching experience, coursework, and mentoring all contribute to a new teacher’s success and therefore, should be considered in the evaluation of ALPs (Humphrey, Wechsler, & Hough, 2007). When looking specifically at alternatively licensed teachers and their effects on student achievement, the TFA model should be examined as it has rigorous selection criteria used to identify a candidate’s strengths, which may be linked to student achievement gains simply because of the candidate’s initial aptitude to teach (Sawchuk, 2011).

The existing research on teacher certification is encouraging for proponents of alternative certification, but the most definitive evidence on whether these alternatives are effective is still being collected. According to Feistritzer (2005), a staggering 82% of alternatively trained teachers would recommend the alternative method of training. Only 3% stated they would not, and 15% were undecided. “The Troops to Teachers individuals tended to be the most decisive in responding,” with 88% of them saying they would recommend (p. 55). Rather than declaring alternative certification a completely good or bad enterprise (as proponents and opponents, respectively, tend to do), it is important to acknowledge that some researchers have concluded
that teacher development in alternative certification appears to be a function of the interaction between the programs as implemented, the school context in which the on-the-job training occurs, and the career trajectory of the individual participant.

Policy responses to this research have ranged widely, and have included attempts to intervene at multiple points along the route into the classroom, from recruitment and screening to training, placement, and ultimately licensure. For example, Troops to Teachers is a program that mainly provides placement services for uniformed service members seeking teaching positions. Teach for America is a program that recruits, screens, trains, and places recent college graduates from fields other than education into schools in very high-poverty areas where they commit to two years in the classroom. There is emerging research on these and related programs, which compares the efficacy of teachers prepared through the various routes (Boyd et al., 2007).

An increasing amount of criticism has been verbalized over the past few years in relation to the multitude of teacher preparation pathways, each with their own unique curriculum and focus. This is exacerbated by the fact that individual states have their own teacher licensing requirements, therefore allowing for a variety of preparation levels among new teachers. It is important to recognize that both alternative and traditional types of teacher preparation programs need to adhere to the same standards of accountability.

Throughout this review, specific literature was chosen to help differentiate the components between traditional and alternative programs. The literature was chosen for its potential to add depth and for its capacity to contribute to discussion on the rise of alternative teaching certification both in Tennessee and nationwide.
Chapter 3

Methodology

The purpose of this study was to assist TICUA with assessing the efficacy of teacher preparation pathways. In addition, strengths and weaknesses of Tennessee state teacher preparation programs and other well-known alternative licensure programs in the nation will be examined. This chapter provides an overview of this study’s research design. A restatement of research questions and hypotheses follows. A more detailed discussion of all criterion and variables, including basis for their inclusion in this study as well as discussion on the levels of data specific to each, was also undertaken. Further, measures of reliability, validity, generalizability, and risks are discussed. Additionally, a summary of the data analyses procedures utilized in the study is outlined in the sections to follow.

Research design

A mixed methods approach was used for this study. Quantitative and qualitative data were collected via online questionnaires administered to both teachers and principals to assess individual and administrator perceptions about initial teacher efficacy. Interviews were also conducted with teacher participants, thereby elaborating on original questionnaire responses and adding depth to the study with respect to the research questions. A disaggregation of the research questions into null hypotheses required further quantitative analyses with statistical software. The analyses examined relationships and differences between various components of efficacy, as related to teacher training program or number of years teaching. The Statistical Package for Statistical Studies (SPSS) software program was used to conduct the descriptive statistics and correlational analysis in the quantitative research portion.
In addition, the researchers utilized theoretical frameworks outlined in previous literature that examined novice teacher perception and efficacy in the research design process. Specifically, this study was based upon Bandura’s social cognitive theory for its theoretical framework, because it aims to measure teacher efficacy and outcome expectancy (Tschannen & Hoy, p. 787). In order to validly measure teacher efficacy and outcome expectancy, the researchers used the Tennessee Teacher Evaluation Rubric in the design of the questionnaire. The rubric was constructed with the intention of being a comprehensive and valid measure of classroom practice and teacher effectiveness and therefore should be a reliable model for the surveys used within this study (TN DOE, 2012, Team Evaluation System Handbook).

**Purpose of the study**

This study will identify the strengths and weaknesses of current alternative licensing programs nationwide. The programs that will be analyzed will be those that, according to research, have been referenced and commended numerous times within literature searches. Of particular interest will be those programs that have a presence in the state of Tennessee, as the findings may help reform traditional and/or alternative programs within the state thereby improving overall teacher efficacy.

A secondary purpose was to assess the quality of the current alternative and traditional licensing programs within the state of Tennessee. In addition, the perceived level of teacher preparedness was assessed through a mixed methods approach. High school teachers were purposively surveyed due to the higher proportion of alternatively licensed teachers within grades 9-12. This narrowed sample group helped control some of the intervening variables that could influence this study.
Research questions

1. What components of pre-service training within alternative licensing programs reveal higher levels of effectiveness?

2. What components of in-service training in alternative licensing programs reveal higher levels of effectiveness?

3. What are the current supervising principals’ perceptions of teacher efficacy with respect to both traditionally trained and alternatively trained teachers, with five or less years’ experience within their school regardless of pathway of teacher preparation?

4. What are Tennessee teachers’, with five or less years of experience, perceptions of their own efficacy?

Null hypotheses

The null hypotheses that were tested in this mixed methods study include:

1. There is no statistically significant relationship between the amount of teacher training, measured in number of credit hours, whether TFA, non-TFA alternative, or traditional trained teachers, and their perception of self-efficacy in the domain of professionalism.

2. There is no statistically significant relationship between the amount of teacher training, measured in number of credit hours, whether TFA, non-TFA alternative, or traditional trained teachers, and their perception of self-efficacy in the domain of instruction.

3. There is no statistically significant relationship between the amount of teacher training, measured in number of credit hours, whether TFA, non-TFA alternative, or traditional trained teachers, and their perception of self-efficacy in the domain of environment.
4. There is no statistically significant relationship between the amount of teacher training, measured in number of credit hours, whether TFA, non-TFA alternative, or traditional trained teachers, and their perception of self-efficacy in the domain of planning.

5. There is no statistically significant difference between the year of experience, first, second, third, fourth, or fifth year, whether TFA, non-TFA alternative, or traditionally trained, and the teacher’s overall perception of self-efficacy as determined by the self-assessment in the four domains: professionalism, instruction, environment, and planning.

6. There is not a statistically significant relationship between the principal’s perception of first, second, third, fourth year and beyond, whether TFA, non-TFA alternative, or traditionally trained teachers, and the teachers’ overall perceptions of self-efficacy as determined by the self-assessment in the four domains: professionalism, instruction, environment, and planning.

7. There is not a statistically significant difference identified between alternative and traditionally trained Tennessee teachers’ perception of their self-efficacy.

8. There is not a statistically significant difference between the amounts of in-service mentoring, measured in hours per week, received by alternative non-TFA and alternative TFA trained teachers.

9. There is not a statistically significant difference between the amounts of pre-service observation hours, measured in hours, received by alternative non-TFA and alternative TFA trained teachers.

10. There is not a statistically significant difference between the amounts of pre-service student teaching hours received by alternative non-TFA and alternative TFA trained teachers.

11. There is a not statistically significant difference between the amounts of pre-service training credit received by alternative non-TFA and alternative TFA trained teachers.
12. There is not a statistically significant difference between principal perception of teacher efficacy of alternatively certified and traditionally certified teachers.

Participants

The sample surveyed for this study consisted of high school teachers that were trained in both traditional and alternative licensure programs. The selection of these novice teachers was purposeful in that the researchers believed that their inputs about perceptions of preparedness to teach would be the most applicable to this study design.

Participants in this study were novice teachers who had graduated from a Tennessee teacher training program. Researchers were able to access a list of email addresses of Lipscomb University graduates within the last five years. Additionally, the researchers were able to gather participants through the client, TICUA. The researchers emailed the inquiry with the questionnaire link attached to contacts at 28 universities. There were 34 total teacher participants who agreed to participate in the teacher questionnaire. Table 1 details the years of experience for the teachers that participated in this study.
Table 1
*Years of Experience for Participating Teachers (N=34)*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Level</th>
<th>N</th>
<th>% of sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Years of Experience</td>
<td>1st</td>
<td>4</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>2nd</td>
<td>10</td>
<td>29</td>
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<td></td>
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<td>13</td>
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<tr>
<td></td>
<td>4th</td>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>5th</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>&gt;5 years</td>
<td>2</td>
<td>6</td>
</tr>
</tbody>
</table>

N - # of research participants

Table 2
*Groups for Teacher Preparation Program (N=34)*

<table>
<thead>
<tr>
<th>Groups</th>
<th>N</th>
<th>% of sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other Alternative</td>
<td>18</td>
<td>56</td>
</tr>
<tr>
<td>Teach for America</td>
<td>12</td>
<td>35</td>
</tr>
<tr>
<td>Traditional</td>
<td>4</td>
<td>12</td>
</tr>
</tbody>
</table>

N - # of research participants

The 34 research participants were then disaggregated into three separate groupings based upon their teacher preparation pathway, TFA, non-TFA alternative, or traditional. Table 2 illustrates the three groups that were developed and reveals the number of participants within each group and their respective proportion within the sample. For the teacher interview portion of the study, there were eight participants. Two teachers were trained in a TLP. Six teachers were trained in an ALP. Of those six, two were from Teach for America, and four were from other ALPs.

In addition, there were eight administrators that volunteered to participate in the principal questionnaire. Metro Nashville Public Schools provided a list of administrators to the
researchers, who were then sent an email asking for voluntary participation. Eight administrators agreed to participate. Five to thirty percent of teachers were alternatively certified in the buildings where the administrative sample was working.

Although many ALPs will be examined, a specific focus was placed on TFA program graduates because a recent study identified them as the most effective of Tennessee's 44 teacher-preparation programs (THEC 2011 Report Card, 2011). Furthermore, research has indicated that TFA is a nationally known and recognized ALP. The essential characteristic of interest in this study is the perception of preparedness in entering the teaching profession upon completion of their alternative or traditional teaching program. Although teachers with one to five years of experience were surveyed, a focus on first and second year teachers was made based upon the assumption that novice teachers would offer a greater perspective on levels of preparedness due to their recent completion of the program.

Instrumentation

A questionnaire (Appendix C) was employed to determine the perceptions of teacher preparedness. The questionnaire was based on the characteristics listed in the Tennessee Teacher Evaluation Rubric. However, it reflected elements of the instrument used by Meyer and Foster (1988), as discussed in Tschannen-Moran and Hoy’s (2001) study in the literature review (p. 791). Meyer and Foster’s method of assessing teacher efficacy utilized a four-point Likert scale linked to specific questions meant to probe personal teaching beliefs. Similarly, the researchers in this study created a questionnaire consisting of a five-point Likert scale given over a series of statements relating to the four domains of teacher efficacy highlighted in the TEAM rubric: professionalism, environment, planning, and instruction.
This instrument design is reflective of models developed by other researchers in Tschannen-Moran and Hoy’s (2001) study. Specifically, the instrument in this study is similar to the Ohio State teacher efficacy scale (OSTES) in that it measures a “broad range of capabilities that are considered important to good teaching” and it is not too specific in that it can only assess teachers within one specific content area (p. 802). The OSTES is based on Bandura’s measurement scale that was originally designed to reflect the social cognitive theory; however, it contains an expanded list of teacher capabilities that were vetted out by a group of participants in the College of Education at The Ohio State University (Tschannen-Moran & Hoy, p. 795).

The questionnaire included basic demographic information, Likert scale questions, and other questions pertinent to the study. Teachers were asked to rate teacher efficacy as it is directly related to their initial teacher preparation program using a Likert scale: 5 = strongly agree, 4 = agree, 3 = neutral, 2 = disagree, and 1 = strongly disagree. Similar questionnaires (Appendix D) were given to the principals of the high schools in which they are employed, to assess his/her perception of the teacher’s preparedness. Interviews were conducted and questions (Appendices B and C) were developed from the original questionnaires.

