Abstract

This study investigated the effectiveness of alternative routes to teacher certification programs in three small rural school districts in South Carolina Public Schools. The need for teachers across the United States is anticipated to increase as a result of turnover. Specifically, this research analyzed the existing data in the three districts, regarding teacher preparation routes, teacher performance, teacher retention rates, and the effect the teacher preparation program have on student achievement. This study includes survey data from the administrators to evaluate the perceived preparation of alternative certified teachers based on teacher observation.

In order to examine the administrators’ perceptions of alternative certification routes, online surveys were conducted using nine administrators that observed teachers who went through an alternative certification route. Most administrators found alternatively certified teachers to be considered sufficiently prepared in the six areas of the survey. This study sought to answer the following research questions: 1) How do principals and assistant principals perceive teachers who have gone through alternative (emergency) certification? 2) “What are principals and assistant principal’s perceptions of teacher alternative certification program?” The overall conclusion is that effective alternative certification programs for teacher recruitment and retention was identified to be effective in many school districts in South Carolina.

Keywords: alternative certification routes, teacher preparation, teacher performance, teacher retention, alternative certification, alternative routes
Dedication

I dedicate this dissertation to my parents Edward and Carrie and to my husband Tayvon. To my father, for suggesting that I take the journey to pursue my doctorate. After I completed my master’s degree, my father told me to never start something without completing it. To my mother, for constantly interceding and praying on my behalf for me to never give up and for her unconditional love and support. To my husband, thank you for the encouragement, support and for believing in me. Thank you for all the sacrifices that you had to endure.
Acknowledgements

First and foremost, my greatest thanks to God who has blessed me with knowledge and strength to pursue and complete a very important chapter in my life. For in him I live, move and have my being.

I would like to give my sincerest gratitude to my advisor Dr. Kristal Clemons for her professional guidance, and unwavering support during the doctoral program. Thank you for the patience guiding me through stressful moments into a controllable calming situation and for her commitment to my success. It was truly an honor and a blessing to have you as my advisor and on my committee. To Dr. Lynda Beltz and Dr. Adrienne Slaughter who served on my committee, thank you for your support, patience, kindness, knowledge, and willingness to assist me through this process. To my sister Latonia, thank you for encouraging and praying with me to achieve my goals even when I felt like giving up. You were always a phone call away to encourage me to endure until the end. In addition, I would like to thank the many family members and friends who have been a constant source of encouragement during this process.
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Chapter 1 - Introduction

Due to the many changes taking place in the school systems and the growing importance on school credibility standards, the responsibility for hiring the best possible teachers has become the most important ingredient for student achievement (National Council on Teacher Quality, 2007). The Education Reform Act of 1980 brought the alternative certification possibility to those who was educated in certain fields of expertise but not trained for employment in education. Alternate routes are enticing older adults as well as more men and more minorities to a teaching career (Feistritzer, 2005). Some researchers believe alternatively licensed teachers lacked the pedagogical knowledge and classroom management techniques they would receive through a traditional university educational program.

Teachers, as adult learners, brought a substantial amount of practice, knowledge, expertise to the learning environment. Thus, to maximize adult learning capacity, alternative pathways provide opportunities to incorporate the principles of adult learning theory to improve teacher effectiveness. This study examines teacher effectiveness through alternative certification programs administered in the South Carolina school system. The purpose of this study was to examine whether andragogy has been introduced to maximize the adult learning process and increase student achievement through alternative pathways for teacher certification. Teacher certification through alternative pathways aid in meeting existing demands for teachers and will play a role in helping meet future demands for teachers.

Problem Statement

Due to teacher shortages, many teachers take alternative pathways for emergency teacher certification. Hussar and Bailey (2016) reported that elementary and secondary education enrollment was expected to increase by 4% by 2023. The total amount of elementary and
secondary education teachers was expected to rise by 8% by 2023 (2016). The U.S Department of Education (USDE, 2017) compiled a list of teacher shortage areas nationally and by state. The results indicated that teacher shortages existed in special education, science, and mathematics.

Teacher shortages was in other content areas. However, in special education, science, and mathematics it was consistent in almost every state (2017). A (2019) South Carolina Supply and Demand report completed by CERRA reported there was an increased between the rate at which teachers entered the profession and the rate at which they left the profession. Therefore, school districts rely deeply on alternative programs for employment. Programs such as the Program of Alternative Certification for Educators (PACE), the Career and Technology Education Work-Based Certification program (CATE), and Teach for Tomorrow ultimately result in qualified, permanent candidates for districts.

According to a report by the Office of Innovation and Improvement at the U.S. Department of Education (2004), states have designed alternative certification programs to allow other professionals to enter the profession laterally and decrease the entrance requirements. Teachers have been permitted to teach without the traditional credentials because teacher shortages have become very challenging for school districts (Lucas, 2006). Alternative pathways to teacher certification, which began in the early 1980s, are state defined pathways 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. Feistritzer (2005) analysis of trends in Alternative Routes to Teacher Certification, alternative pathways get potential teachers into the classroom sooner than traditional pathways as a salaried provisional contracted teacher employed with veteran teachers. Between 2009 and 2014 there was a 35% decline in teacher applicants entering the teaching profession due the rigor
of teacher certification requirements and the lack of support in preparing students for state assessments (Carver, Darling, & Sutcher, 2016). Majority of the programs that are alternative requires taking more courses and student teaching than most college curriculum. Recently, alternative certification has become an essential component for placing teachers in critical need areas even when it is not an emergency.

South Carolina has emerged in improving standards and performance of students, but they continue to face severe teacher shortage of qualified teachers. The challenges of teacher shortages have continued for years until an effective strategy is established and implemented for filling vacancies through other alternative certification pathways. While teachers continue to retire, incentives that reward effective teaching can strengthen and stabilize the workforce (Coggins, Zuckerman, & McKelvey, 2010). South Carolina instituted an alternative certification program in 1984 as part of the Education Improvement Act (EIA). During this time mathematics and science were identified by the State Board of Education as critical geographic shortage areas.

The original legislation called for a conditional certification program combining accelerated and intensive professional education training requirements with a full-time classroom teaching assignment (Corbin, 1990). The South Carolina Annual Educator Supply and Demand (2018), it was reported that 270 full time employees that held an alternative certification did not return in 2017-18 school year. There were many reasons provided, ranked as the main reason 81 teachers went to another public, charter, or special school district. Of the 82 alternative certified teachers, 42 teachers had 2-5 years’ experience (see Table 5B).

South Carolina’s alternative pathway to teacher certification was called the Critical Need Certification Program (CNCP). Based on recommendations from the 2000 Governor’s Commission on Teacher Quality, the program restructured admission requirements and changed
the name to the Program of Alternative Certification for Educators (PACE) in 2001. According to the annual supply and demand survey administered by the South Carolina Center for Educator Recruitment, Retention, and Advancement (CERRA, 2005), PACE participants accounted for 7-10% of new teachers hired in South Carolina.

South Carolina’s alternative certification program (PACE) was designed for recruiting prospective teachers who were career changers or retirees. Candidates who hold a bachelor's degree in the subject area in which they intend to teach, plus two or more years work experience, secure employment as a teacher in a South Carolina public school and earn a passing score on the Praxis II subject area examination are encouraged to apply to the PACE program. A candidate must apply, verification of prior work experience, official transcript(s), fingerprint card, and nonrefundable application fee (Program of Alternative Certification for Educators, 2006). PACE program requires a three years obligation in the subject area and grade level for which the candidates are admitted.

According to the Teacher and Supply survey reported by CERRA, first-year PACE participants occupied 341 of the state's teacher positions during the 2003/04 school year, with 442 positions filled the second year by PACE participants and 369 position filled the third year by PACE participants (CERRA, 2005). In 2004-05 the average age of South Carolina alternatively certified teachers was 35 years old (NCEI, 2005). Eighteen through twenty-four-year-old comprised 3.5%, 25-29-year-old comprised 36.6%, 30-39 comprised 41%, 40-49-year-old comprised 10%, and for 50+ comprised 8.8% (NCEI, 2005). Sixty-six percent were female and 34% were male (NCEI, 2005). Fifty-four percent were white, 42% black, 2% Hispanic, 1% Asian, and 0.3% American Indian/Alaskan Native (NCEI, 2005). In 2005-06 approximately 59,000 teachers obtained licenses through alternative routes according to the National Center for
Education Information (NCEI) data in 2005. The 2009 data projected that the number of new teachers employed will increase to approximately 357,000 beginning teachers by 2018 (NCES, 2009).

According to the South Carolina Annual Educator Supply and Demand Report (2019) provided by CERRA, PACE was the highest in ranking filling 408 positions amongst the eight alternative certification programs offered in South Carolina. There were 145 teachers who came from South Carolina college/university or private school (CERRA, 2019). Despite the common characteristic between traditional and alternative teacher training programs, lately alternative certification has become the U.S. Department of Education’s preferred and supported pathway for meeting the demands of progressing teacher quality and increasing the teacher supply through alternative routes. The National Education Association is in favor of multiple pathways for entrance into the teaching profession and for attaining full licensure. According to the NEA (2010) report, pathways provide options so that individual candidates may select the one that best provides them a pathway to full licensure. Feistritzer (2005) reported that nearly 98 percent alternate route programs require at least a bachelor’s degree to enter the program.