Data collection procedures

The perception of teacher training questionnaire (Appendix C) was sent to 141 graduates of Lipscomb University. TICUA emailed the link to the online questionnaire to contacts at 28 universities. Participants had 6 weeks to complete the questionnaire. A follow-up reminder e-mail was sent twice before the close of the questionnaire. A total of 34 teachers responded to the questionnaire. The principal perceptions of alternative and traditional teaching training programs were sent to 25 administrators in the MNPS. A total of eight principals responded to the questionnaire. Principals also had 6 weeks to respond to the questionnaire. A follow-up
reminder e-mail was sent three times by the researchers to the principals throughout the questionnaire window.

The researchers developed interview questions based on the original questionnaires. These interview questions allowed for elaboration and depth that may not have been ascertained via the online questionnaire. To gather participants for the interviews, an email was sent to the same group of teachers that receive the questionnaire. Eight teachers responded back stating they would volunteer for the interviews. The researchers transcribed all teacher interviews into Microsoft Word documents. We organized the data into categories and developed coding schemes. Categories that were identified were in-service, pre-service, and overall perception of teacher training program. From those three categories, we coded segments of data categorized by traditional or alternative. Data were coded by similar concepts, key words, and similar sentence responses; this method of coding is referred to in research as open coding.

Participation in this study was strictly voluntary. The participants were purposively sought out based on the criteria of this study, and a questionnaire was emailed to them for their completion. Participants were free to withdraw at any time and without giving a reason. The consent statement was placed at the very beginning of the questionnaire. The study did not affect the relationship between the researchers and the participants.

The dependent variables in this study are the self-efficacy perceptions of preparedness of TFA, non-TFA alternative and traditionally trained teachers. The independent variables will consist of teacher efficacy, evaluations, planning, instruction, assessments, and pre-service and in-service training. Additionally, the alternative and traditional licensing programs examined will be independent variables within this study. Efficacy for the purpose of this study will be
measured in alignment with current Tennessee teacher evaluation standards and indicators, which include the four domains of professionalism, instruction, environment, and planning.

**Pilot study**

Following IRB approval, a pilot study was conducted on a convenience sample of teachers and administrators in Clarksville-Montgomery County Schools (CMCSS). The CMCSS Research Council approved the pilot study before questionnaires were sent to participants. The teachers were selected by one of the researchers within this research study, who was a current Assistant Principal within that district.

The purpose of the pilot study was to calibrate the questionnaire instrument and make modifications and adjustments as needed prior to administering it. Information collected was used for instrument calibration only. Pilot study participants completed questionnaires regarding teacher efficacy and provide feedback on the questionnaire instrument. The researchers wanted to identify strengths and weaknesses of the questionnaire instruments, and calibrate the instrument based on the feedback received prior to its distribution. All questionnaires remained confidential.

The pilot study revealed some structural issues with the questionnaire. When participants viewed the questionnaire, there were some where the Likert scale headings were not visible. Changes were made to make the Likert scale visible at all times. The questions collected the data as expected and therefore the questionnaire content did not undergo changes.

**Qualitative data analysis**

The researchers transcribed the qualitative responses from the teacher interviews. The researchers coded qualitative data making it possible to identify themes. The data were analyzed through a lens to give one word descriptions concerning the research questions that were under investigation. The researchers then underwent category construction. This approach
compares one unit of information with the next in looking for recurring themes in the data. Specific themes that were targeted were perceptions of pre-service training, perceptions of in-service training, and overall perception of how their teacher preparation program contributed to their level of effectiveness.

Quantitative data analysis

As established, the research conducted was both correlational and causal-comparative in nature. Descriptive and inferential statistics were used to analyze the quantitative data and test the null hypotheses. Descriptive statistics were employed to determine if all variables used were normally distributed. Twelve null hypotheses were constructed, which called for the following analyses: independent t-tests, a logistic regression analysis, an analysis of variance, and t-tests for related means. An analysis of variance (ANOVA) was the method of analysis used for null hypothesis 5 in this study. In addition, linear regression analyses were performed for the hypotheses dealing with length of teacher training, both pre-service and in-service, and year of experience variables to their Likert scale score to determine if a relationship exists. Linear regression analyses were used in null hypotheses 1-4 and null hypothesis 6.

Independent sample t-tests were performed for null hypotheses seven through twelve. This inferential test was conducted because the researchers were examining two separate groups on a common variable of interest.

Disposition of data

Because of the confidentiality ensured in this study, risks were minimal. Responses to questionnaires and focus group questions were kept anonymous. Every effort was made by the researchers to preserve confidentiality. Data were secured in a password-protected site on a
secure web-based server (Dropbox). Additionally, individual participant confidentiality was accomplished through a series of steps, as outlined below.

1. Assigned code numbers for participants were used on all researcher notes and documents.
2. Materials will be destroyed one year after the research is concluded.
3. Only the researchers and the members of the researchers’ committee reviewed the collected data.
4. Information from this research was used solely for the purpose of this study and any publications that may result from this study.
5. Each participant was provided the opportunity to obtain a transcribed copy of his or her interview.
6. Participants indicated to the researchers if a copy of the interview was desired.
Chapter 4

Data Analysis

To assess the efficacy of teacher preparation pathways, this study compared the levels of teacher efficacy between teachers who received training through alternative licensing programs (ALPs) and teachers who received certification through traditional licensing programs (TLPs). This study also examined the perceptions of building principals regarding efficacy of teachers trained through ALPs compared to the efficacy of teachers certified through TLPs. Teachers and principals were surveyed to measure perceptions and preferences. Teachers were asked to rate teacher efficacy as it is directly related to their initial teacher preparation program using a Likert scale: 5 = strongly agree, 4 = agree, 3 = neutral, 2 = disagree, and 1 = strongly disagree. A composite score was obtained by computing a mean score for each of the four domains: professionalism, planning, instruction, and environment.

The Association Between Research Questions and Null Hypotheses

The first research question sought to determine the components of pre-service training within alternative licensing programs that reveal higher levels of effectiveness. This was determined using the qualitative data gathered from the teacher interviews (Appendices B and C) and the analysis of null hypotheses 1 through 4 and null hypotheses 9 through 11.

The second research question sought to determine the components of in-service training in alternative licensing programs that reveal higher levels of effectiveness. This was determined using the qualitative data gathered from the teacher interviews and the analysis of null hypothesis 8.

The third research question sought to determine current supervising principals’ perceptions of teacher efficacy with respect to both traditionally trained and alternatively trained
teachers, with five or less years’ experience within their school regardless of pathway of teacher preparation. This was determined using the qualitative data gathered from the teacher interviews and the analysis of null hypothesis 6 and null hypothesis 12.

The fourth research question sought to determine Tennessee teachers’, with five or less years of experience, perceptions of their own efficacy, regardless of their pathway of preparation. This was determined using the qualitative data gathered from the teacher interviews and the analysis of hypotheses 5 and 7 and through qualitative data gathered from the interview questions.

**Analysis of null hypothesis 1.** The first null hypothesis was tested to find the relationship between the amount of teacher training and their perception of teacher self-efficacy in professionalism. There is no statistically significant relationship between the amount of teacher training, measured in number of credit hours, whether TFA, non-TFA alternative, or traditional trained teachers, and their perception of self-efficacy in the domain of professionalism. A linear regression was conducted to examine the relationship between the dependent factors and the independent variables as potential predictors. Before a linear regression was conducted all assumptions were resolved. Table 3 presents the results of the linear regression regarding the self-efficacy in the domain of professionalism as the dependent variable with the number of credit hours as the independent variable.
Table 3

*Linear Regression results for Professionalism as it Relates to Credit Hours* (N=31)

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>R</th>
<th>R²</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Credit Hours (Alt-TFA)</td>
<td>11</td>
<td>0.230</td>
<td>0.053</td>
<td>0.560</td>
<td>0.472</td>
</tr>
<tr>
<td>Credit Hours (Alt-non TFA)</td>
<td>17</td>
<td>0.236</td>
<td>0.056</td>
<td>0.942</td>
<td>0.346</td>
</tr>
<tr>
<td>Credit Hours (Traditional)</td>
<td>3</td>
<td>0.486</td>
<td>0.236</td>
<td>0.619</td>
<td>0.514</td>
</tr>
</tbody>
</table>

*Significant at p <0.05*

R - bivariate correlation between credit hours and professionalism

R square – identifies the proportion of variance in professionalism accounted for by credit hours

F – mean square regression divided by mean square residual

The Durbin-Watson values were in the acceptable (1.5 to 2.5) range for the Alt-TFA and Alt-non TFA group. The Durbin-Watson value = 0.871 was not in the acceptable range for the traditional group variable. The resulting R-squared values indicate the percentage of the variation in teacher efficacy scores for professionalism as was predicted by the independent target variable of credit hours. The results of the linear regression (p values for each variable were greater than 0.05) indicate there is no statistically significant relationship between the amount of teacher training, measured in number of credit hours, whether TFA, non-TFA alternative, or traditional trained teachers, and their perception of self-efficacy in the domain of professionalism. The first null hypothesis was retained.

**Analysis of null hypothesis 2.** The second null hypothesis was tested to find the relationship between the amount of teacher training and their perception of teacher self-efficacy in the domain of instruction. There is no statistically significant relationship between the amount of teacher training, measured in number of credit hours, whether TFA, non-TFA alternative, or traditional trained teachers, and their perception of self-efficacy in the domain of instruction.
Table 4  
\textit{Linear Regression results for Instruction as it Relates to Credit Hours (N=31)}

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>R</th>
<th>$R^2$</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Credit Hours (Alt-TFA)</td>
<td>11</td>
<td>0.065</td>
<td>0.004</td>
<td>0.042</td>
<td>0.841</td>
</tr>
<tr>
<td>Credit Hours (Alt-nonTFA)</td>
<td>17</td>
<td>0.278</td>
<td>0.077</td>
<td>1.336</td>
<td>0.346</td>
</tr>
<tr>
<td>Credit Hours (Traditional)</td>
<td>3</td>
<td>0.114</td>
<td>0.013</td>
<td>0.026</td>
<td>0.886</td>
</tr>
</tbody>
</table>

Significant at $p < 0.05$

$R$ - bivariate correlation between credit hours and instruction

$R$ square – identifies the proportion of variance in instruction accounted for by credit hours

$F$ – mean square regression divided by mean square residual

A linear regression was conducted to examine the relationship between the dependent factors and the independent variables as potential predictors. Before a linear regression was conducted all assumptions were resolved. Table 4 presents the results of the linear regression regarding the self-efficacy in the domain of instruction as the dependent variable with the number of credit hours as the independent variable.

The Durbin-Watson values were in the acceptable (1.5 to 2.5) range for the Alt-TFA and Alt-non TFA group. The Durbin-Watson value = 3.198 was not in the acceptable range for the traditional group variable. The resulting R-squared values indicate the percentage of the variation in teacher efficacy scores for instruction as was predicted by the independent target variable of credit hours. The results of the linear regression (p values for each variable were greater than 0.05) indicate there is no statistically significant relationship between the amount of teacher training, measured in number of credit hours, whether TFA, or non-TFA alternative or traditional trained teachers, and their perception of self-efficacy in the domain of instruction. The second null hypothesis was retained.
Analysis of null hypothesis 3. The third null hypothesis was tested to find the relationship between the amount of teacher training and their perception of teacher self-efficacy in the domain of environment. There is no statistically significant relationship between the amount of teacher training, measured in number of credit hours, whether TFA, or non-TFA alternative, traditional trained teachers, and their perception of self-efficacy in the domain of environment.

A linear regression was conducted to examine the relationship between the dependent factors and the independent variables as potential predictors. Before a linear regression was conducted all assumptions were resolved. Table 5 presents the results of the linear regression regarding the self-efficacy in the domain of environment as the dependent variable with the number of credit hours as the independent variable.

Table 5

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>R</th>
<th>R²</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Credit Hours (Alt-TFA)</td>
<td>11</td>
<td>.185</td>
<td>.034</td>
<td>.356</td>
<td>.564</td>
</tr>
<tr>
<td>Credit Hours (Alt-nonTFA)</td>
<td>17</td>
<td>.260</td>
<td>.068</td>
<td>1.161</td>
<td>.297</td>
</tr>
<tr>
<td>Credit Hours (Traditional)</td>
<td>3</td>
<td>.244</td>
<td>.059</td>
<td>.126</td>
<td>.756</td>
</tr>
</tbody>
</table>

Significant at p <0.05

R - bivariate correlation between credit hours and environment
R square – identifies the proportion of variance in environment accounted for by credit hours
F – mean square regression divided by mean square residual
The Durbin-Watson values were in the acceptable (1.5 to 2.5) range for the Alt-TFA and Alt-non TFA group. The Durbin-Watson value = 3.128 was not in the acceptable range for the traditional group variable. The resulting R-squared values indicate the percentage of the variation in teacher efficacy scores for environment as was predicted by the independent target variable of credit hours. The results of the linear regression (p values for each variable were greater than 0.05) indicate there is no statistically significant relationship between the amount of teacher training, measured in number of credit hours, whether TFA, non-TFA alternative, or traditional trained teachers, and their perception of self-efficacy in the domain of environment. The third null hypothesis was retained.

**Analysis of null hypothesis 4.** The fourth null hypothesis was tested to find the relationship between the amount of teacher training and their perception of teacher self-efficacy in the domain of planning. There is no statistically significant relationship between the amount of teacher training, measured in number of credit hours, whether TFA, non-TFA alternative, or traditional trained teachers, and their perception of self-efficacy in the domain of planning.

A linear regression was conducted to examine the relationship between the dependent factors and the independent variables as potential predictors. Before a linear regression was conducted all assumptions were resolved. Table 6 presents the results of the linear regression regarding the self-efficacy in domain of planning as the dependent variable with the number of credit hours as the independent variable.
### Table 6

*Linear Regression results for Planning as it Relates to Credit Hours (N=31)*

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>R</th>
<th>$R^2$</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Credit Hours (Alt-TFA)</td>
<td>11</td>
<td>0.026</td>
<td>0.001</td>
<td>0.007</td>
<td>0.935</td>
</tr>
<tr>
<td>Credit Hours (Alt-nonTFA)</td>
<td>17</td>
<td>0.264</td>
<td>0.070</td>
<td>1.204</td>
<td>0.289</td>
</tr>
<tr>
<td>Credit Hours (Traditional)</td>
<td>3</td>
<td>0.016</td>
<td>0.000</td>
<td>0.000</td>
<td>0.984</td>
</tr>
</tbody>
</table>

*Significant at p <0.05*

- R: bivariate correlation between credit hours and planning
- $R^2$: identifies the proportion of variance in planning accounted for by credit hours
- F: mean square regression divided by mean square residual

The Durbin-Watson values were in the acceptable (1.5 to 2.5) range. The resulting $R^2$ values indicate the percentage of the variation in teacher efficacy scores for planning as was predicted by the independent target variable of credit hours. The results of the linear regression (p values for each variable were greater than 0.05) indicate there is no statistically significant relationship between the amount of teacher training, measured in number of credit hours, whether TFA, non-TFA alternative, or traditional trained teachers, and their perception of self-efficacy in the domain of planning. The fourth hypothesis was retained.

**Additional test of all training programs vs. self-efficacy.** The researchers decided to conduct an additional test to determine any variation in significance levels when all participants and all domains were analyzed in one linear regression test. A linear regression was conducted to examine the relationship between the dependent factors and the independent variables as potential predictors. Before a linear regression was conducted all assumptions were resolved. Table 7 presents the results of the linear regression regarding the self-efficacy in all four domains (professionalism, instruction, environment, and planning) as the dependent variable with the number of credit hours as the independent variable.
Table 7

*Linear Regression results for All Domains as it Relates to Credit Hours (N=33)*

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>R</th>
<th>R^2</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Credit Hours (All)</td>
<td>33</td>
<td>0.146</td>
<td>0.021</td>
<td>0.338</td>
<td>0.716</td>
</tr>
</tbody>
</table>

*Significant at p <0.05*

R - bivariate correlation between credit hours and all domains

R square – identifies the proportion of variance in all domains accounted for by credit hours

F – mean square regression divided by mean square residual

The resulting R-squared values indicate the percentage of the variation in teacher efficacy scores for all domains as was predicted by the independent target variable of credit hours. The results of the linear regression confirmed the retention of the first four null hypotheses.

**Analysis of null hypothesis 5.** The fifth null hypothesis was tested to find the difference between years of experience and the perception of teacher self-efficacy in the four domains: professionalism, instruction, environment, and planning. There was no statistically significant difference between the years of experience, first, second, third, fourth year and beyond, whether TFA, non-TFA alternative, or traditionally trained, and the teacher’s overall perception of self-efficacy as determined by the self-assessment in the four domains.

These data were analyzed using an ANOVA and are found in Table 8. According to Levene’s Test for Equality of Variance, the p = 0.032 and therefore equal variances were not assumed for the two groups. The comparison found that there was no significant level of difference, p = 0.979, between the year of experience, first, second, third, fourth year and beyond, whether TFA, non-TFA alternative, or traditionally trained, and the teacher’s overall perception of self-efficacy as determined by the self-assessment in the four domains: professionalism, instruction, environment, and planning. The fifth null hypothesis was retained.
Table 8

<table>
<thead>
<tr>
<th>Variable</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Squared</th>
<th>F ratio</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>0.457</td>
<td>6</td>
<td>0.074</td>
<td>0.184</td>
<td>0.979</td>
</tr>
<tr>
<td>Within Groups</td>
<td>11.183</td>
<td>27</td>
<td>0.414</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>11.641</td>
<td>33</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Significant at p < 0.05

Sum of squares – sum of squared deviations between the mean for each group and the observed values of each group
df – degrees of freedom
Mean squared – sum of squares divided by degrees of freedom
F ratio – between-groups mean square divided by within-groups mean square

Analysis of null hypothesis 6. The sixth null hypothesis was tested to find the relationship between principals’ perception of teacher efficacy and the perception of teacher self-efficacy in the four domains. There is not a statistically significant relationship between the principal’s perception of first, second, third, fourth year and beyond, whether TFA, non-TFA alternative, or traditionally trained teachers, and the teachers’ overall perceptions of self-efficacy as determined by the self-assessment in the four domains: professionalism, instruction, environment, and planning. A linear regression was conducted to examine the relationship between the dependent factors and the independent variables as potential predictors. Before a linear regression was conducted all assumptions were resolved. Table 9 presents the results of the linear regression regarding the self-efficacy in all domains (professionalism, planning, instruction, and environment) as the dependent variable with principals’ perception of teacher efficacy as the independent variable.
Table 9

*Linear Regression results for Teacher Efficacy as it Relates to Principals’ Perception (N=7)*

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>R</th>
<th>R²</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Principal/Teacher Perception of Efficacy (All Domains)</td>
<td>7</td>
<td>0.573</td>
<td>0.328</td>
<td>2.929</td>
<td>0.138</td>
</tr>
</tbody>
</table>

*Significant at p < 0.05*

*R - bivariate correlation between credit hours and all domains*

*R square – identifies the proportion of variance in all domains accounted for by credit hours*

*F – mean square regression divided by mean square residual*

The Durbin-Watson values were in the acceptable (1.5 to 2.5) range. The resulting R-squared values indicate the percentage of the variation in teacher efficacy scores for each domain as was predicted by the independent target variable of the principals’ perceptions of teacher efficacy. The results of the linear regressions (p values for each variable were greater than 0.05) indicate there is not a statistically significant relationship between the principal’s perception of first, second, third, fourth year and beyond teacher efficacy, whether TFA, non-TFA alternative, or traditionally trained teachers, and the teachers’ overall perceptions of self-efficacy as determined by the self-assessment in the four domains: professionalism, instruction, environment, and planning. The sixth null hypothesis was retained.

**Analysis of null hypothesis 7.** The seventh null hypothesis was tested to find the difference between teacher self-efficacy in the four domains between alternative and traditional teachers: there is not a statistically significant difference identified between alternative and traditionally trained Tennessee teachers’ perception of their self-efficacy. An independent t-test was conducted to determine if there was a difference between the dependent factors and the independent variables as potential predictors. Table 10 presents the results of the t-test regarding the self-efficacy in the respective domains (professionalism, planning, instruction, and
environment) as the dependent variable with type of teacher preparation program as the independent variable.

These data were analyzed using an independent t-test. According to Levene’s Test for Equality of Variance, equal variances were assumed for the two groups. The comparison found that there was no significant level of difference, $t = -0.756$ and $p = 0.455$, between teachers certified by an alternative method and teachers certified through a traditional method in the area of teacher efficacy. The seventh null hypothesis was retained.

**Analysis of null hypothesis 8.** The eighth null hypothesis was tested to find the difference between the amount of in-service mentoring and the type of teacher training program: There is not a statistically significant difference between the amounts of in-service mentoring, measured in hours per week, received by received by alternative non-TFA and alternative TFA trained teachers.

Table 10

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>M</th>
<th>Df</th>
<th>T</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alternative</td>
<td>30</td>
<td>4.0875</td>
<td>32</td>
<td>-0.756</td>
<td>0.455</td>
</tr>
<tr>
<td>Traditional</td>
<td>4</td>
<td>4.3281</td>
<td>___</td>
<td>___</td>
<td>___</td>
</tr>
</tbody>
</table>

*Significant at $p < 0.05$

df – degrees of freedom

$M$ – mean

t – coefficient and constant for linear regression equation divided by the standard error of the linear regression equation
Figure 1 shows the distribution of hours received per week received by all teachers surveyed.

![Bar Chart](image)

*Figure 1.* Frequency of in-service mentoring hours per week received by all teachers.

An independent t-test was conducted to determine if there was a difference between the dependent factors and the independent variables as potential predictors. Table 1 presents the results of the t-test regarding the mentoring in-service hours as the dependent variable with type of teacher preparation program as the independent variable.

These data were analyzed using an independent t-test. According to Levene’s Test for Equality of Variance, the p = 0.008 and therefore equal variances were not assumed for the two groups. The comparison found that there was a significant level of difference, t = 17.982 and p = 0.022, between teachers certified through TFA and teachers certified through a non-TFA alternative program in the number of in-service mentoring hours. Alternatively trained teachers, who were not trained through TFA, had a greater amount of mentoring in-service hours than those trained by TFA. The eighth null hypothesis was rejected.
Table 11
*t-test results for Mentoring In-service Hours as it Relates to the Alternative Teacher Preparation Program (N=26)*

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>M</th>
<th>df</th>
<th>T</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mentoring In-service Hours (Alt-TFA)</td>
<td>10</td>
<td>1.450</td>
<td>25</td>
<td>17.982</td>
<td>0.022</td>
</tr>
<tr>
<td>Mentoring In-service Hours (Alt-non TFA)</td>
<td>16</td>
<td>3.906</td>
<td>___</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Significant at p <0.05*

*df – degrees of freedom*

*M – mean*

*t – coefficient and constant for linear regression equation divided by the standard error of the linear regression equation*

**Analysis of null hypothesis 9.** The ninth null hypothesis was tested to find the difference between the amount of pre-service observation hours mentoring and the type of teacher training program, alternative or traditional. There is not a statistically significant difference between the amounts of pre-service observation hours, measured in hours, received by alternative non-TFA and alternative TFA trained teachers.

An independent t-test was conducted to determine if there was a difference between the dependent factors and the independent variables as potential predictors. Table 12 presents the results of the t-test regarding the pre-service observation hours as the dependent variable with type of teacher preparation program as the independent variable.

These data were analyzed using an independent t-test. According to Levene’s Test for Equality of Variance, equal variances were assumed for the two groups. The comparison found that there was no significant level of difference, t =1.519 and p = 0.142, between teachers certified through TFA and teachers certified through a non-TFA alternative program in number of pre-service observation hours logged. The ninth null hypothesis was retained.
Table 12

*t-test results for Pre-service Observation Hours as it Relates to the Alternative Teacher Preparation Program* (N=25)

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>M</th>
<th>df</th>
<th>T</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preservice Observation Hours (Alt-TFA)</td>
<td>9</td>
<td>15.444</td>
<td>23</td>
<td>1.519</td>
<td>0.142</td>
</tr>
<tr>
<td>Preservice Observation Hours (Alt-nonTFA)</td>
<td>16</td>
<td>40.188</td>
<td>___</td>
<td>___</td>
<td>___</td>
</tr>
</tbody>
</table>

Significant at p <0.05

**df** – degrees of freedom

**M** – mean

**t** – coefficient and constant for linear regression equation divided by the standard error of the linear regression equation

**Analysis of null hypothesis 10.** The tenth null hypothesis was tested to find the difference between the amount of pre-service student teaching hours and the type of teacher training program, alternative TFA or alternative non-TFA. There is not a statistically significant difference between the amounts of pre-service student teaching hours received by alternative non-TFA and alternative TFA trained teachers. An independent t-test was conducted to determine if there was a difference between the dependent factors and the independent variables as potential predictors. Table 13 presents the results of the t-test regarding the pre-service student teaching hours as the dependent variable with type of teacher preparation program as the independent variable.