A few community colleges have begun to establish alternate route programs that do not require a bachelor’s degree at entry. Two-thirds require an interview, 62 percent requiring passing a basic skills test, and 56 percent a subject area test for entry (Feistritzer, 2005). A critical aspect of this topic rests on understanding the extent to which certification is a good indicator of teachers’ ability to effect gains in student learning because of lack of pedagogical knowledge. This may consist of the lack of understanding different learning styles and behaviors, intricacy with implementing activities to complete the course objectives, and lack of understanding for covering the materials in the curriculum in the allotted time.
Significance of the Research

Emergency certification, also known as alternative certifications, was issued for several reasons. The most common reasons include shortages in critical subject-matter areas and high-need geographic regions (Rozycki, 1999), teachers who are unable to meet one or more of the criteria required for initial or standard certification and for ineffective recruitment practices (Levin & Quinn, 2004). Alternative Certification Programs (ATCP) vary from special contracts, emergency certifications, or high-end technological programs for those with exceptional experience (Feistritzer et al., 2004). ATCP programs began in New Jersey around 1986 and were more prevalent in urban areas. However, there are currently over 125 programs in all 50 states, and over 600 program providers certify approximately 62,000 new teachers annually (Feistritzer, 2009a). Most programs were created in response to teacher shortages which resulted from eliminating temporary teacher licenses and often occur in high-need areas such as science, math, and special education (Grossman & Loeb, 2008).

The No Child Left Behind (NCLB) 2002 legislation brought higher expectations of teacher professional preparation and training. It defined what constitutes a highly qualified teacher and specified what is a successful school based on test scores and annual yearly progress. The NCLB also places significant emphasis on teacher quality as a factor in improving student achievement. High-quality teachers are the single most important factor influencing student academic outcomes, including graduation (Haycock, 2009). The contribution of teachers to student learning and outcomes is widely recognized. Teachers certified in the subject they were assigned to teach had eight times the impact on student achievement, as did reducing class size by five students (Haycock, 2009). Teacher quality has become a priority in both government and other educational reform efforts.
A teacher’s effectiveness has more impact on student learning than any other factor under the control of school systems, including class size, school size, and the quality of after-school programs (Gates, 2010). Changes in the curriculum, classroom, and teaching can result in the increase or decrease of teacher effectiveness. Effective teachers provide a variety of opportunities for students to apply and they can use their knowledge and skills in different learning situations in school, college and the workforce. A teacher’s credentials measurably affect student achievement and predict higher student achievement. Often used to explain low academic achievement, the Campaign for High School Equity (2011) asserts that having an effective teacher in the classroom provides students with the opportunity to succeed and face a variety of non-school related challenges.

Teacher preparation and alternative pathways to teacher certification can also influence teacher effectiveness. Someone with emergency credentials or no teaching license has filled many teaching positions due to a lack of qualified candidates (NEA, 2010). Teacher certification and its purpose and meaning for education is the government’s instrument for ensuring teachers in the classroom meet a level of expectation that is necessary to help our students succeed. This process is certification, where each State is mandated to assess and/or evaluate prospective teacher candidate’s qualifications to teach (Angus, 2001). Teacher preparation influences the cost of education and student learning. Employing teachers who are not effective leads to increase layoffs, poor preparation and it harms the students’ ability to learn.

Having content knowledge is another important factor of effective teaching. Advocates for the traditional pathway argue that education school coursework provides important pedagogical and classroom management skills that are integral to teaching success, while supporters of alternative programs assert that content knowledge is the most important attribute of a quality
teacher (Acevedo, 2008). Teachers need to obtain at least five years of experience to become completely effective at improving student performance (Rivkin, Hanushek, & Kain, 2005). Therefore, alternative certification and alternate approaches to teacher preparation can inform policymakers, university educators, teachers, state, and school district personnel in their efforts to raise standards in teaching, which will increase student achievement.

Research Questions

The purpose of this study was to examine how to fill the gap on the effects of certification status on curriculum planning, effective teaching and classroom management. The questions that this study seeks to answer are: “How do principals perceive teachers who have gone through alternative (emergency) certification?” and, “What are principal’s perceptions of teacher alternative certification programs?”

Definition of Terms

Andragogy - is the process by which adult learners elaborate, create, and transform their meaning schemes (beliefs, feelings, interpretations, and decisions) through reflection on content and their premises (social context, history, and consequences) (Mezirow, 1991).

Alternative Certified Teacher - teachers complete a class or classes while teaching in the classroom. Participants of alternate programs that had the luxury of hands-on experiences and responsibilities expressed appreciation of the experience (Gatlin, 2009). However, they may not have pedagogical skills in classroom management and differentiated instruction.

Traditionally Certified Teacher - are defined as teachers attended a university-based programs that assume pedagogical content knowledge needs to be developed in a professional atmosphere before allowing a teacher to take control of the classroom (Stoddart & Floden, 1995).
Teachers in training typically go through a period of student teaching, which is generally unpaid, and often are required to take a battery of assessments before they receive their degrees.

**Alternative Certification Program** - is program that permits a person to obtain full licensure to teach without completing a traditional four-year college program. It is designed to reduce the time and expense of obtaining teacher credentials through streamlining curriculum and intensive on the job supervision (Rosenberg, Boyer, Sindelar, & Misra, 2007).

**Traditional Certification Program** - completion of a four-year college program in education that include student teaching and demonstration of basic skill competencies evaluated through performance on written examinations as mandated by the individual state (Beck-Frazier, 2005).

**Theoretical Framework**

Adult learning and its effect on alternative routes to teacher education has shaped this theoretical framework because the impact of education on the adult learner extends beyond the advancement of a career. Adult learners beginning their post-secondary education are likely to have a gap in their academic development process. The concept of educating the adult learners requires an understanding of much more than the learning process. To create a comprehensive learning experience, it is necessary to understand the history of Andragogy, how adults learn, what they are interested in learning, and where they learn.

**History of Andragogy**

Adult learning theory also known as Andragogy first focused on distinguishing adult learning from that of children in a formal education system. In the history of andragogy Alexander Kapp (1833), a German high school teacher, as far as we know, first authored the term ‘andragogy’. In the book entitled 'Platon's Erziehungslehre' (Plato’s Educational Ideas), he describes the lifelong
necessity to learn (Kapp, 1833). He begins the book with a discussion on childhood; he later
turns his attention to adulthood (Andragogy). Kapp argues that education, self-reflection, and
educating the character were the primary values in a person’s life. Malcolm Shepherd Knowles
was well known for defining the theory of adult learning also known as andragogy.

It reappeared in 1921 in a report by Eugen Rosenstock in which he argued that 'adult
education required special teachers, methods and philosophy, and he used the term andragogy to
refer collectively to these specific requirements (Smith, 1999). Knowles referred to andragogy
as the art and science of teaching adults. Henschke (2009) book also disclosed that Knowles
permeated andragogy with much of his own meaning gained from his experience in adult
education once he became familiar with the term. He then combined his expanding practice
around the world, his university teaching of budding adult educators, and quite broadly fleshed
out his ideas on andragogy through the publication of The Modern Practice of Adult Education:
Andragogy vs. Pedagogy (Henschke, 2009).

Adult Learning Theory

Malcolm Shepherd Knowles is notable for defining the theory of adult learning. According
to a review of literature from Mark Smith (2002), Knowles contributed a fundamental part in
orienting adult educators from “educating people” to “helping them to learn”. The notion of
andragogy begun since 1830s and derived from humanistic and behavioral psychology, Knowles
made the term and idea more relevant (Smith, 2002). Knowles (1984) defines adulthood in four
ways: a) biologically, as when we reach the age that we can reproduce, b) legally, as when we
reach the age that the law says we can vote, marry without consent and the like, c) socially, as
when we start performing adult roles, such as becoming a fulltime worker, spouse, parent, or
voting citizen, and, d) psychologically, as when we arrive at a self-concept of being responsible for our own lives, of being self-directing (Knowles, et al, 2005).

Andragogy is the process by which adult learners elaborate, create, and transform their meaning schemes (beliefs, feelings, interpretations, and decisions) through reflection on content and their premises (social context, history, and consequences) (Mezirow, 1991). Curricula, instructional methods, materials, assessment, and faculty and staff development (Mezirow, 2000) should influence adult learners’ objectives and the goals of adult education. The andragogical model is joined by two domain which identifies causal, independent variables as well as outcome or effect variables, which specify the relationships between the two (Dubin, 1969). The fundamental theoretical affirmation of andragogy is that by applying andragogical doctrines and practices, originated from the distinctive characteristics of adults as learners, certain outcomes will occur more or better than if those principles and practices are not used. Conversely, define by Knowles the results of andragogical variables are recommended (Clardy, 2005).

St. Clair (2002) agreed that andragogy is deficient in serving as a learning theory because it does not explain how or why adults learn, and it is limited based on the type of learning and the context; however, when andragogy is regarded as a guide to teaching adults it is a good initial step. Adult learners tend to be accomplishment oriented, inspired, and reasonably self-determined with requirements for flexible agendas and instruction suitable for their developmental level (Benshoff & Lewis, 1992). Adult learners prefer active learning and search for opportunities to incorporate educational learning aligned with life and work experiences (Benshoff & Lewis, 1992). Knowles, Holton, and Swanson (1998) found that adult learners preferred an approach that allowed new information to be taught by helping students apply the new knowledge to their personal lives; which encourages interactive participation. This
approach offers students the opportunity to use their personal experiences to solve problems.

Adult learning theory includes two related key elements, the motivation of the adult learner and the authenticity of their learning experience.

The literature suggests strong intrinsic motivation may be necessary for the nontraditional urban adult learner to persist and succeed in the university environment (Carney-Crompton & Tan, 2002). Brookfield (1995) postulates that adult learning must be authentic to tap into adult motivation, because adults often seek knowledge in response to a need to achieve practical goals. Authenticity is achieved when classroom learning, and life experiences are integrated. Several well-known adult learning theorists (Brewer, 2000; Brown 2000; Kaagan, 1999) agree that adults learn from experience and that the best learning occurs when people can link past experiences with new concepts they want to learn.