These data were analyzed using an independent *t*-test. According to Levene’s Test for Equality of Variance, equal variances were assumed for the two groups. The comparison found that there was no significant level of difference, *t* = 1.300 and *p* = 0.205, between teachers certified through TFA and teachers certified through a non-TFA alternative program in the number of student teaching hours logged. The tenth null hypothesis was retained.
Table 13

t-test results for Pre-service Student Teaching Hours as it Relates to the Alternative Teacher Preparation Program (N=29)

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>M</th>
<th>df</th>
<th>T</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-service Student Teaching Hours (Alt-TFA)</td>
<td>12</td>
<td>21.292</td>
<td>27</td>
<td>1.300</td>
<td>0.205</td>
</tr>
<tr>
<td>Pre-service Student Teaching Hours (Alt-nonTFA)</td>
<td>17</td>
<td>9.588</td>
<td>___</td>
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</tr>
</tbody>
</table>

Significant at p <0.05

df – degrees of freedom
M – mean


t – coefficient and constant for linear regression equation divided by the standard error of the linear regression equation

Analysis of null hypothesis 11. The eleventh null hypothesis was tested to find the difference between the amount of pre-service training credit and the type of teacher training program, alternative TFA or alternative non-TFA: There is not a statistically significant difference between the amounts of pre-service training credit received by alternative non-TFA and alternative TFA trained teachers. An independent t-test was conducted to determine if there was a difference between the dependent factors and the independent variables as potential predictors. Table 14 presents the results of the t-test regarding the pre-service training credit hours as the dependent variable with type of teacher preparation program as the independent variable.

These data were analyzed using an independent t-test. According to Levene’s Test for Equality of Variance, equal variances were assumed for the two groups. The comparison found that there was no significant level of difference, t = -0.280 and p = 0.782, between teachers certified through TFA and teachers certified through a non-TFA alternative program in the number of pre-service training credit hours. The eleventh null hypothesis was retained.
Table 14

t-test results for Pre-service Training Credit Hours as it Relates to the Alternative Teacher Preparation Program (N=29)

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>M</th>
<th>df</th>
<th>T</th>
<th>P</th>
</tr>
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<tbody>
<tr>
<td>Pre-service Training Credit Hours (Alt-TFA)</td>
<td>11</td>
<td>26.955</td>
<td>27</td>
<td>-0.280</td>
<td>0.782</td>
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<tr>
<td>Pre-service Training Credit Hours (Alt-non TFA)</td>
<td>18</td>
<td>29.568</td>
<td>___</td>
<td>___</td>
<td>___</td>
</tr>
</tbody>
</table>

Significant at p <0.05

df – degrees of freedom

M – mean

t – coefficient and constant for linear regression equation divided by the standard error of the linear regression equation

0.05

Analysis of null hypothesis 12. The twelfth null hypothesis was tested to find the difference between principal perceptions of alternatively certified and traditionally certified teachers. There is not a statistically significant difference between principal perception of teacher efficacy of alternatively certified and traditionally certified teachers. Figure 2 and Figure 3 show the distribution of principal perception of teacher efficacy of alternative and traditionally trained teachers.
Figure 2. Distribution of teacher efficacy scores for all 4 domains of teacher efficacy for alternatively certified teachers.

Figure 3. Distribution of teacher efficacy scores for all 4 domains of teacher efficacy for traditionally certified teachers.
An independent t-test was conducted to determine if there was a difference between the dependent factors and the independent variables as potential predictors. Table 15 presents the results of the t-test regarding the type of teacher program as the dependent variable with the mean of teacher self-efficacy scores as the independent variable. These data were analyzed using an independent t-test. The comparison found that there was not a significant level of difference in principal perceptions, \( t = -0.917 \) and \( p = 0.390 \), between teachers certified through alternative pathways and teachers certified that traditional pathways. The twelfth null hypothesis was retained.

### Qualitative analysis of teacher interviews

There were eight total interview teacher participants, of which two were traditionally certified and six were alternatively certified. In response to the question regarding their overall perception of how their preparation program contributed to their level of effectiveness, of the six alternatively certified participants of the interviews, six of them provided an answer. The two TFA Alternative teachers stated that their teacher preparation program did contribute to their level of effectiveness. The four non-TFA Alternative teachers stated their teacher preparation program did not contribute to their level of effectiveness. An alternative non-TFA teacher stated, “I was more prepared from training offered by the school system. There is nothing that
teacher prep has prepared me to do the job.” An alternative TFA teacher stated, “my training program was intense, but outstanding in preparing me for teaching.” Our study found that TFA prepared teachers more than non-TFA alternative programs.

In response to the question regarding their overall perception of how their preparation program contributed to their level of effectiveness, both of the traditionally certified respondents provided an answer. One teacher stated that their teacher preparation program did contribute to their level of effectiveness. One teacher stated that their teacher preparation program partially contributed to their level of effectiveness. A traditional teacher stated that, “I found my teacher prep program to be highly effective in preparing me for teaching.”

In response to the question regarding components of pre-service training that contributed to their level of effectiveness, of the six alternatively certified participants of the interviews, five of them were able to provide an answer. Three teachers stated that classroom management was the most effective pre-service training component. Two teachers stated that content teaching and curriculum was the most effective pre-service training component. An alternative TFA teacher stated, “Most of my improvements have been from being in the classroom and going through it that way. There is a classroom management class that was helpful otherwise.” Our study found that classroom management was the most helpful component of pre-service training for alternatively certified teachers.

In response to the question regarding components of pre-service training that contributed to their level of effectiveness, both of the traditionally certified respondents provided an answer. Both teachers stated their student teaching experience was the most effective pre-service training component. A traditional teacher stated, “Student teaching was the most effective experience for me. I had a high school and middle school placement. I found my high school placement to be
the most helpful as far as lesson planning and classroom organization. My middle school placement was more difficult and I learned more of what not to do as a teacher from my mentor teacher. While I do not like that my middle school placement was a more negative experience, I do believe that sometimes a bad example can be more valuable than a good example.” Our study found that student teaching was the most helpful component of pre-service training for traditionally certified teachers.

In response to the question regarding components of in-service training that contributed to their level of effectiveness, of the six alternatively certified respondents, five of them were able to provide an answer. Of the six alternative teachers, three stated that mentoring and coaching was the most effective in-service training component. Of the four alternative non-TFA teachers, one stated that content preparation was the most effective in-service training component. An alternative non-TFA teacher stated, “I did not feel any of the in-service components were effective.” Both TFA alternative teachers stated their in-service training was effective. An alternative TFA teacher stated, “All of it was, summer school in Mississippi with mentor veteran teacher, seminars, outside of class, all of it was contributing factor my success.”

In response to the question regarding components of in-service training that contributed to their level of effectiveness, both of the traditionally certified respondents provided an answer. Both teachers stated that professional development provided by the district of employment was the most effective pre-service training component. One of the traditional teachers stated, “When first employed with the district, new teachers are required to participate in the new hire academy which is a three day program that introduces teachers into the county. I also participated in COMP training, which was highly effective in assisting me with classroom management my first year of teaching.”
Qualitative analysis of principal questionnaire

There was only one item on the principal questionnaire that could be analyzed qualitatively. In response to the item prompting principals to give additional information regarding alternative certification program, of the eight principal respondents to the questionnaire, six of them provided an answer to the item. One principal had a positive perception of ALPs. The respondent stated, “Supporting alternatively licensed teachers once they enter the classrooms (i.e., teacher mentoring) is vital to their success.” Two principals had negative perceptions of ALPs. One respondent stated, “Non-traditional teachers’ schooling is often too short and does not adequately prepare them for some of the challenges that they will face in education.” The remaining three principal respondents stated that ALPs should seek to diversify the candidate pool, increase trainings on classroom management, and focus on training the candidate to educate the whole child. One principal stated, “I do not feel ALPs produce the same quality teachers as traditional licensed programs.”

Summary

The purpose of this study was to assess the efficacy of teacher preparation pathways between teachers who received training through alternative licensing programs (ALPs) and teachers who received certification through traditional licensing programs (TLPs). This study also examined the perceptions of building principals regarding efficacy of teachers trained through ALPs compared to the efficacy of teachers certified through TLPs. Teachers and principals were surveyed to measure perceptions. No significant relationships were found between the amount of teacher training and their perception of self-efficacy in the four domains of professionalism, instruction, environment and planning. The interviews revealed that
alternative TFA prepared teachers more than alternative non-TFA programs based on self-perception.

There was no statistically significant differences found in the pre-service training (student teaching hours and credit hours) received between alternative non-TFA and alternative TFA trained teachers. The interviews revealed that classroom management was the most helpful component of pre-service training for alternatively certified teacher, and student teaching was the most helpful component of pre-service training for traditionally certified teachers.

There was a significant level of difference in in-service mentoring hours between teachers certified through TFA and teachers certified through a non-TFA alternative program. The interviews revealed that professional development provided by the district of employment was the most effective pre-service training component for traditionally certified teachers. Coaching, mentoring, and content preparation were the most effective in-service training components for alternatively certified teachers.

There was no statistically significant relationship between principal perceptions of teacher efficacy and the teachers’ overall perceptions of self-efficacy. Additionally, there was no statistically significant difference of principals’ perception of teacher efficacy between alternative and traditionally trained teachers. The surveys revealed a mixture of perceptions regarding the differences between alternative and traditionally trained teachers. There was no significant difference between years of experience and teacher perception of self-efficacy. There was no significant difference between teachers certified by an alternative method and teachers certified through a traditional method in the area of teacher self-efficacy.
Chapter 5

Discussion and Conclusion

Summary

The purpose of this study was to investigate the efficacy of teacher preparation pathways. Additionally, this particular study examined the strengths and weaknesses of Tennessee teacher preparation programs and other well-known alternative licensure programs in the nation. This study is relevant when considering methods to assist with the reformation of traditional and/or alternative programs in the state of Tennessee with the goal of improving overall teacher efficacy. The need to ensure the efficacy of teaching preparation programs in the state and nation is imperative.

As previously stated, ALPs are gaining in popularity, but there is not enough research to support their effectiveness. A valuable contribution to this limited body of knowledge is the investigation of perceived teaching efficacy and effectiveness of training programs. The need for assurance of these programs is a pressing issue because of the current need for effective teachers in our school systems. Additionally, there is a push for more evaluative methods to measure teacher effectiveness. Regardless of the type of training or route used to obtain teacher licensure, the larger issue at hand is the quality of the programs. The findings from this study emphasize the need for more research regarding the quality and efficacy of alternative licensing programs.

The research in this study examined alternative licensing programs as well as components of traditional licensing programs. The research also covered effectiveness of these alternative licensing programs and teacher perceptions of these programs. In addition, the literature review also examined teaching efficacy in four separate domains: professionalism, planning,
environment, and instruction. Literature discussing the relevance of pedagogical theory and content knowledge in teacher training programs was also reviewed.

**Discussion and Conclusions**

The purpose of this study was to assess the efficacy of teacher preparation pathways between teachers who received training through alternative licensing programs and teachers who received certification through traditional licensing programs. The results of the study indicated there were no significant differences in the perceptions of efficacy within the four domains: professionalism, environment, planning, and instruction. There were also no significant differences observed in teacher and principal perceptions; nor pre-service components such as observation, teaching hours, and course credit. Additionally, there was not a significant difference between years of experience and efficacy. However, the findings were still of value as there was a significant relationship found with in-service mentoring hours between TFA certified teachers and non-TFA certified teachers.

This study has provided insight into perceptions of efficacy from both teachers and principals that will be useful for secondary institutions. The interview results indicated that teachers found value in observation hours and mentoring from veteran teachers. As such, organizations could use this information to consider enhancing these components of the training program. This information could also be used in the selection process of candidates for alternative licensing programs.

This research indicates that alternative certification programs provide a supportable source of effective teachers. Alternative certification programs are doing an admirable job in preparing teacher candidates to become effective classroom teachers. Retention rates of teachers certified through alternative routes are comparable to those that are trained through traditional
methods. The Teach for America program is the exception because their graduates tend to exit the teaching profession once their two-year commitment to the program is fulfilled. The overall perception of efficacy of alternatively certified teachers was equal to newly hired traditionally certified teachers in areas of instruction, environment, planning and professionalism.

Our research concludes that alternative licensed programs are just as effective as traditional licensed programs in the recruitment of effective classroom teachers. Effective alternative certification programs include high standards and measures for certification, a strong pre-service component with rich academic coursework, opportunities for student teaching, and a strong component of mentoring support provided to teachers after they enter the classroom. Effective teaching can be attributed to factors other than the chosen certification pathway. Educational backgrounds, past experiences, knowledge of content and pedagogy, and core values and beliefs are contributing factors of teacher effectiveness.

**Discussion of research question 1.** The first research question sought to determine components of pre-service training within alternative licensing programs that teachers perceive as a critical aspect in regards to efficacy. Based upon the questionnaire results, there were not any components that revealed high levels of effectiveness. However, the interviews provided more insight about teacher perception on efficacy of teacher training programs. One of the most obvious components is the number of hours spent both obtaining credit for teacher training, as well as the number of observation hours. Based upon our results, teachers believe that the number of credit and observation hours has an impact on teacher effectiveness.

Findings from teacher interviews revealed that a more hands-on approach to learning during teacher training aided in positive teacher experience in the classroom. While a few students felt that “candid conversations” were an effective component of their pre-service
training, others believed the student teaching placement assisted with lesson planning and classroom organization. In response to teacher assessment of pre-service training, one teacher commented that student teaching was the most beneficial part of her training.

Additionally, seminar courses in alternative licensing programs assisted teachers with mastering effective classroom management skills. Regardless of the type of training received, surveyed participants all agreed that both the number of hours spent in the classroom and observation hours aided in teacher effectiveness. Feedback from teachers mirrored research on teacher perception of effective pre-service components. According to Wall (2007) “typically, teachers’ sense of efficacy increases with experience.” (p. 127).

Rosas and West (2011) also examined pre-service teachers’ perceptions and surveyed a group of private and public school teachers. The statewide study aimed to compare the difference in mathematics education in teacher training in private and public universities. The results of this study revealed that pre-service teachers from both private and public colleges felt adequately prepared to teach mathematics and were indifferent in their perception of their ability to integrate mathematical concepts.

Based upon Research Question 1 regarding effective components of pre-service programs, there was no relationship to teacher efficacy. As previously stated, interview participants did not indicate a specific component that was more effective than others. However, our findings did reveal that actual classroom-based, on the job experience was most beneficial. Additionally, it should be noted that mean differences in the pre-service observation hours were large and this was probably attributed to extreme outliers. The researchers also conclude that the components of pre-service training should be increased to include higher focus on classroom management, student engagement, and at risk students.
As such, we also conclude that despite teacher training, perceptions of effective components of programs are similar in nature. In-service components such as observation seemed to have the greatest impact on teacher efficacy based upon responses from the teacher interviews. Both traditionally and ALP certified teachers indicated that the training provided adequately equipped them for the classroom setting.

**Discussion of research question 2.** The second research question examined components of in-service training within alternative licensing programs that teachers perceive as a critical aspect in regards to efficacy. The questionnaire results indicated that there was no specific component that yielded a high level of effectiveness. There were several in-service components that were deemed as effective to teachers. Many interviewed participants indicated that mentoring was a contributing factor of the effectiveness of the program.

Additionally, participants felt that mentoring with a veteran teacher was helpful and provided them with tools that they currently use in the classroom. One participant noted that, “During the summer program, I had a good instructor/mentor. This is what contributed the most to my learning experience.” These findings directly correlate to research regarding teacher perception of in-service mentoring. Flanagan (2006) examined beginning teachers, new to district teachers, mentor teachers and administrators and found that all participants had positive perceptions of the mentoring program (p. 106). However, the researcher also found that participants believed that more observation and feedback time was needed for a more effective experience.

In regards to Research Question 2 dealing with effective components of in-service programs, there was a difference between TFA and other alternative licensing programs in the amount of in-service mentoring they received. Interviewed respondents indicated that they
greatly valued mentoring from veteran teachers and wish that mentoring would be provided for a longer duration. In the questionnaire, one principal stated, “Supporting alternatively licensed teachers once they enter the classrooms such as teacher mentoring is vital to their success.” Because of this, the researchers conclude that organizations need to be more purposeful in providing mentoring to teachers after they are employed.

The quantitative data results indicated a statistical significance in the number of in-service hours received by alternative TFA trained teachers and alternative non-TFA teachers. The interviews provided additional insight into the effectiveness of in-service training. Based upon results for the interview, the researchers conclude that there is a myriad of components that impact efficacy. There is not a single particular component that yields a higher level of effectiveness more than others.

**Discussion of research question 3.** Research question three sought to examine the current supervising principals’ perceptions of teacher efficacy with respect to both traditionally trained and alternatively trained teachers, with five or less years experience within their school regardless of pathway of teacher preparation. Our statistical data did not reveal a statistically significant finding, but follow up interviews of principals revealed more insight on this research question. On a five-point Likert scale of “strongly disagree” to “strongly agree,” the majority of those surveyed “agreed” that the preparation programs of those they supervised was effective. One principal stated, “ALPs can be very valuable. Supporting alternatively licensed teachers once they enter the classrooms (i.e. teacher mentoring) is vital to their success.”

Research conducted by Nusbaum (2002) revealed, “the perceptions among principals differ significantly regarding the effectiveness of alternatively certified teachers from those of previous research” (p. 112). The researcher also found that the area of differences were content
knowledge, instructional planning, and classroom discipline. Many of these areas reflect the four domains covered in this research study. Additionally, a group of researchers (Owings et al., 2005) conducted a national survey that examined the perceptions of supervisors of the Troops to Teachers program completers and found that almost 90% of those surveyed felt that the program had a positive impact on student achievement.

As previously mentioned, Blazer (2012) found that in the evaluation of Mississippi's Alternate Route Teacher Preparation Program, 90 percent of principals said they would prefer to hire a traditionally trained teacher (p. 7). We conclude that there is no difference in principal perception of teacher training between traditional and alternatively licensing programs, even if literature implies that there is sometimes a bias in principals who believe that the level of effectiveness is greater for traditionally trained teachers when compared to their alternatively trained counterparts. Principals' positive perceptions of traditionally certified teachers' performance in the classroom could validate teacher education in regards to instructional planning, content knowledge and classroom management.

Based upon Research Question 3 on principal perceptions of teachers, our findings revealed that despite the teacher preparation pathway, principals viewed their teachers as effective. According to both the survey and interviews, alternative licensing programs are providing adequate training to assist in the beginning teachers’ classroom effectiveness. However, the literature suggests that principals are biased against alternatively trained teachers and still prefer to hire traditionally trained teachers, even though the results in student achievement are comparable. The researchers conclude that alternative programs are producing effective teachers, even if principal bias does not always reflect that.
Discussion of research question 4. The fourth research question examined the perceptions of Tennessee teachers’ (with five or less years of experience) self-efficacy, regardless of their pathway of preparation. Based upon the results, the quantitative results did not reveal a statistically significant finding. Despite the type of training, respondents indicated on both the questionnaire and during the interview that they felt prepared to teach after the completion of their training programs. These findings indicate that current alternatively licensing programs are producing teachers who perceive that they are equipped with adequate skills, which are comparable to teachers from traditional programs. In fact, when asked if their training program assisted with classroom environment, one respondent concluded, “Yes, I think the teachers modeled a positive classroom environment. My high school placement for student teaching had a significant impact on me. I have modeled my classroom environment after her classroom.”

Brigman (2011) conducted a study to explore “alternative licensure teacher candidate’s perceptions of preparedness for the classroom based on the principles and set of principles embodying the skills, knowledge, and dispositions of new teachers” (p. 26). The researcher used questionnaire data collected upon candidate completion of elementary, middle, or secondary alternative licensure programs and found that “a high sense of preparedness with a slightly higher sense of preparedness reported by elementary program completers.” (p. 36).

With regards to Research Question 4 on teacher perception of self-efficacy, the research revealed that the type of teacher training did not impact teacher efficacy. Based upon our questionnaire and interview results, ALPs represented in the study made wise decisions in their selection of flexible and talented candidates who can continue learning and adapt to new
environments. It should be noted however, that one principal surveyed thought that alternative licensing programs should expand the diversity within their pool of candidates. The researchers conclude that training programs should continue in their efforts of selecting diverse candidates for their programs. If at all possible, some consistency in teacher preparation pathways should be established so that quality teachers are produced nationwide.

Based upon our research findings the researchers also conclude that teacher perception of efficacy regardless of training pathway is not significant. The interview results indicate that teachers “felt very prepared” for the classroom environment. As stated previously, some teachers even mirrored training experiences in their classrooms.

Acknowledgement of limitations

The researchers acknowledge that there were several limitations in this study. The purpose of this study was to investigate the efficacy of teacher preparation pathways. As such, teacher perception of self-efficacy should not be confused with actual teaching effectiveness. However, some research reviewed within this study purports that there is a definitive link between a teacher’s level of efficacy and student learning. Perception was measured with the use a self-reporting instrument. This is a limitation because the study instrument relies upon the accuracy of participant accuracy recall of information as well as their willingness to be forthright in their answers. In addition, dependence upon a teacher’s perception that may be skewed by individual background or bias is a limitation.

By using the TEAM evaluation rubric as the template for this study’s questionnaire instruments, the researchers have placed external validity on those who originally developed the TEAM rubric. More importantly the researchers recognize that the great amount of specificity
listed within each domain on the questionnaire instrument, may have caused a loss in the
predicative power of the instrument.

Our research focus was self-efficacy. To strengthen the study, research that connected
self-efficacy to student achievement and growth may have yielded more results. Researchers
were limited in the number of questionnaire respondents. In addition, there were a small number
of traditional teachers who completed the questionnaire. The researchers acknowledge that a
higher number of overall respondents would have yielded more beneficial results. Lastly, the
researchers conducted this study during the 2012-2013 school year. Research conducted over a
longer period of time would have been beneficial.

Recommendations

The results of this study point to several recommendations for future research on teacher
perception on efficacy of teacher training programs. This particular study was conducted during
the 2012-2013 academic year in the middle Tennessee region. The researchers acknowledge that
a replication of this study over a longer span of time would increase the validity of results and
produce longitudinal data that would help to identify trends.

Based upon the research findings and relevant research, we recommend the following:

1. Future research should focus on comparing traditionally trained teachers’ effects on
   student achievement to alternatively licensed teachers’ effects on student
   achievement.

2. Future research should focus on individual teacher preparation programs to determine
   the effectiveness of the program.

3. Future studies should survey principals throughout the state of Tennessee to
determine their perceptions of differences between each teacher training program.
4. Future research should focus on the relationship between the four domains of professionalism, instruction, environment, and planning and how they affect student achievement.

5. Future research should increase the size of the sample of principals and teachers to increase the validity of the outcomes.

6. Future research should compare principals’ perceptions of traditionally certified teachers and alternatively certified teachers from schools that have met Annual Measurable Objectives and schools that have not met Annual Measurable Objectives.

7. Future research should examine the use of school based teacher induction programs to remediate gaps in skills for teachers entering school.

8. Future research should look at school district-based alternative teacher programs in Florida to determine the effectiveness of these models.

9. Future research should examine the level of mentoring teacher’s efficacy and experience and the effects it has on new teachers.

10. Future research should examine leadership philosophies or traits that influence, either positively or negatively, teacher efficacy.