Adult learning theory recognizes that adults are more self-guided than younger students are. The control in the learning process of adult learners has reformed adult education curriculums and teacher preparation programs at all levels in the educational system in the United States and abroad. Woodard (2007) attempted to decipher the effectiveness of adult learning theory. In response to issues surrounding the teacher quality and quantity debate, alternative certification programs unlike traditional certifications programs have acquired both supporters and critics of its practices.

Critics of Adult Learning Theory

Linda Darling-Hammond is an opponent of alternative certification. She claimed that traditionally certified teachers have “greater knowledge of teaching and learning and are more highly rated and are more effective with students, especially at tasks requiring higher order thinking and problem solving (Darling-Hammond, 2000)”. She also added,
Studies of teachers admitted with less than full preparation find that recruits tend to be less satisfied with their training and have greater difficulties planning curriculum, teaching, managing the classroom, and diagnosing students’ learning needs. They are less able to adapt their instruction to promote student learning and less likely to see it as their job to do so, blaming students if their teaching is not effective. Principals and colleagues rate the teachers less highly on their instructional skills and they leave teaching at higher-than average rates (p. 167).

Darling-Hammond (2002) further criticized alternative teacher certification programs for their “lack of traditional coursework and student teaching.” The alternative certification programs try to compensate this deficiency by providing “intensive mentoring and supervision in the initial months of full-time teaching” (p. 168).

Negative views by opponents of alternative teacher certification programs are concerned with the lack of training and preparation led many states Education Agencies to examine alternative certification programs more carefully. Resulting rules have eliminated eligibility restrictions of previously certified candidates and recruitment for alternative certification programs be driven by verified teacher shortages. As a result, the numbers of certificates procurable through alternative certification programs have increased along with a strengthened supervisory component that allows training hour flexibility (Dill 1994, & Feistritzer, 1994).

Consequently, Legler (2001) noted that Alternative Certification Programs opponents and many schools of education support rigorous standards-based approaches to education required of traditional certification programs that adequately prepare our nation’s teachers. Feistritzer and Chester (2003) report stated there are one hundred and forty-four routes to certification reported by various states. In 1983, only eight states reported having any additional methods of certifying teachers other than the traditional teacher education programs (Feistritzer et al., 2004). In 1998, more than 40 states and the District of Columbia had over 538 different alternative routes to
licensure in place for candidates who already hold a bachelor’s degree in something other than education (Feistritzer, 1998).

**Rationale**

Andragogy is relevant to alternative pathways and teacher effectiveness because it develops communication between the student and teacher to accommodate the needs of learners for developed instructional methods. Adult learning takes place effectively through facilitation versus lecture. According to Knowles (1975), good facilitation requires the facilitator to focus on what is happening to the student instead of him/herself and the facilitator gives up the protective shield of being an authority figure and exposes him/herself as an authentic human being. Knowles (1975) also states that the facilitator is required to be clear about what resources are and are not available and be able to join the students as a co-learner. Learners as adults are self-directed learners who are anxious to demonstrate that they are taking responsibility for themselves in the learning process, the learner’s experience assumes greater volume and different quality since the learner has had a variety of work and life experiences and even previous educational ones (Bash, 2003).

**Application of theory**

Andragogy is better suited for alternative routes to teacher certification because it helps with improving teacher shortages. The adult learner desires a greater sense of cooperation between the student and teacher as they proceed through the educational process (Zmeyov, 1998). Feistritzer and Chester (1998) reported that alternative routes for preparing and licensing teachers are attracting large numbers of highly qualified, talented, and enthusiastic individuals to the teaching profession. Many of the adults from the research agreed that alternative
certification provided the best preparation for the real world of teaching (Feistritzer & Chester, 2000).

Conclusion

Alternative certification supporters contend that the need for teachers in the United States during the twenty first century exceeds traditional certification program output (Legler, 2001). With two million teachers needed during the first decade of the twenty first century, educators have been encouraged to seek alternative routes in teacher preparation. As a result, supporters of alternative certification programs believe recruiting qualified individuals can increase the pool of teacher candidates with experience in other fields into our nation’s classrooms. Legler (2001) suggested that various supporters of alternative certification programs contend that traditional colleges of education have failed to provide our nation with enough numbers of well-prepared teachers.

Feistritzer and Chester (2000) estimated that colleges of education graduate 100,000 new teachers annually, equating to twice as many graduates as are hired by our nation’s schools, with 25% of all teachers holding undergraduate degrees in fields outside of education. The National Center for Education Information (NCEI) reported that when compared with recent college graduates who come into teaching directly from a traditional teacher preparation program than those entering teaching through alternate routes have degrees with majors in subjects other than education. They are more likely to have work experience in occupations other than education, tend to be older; are more likely to be people of color; and are more likely to be men (Feistritzer & Chester, 2000). In addition, the NCEI also reported that alternative certification teachers acquire teaching jobs in areas where job demand is the greatest, in inner cities and in outlying rural areas, as well as high demand subject areas.
Chapter 2 - Literature Review

To understand the relation between teacher’s certification status and teacher performance, many studies were conducted. To answer the research questions, this study will need to review literature related to studies that focus on (a) emergency certification and its relevance to teacher performance, (b) teacher retention (c) comparison of traditional certification and alternative certification (d) alternative certification programs and teaching fellows and (e) the principles of Andragogy and its impact on learning outcomes, assumptions, and assessing Adult Learning.

A review of the current literature on alternative certification pathways revealed numerous articles and studies (Darling-Hammond, 2005; Feistritzer, 1994; Feistritzer, 2001; Feistritzer, 2005; Jorissen, 2002; Qu & Becker, 2003) are some of the few concerning the development and importance of Alternative Certification Programs to address the teacher shortage in the nation.

Emergency Certification Relevance to Teacher Performance

Alternative routes to teacher certification are state-defined 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 programs. Alternative routes to teacher certification emerge as a policy response to mitigate teacher shortages. It also focused on short-term goals such as enrollment and district official satisfaction, rather than longer-term goals like improving teacher competence (Heinen, 2004).

Alternate certification programs require less hours of formal education coursework that are mandatory under regular certification standards, nonetheless, necessitate more hours of supervised field experience as a full-time teacher (Darling-Hammond, Hudson, & Kirby, 1989). Before admission candidates were selected for subject content competence because the program
concentrated more on teaching methods and classroom management than subject content (Darling-Hammond, Hudson & Kirby, 1989; Stoddart, 1992).

In summary, an important aspect of any adult learning program according to Joyce and Showers (1980) is the focus on modeling or demonstration of skills; coaching; hands-on learning, as well as transfer of skills to the classroom. Andragogical teaching and learning strategies, aimed at engaging and developing the adult to a greater degree, should be derived for the new generation of adult learners (Harris, 2003). The next literature discusses the difference between Alternative versus Traditional certification on student achievement.

Teacher Retention

Teacher retention is an important problem facing contemporary educators. According to the issue brief from Alliance for Excellent Education (2008), an estimated 157,000 men and women leave the teaching profession every year. Teacher Recruitment and Retention Task Force (2007) reported the issue of teacher recruitment and retention practices has been a concern of South Carolina and the rest of the United States for several years. Several factors have influenced the major concern to recruit and retain quality teachers. Factors that have been in the forefront in South Carolina are: beginning teachers are leaving the profession within five years of entrance, core subject areas are not being filled, and an increased number of retired teachers are exiting the profession.

Retention rate of new employees entering the teaching field is connected to how they are treated in their schools and classrooms. Jacobs (2007) stated that there were many intricate reasons for teacher shortages, but students with learning gaps suffer from interferences formed by constant teacher shortages. Districts reported 550 available teaching positions in South Carolina public school districts in 2017-18. This amount indicated a 16% growth compared to
positions reported for the 2016-17 school year (CERRA, 2018). The (2008) brief from Alliance for Excellent Education also reported that teachers leave the occupation because of retirement, setting and better teaching location. Teachers are hesitant to teach in challenging schools because they are problematic places for employment. In 2017-18, districts reported more empty teaching positions available in content areas for the school year. Areas with significant increases consist of middle level language arts, middle level and secondary social studies, and music across all school levels (CERRA, 2018).

The North Carolina Teacher Conditions Interim Survey (2006) reported that tough working condition have disadvantages that include an atmosphere of trust, a shared vision and commitment to solving problems, effective leadership, and effective professional development. Evidence presented that mentoring and professional development programs, class size, level of autonomy for teachers, and amount of administrative support are well-known factors for recruitment and retaining teachers (Guarino et al., 2006). Guarino (2006) reported the types of support that are positively associated with retention include having a mentor, common planning periods with other teachers in the same content area, properly planned collaboration with other content area teachers, outside collaboration, being treated as a professional, and having control over discipline problems.

**Alternative vs. Traditional**

Alternative routes to teacher certification tend to produce teachers who can teach in areas with context-specific needs, while traditional certification places more emphasis on expanding a prospective teacher’s grasp of effective pedagogy (Stoddart & Floden, 1995). Over 200 studies (Darling-Hammond & Cobb, 1996) conducted prior to the Higher Education Act of 1998 indicated that the most key factor in student achievement and overall school improvement is with
an effective, skillful teacher. Data from the Digest of Education Statistics (2017) reported 18% of public-school teachers in 2015–16 obtained a teacher certification through an alternative route to certification program.

Teachers who obtained certification through an alternative pathway was higher than normal for teachers in the career and technical education field (37%), science (28%), foreign languages (26%), English as a second language (24%), mathematics and computer science (22%), and special education was (20%). However, the amount was lower for alternative certified teachers who taught art and music (13%), elementary education (11%), and health education (11%). English/language arts and social sciences teachers averaged at (18%) who was alternatively certified. In 2000, federal educational policies played a larger role in ATCPs and drove much of their expansion (Redding & Smith, 2016). After 2000, teachers needed to meet additional requirements to become “highly qualified.” NCLB’s requirements led to a decrease from 14% in 2000 to 1% in 2012 of uncertified teachers acting as certified teachers in the classrooms (Redding & Smith, 2016). Alternative programs differ from each state but have the corresponding features between each program that required individuals have at least a bachelor’s degree, pass a screening, teaching while having on-the-job training, finish coursework, partake with a mentor, and meet performance standards.