11. Future research should focus on ALP participants who teach special education classes.

**Concluding thoughts**

The significance of public education requires that individuals who enter classrooms are appropriately prepared regardless of the pathway for certification. As previously stated, there are teacher shortages in the fields of science, mathematics and special education. It may be difficult for traditional programs alone to fill these voids in both urban and rural schools. The purpose of
alternative licensing programs was to meet these growing demands. Educational leaders must ensure that students attending America’s public schools are taught by teachers who are adequately prepared. This goal should be a major priority for policy makers, educational preparation programs and educational leadership teams. These entities should ensure that teachers are successful and effective in the classroom by standardizing requirements in teacher certification programs. These programs must include pedagogy in the areas of instruction, school environment, planning, and professionalism.
References


search.proquest.com.sultan.tnstate.edu/docview/305382484?accountid=14275


Retrieved from www.centergrove.k12.in.us


Middle Tennessee State University. (n.d.). A brief history of MTSU. Retrieved from
http://www.mtsu.edu/about/history.php

Milligan College. (n.d.). History and heritage. Retrieved from
http://www.milligan.edu/about/history.html


*National Board of Professional Teaching Standards* (2013). Retrieved from


Ross, J. A. (1994). *Beliefs that make a difference: The origins and impacts of teacher efficacy*.

Paper presented at the annual meeting of the Canadian Association for Curriculum Studies, Calgary, Alberta, Canada.


*Education Week.* Retrieved from


(UMI 3379932)


http://memphis.about.com/od/midsouthliving/p/factsandfigures.htm


Appendix A

INFORMED CONSENT

Alternative Licensing Programs in Tennessee

Title of Study: Strengths in current alternative licensing programs that may help reform traditional and/or alternative programs within the state of Tennessee.

Principal Investigators: Tenielle Buchanan, Nathan D. Lang, and LauraLee Morin

Background: You are invited to participate in a research study. Before you decide to participate in this study, it is important that you understand why the research is being done and what it will involve. Please take the time to read the following information carefully. Ask the researchers if there is anything that is not clear or if you need more information.

Purpose of Study: The purpose of this study is to identify strengths in current alternative licensing programs that may help reform traditional and/or alternative programs within the state of Tennessee. A secondary purpose is to assess the efficacy of the current alternative licensing programs within the state of Tennessee.

Study Procedure: Your expected time commitment for this study is approximately 15 minutes for the online survey, “Perceptions of Alternative Licensing Program Survey.” If however, you volunteer for the interview portion of the study, your anticipated commitment would be closer to 30 minutes in addition to the time allotted for the online survey.

Participant Selection: You are being invited to take part in this research because we feel that your experience as an educator can contribute much to our understanding and knowledge of alternative licensing.

Risks: The risks of this study are minimal. These risks are similar to those you experience when disclosing work-related information to others. The topics in the survey may upset some respondents. You may decline to answer any or all questions and you may terminate your involvement at any time if you choose. There may be risks that are not anticipated. However every effort will be made to minimize any risks.

Benefits: There will be no direct benefit to you for your participation in the study. However, we hope that the information obtained from this study may provide insight into ways to improve teacher alternative licensing programs.

Alternative Procedures: If you do not want to be in the study, you may choose not to participate and leave your answers blank.

Confidentiality: You may request that all or part of your responses be kept anonymous at any time. Every effort will be made by the researchers to preserve your confidentiality including the following:
Assigning code numbers for participants that will be used on all researcher notes and documents
When no longer necessary for research, all materials will be destroyed.
The researchers and the members of the researchers’ committee will review the researchers’ collected data. Information from this research will be used solely for the purpose of this study and any publications that may result from this study.
Each participant has the opportunity to obtain a transcribed copy of their interview.
Participants should tell the researchers if a copy of the interview is desired.

People to Contact: Should you have any questions about the research or any related matters, please contact the researchers at buchananatl@lipscomb.edu, ndlang@mail.lipsomb.edu, and laura.morin@mnps.org.

Institutional Review Board: If you have questions regarding your rights as a research subject, or if problems arise which you do not feel you can discuss with the Investigators, please contact the Lipscomb University Institutional Review Board Office at (615) 966-7167.

Costs to Subject: There are no costs to you for your participation in this study.

Reimbursements: There is no monetary compensation to you for your participation in this study.

Right to Refuse or Withdraw: You do not have to take part in this study if you do not wish to do so. If you do decide to take part in this study, you will be asked to sign a consent form. If you decide to take part in this study, you are still free to withdraw at any time and without giving a reason. You are free to not answer any question or questions if you choose. This will not affect the relationship you have with the researcher.

Consent: By signing this consent form, I confirm that I have read and understood the information and have had the opportunity to ask questions. I understand that my participation is voluntary and that I am free to withdraw at any time, without giving a reason and without cost. I understand that I will be given a copy of this consent form. I voluntarily agree to take part in this study.

Signature _______________________________________           Date: __________
Appendix B

Teacher Interview Questions

Were you trained through a traditional or alternatively licensed program?

What components of your in-service training contributed to your level of effectiveness?

What components of your pre-service training contributed to your level of effectiveness?

Overall, how did you teacher preparation program contribute to your level of efficacy?

What knowledge, skills, and experiences have you gained from your first 5 years (or less) of teaching?

Do you feel your teacher prep program prepared you for effective classroom management?

Do you feel your teacher prep program prepared you for effective classroom environment?

Do you feel your teacher prep program prepared you pedagogically for the classroom?

Do you feel your teacher prep program prepared you for effective assessment strategies?

Do you feel your teacher prep program enhanced your subject specific content knowledge?

If TFA, what is your plan after your 2nd year of teaching?
Appendix C

Perception of your Teacher Training Program

By completing this survey, I volunteer to participate in this research project. I understand there are minimal risks to my well-being by completing this questionnaire. All data collected during the research process will only be reported as aggregate (group) data and my anonymity will be protected. I may withdraw from participating in this project at any time during the data collection period. If I have concerns or questions, I may contact: Chair of the Lipscomb IRB at irb-submissions-only@lipscomb.edu

* Required

Please indicate the number of years you have completed as a teacher: *

At what age did you enter the field of education? *

Do you have an undergraduate bachelor’s degree in education? *

- ☐ Yes
- ☐ No

Do you have an undergraduate bachelor’s degree in a field other than education? *

- ☐ Yes
- ☐ No

If your answer above was no, what was your major of your undergraduate bachelor’s degree?

  0

- ☐ Teach For America-Nashville
- ☐ Teach for America-Memphis
- ☐ Memphis Teaching Fellows
• Teach Tennessee
• Memphis Teacher Residency
• Nashville Teaching Fellows
• Metro Nashville Public Schools Residency Program
• Other alternative licensing program

How long was your teacher training program? *

• traditional: 4 year bachelors degree
• traditional: 2 year masters degree
• alternative: 18-24 months
• alternative: 12-17 months

What institution did you attend to receive your teacher training? [ ]

How many credit hours did you gain in your pre-service training?(total throughout program) *

How much total pre-service observations hours did you log? (total throughout program) *

0 *

How much total pre-service student teaching hours (measured in actual hours of time spent in the classroom) did you receive? *

How many years do you intend on staying in education, as a teacher, or in another role within the school? *

• This is my last year in education
• 1 more year
• 2-3 more years
• 4-5 more years
• More than 5 years
• Undecided
If you selected undecided, please elaborate:

Planning * Please respond to the following items using using the scale below. I feel, as a direct result of my initial teacher training program, I am prepared to:

<table>
<thead>
<tr>
<th>Create instructional plans that are measurable.</th>
<th>strongly disagree</th>
<th>disagree</th>
<th>Neutral</th>
<th>agree</th>
<th>strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Create instructional plans that provide appropriate time for student reflection.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Create instructional plans that includes evidence that the plan provides regular opportunities to accommodate individual student needs.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

4 * Please respond to the following items using using the scale below. I feel, as a direct result of my initial teacher training program, I am prepared to:

<table>
<thead>
<tr>
<th>Plan for assignments that require students to analyze and evaluate information rather than reproduce it.</th>
<th>strongly disagree</th>
<th>disagree</th>
<th>Neutral</th>
<th>agree</th>
<th>strongly agree</th>
</tr>
</thead>
</table>

Planning * Please respond to the following items using using the scale below. I feel, as a direct result of my initial teacher training program, I am prepared to:
<table>
<thead>
<tr>
<th></th>
<th>strongly disagree</th>
<th>disagree</th>
<th>Neutral</th>
<th>agree</th>
<th>strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Create assessment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>plans that are aligned with state content standards.</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>Create instructional</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>plans in that explicit goals are aligned to state content standards.</td>
<td>O</td>
<td>O</td>
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<td>O</td>
<td>O</td>
</tr>
<tr>
<td>Environment * Please respond to the following items using using the scale below. I feel, as a direct result of my initial teacher training program, I am prepared to:</td>
<td></td>
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</tr>
<tr>
<td>Set high and demanding academic expectations for every student.</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>Ensure that students are consistently on task.</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>Ensure that the classroom is understandable to all students.</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>Seek out and is receptive to the interests of all students.</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>Instruction * Please respond to the following items using using the scale below. I feel, as a direct result of my initial teacher training program, I am prepared to:</td>
<td></td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>Ensure all learning objectives are explicitly communicated</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>Ensure there is evidence that most students demonstrate mastery of the objective.</td>
<td></td>
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</tr>
<tr>
<td>Consistently organize the content so that it is personally meaningful and relevant to students.</td>
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<tr>
<td>Ensure presentation of content always includes modeling by the teacher to demonstrate his or her performance expectations.</td>
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<tr>
<td>Ensure pacing provides many opportunities for individual students who progress at different learning rates.</td>
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<tr>
<td>Incorporate activities that elicit a variety of thinking.</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Incorporate activities that are relevant to students' lives.</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>During instruction, ask questions that are varied and high quality.</td>
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<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

Instruction continued... * Please respond to the following items using the scale below. I feel, as a direct result of my initial teacher training program, I am prepared to:

<table>
<thead>
<tr>
<th>strongly disagree</th>
<th>disagree</th>
<th>Neutral</th>
<th>agree</th>
<th>strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tr>
</tbody>
</table>
Regularly use feedback from students to monitor and adjust instruction.  

<table>
<thead>
<tr>
<th></th>
<th>strongly disagree</th>
<th>disagree</th>
<th>Neutral</th>
<th>agree</th>
<th>strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>○</td>
<td>○</td>
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</tr>
</tbody>
</table>

Implement effective grouping where all students in groups know their roles.  

<table>
<thead>
<tr>
<th></th>
<th>strongly disagree</th>
<th>disagree</th>
<th>Neutral</th>
<th>agree</th>
<th>strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>○</td>
<td>○</td>
<td>○</td>
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<td>○</td>
</tr>
</tbody>
</table>

Display extensive content knowledge of all the subjects taught.  

<table>
<thead>
<tr>
<th></th>
<th>strongly disagree</th>
<th>disagree</th>
<th>Neutral</th>
<th>agree</th>
<th>strongly agree</th>
</tr>
</thead>
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<td>○</td>
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</tbody>
</table>

Regularly provide differentiated instructional methods.  

<table>
<thead>
<tr>
<th></th>
<th>strongly disagree</th>
<th>disagree</th>
<th>Neutral</th>
<th>agree</th>
<th>strongly agree</th>
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</thead>
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<td></td>
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</tbody>
</table>

Ensure children have the opportunity to master what is being taught.  

<table>
<thead>
<tr>
<th></th>
<th>strongly disagree</th>
<th>disagree</th>
<th>Neutral</th>
<th>agree</th>
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</tr>
</thead>
<tbody>
<tr>
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<td>○</td>
<td>○</td>
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</tr>
</tbody>
</table>

Ensure students are thinking at high cognitive levels.  

<table>
<thead>
<tr>
<th></th>
<th>strongly disagree</th>
<th>disagree</th>
<th>Neutral</th>
<th>agree</th>
<th>strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
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<td>○</td>
<td>○</td>
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<td>○</td>
</tr>
</tbody>
</table>

Ensure problem solving skills are frequently reinforced.  

<table>
<thead>
<tr>
<th></th>
<th>strongly disagree</th>
<th>disagree</th>
<th>Neutral</th>
<th>agree</th>
<th>strongly agree</th>
</tr>
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<tbody>
<tr>
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</tr>
</tbody>
</table>

Professionism * Please respond to the following items using using the scale below. I feel, as a direct result of my initial teacher training program, I am prepared to:  

<table>
<thead>
<tr>
<th></th>
<th>strongly disagree</th>
<th>disagree</th>
<th>Neutral</th>
<th>agree</th>
<th>strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
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</tr>
</tbody>
</table>

Use feedback from observations to significantly improve performance in identified areas of need.  