Many studies comparing the results of traditional training versus alternative training remain mixed, with some showing improved outcomes for traditional program graduates and others improved outcomes for alternative training (Whitford, Zhang, & Katsiyannis, 2018). Darling-Hammond (2005) established that alternatively certified teachers gained more detailed content knowledge about the course content than traditional certified program through prior work experiences. Some alternative programs moved closer to traditional programs by offering four to
five weeks of applied instructional practice and learning in the summer prior to candidates entering the classroom (e.g., Schneider, 2014; Zinger & Normore, 2016). These programs have a “practice-based” approach, which candidates’ knowledge are focused on teaching, planning and instruction, instead of concentrating on theoretical ideas (Schneider, 2014).

A teacher coming from the corporate setting would have learned more practical applications of the content knowledge and be able to relate it to relevant experience in the classroom than would a traditionally licensed teacher. The experience allows the alternative certified teacher to increase their pedagogical knowledge through professional development and teaching experience. Supporters for alternative certification contend that allowing subject matter experts to enter the teaching field without the essential requirements of traditional preparation programs has resulted in an enhanced method for teacher training (Feistritzer, 2007; Haberman, 2004; Hawley, 1992). According to Ducharme and Ducharme (1998) research, quality alternative certification programs are producing quality teachers who know how students learn and are effective in their roles as teachers and it also help with teacher shortages.

A traditional teacher license is granted to individuals who obtain a teaching license the old-fashioned way. These individuals attend a teacher education program at a state-accredited college, majoring in either elementary education or secondary education. Alternate route teachers are college graduates who majored in a field other than education, and since graduating, have decided to become a teacher. Instead of returning to college and pursuing a degree in education, many states have created alternate routes that lead to a standard teacher certification.

The requirements of traditional teacher education programs, therefore, are viewed as barriers, which prevent qualified individuals from entering the profession. The content taught in alternate route programs varies widely in quantity and quality (Feistritzer, 1990). Some programs offer
full certification based on transcript and resume analysis while others require individuals to complete the equivalent of a traditional approved program of teacher preparation. Many traditional route teachers expressed an ability to recognize their ability to reorganize the subject matter considering how it should be presented and taught in multiple facets (Zeichner & Schulte, 2001).

Darling-Hammond (1999) research discovers that recruits were less pleased with their training and have more problems preparing curriculum, teaching, managing the classroom, and identifying students’ learning needs that was alternatively certified teachers. Teachers were not able to adapt their teaching to encourage student learning resulting in not viewing it as their job, blaming students for their instruction being ineffective (Darling-Hammond, 1999). Although Darling-Hammond has been a strong opponent of alternative certification programs, in 2003, she recognized that “there are opportunely an increasing amount of new and demanding alternate-certification programs based on observant selection, purposeful preparation, and intensive mentoring and practice teaching that are successful in preparing mid-career recruits from other fields” (Darling- Hammond & Sykes, 2003, p.4).

Furthermore, Darling-Hammond and Sykes (2003) noted and endorsed graduates of rigorous alternative certification programs who “feel confident about their teaching, are viewed as successful with children, and intend to stay in teaching (Darling- Hammond & Sykes, 2003, p.4).” Haberman (1992) determined that as alternative certification programs continue to gain popularity in fighting the battle against teacher shortages, their candidate selection process for admission into alternative teacher certification programs must include a mechanism that considers applicant suitability within the field of education. He contended that alternative certification program institutions should modify and adapt a curriculum and programs to address
personality, specifically differences that exist between alternative certification program interns and traditionally prepared teachers.

Regardless of the requirement for every teacher to become highly qualified, the process of training for the classroom varies for each teacher. The traditional teacher certification program is most recognized path to take to become a teacher. Teachers classified in this way typically complete a four-year degree in education, with a minor in the area that they would like to specifically teach. While the individual teacher preparation programs may have different approaches, there are some similarities. These similarities include a focus on teaching pre-service teachers the foundations and history of education, general pedagogy, and content-specific pedagogy, although the later is not required in all programs or at all levels. In addition, pre-service teachers often engage in some sort of classroom experience under the supervision of a mentor teacher.

To recognize the levels of preparedness in beginning teachers, Boe, Shin, and Cook (2007) examined relationships between amount of teacher preparation and teacher qualifications. Teacher preparation was operationally described as “Extensive Teacher Preparation, Some Teacher Preparation, and Little or No Teacher Preparation.” Traditional teacher education programs, involving student teaching and field experiences were included in Extensive Teacher Preparation. Some Teacher Preparation also incorporated traditional programs, however, the total time spent student teaching and in field experiences was less than that of Extensive. Alternative preparation programs were known as Little or No Teacher Preparation. The study found that teachers with extensive preparation reported being better prepared to teach assigned subject matter than those with little or no preparation.
The purpose of this research comes from me having experiences in multiple districts. The districts that I had experiences in are North Carolina, South Carolina, Maryland and Virginia. Each district requires a person to meet certain requirements for each particular district when pursuing an alternative route to teacher certification license. Fraser (2001) argues that the public has lost confidence in the traditional routes to certification (undergraduate or graduate programs on a college campus) to produce the best teachers. In the past few years, public dissatisfaction has increased because of several factors: Leaders within the education enterprise have demanded better preparation while simultaneously, increased state testing of teachers has resulted in “appalling” results, causing the public to lose faith in teachers’ abilities (p. 3). Fraser proposes decoupling teacher education from certification, and those in the government should leave the business of regulating teacher-preparation programs: “Let the schools and school districts hire whom they will, certify whom they will. Fraser proposes teacher educators use a more market-based approach—that is, if they succeed in preparing teachers well, then schools and districts will clamor for their teachers who will be deemed best prepared.

**Traditional Routes Requirement**

Traditional routes to teacher certification have been designed to meet the needs of undergraduate students. Traditional licensure programs are defined in this project as university-based programs that assume pedagogical content knowledge needs to be developed in a professional atmosphere before allowing a teacher to take control of the classroom (Stoddart & Floden, 1995). Teachers in training typically go through a period of student teaching, which is generally unpaid, and often are required to take a battery of assessments before they receive their degrees. Some traditional certification programs are designed so that you can complete a bachelor’s degree and earn a teaching license while keeping a full-time job. Historically,
universities were given the authority to educate and provide credentials to teachers based on meeting state licensing requirements, and this has been the primary source for licensing teachers (Stodart & Floden, 1995). According to the Digest of Education Statistics (2017), data reported 83% teachers went through traditional certification routes and 66% went through alternative certification.

**Alternative Routes Requirement**

Alternative teacher certification programs oblige teachers to complete a class or classes while teaching in the classroom. With the increasing costs of college, alternative programs have now become very popular for career changers who already hold a college degree (Preston, 2017). Some advantages reported were financial rewards, independence as the classroom teacher, and learning to teach through experience. Participants of alternate programs that had the luxury of hands-on experiences and responsibilities expressed appreciation of the experience (Gatlin, 2009). However, they may not have pedagogical skills in classroom management and differentiated instruction. District and state policymakers have put into practice policies and programs intended to establish more teachers through the alternative teacher certification (Birkeland & Peske, 2004).

However, the pathways through the alternative routes to teacher certification vary from state to state. Minor changes were made about the purpose of alternative certification programs allowing applicants to teach in the public school through alternative routes (Woods, 2016). Other goals included filling content area shortages, increasing the amount of teacher applicants, and decreasing the need for emergency certification, which allows an applicant to enter the classroom immediately as a non-certified teacher (Woods, 2016).
The South Carolina Department of Education (2017) has provided an alternative pathway to certification known as PACE to support schools with teacher recruitment. The purpose of the program is to support and assist school districts in South Carolina to appeal and permit degreed individuals who do not meet certification requirements, to gain employment in the public schools in a subject area included in the alternative certification program. Eligible applicants are registered for a series of training, workshops, and graduate courses to obtain professional certification. South Carolina universities reported 2,700 teacher graduates and 6,000 teacher vacancies around the state (Singleton, 2007).

Due to the shortage and qualifications of teachers, administrators and district leaders must be aware of the kind of teacher they place into the classroom and the methods in which to retain them. The Alliance for Excellent Education (2017) in South Carolina, small rural school districts that are losing teachers are characterized by the Teacher Salary Schedule Revision Task Force as having the following characteristics:

- Large percentage of socio-economically disadvantaged students
- Difficult teaching environment
- Undesirable school locations
- Low academic achievement of student population

These characteristics outlined by the task force promote challenging situations in rural communities in attracting and retaining qualified teacher candidates.

Most of the alternative routes to teacher certification program in North Carolina require completion through Regional Alternative Licensing Centers (NCDPI, 2019). Due to the teacher shortages in North Carolina, the RALCs allow a person to come into the school district to teach through Lateral Entry. To go through the lateral entry program, a person must be eligible and
meet all requirements made by the hiring school district. The person must have at least a bachelor’s degree from a regionally accredited institution and the degree must be directly related to the subject area in which the person wishes to teach.

The person must have a minimum Grade Point Average (GPA) of 2.5 on a 4.0 scale or have passed PRAXIS I and have earned a GPA of 3.0 in their major field of study or a GPA of 3.0 in all coursework completed in the senior year. If the person is working on their masters or have completed their masters they must have a GPA of 3.0 on a minimum of 15 semester hours of coursework (related to the teaching area of licensure) completed during the most recent or past five years of schooling (NCDPI, 2019). However, in the lateral entry program if the person has completed master’s degree in the content area, they are required to take and pass the PRAXIS II upon completion of all the coursework within three years. Teachers are also required through the lateral entry process to attend professional development; this allow them to gain the classroom management skills they need to become a successful teacher.

Training program, based on the principles of andragogy, was created for new employees. It was determined that participant perceptions changed in a positive direction when their lived experiences were assessed during the training program. Along with the Lateral Entry program, there are several other Alternative Route Programs in North Carolina. Some of the most known programs included: The National Center for Alternative Certification, Teach America, and National Board for Professional Teaching Standards (NBPTS). The National Center for Alternative Certification, also called Teach Now, established on September of 2003 through a discretionary grant from the U.S. Department of Education. It provides information about alternative routes in the United States; therefore, it provides answers to questions as well as guidance for individuals interested in becoming teachers.
Alternative Certification Programs in the Carolinas/Teaching Fellows

Increased attention on public education due to teacher shortages, poor student performance, and a negative perception of public schools has directed a closer evaluation of teacher training programs. According to (CERRA) 2018 Supply and Demand report, teachers left the profession every year in South Carolina. In 2018-19, districts reported many teachers left the profession. Applicants was hired to fill many positions that was available. Nearly 7,300 teachers did not return to their positions, which increased by 10%. Twenty-seven percent reportedly taught in another South Carolina public school district, and over 5,300 teachers no longer taught in South Carolina (CERRA, 2018). This section will discuss alternative pathways for teacher certification in South Carolina and North Carolina.

South Carolina

In the state of South Carolina, there are different pathways to become a teacher. Alternative certification participants are not permitted to change from one alternate pathway program to another. All South Carolina alternate pathway programs have three-years teaching obligation to secure a professional certification. It is impossible to complete another alternative pathway program given the amount of work it requires to complete the three-year certification due to the three-year limit on alternate pathway certification requirements in the program.

According to data from the South Carolina Commission (2017) on Higher Education, in 2016-17 less than 1,700 graduates completed a South Carolina teacher education program during the school year. Districts are employing more teachers from alternative certification programs. In 2017-18, 9% of newly hired teachers in South Carolina were participating in an alternative certification program. Majority participated in the Program of Alternative Certification for Educators (PACE). The district reported data which confirmed 435.5 full time employees’
position was filled by PACE teachers with one-year experience. CERRA obtained more data from the South Carolina Department of Education (SCDE, 2017) that included second-semester PACE participants in November. The amount of PACE teachers employed decreased to 413 participants due to resignations and not fulfilling alternative certification requirements.

This study investigated three small school districts in South Carolina. The South Carolina Department of Education (SCDE) reports that School District A is a small rural district that consist of 1 elementary, 1 middle and 1 high school, 96 teachers, with an enrollment of 1361 students and an average of 250 staff members (2018). In this district the class size average is 20:1 ratio and 67% of their teachers hold advance degrees (SCDE, 2018). According to the U.S. Department of Education (2019), this district ranked 40 out 82.

School District B consist of 2 elementary, 1 middle, and 1 high school, 52 teachers, with an enrollment of 764 students (SCDE, 2018). Reported by the U.S. Department of Education (2019), this district ranked 65 out of 82. Also, in this district the number of teachers with advance degrees was 55.9%. School District C consist of 3 elementary, 2 middle, and 1 high school, 176 teachers, with an enrollment of 2350 students (SCDE, 2018). The student-teacher ratio in core subjects is 21.4:1 and there was 63% of teachers who hold advance degrees and the district ranked 45th out of 82 for the district. There are many alternative pathways in the state of South Carolina, the following that programs that will be discussed are PACE, American Board, and Teachers of Tomorrow:

**PACE**

According to South Carolina Department of Education (SCDE) website (2018), the Program of Alternative Certification for Educators (PACE) is designed to permit career changers who have not completed a traditional certification program to enter the teaching profession in a
critical need area. During three-year time span, qualified PACE candidates work toward full certification while teaching in their subject area. Eligibility for the PACE program requires the following:

- Obtain a bachelor's degree from accredited college in one of the South Carolina subject area
- Passed PRAXIS II subject area test
- Employed in South Carolina public school system as a teacher
- Proof of full-time work experience

**American Board**

This program authorize state public school districts or charter schools to employ individuals who follow the American Board pathway to obtain a South Carolina teaching certificate in one of the following secondary subject areas: biology, chemistry, English, mathematics, physics, science, middle level language arts, middle level mathematics, or middle level science (SCDE, 2018). The alternative certification route is effective for one year and may be renewed yearly for two extra years upon the successful completion of the hiring district’s induction program as part of the state’s Assisting, Developing, and Evaluating Professional Teaching (ADEPT) program (SCDE, 2018). According to the South Carolina Department of Education (2018), to acquire a professional certification at the end of the three-year eligibility period, the applicant must pass an ADEPT summative observation, pass the Principles of Learning and Teaching (PLT) test, and the South Carolina’s content area test.

**ToT**

During the 2017 legislative session, Teachers of Tomorrow was sanctioned as an alternative pathway to licensure for individuals with a bachelor’s degree minimum but have not completed a
teacher certification program (Teachers of Tomorrow, 2018). Teachers of Tomorrow was founded in 2005, to assist with the increasing teacher shortage, to provide innovation to an industry that did not successfully meet the requirements of school districts or potential teachers (Teachers of Tomorrow, 2018). The Teachers of Tomorrow program have certified more than 7,000 in 2016 and more than 55,000 hired since the program started (Teachers of Tomorrow, 2018).

According to the State of South Carolina Department of Education (2018) website, an applicant must complete the following to be considered for the alternative pathway program in South Carolina:

- Bachelor’s degree or above
- 2.5 GPA
- Application
- Pay application fee
- Official transcripts from all colleges attended
- Background checks
- Passing score in the content area
- Proof of application

**North Carolina**

North Carolina State Board of Education search to deliver alternative routes to licensure for people in K-12 schools that may follow a traditional certification pathway (NC DPI, 2018). According to NC DPI (2018) the State Board of Education Licensure Policy, Lateral entry is defined as an "alternate" route to teaching for capable individuals who hold a bachelor’s degree or higher in an area of need for North Carolina school districts. Lateral entry authorizes
someone to acquire a teaching position and start teaching as they gain a professional teacher's license.

A 2003 report from the North Carolina State Board of Education organized a special committee on Lateral Entry to focus outside the traditional routes for careers in teaching to alternative routes that will interest new educators into teaching and ensure success in the classrooms (NC DPI, 2004). The committee was responsible for creating a framework to facilitate and maximize the combined efforts of the three school systems to develop a process to ensure that local school systems will have access to a list of well-trained individuals who wish to enter the teaching profession. The committee was responsible for reviewing the state’s teacher licensing processes pertaining to lateral entry, the role community colleges should partake in providing access to courses and programs leading to teacher licensure, and the responsibility of the public and private universities to partner with community colleges to ensure high quality training for teachers who wish to enter the profession through the lateral entry route (NC DPI, 2004). According to the North Carolina Department of Public Instruction (NC DPI) it was reported that the percentage rates for 0 years of experience 30.92%, 1-4 years 53.29%, 5-9 years 9.41%, 10-14 years 3.76%, 15-19 years 1.56% and 20+ years of experience 1.07% (NC DPI, 2004).

The Regional Alternative Licensing Centers (RALC) is designed to assist with entry teacher in North Carolina to achieve a professional license (RALC, 2012). RALC work with local colleges and universities to provide multiple routes to obtain a professional license. A report on the State of the Teaching Profession in North Carolina findings disclosed that there was 4,643 Later Entry employed in North Carolina public schools (NC DPI, 2016).
One of the most effective programs for recruiting teachers in North Carolina which has been active for 25 years is the North Carolina Teaching Fellows Program. The program recruits the top high school students into the teaching profession and provides multiple resources throughout the program years in hopes for positive return on beginning teacher retention (Public School Forum, 2011). These programs should attract and retain strong candidates who have the potential to remain in the profession and afford strong leadership for tomorrow’s schools (Teaching Fellows Program, 2019). North Carolina Teaching Fellows are more likely than other teachers (especially teachers of alternative certification programs) to remain in the classroom for five years. Approximately 48 percent of all teachers in NC hold at least one license earned through an alternative route and 7 percent was through an alternative route (North Carolina Department of Public Instruction, 2010).

Teacher preparation programs help future teachers to gain knowledge regarding classroom techniques and pedagogy, as well as develop critical skills needed to deliver their specialized knowledge according to the (2003) report from the University of North Carolina Teacher Education Programs’ Service to Alternative Pathways. North Carolina faces challenges in meeting demands and supporting new generations of teachers, many of whom will be prepared through non-traditional licensure routes (U.S. Department of Education, 2019). The North Carolina non-traditional teacher preparation program is referred to as “Lateral Entry.”

The Teaching Fellows program, another route to traditional teacher certification, was designed to provide inner-city areas with competent new teachers to fill positions and to improve continuously low student achievement. The program recruited and selected trainees from a pool of professionals and recent college graduates. The North Carolina Teaching Fellows Program recognizes the added benefits of varying field experiences and student teaching. The program is
designed to provide quality experiences to teaching candidates with benefits of pecuniary educational support while participating in the program.

**NC Teach**

NC TEACH is another teacher training program determined to obtain, educate, and assist career changers to become certified teachers in North Carolina. The UNC Office of the President directs the program, in association with the North Carolina Department of Public Instruction (NC DPI, 2004). NC TEACH is a state-wide alternative teacher certification program in North Carolina, of which Teach for America is a recruiting program for alternative certification known nationwide. The NC TEACH program begins with an orientation and Summer Institute designed to prepare individuals to enter the classroom.