<table>
<thead>
<tr>
<th></th>
<th>strongly disagree</th>
<th>disagree</th>
<th>Neutral</th>
<th>agree</th>
<th>strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

Systematically and consistently utilize formative and  

<table>
<thead>
<tr>
<th></th>
<th>strongly disagree</th>
<th>disagree</th>
<th>Neutral</th>
<th>agree</th>
<th>strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>
summative student achievement data to decrease achievement gaps between subgroups of students.

Regularly organize school activities and events that positively impact school results.

Collaboratively plan in Professional Learning Communities.

Never submit passwords through Google Forms.
Powered by Google Docs
Appendix D

Principal Perception of Alternative and Traditional Teacher Training Programs

By completing this survey, I volunteer to participate in this research project. I understand there are minimal risks to my well-being by completing this questionnaire. All data collected during the research process will only be reported as aggregate (group) data and my anonymity will be protected. I may withdraw from participating in this project at any time during the data collection period. If I have concerns or questions, I may contact: Chair of the Lipscomb IRB at irb-submissions-only@lipscomb.edu

* Required

What percentage of teachers are alternatively certified in your building? *

- ○ 0 - 5%
- ○ 5-30%
- ○ 30-50%
- ○ more than 50%

Alternatively licensed teachers in my building were trained through the following programs: *

- ☐ Teach For America-Nashville
- ☐ Teach for America-Memphis
- ☐ Memphis Teaching Fellows
- ☐ Teach Tennessee
- ☐ Memphis Teacher Residency
- ☐ Nashville Teaching Fellows
- ☐ Metro Nashville Public Schools Residency Program
- ☐ Other alternative licensing program

Of those listed above, what group has a higher turnover in your building? *

Planning (Alternatively Licensed Teachers) * Please respond to the following items using the scale below. I feel, as a direct result of an alternative licensing program, teachers are prepared to:
<table>
<thead>
<tr>
<th>Create instructional plans that are measurable.</th>
<th>strongly disagree</th>
<th>disagree</th>
<th>neutral</th>
<th>agree</th>
<th>strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Create instructional plans that provide appropriate time for student reflection.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Create instructional plans that includes evidence that the plan provides regular opportunities to accommodate individual student needs.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Plan for assignments that require students to analyze and evaluate information rather than reproduce it.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Create assessment plans that are aligned with state content standards.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Create instructional plans in that explicit goals are aligned to state content standards.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

Planning (Traditionally Licensed Teachers) * Please respond to the following items using the scale below. I feel, as a direct result of a traditional licensing program, teachers are prepared to:

<table>
<thead>
<tr>
<th>Create instructional plans that are measurable.</th>
<th>strongly disagree</th>
<th>disagree</th>
<th>neutral</th>
<th>agree</th>
<th>strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Create instructional plans that provide appropriate time for student reflection.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Create instructional plans that includes evidence that the plan provides regular opportunities to accommodate individual student needs.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
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</tr>
<tr>
<td>Plan for assignments that require students to analyze and evaluate information rather than reproduce it.</td>
<td>○</td>
<td>○</td>
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<td>○</td>
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</tr>
<tr>
<td>Create assessment plans that are aligned with state content standards.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Create instructional plans in that explicit goals are aligned to state content standards.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>
plans that provide appropriate time for student reflection.

Create instructional plans that include evidence that the plan provides regular opportunities to accommodate individual student needs.

Plan for assignments that require students to analyze and evaluate information rather than reproduce it.

Create assessment plans that are aligned with state content standards.

4 * Please respond to the following items using the scale below. I feel, as a direct result of a traditional licensing program, teachers are prepared to:

Create instructional plans in that explicit goals are aligned to state content standards.

Environment (Alternatively Licensed Teachers) * Please respond to the following items using the scale below. I feel, as a direct result of an alternative licensing program, teachers are prepared to:

Set high and demanding academic expectations for every student.
Ensure that students are consistently well-behaved on task.

Ensure that the classroom is understandable to all students.

Seek out and is receptive to the interests of all students.

Environment (Traditionally Licensed Teachers) * Please respond to the following items using the scale below. I feel, as a direct result of a traditional licensing program, teachers are prepared to:

- Set high and demanding academic expectations for every student.
- Ensure that students are consistently well-behaved on task.
- Ensure that the classroom is understandable to all students.
- Seek out and is receptive to the interests of all students.

Instruction (Alternately Licensed Teachers) * Please respond to the following items using the scale below. I feel, as a direct result of an alternative licensing program, teachers are prepared to:
<table>
<thead>
<tr>
<th>Perception of Preparedness of Novice Teachers</th>
<th>strongly disagree</th>
<th>disagree</th>
<th>neutral</th>
<th>agree</th>
<th>strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ensure all learning objectives are</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>explicitly communicated.</td>
<td>○</td>
<td>○</td>
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</tr>
<tr>
<td>Ensure there is evidence that most</td>
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<tr>
<td>students demonstrate mastery of the</td>
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<tr>
<td>objective.</td>
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<tr>
<td>Consistently organize the content so that</td>
<td></td>
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<tr>
<td>it is personally meaningful and relevant to</td>
<td>○</td>
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</tr>
<tr>
<td>students.</td>
<td></td>
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<tr>
<td>Ensure presentation of content always</td>
<td></td>
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<tr>
<td>includes modeling by the teacher to</td>
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</tr>
<tr>
<td>demonstrate his or her performance</td>
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<tr>
<td>expectations.</td>
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<td></td>
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</tr>
<tr>
<td>Ensure pacing provides many opportunities</td>
<td></td>
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<tr>
<td>for individual students who progress at</td>
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</tr>
<tr>
<td>different learning rates.</td>
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<tr>
<td>Incorporate activities that elicit a</td>
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<tr>
<td>variety of thinking.</td>
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</tr>
<tr>
<td>Incorporate activities that are relevant to</td>
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</tr>
<tr>
<td>students' lives.</td>
<td>○</td>
<td>○</td>
<td>○</td>
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</tr>
<tr>
<td>During instruction, ask questions that</td>
<td></td>
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<tr>
<td>are varied and high quality.</td>
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<td>○</td>
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</tr>
</tbody>
</table>
Instruction (Alternatively Licensed Teachers) continued... * Please respond to the following items using using the scale below. I feel, as a direct result of an alternative licensing program, teachers are prepared to:

<table>
<thead>
<tr>
<th>Item</th>
<th>strongly disagree</th>
<th>disagree</th>
<th>neutral</th>
<th>agree</th>
<th>strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regularly use feedback from students to monitor and adjust instruction.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Implement effective grouping where all students in groups know their roles.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Display extensive content knowledge of all the subjects taught.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Regularly provide differentiated instructional methods.</td>
<td>○</td>
<td>○</td>
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<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Ensure children have the opportunity to master what is being taught.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Ensure students are thinking at high cognitive levels.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Ensure problem solving skills are frequently reinforced.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

Instruction (Traditionally Licensed Teachers) * Please respond to the following items using using the scale below. I feel, as a direct result of a traditional licensing program, teachers are prepared to:

<table>
<thead>
<tr>
<th>Item</th>
<th>strongly disagree</th>
<th>disagree</th>
<th>neutral</th>
<th>agree</th>
<th>strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ensure all learning objectives are explicitly communicated .</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Ensure there is</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>
evidence that most students demonstrate mastery of the objective.

Consistently organize the content so that it is personally meaningful and relevant to students.

Ensure presentation of content always includes modeling by the teacher to demonstrate his or her performance expectations.

Ensure pacing provides many opportunities for individual students who progress at different learning rates.

Incorporate activities that elicit a variety of thinking.

Incorporate activities that are relevant to students' lives.

During instruction, ask questions that are varied and high quality.

Instruction (Traditionally Licensed Teachers) continued... * Please respond to the following items using using the scale below. I feel, as a direct result of a traditional licensing program, teachers are prepared to:
<table>
<thead>
<tr>
<th>Task Description</th>
<th>strongly disagree</th>
<th>disagree</th>
<th>neutral</th>
<th>agree</th>
<th>strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regularly use feedback from students to monitor and adjust instruction.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Implement effective grouping where all students in groups know their roles.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Display extensive content knowledge of all the subjects taught.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Regularly provide differentiated instructional methods.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Ensure children have the opportunity to master what is being taught.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Ensure students are thinking at high cognitive levels.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Ensure problem solving skills are frequently reinforced.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

**Professionalism (Alternatively Licensed Teachers)** *Please respond to the following items using the scale below. I feel, as a direct result of an alternative licensing program, teachers are prepared to:

<table>
<thead>
<tr>
<th>Task Description</th>
<th>strongly disagree</th>
<th>disagree</th>
<th>neutral</th>
<th>agree</th>
<th>strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use feedback from observations to significantly improve performance in identified areas of need.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Systematically and consistently utilize</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>
formative and summative student achievement data to decrease achievement gaps between subgroups of students.

Regularly organize school activities and events that positively impact school results.

Collaboratively plan in Professional Learning Communities.

Professionalism (Traditionally Licensed Teachers) * Please respond to the following items using the scale below. I feel, as a direct result of a traditional licensing program, teachers are prepared to:

Use feedback from observations to significantly improve performance in identified areas of need.

Systematically and consistently utilize formative and summative student achievement data to decrease achievement gaps between subgroups of students.

Regularly organize school activities and events that positively impact school results.

Collaboratively plan in Professional Learning Communities.
What additional information would you like to share regarding alternative licensing programs? *

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Appendix E

Memorandum of Understanding

MEMORANDUM OF UNDERSTANDING
BETWEEN
LIPSCOMB UNIVERSITY COLLEGE OF EDUCATION
AND
TENNESSEE INDEPENDENT COLLEGES AND UNIVERSITIES ASSOCIATION

This Memorandum of Understanding (MOU) establishes the relationship and guidelines between the above parties regarding the research partnership described below.

The College of Education (COE) of Lipscomb University offers the Doctor of Education (Ed.D.) degree in Learning Organizations and Strategic Change. This degree is focused on preparing leaders for public and private organizations and academic settings. The program culminates with a practical, collaborative capstone research project with a partner organization. Tennessee Independent Colleges and Universities Association (TICUA) has requested a Capstone Team to address a real research need in an authentic setting. Successful completion of this capstone project will fulfill part of the requirements for completion of the Doctor of Education degree.

TICUA engages Tennessee’s private colleges and universities to work collaboratively in areas of public policy, cost containment, and professional development to better serve the state and its citizens. TICUA’s 34 member colleges and universities educate more than 75,000 students from across the state, country, and throughout the world.

The College of Education at Lipscomb University and TICUA are entering into and operating under this MOU for a research partnership and agree to the following.

1. REQUEST FOR ASSISTANCE

TICUA has submitted a Request for Assistance (RFA) outlining the following research need: Examine programs of alternative licensure both in TICUA institutions and institutions elsewhere in the country. The team will use publicly available data relating to effectiveness of alternatively licensed teachers and these areas of focus:

- Duration and focus of programs including pre service and in-service training and support.
- Components of programs such as classroom management, assessment skills, content knowledge and pedagogical theory
- Original career fields of alternatively licensed teachers, particularly whether STEM fields have attracted alternatively licensed teachers
- Difference in numbers and types of alternatively licensed teachers based on LEA and/or geography (the grand divisions)
• Career retention of alternatively licensed teachers

II. PROJECT PARAMETERS

The COE will supervise and direct a team of two to four doctoral students who will frame and conduct the research, and form recommendations for the client's research need.

The COE will provide the training for the Ed.D. students to complete the requested research project through its curriculum and capstone project support structures. This training and support includes but is not limited to quantitative and qualitative research techniques, instrument design, and development of specific timelines, benchmarks, and processes pertaining to conducting research, and the assignment of a capstone faculty adviser who will oversee the team throughout the research project.

The Client will provide access to its executive staff and facilitate participation where necessary of member institutions.

III. PROJECTED RESEARCH TIMELINE

TICUA will present a 10-minute presentation (including Q & A) of the RFA to the Fall 2011 Cohort on Client Presentation Day, which is scheduled for the morning of Saturday, July 28, 2012.

Additional dates below are flexible and can change based on needs and circumstances of the Team, the Client, and the Research/Survey Evaluation Committee.

- Capstone Team will be assigned to TICUA no later than August 15, 2012.
- The Capstone Team will have an initial meeting with TICUA Vice President, Patrick Meldrim, or his designee no later than August 31, 2012.
- The Capstone Team will develop and submit a project proposal to the Client no later than October 5, 2012.
- The Client will approve or request revision of the project proposal no later than October 12, 2012.
- The Capstone Team will submit the approved project proposal to Lipscomb University's Institutional Review Board (IRB) by October 12, 2012. Substantive changes requested by the IRB will be discussed with the Client prior to implementation. Pilot testing of instruments and official collection of data may not begin until approval has been received by the IRB.
- The Capstone Team will submit a draft of the first three chapters of their research manuscript and any applicable research instruments to their Juried Review Committee by January 31st, 2013. Chapter three should include a description of pilot testing of research instruments if applicable. The Juried Review Committee and the Client must approve the final research instrument(s) before official data collection begins.
- May 3, 2013 is the target date for completion of data collection and analysis.
- The Capstone Team will submit a written draft of all chapters of their research manuscript to Lipscomb's Juried Review Committee by June 7, 2013.
- The Capstone Team will schedule and give a presentation to the Client and to the Juried Review Committee by August 1, 2013.
- The Client will provide a Client Project Evaluation of the Capstone Team and research project within one week following the presentation.

IV. LIPSCOMB UNIVERSITY'S INSTITUTIONAL REVIEW BOARD (IRB)

Capstone students are required to gain approval from Lipscomb's IRB prior to conducting research. All capstone teams will submit a research proposal to the IRB for their capstone projects. The research proposal will be submitted to and approved by TICUA prior to submission to Lipscomb's IRB (see Project Research Timeline).

The following outline may serve as a guide for students in building a research proposal to be sent to TICUA and the IRB.

Title Page
Table of Contents
Introduction (2 – 3 pages)
  - A statement of the research topic
  - A statement of the research problem
  - The purpose of the study
  - The research question(s)
Methodology (2 – 3 pages)
  - Design or strategy for research
  - Research participants (describe participants, description of risk, voluntary participation, confidentiality, anonymity)
  - Procedures to be followed
Data Analysis (1 page)
  - Describe data collection, storage, and analysis procedures
  - Describe disposition of the data after the study has concluded
References
Appendices
- Informed consent letter
- Apparatus and/or instruments to be used (questionnaire, interview questions, etc.)
- Documentation from client granting permission and access for research

V. FUNDING
The Capstone Team, the COE, and TICUA will make every reasonable effort to minimize costs associated with this project.

As of the date of the signing of this document, the project presented by the client is expected to require no funding by either the COE or TICUA.

Capstone Team members are expected to be responsible for normal and customary costs associated with doctoral students engaging in doctoral research (i.e. cost of mailings, printing, paper, envelopes, postage, transportation, phone calls, email, etc.). However, should the Capstone Team members identify what they consider to be an out-of-the-ordinary funding need, the team members should seek funding from TICUA during development of their project proposal and prior to submission of the proposal to Lipscomb’s IRB. Regardless of when the funding need is realized, written approval and agreement to provide funding should be received from TICUA prior to any expenditure being made. Expenditures incurred without expressed written approval from TICUA will be the responsibility of the Capstone Team members. Team members will be provided a copy of this MOU.

VI. RESEARCH PRODUCT and DISSEMINATION
The Capstone Team will prepare a full report and presentation to TICUA and a COE Juried Review Committee. This report and presentation must meet or exceed all the requirements of the capstone project as outlined in the COE’s Capstone Project Manual (see addendum).

Hard-bound copies of the report manuscript will be submitted to TICUA, the COE, and Beaman Library on Lipscomb University’s campus, and to each Capstone Team Member. The COE may make the manuscript accessible in electronic format through conventional venues that provide access to culminating research projects for doctoral programs. TICUA will post the product on its website, and will require a copy to be sent electronically.

All rights and obligation related to interests in and ownership of the Capstone Project shall be subject to the Lipscomb University Intellectual Property Policy (a copy of which is attached hereto).

VII. FAILURE TO MEET RESEARCH OBLIGATION
If the Capstone Team members cannot produce the requested research product they shall present their concerns to their faculty advisor. The faculty advisor will discuss the matter with The Client and attempt to craft a remedy to continue the project. If a remedy exists that will materially alter the research product, then TICUA, the COE designee, and the Capstone Team shall meet and develop an altered research product that meets the needs, goals, and objectives for all parties. In that case, an addendum to this document shall set forth the new parameters of the adjusted research project.

If no remedy is available, the COE may unilaterally remove the Capstone Team from the research project, and TICUA will hold the COE, the Capstone Team, and Lipscomb University harmless.

VIII. LIABILITY

TICUA shall indemnify and hold harmless Lipscomb, its Board of Directors, officers, agents, employees, and students from any and all claims, losses, damages or liability, including attorney's fees, resulting from or attributable to the acts of TICUA, its employees or agents.

Lipscomb University shall indemnify and hold harmless TICUA, its officers, agents, and employees from any and all claims, losses, damages or liability, including attorney's fees, resulting from or attributable to the acts of Lipscomb University its employees or agents.

IX. AUTHORIZATION

On behalf of the Lipscomb University College of Education and TICUA, the undersigned agree to the above stipulations and pledge that the organizations will strive to the best of their abilities and in good faith to complete these objectives.

Further, we pledge that should the need for modifications arise, we will in good faith attempt to make such changes or additions as the situation dictates and as are further detailed in subsequent mutually agreed upon addendums to this document.

X. MISCELLANEOUS TERMS

The following terms shall apply in the interpretation and performance of this MOU:

Relationship of the Parties - This MOU shall not be construed to create a relationship of partners, brokers, employees, servants or agents as between the parties.

A. Advertising and Publicity - Neither party shall use the other's name, or any name that is likely to suggest that it is related to the other institution, in any advertising, promotion or sales literature without first obtaining the written consent of the other party. Any publications regarding this MOU must be reviewed and approved by the parties.
B. Governing Law: Forum – This MOU shall be governed by and construed under the laws of the State of Tennessee, which shall be the forum for any lawsuits arising from an incident to this MOU.

C. Waiver – A waiver of any breach of any provision of this MOU shall not be construed as a continuing waiver of said breach or a waiver of any other breaches of the same or other provisions of this MOU.

D. Non-Assignment – This MOU may not be assigned by either party without the advance written consent of the other.

E. Severability - In the event one or more clauses of this Agreement are declared illegal, void or unenforceable, that shall not affect the validity of the remaining portions of this Agreement.

The authorized representatives of both parties have executed two copies of this Memorandum of Understanding on this 4th day of July, 2012.

TICHA

By: [Signature]
Title: Vice President

LIPSCOMB UNIVERSITY

By: [Signature]

W. Craig Bledsoe, Provost
Appendix F

National Institute of Health “Protecting Human Research Participants” Certificates of Completion

Certificate of Completion
The National Institutes of Health (NIH) Office of Extramural Research certifies that Antwana Buchanan successfully completed the NIH Web-based training course “Protecting Human Research Participants”. Date of completion: 08/23/2012 Certification Number: 1067922

Certificate of Completion
The National Institutes of Health (NIH) Office of Extramural Research certifies that Nathan Lang successfully completed the NIH Web-based training course “Protecting Human Research Participants”. Date of completion: 09/23/2012 Certification Number: 1087539

Certificate of Completion
The National Institutes of Health (NIH) Office of Extramural Research certifies that Laura Lee Morin successfully completed the NIH Web-based training course “Protecting Human Research Participants”. Date of completion: 09/24/2012 Certification Number: 1089572
### Appendix G

<table>
<thead>
<tr>
<th>University</th>
<th>University Profile</th>
<th>Program Highlights</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Lipscomb University</strong></td>
<td>- Private, Christian four year institution&lt;br&gt;- Member of the Tennessee Independent Colleges and Universities Association&lt;br&gt;- 47 approved teacher education programs</td>
<td>- 148 completers and an average final GPA above the state average for 2010-2011&lt;br&gt;- Program completers are more effective than other beginning teachers in high school Algebra I and End of Course Exam composite scores</td>
</tr>
<tr>
<td><strong>Middle Tennessee State University</strong></td>
<td>- Public four year institution&lt;br&gt;- Tennessee Board of Regents system&lt;br&gt;- 47 approved teacher education programs</td>
<td>- 540 program completers and passage rate of 94% on Praxis exam&lt;br&gt;- Program completers are more effective than veteran teachers and other beginning teachers in high school English I</td>
</tr>
<tr>
<td><strong>Milligan College</strong></td>
<td>- Private, Christian four year institution&lt;br&gt;- Member of the Tennessee Independent Colleges and Universities Association&lt;br&gt;- 21 approved teacher education programs</td>
<td>- 62 program completers, an average final GPA above the state average for 2010-2011 and 100% passage rate on the Praxis&lt;br&gt;- Program completers have fewer completers in the lowest performing percentile compared to beginning teacher performance distributions in high school End of Course exam composite scores</td>
</tr>
<tr>
<td><strong>University of Memphis</strong></td>
<td>- Public four year institution&lt;br&gt;- Tennessee Board of Regents system&lt;br&gt;- 37 approved teacher education programs</td>
<td>- 466 program completers and a passage rate of 97% on the Praxis exam&lt;br&gt;- Program completers are more effective than veteran teachers and other beginning teachers in high school English I.</td>
</tr>
<tr>
<td><strong>University of Tennessee Knoxville</strong></td>
<td>- Public four year institution&lt;br&gt;- University of Tennessee system&lt;br&gt;- 37 approved teacher education programs</td>
<td>- 256 program completers and an average final GPA higher than the state average for 2010-2011 completers&lt;br&gt;- Program completers teaching high school Biology I have more completers in the highest performing percentile in comparison to beginning teacher performance distributions across the state</td>
</tr>
</tbody>
</table>

Author Biographies

Tenille Buchanan graduated in 2005 from Lipscomb University with a bachelor’s degree in exercise science and a minor in biology. After graduating from Lipscomb, she attended the University of Memphis and graduated with a master’s degree in journalism and public relations. There she worked with Bob Levey, a former columnist for The Washington Post, to collect biographies and perspectives of minority students. After returning to Nashville, Buchanan worked at the Center for Nashville Studies housed at Vanderbilt University, where she coordinated events and maintained the center’s Web site. She currently works at Lipscomb University as Assistant Dean of Students for Intercultural Development. In this role, she serves as a mentor and advocate for students of color, oversees the coordination of programming to increase cultural competency on campus and builds external relations with the community. She is a board member for Community Nashville, Morning Star Sanctuary and the American Red Cross.

Nathan Dale Lang holds a Master of Education in Administration and Supervision from the University of Houston-Victoria and a Bachelor of Arts in General Science-Chemistry from Harding University. He currently serves as the Director of Elementary Curriculum and Instruction for Metropolitan Nashville Public Schools. Before coming the Metro schools, Lang served as the Assistant Principal at Northwest High School in the Clarksville-Montgomery County School System for the 2012-2013 school year. He served as the Assistant Principal at Moore Magnet Elementary School from 2010-2012. Before coming to Tennessee, he began his career as a high school science teacher in Houston, Texas and then became an Education Supervisor at the NASA Johnson Space Center.

LauraLee Morin holds a Masters of Arts in Teaching and Learning from Lipscomb University and a Bachelor of Science in Biology from the University at Albany. She currently serves as an Assistant Principal for East Nashville Magnet, a high school within the Metropolitan Nashville Public School district. Before joining Metro schools, Morin was a science teacher at Father Ryan High School for 4 years. Prior to entering the field of education, Morin was employed by Vanderbilt University and New York State Department of Health as an assistant research scientist studying virology and infectious disease. She contributed to the following research manuscripts during her research career: A newly emergent genotype of West Nile virus is transmitted earlier and more efficiently by Culex mosquitoes, likely due to a difference in viral infectivity for the mosquito midgut; A novel group of rhinoviruses is associated with asthma hospitalizations; Human rhinovirus C associated with wheezing in hospitalized children in the Middle East.