During the first year of teaching, courses and seminars are required, which affords ongoing professional development. The program is approximately 12 months process for completion, afterwards college credit would be awarded. The professors of the program can offer more support if requested by the individuals or the district. Candidates can request an online mentor to offer aid, recommendations, coaching, and additional forms of support during the term of the program.

**Teach for America**

Teach for America is a national corporation of recent college graduates of all academic major who commit two years to teach in urban and rural public schools. Teach for America was an idea that Wendy Kopp proposed in her 1989 Princeton University undergraduate thesis (Teach for America, 2013). In 1990, the organization started with a charter of about 500 recent college graduates that fueled to eliminate educational inequity. Donaldson and Johnson (2011) reported in a study of Teach for America (TFA) candidates, the training program for alternative
certification entices individuals who is not interested in teaching in low income areas that intellectually strong and driven. 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). Today, Teach for America is among one of “the most effective sources of new teachers in low-income communities” (Teach for America, 2013).

**The New Teacher Project**

Founded in 1997 as The New Teacher Project (TNTP) attempts to interest skilled individuals into teaching and provide candidates with adequate provisional and on-the-job training and mentoring to improve student outcomes (American Institutes for Research, 2017). The Teaching Fellows program is an alternate pathway to certification that hires a difficult selection and training process to provide teachers for shortage content areas and high-poverty schools which begun in 2000. The American Institutes for Research (2017) reported TNTP received a grant from U.S. Department of Education’s office to implement and evaluate version of its Teaching Fellows Program. The Investing and Innovations grant allowed TNTP to partner with multiple districts serving huge magnitudes of high needs students: Baltimore City Public Schools, Charlotte-Mecklenburg Schools, Chicago Public Schools, District of Columbia Public Schools, Fort Worth Independent School District, Metropolitan Nashville Public Schools, and New Orleans public and charter schools.

The American Institutes for Research (2017) also reported that each district achieved at least two of three measures established by TNTP for recognizing high-need students: serving 60% or more students from minority groups; serving 50% or more students qualified for free or reduced lunch; or having a higher percentage of students not achieving adequate yearly progress goals
than the state average TNTP has become one of the largest providers of teachers in the country. As of 2015, TNTP had associated with districts and charter management organizations in over 30 cities and prepared approximately 34,000 teachers for critical need schools and content areas (American Institutes for Research, 2017).

**National Board for Professional Teaching Standards**

National Board for Professional Teaching Standards (NBPTS) commonly referred to as National Board Certification is another widely known alternative route teacher certification. National Board Certifications are performance-based, multiple-measure, peer-reviewed, anonymously submitted and built on the highest standards of measurement validity and reliability. NBPTS is known to be rigorous and well-respected form of alternative certification.

In conclusion, a common misconception about alternative certification programs is that they are not programs of teacher education but outlets that allow unqualified individuals to receive a teaching credential (Stoddart & Floden, 1995). It is widely believed, for example, that teacher candidates in alternate programs receive little or no pedagogical preparation (Gideonse, 1984; Watts, 1986). Most alternate route programs, however, do provide some form of teacher education (Adelman, 1986). Although such programs vary from state to state, many resemble traditional teacher education programs in content, rigor and expected outcomes.

**Assumptions**

An assumption is often made that andragogy is overwhelmingly accepted as the theory by the entire adult education community. However, debates persist because research efforts have produced more questions than answers. In fact, researchers in the adult education community question the unequivocal adoption of andragogy without a clear explanation as to how it affects learning (Merriam & Brockett, 1997). The assumption that alternative licensed teachers know
the subject matter and can learn to teach by working on the job has been questioned (Kennedy, 1991; Zeichner, 1986).

Henschke asserted that the American version of andragogy was popularized as a result following 1970, which contributed to the main structure of Knowles andragogical expression, which took the form of a process design instead of a content design, with assumptions and processes. The assumptions about adult learners at that time was: (1) they are self-directing, (2) their experience is a learning resource, (3) their learning needs are focused on their social roles, and (4) their time perspective is one of immediate application (Henschke, 2009). Ideal adult learners are described in the adult education literature as independent individuals competent of recognizing their own learning needs and planning, carrying out, and evaluating their learning activities (Selman, 2001).

The difference between pedagogical assumptions and andragogical assumptions is that the pedagogical model is an ideological model which excludes andragogical assumptions while the andragogical model is a system of assumptions which includes the pedagogical assumptions (Knowles, 1990). Adult learning was brought to the forefront by Knowles based upon four assumptions drawn on the learning differences between adults and children. With maturity and age, an individual’s self-concept becomes less dependent and more self-directed while accumulating a wealth of valuable experience that would serve not only as a learning resource but also as a point of reference from which to relate all new learning (Lee, 1998; Merriam, 2001). Patterned after Lindeman’s model, readiness to learn reflected the fact that adults seek out learning when appropriate to fulfill societal roles, and orientation to learning represented the skills or knowledge sought to either apply to daily problems in fulfilling the societal roles (Lee,

Supporters of alternate routes assume that anyone with subject matter expertise and some support can begin teaching without professional education. In contrast, defenders of college-based teacher education programs assume that becoming a teacher requires subject matter knowledge, professional education, and guided practice prior to assuming full classroom responsibility. John Goodlad (1999) asserted that the basic redesign of four-year college programs is important to the success teacher development. Inspired by the idea of progressivism developed by John Dewey, Goodlad argued that the foundation of highly trained instructors is required to eliminate the existing teacher shortage. He argues that if colleges continue to prepare educators to address teacher shortages utilizing traditional methods, a door will be opened inviting unqualified individuals to teach in our schools.

Proponents of alternate certification argue that teacher certification regulations should be restructured to expand the recruitment population beyond the traditional undergraduate cohort and to make entry into the profession easy for individuals at other ages and stages in their careers. Research by Darling-Hammond (1990) suggested that pedagogical content knowledge played a very important role in teaching. Those teachers without teacher education or were certified alternatively have more difficulties learning to teach than those certified traditionally (Darling-Hammond, 1990).

Assessing Adult Learning

Darling-Hammond (2000) asserts that traditional certified teachers have “greater knowledge of teaching and learning and are more highly rated and are more effective with students, especially at tasks requiring higher order thinking and problem solving. Feistritzer (2001),
reported that all the states that have designed and implemented exemplary alternative route programs report that teachers certified through their alternative routes perform as well, and, in some cases, better, on certification examinations as their counterparts who completed traditional teacher education programs.

Jorissen (2002) conducted a study to examine key factors that lead urban teachers, certified through alternative certification programs, to remain in the teaching profession. Her samples were 13 teachers in the Minneapolis and St. Paul, Minnesota, metropolitan areas. Her findings in mentoring revealed, “Mentoring played a central role in the field experiences of the participants in the program.” An analysis by Qu and Becker (2003) shows that among various levels and types of certification, an emergency teacher was generally found to be of the lowest quality.

The study researchers found that new teachers learned most from the experiences when the college program director required an action research project designed by the institution. Emergency certified teachers did less as oppose to traditionally certified teachers on nearly all the outcomes such as student achievement, teacher performance, and personality measures (Qu & Becker, 2003). The observation of the regular classroom teacher and the live experience provided double exposure to the first-hand point of view for the field experience teacher (Qu & Becker, 2003).

In contrast to alternative certification attracting more minorities, Humphrey and Wechsler (2005) reported that a national study found the racial diversity of alternative certified teachers basically mirrored the same percentage of minority teachers found in that area. The data collected showed more minorities in the ACP when compared to the entire population of teachers, however, not all the programs showed racial diversity different from the racial diversity
found in the local area. Overall, the study found that the minorities found in the program reflected the demographic composition.

Researchers studying high schools in North Carolina found that having a class with a strong teacher had an impact 14 times greater than having a class with five fewer students (Clotfelter, Ladd, & Vigdor, 2007). Researchers have even found that effective teachers have such a significant impact on a student’s ability to learn that teaching can offset learning challenges such as low-income levels and achievement gaps (Clotfelter, Ladd, & Vigdor, 2007). Recent years, questions have been raised about whether teacher preparation makes a difference in teaching effectiveness and teacher’s perceptions of their own preparedness to teach.

Seldom, teacher effectiveness is measured by student achievement on a standardized test. This has been emphasized further by the “No Child Left Behind” legislation (NCLB) and by the “ABCs” accountability system in North Carolina. NCLB measures growth by Adequate Yearly Progress (AYP), which in turn measures the yearly progress toward achieving grade level performance for each student group in both reading and mathematics. Schools across the nation must test at least 95% of students within each population subgroup and each group must meet a targeted proficiency goal to make AYP (Price, 2010).

Three recent, high-quality studies find mixed evidence regarding the effects of certification on student achievement (Betts, Zau, and Rice, 2003; Boyd, Grossman, Lankford, Loeb, and Wyckoff, 2005; Darling-Hammond, Holtzman, Gatlin, and Heilig, 2005). They find that the effect of pathway varies according to teacher experience and the subject matter taught. The bulk of the research on teacher effectiveness focuses on the implications alternative pathways to teaching have on student achievement. These studies look at whether teachers who was trained
in undergraduate teacher education programs was more effective than teachers who received non-traditional teacher certifications.

**Qualities of an Effective Teacher**

Research information from Heck (2007) reported difference in the perceived quality indicators varied with the opinions of people as it relates to the relationship between teacher quality and student achievement. The report inferred that quality in this case, are identified as the percentage of teachers who meet state licensing, content, and performance standards. The study focused also on teacher quality as an organizational ownership that schools somehow produce through high expectations and learning environment (Heck, 2007). The findings also indicate that these student achievement levels include other variables that clearly affect the scores, most notably with social class and race/ethnicity (Heck, 2007).

The student relationship to the teacher seems to overcome many challenging learning opportunities through the individual support that the teachers contribute to the learning experience (Goldhaber, 2002). The research literature on teacher effectiveness gives excellent guidance for doing the job of teaching well. MetLife survey finds that teachers “at-risk” of leaving the profession are also more likely to be teaching in urban, low-income schools with high concentrations of minority students (MetLife 2005).

The characteristic of effective teaching is characterized as factors that help students to learn. One teacher characteristic associated with student achievement is teacher self-efficacy. Albert Bandura defined self-efficacy as “beliefs in one’s capabilities to organize and execute courses of action required to produce given attainments (Bandura, 1997, p.3)”. Self-efficacy is interpreted for any teaching situation. Effective teaching can mean different things in different environments.
David Berliner (1990), who was the director of the California BTES, mentions six teacher behaviors that are characteristics of an effective teacher (Brandt, 1982; Seifert & Beck, 1984):

1. Time allocation
2. Engagement rates
3. Time management
4. Match of instructional materials to goals of the school
5. Classroom management and discipline
6. Politeness and kindness

In summary, of the six effective teacher skills mentioned by Berliner, the first three are related to Time. The Alliance for Education (2008) brief reveals that most education reformers agree that effective teaching is defined by improving student learning. Wenglinsky (2002) reported that the single most important factor affecting academic growth in the student populations was the differences in teacher effectiveness.

**Teacher Effectiveness on Student Achievement**

Students must be part of an effective school environment to achieve academically. Teacher effectiveness is described differently and the measures of the practices in other states (Scheeler et al., 2016). The No Child Left Behind (NCLB) Act was enacted in 2001 and immediately set the standards for minimal requirements teachers must attain are expected to demonstrate prior to receiving a license (Price, 2010). As a result of the increased standards, schools are required to report evidence of student achievement in mathematics, reading, and science as well as creating curricula that is rigorous in these areas (Voke, 2003).
Effective teachers are the critical link between the content being taught and the academic achievement of the student. The need for effective teachers increased as the environment of the classroom changes to more culturally diverse populations (Banks, 2015; Roofe, 2015; Scholes et al., 2017). Bradley Bowen (2013) believes that there is much discussion about using standardized exam scores as an absolute measure of teacher effectiveness according to research done by Bowen.

Students are educated by effective teachers have progressive learning achievements than those with ineffective teachers (Nye, et al., 2004). Effective teacher education is critical to teacher excellence and student achievement, which has led to policy makers focusing on recruiting prospective teacher candidates after colleges prepare them (Ingvarson & Rowe, 2008). Although teacher effectiveness is highly connected to student success, it does not account for all of it. 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). Lowe (2012) believed that classroom organization is closely connected to a teacher’s capability to manage and teach lessons that are appropriate for his students. Research reported effective teachers who provided needs of their students academically and socially had positive impacts on achievement for minority and low-income students (Banks, 2015; Podosky et al., 2017).

Effective teachers can support newer teachers with all individual learning styles in order to achieve high academic standards when they possess subject matter knowledge and adequate teaching skills (Cavanagh & Manzo, 2009). Qualities must be attributed to effective teachers to provide students with instruction that help them develop more attributes of an effective teacher (Scholes et al., 2017). Researchers on both sides of the teacher debate agree that educational
systems must be held accountable for producing quality teachers (Ducharme & Ducharme, 1998).

Studies have found that alternatively certified teachers are as competent as traditionally certified teachers (Clark et al., 2013; Constantine et al., 2009; Harris & Sass, 2007), and others have found effects supporting alternative certification programs (Boyd, Grossman, Lankford, Loeb, & Wyckoff, 2006; Clark et al., 2013). Effective teaching methods that students learn from include being actively involved in the learning process, being engaged and motivated to learn, and being able to build on their existing knowledge and understanding (National Research Council, 2000). Improving teacher quality for all students, regardless of background, is critical to improving student academic growth and closing achievement gaps.

According to Laczko-Kerr and Berlinger (2002), students in the classrooms of non-certified or probationary teachers had one-fifth less growth than they would have if instructed by fully certified teachers. It was conducted that teachers prepared within the university setting “are high quality than those prepared without and approved program of preparation (Laczko-Kerr & Berlinger 2002). North Carolina has recorded the largest student achievement gains in reading and mathematics than any other state (Darling-Hammond, 2000). According to Darling-Hammond in 2000, North Carolina students was significantly above the national average in three grade reading and mathematics, although in 1990 its scores were near the bottom of the state rankings. School improvement is directly linked to improvement in student achievement. The impact of pedagogical preparation for the traditional route programs in many occasions is consistent with student achievement.
The increasing knowledge of the significance of teacher quality as the most important factor in improving achievement scores among student populations must be extended into the school districts (Peterson, 2004). The shortage of qualified teachers continues to impact legislation leading towards adapting alternative pathways for teacher certification (Burns, Schaefer, & Hayden, 2005). Instructional methods, student learning theories, student evaluation and testing, educational psychology and sociology, and historical successes in education are areas that are stressed in college preparation programs (Zeichner & Schulte, 2001). The goals set by school administrators, can be reached only with trained teachers who are effective, and with a staff that works together with a focus on student achievement.

The goal of employing quality teachers in the classroom is to positively impact student achievement. Darling-Hammond (2012) stresses that teacher training and certification are the strongest associations for student success in reading and mathematics. According to Brewer (2003), the development of teachers is an important component in improved student performance, immense changes in preparation programs must emerge to implement the improvement.

Summary

In summary, the consequences of the teacher shortage have become part of the rationale for alternative certification policy: to recruit new candidates to fill retiring teachers’ classrooms, to diversify the teaching force, to better distribute the corps of qualified teachers to all schools, and to certify large numbers of unlicensed. Alternative routes to teacher certification emerge as a policy response to mitigate teacher shortages. It also focused on short-term goals such as enrollment and district official satisfaction, rather than longer-term goals like improving teacher
competence (Heinen, 2004). Alternative pathways to teacher certification have improved over the years assure that teachers are highly qualified as traditional certified teachers.

Proponents of alternate certification argue that teacher certification regulations should be restructured to expand the recruitment population beyond the traditional undergraduate cohort and to make entry into the profession easy for individuals at other ages and stages in their careers. Effective teachers have always known that what they do as a teacher makes a difference in what their students do as learners. Numerous studies show that teacher effectiveness leads to better student outcomes, a sizable investment in evaluations and other teacher quality reforms would certainly be worthwhile.

Teaching effectiveness is dependent upon the interaction between the instructor's subject-matter knowledge and teaching (pedagogical) ability. Effective teachers have high expectations for their students. They reinforce student efforts with frequent recognition of good work on tasks that are difficult. Effective teachers possess characteristics that create a healthy teacher-student relationship. Decision about effective teaching should be based on evidence.
Chapter 3 – Methodology

Overview of the Research Design

The purpose of this quantitative research study was to understand the perceptions of both principals and assistant principals the teacher effectiveness of those who are alternative certified as opposed those who are traditional certified. Research indicates that alternative route programs have been successful in recruiting a diverse collection of teachers. However, the research shows that alternative routes have a mixed record in attracting the “best and brightest,” challenging one rationale for the existence of alternative routes (Wilson, Floden & Ferrini-Mundy, 2001). The small number of interpretive studies available suggests that background in subject matter alone is not enough to prepare new teachers for the exigencies of contemporary classrooms.

Preparation programs of alternative certified teachers play an important role in their ability to identify effective teaching strategies, individualized instruction, and develop awareness of the cultural and social needs of their students (Singh, 2017). The research questions addressed in this study are based upon the literature reviews, which are outlined below. It also helps to fill the gap on the effects of certification status on curriculum planning, effective teaching and classroom management.

1) How do principals and assistant principals perceive teachers who have gone through alternative (emergency) certification?

2) “What are principals and assistant principal’s perceptions of teacher alternative certification program?”

Alternative routes that have high standards for entry and require substantial pedagogical training, mentoring, and evaluation may be quite like traditional college-based teacher education and tend to be successful in their production of qualified teachers.
The survey questions was taken from an existing survey, which was a principal survey created by the Texas Education Agency in 2014 on Teacher Preparation Effectiveness Survey for First Year Teachers. According to the Texas Education Agency (TEA), the survey assesses relevant educator preparation programs’ effectiveness in preparing those teachers to succeed in the classroom in Texas (Texas Education Agency, 2018). Authorized by the Senate Bill 174 by the 81st Texas Legislature in 2009, the survey is used as an Accountability System for Educator Preparation (Texas Education Agency, 2018). The survey was used multiple years by the Texas Education Agency. For the purpose of this research study, the following instrument have been adapted (Appendix E).

**Quantitative Research Approach**

**Methodology**

The purpose of this survey research study was to understand and explore principals and assistant principal’s perceptions of teachers regarding the effectiveness of teachers who are alternative certified. According to Creswell (2009), a survey design provides a quantitative or numeric of trends, attitudes, or opinions of a population by studying a sample of that population. The purpose of the survey research was to generalize from a sample to a population so that inferences can be made about some characteristic, attitude, or behavior of this population (Babbie, 1990). Therefore, to understand the perceptions of the principals and assistant principals in this district, survey research was the appropriate method for this descriptive study because quantitative data will be used.

Quantitative research study is a means for testing objective theories by examining the relationship among variables. Those variables can be measured, typically on instruments, so that numbered data can be analyzed using statistical procedures (Creswell, 2009). The use of the
quantitative methods also served to strengthen and improve the data and results determined through the qualitative methods (Gay et al, 2006).

Many quantitative researchers attribute to a positivist paradigm; they seek to objectively predict phenomena and remain neutral in their data collection and analysis (Gall, Gall & Borg, 2003). This study included multiple school district in South Carolina, including 6 elementary, 3 middle, and 3 high schools within the area where the research was conducted. This chapter contains the methodology used for conducting the research for this study. It begins with the participants, procedures, data analysis, ethical considerations, credibility, transferability, self-reflexivity and transparency, and limitations.

Participants

Participants included nine Principals and Assistant Principals randomly selected from three urban public-school districts in South Carolina. The purpose of Assistant Principals included in the study, some of them are over certain departments of alternative certified teachers and was a part of the interview process for hiring teachers. There are 6 elementary, 3 middle, and 3 high schools located within the three districts. Participants in the three districts was asked to respond to a ten questions survey and a seven questions demographic survey.

Procedures

Data was collected using the survey instrument, Alternative Pathways and Teacher effectiveness designed by the researcher. A letter was sent to the Superintendent explaining the purpose of the study and requested permission for various Principals and Assistant Principals to participate in the study. Once approved, a letter was sent to potential participants via email explaining the purpose of the study, the expectations of the research, and provided a link for
participants to complete the survey. A link via email to demographic survey was sent out separately to all principals and assistant principals.

The demographic survey contained questions on position title, school setting, gender, ethnicity, highest degree earned, number of years as a Principal or Assistant Principal, gender, participants age, percentage rates of staff that was alternative certified, the majority gender of alternative certified teachers, and department of majority alternative certified teachers. Using a four-point Likert scale, the domains included: classroom environment, instruction, technology integration, use of technology with data, overall evaluation of Alternative Certified teacher, and the overall evaluation of Alternative Certified teacher effectiveness on student achievement. A four-point Likert scale was used to collect the data. Lastly, I created an online consent form using the Survey Monkey tool.

**Data Analysis**

According to Creswell (1998), quantitative research focuses on large numbers with few variables while examining a comparison group. To measure the principals and assistant principal’s perceptions of teacher effectiveness between alternative certification versus traditional certification, a survey was developed using an online survey tool called Survey Monkey. This tool creates results for the researcher as descriptive statistics or as graphed information for further analysis (Creswell, 2009). According to Simon and Francis (2001), descriptive studies are designed to get more data about a certain characteristic within a specific field of study. McNabb (2010) stated that “using descriptive research 54 methodologies with the educational setting may be advantageous for several reasons including highlighting patterns and trends” (p. 3).
The philosophical assumptions of the quantitative tradition require that he or she considers whether the study’s findings can be generalized beyond the individuals or groups involved in the study and beyond the context in which research occurred. The quantitative data that was collected for the study was used for comparison with the beliefs that was expressed by the participant. To ensure the understanding of the data, reviews took place multiple times for revision of the survey when needed. All data was collected and organized in Excel once received.

**Criteria for Quality Quantitative Research**

**Ethical Considerations**

To ensure the protection of participants’ rights was adhered for this study, the researcher sent a request to conduct this study to Northeastern University Institutional Review Board (IRB) upon the approval of the advisor. The researcher waited for an approval from Northeastern University Institutional Review Board before the researcher contacted the Board of Education to participate in the study. A letter explaining the purpose of the study was mailed to the Board of Education/Superintendent for the survey research study. Also, a letter explaining the purpose of this study was sent via e-mail to the principals and assistant principals to participate in the survey research study after the approval from the Board of Education. The consent form was sent online for availability and confidential purposes. The researcher was the only person who sent the link for questionnaire and analyzed the data from the survey.

**Internal Validity**

In this survey research, reliability was computed by the threats which was regulated through validity of the instruments used in this study. Means and standard deviations was calculated from the participants clarity of survey responses. The overarching aim of a quantitative research
study was to classify features, count them, and construct statistical models to explain what was observed allowing each domain to become a separate variable in the study. Assuring that I reported if the original analysis if different from the planned analysis was one way of determining the validity of the data.

**External Validity**

In quantitative research, the researchers use external validity such as numerical secure parameters to make precise reports. The background of the study is the connection between the pathways of teacher certification and teacher effectiveness. Auerbach and Silverstein (2003) stated while generalizability is primarily a statistical concept not suited to the nature of qualitative research, a similar idea to transferability, called relatability, is an expected outcome of well-designed qualitative research (Lincoln & Guba, 1985). A factor that could affect external validity are the beliefs that pathways to teacher certification and teacher effectiveness are effective teaching and preparation are important views for anyone in the education.

**Self-reflexivity and Transparency**

The goal of conducting this quantitative research study was to determine if teachers gone Alternative Certification pathways was as effective as Traditional Certification. This topic is very dear to me because I am an educator that possess an alternative certification. The pathways for alternative certification allowed me to make an impact on student lives and bring real life experiences into the classroom. Many of my colleagues are also teaching due to alternative pathways to teacher certification. There is a plethora of critical needs area that need to be filled.

Due to many jobs available in those areas, districts are findings other ways to fill those positions through alternative certifications. Position are filled by employees with industry experiences, in which they can connect to real life experiences. Student can get a better
understanding of the content knowledge and hands on skills to prepare them for the workforce.

To check for unfairness, a wave analysis be used for this study. Croswell (2009) discussed that wave analysis examines returns on select items week by week to determine if average responses changes (Leslie, 1972).

**Limitations**

Limitations are set for the constraints within which the research are conducted. The alternative and traditional routes to teacher certification are the focus of the information gathered from each part of the research. Only high school administrators was selected to complete the survey. Results may be inadequate as they provide statistical data relatively than complete description and usually afford less intricate interpretation of human observation. The personal views of each administrator concerning alternative and traditional certification could adversely impact the responses concerning teacher performance. Another limitation is the time of the year the survey is given. During the summertime, some administrators are on vacation and may not respond to their emails right away, which may result in the delay of survey responses.

**Protection of Human Subjects**

All participants were guaranteed protection through an online consent form for the demographic survey and questionnaire participants created by the researcher in this study. The surveys was digitally encrypted to maintain security and privacy. Northeastern University’s Internal Review Board approved the questionnaire and interview tools before any research on the study began. Any participants who did not wanted to participate could opt-out of the survey process at any time by clicking on the appropriate link. Individuals who chose to participate in the research study was assured that their names and responses would always be completely anonymous.
The participants name was never reported with their corresponding data on their survey, which assured complete anonymity of their survey results. Survey monkey sent reminders to those who did not respond to the surveys within a given time automatically, this information was not shared with me. The survey link sent allowed the participants to complete it once, which secured that there was only one survey per participant. The researcher computer was password protected. All data were organized in Excel once received, save to the researcher’s computer and hard drive. All data and files are kept for 3 years, afterwards everything will be destroyed.
Chapter 4 – Analysis of Findings

Context and Background

The purpose of this section is to present the research questions, the data collection, and the findings of this study. Data from the SurveyMonkey collector was downloaded. Data was entered into a statistical software package (SPSS) to conduct all analysis. Data was collected utilizing a Likert scale survey instrument consisting of ten questions.

The primary approach to conduct this study was quantitative. The focus was to determine the effectiveness of alternative pathway teacher’s preparation program based on teacher behavior observed by administrators during teacher observation. The objective of this part of the research was to identify the perceptions of principals for teachers who have gone through alternate pathways for teaching as opposed to the traditional pathway. The study also included survey information obtained from administrators from 6 elementary, 3 middle, and 3 high schools from the South Carolina Public School District. Descriptive data was utilized to describe the basic feature of data used by the study to answer the following research questions:

1. How do principals and assistant principals perceive teachers who have gone through alternative (emergency) certification?

2. “What are principals and assistant principal’s perceptions of teacher alternative certification programs?”

Structure of Data Analysis

Surveys was sent out to three small urban school districts in South Carolina. Multiple schools in the three districts had only principals and did not have assistant principals at their schools because the district was very small. Surveys was sent out online through the survey monkey and demographic link to 20 administrators. There was a total of 13 principals and 7 assistant
principals in all three districts. Administrators responded to a four-point Likert scale survey answering nine questions by indicating the following levels of preparedness: 1=well-prepared, 2=sufficiently prepared, 3=not sufficiently prepared, or 4=not at all prepared.

The administrators also responded to a four-point Likert scale answering the tenth questions on the survey by indicating the following levels of overall evaluation of the alternative certified teacher’s effectiveness with regard to influencing student achievement: 1=the teacher is exceptional, 2= the teacher is good, 3= the teacher is average, or 4= the teacher is below average. An email reminder to complete surveys was sent to non-respondents a week after the initial email was sent. Three attempts was made for two school districts and five attempts was made for one school district. There was a total of 9 respondents that completed the demographic survey and 8 respondents that completed the survey questionnaire.

**Demographic Data Analysis**

Administrators was asked to complete a demographic survey to determine position title, school setting, gender, ethnicity, highest degree earned, number of years as a Principal or Assistant Principal, gender, participants age, percentage rates of staff that are Alternative Certified, the gender of alternative certified teachers, and department of majority alternative certified teachers. Most schools in the district studied was led by females. The demographic survey consisted of nine questions. The results from question 1 of the demographic survey showed that 88.89% of the respondents was principals and 11.11% was assistant principals (see Table 1).
Table 1

Demographic: Position

<table>
<thead>
<tr>
<th>Title</th>
<th>Percentages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Principal</td>
<td>88.89%</td>
</tr>
<tr>
<td>Assistant Principal</td>
<td>11.11%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100.00%</strong></td>
</tr>
</tbody>
</table>

Question 2 asked what district the participants was from, 2 was from two separate district and the remaining 7 was from the same district. Question 3 of the demographic survey was in response to gender 44.44% was male and 55.56% was female. The responses also displayed that 55.56% was Black/African American and 44.44% was White/Caucasian. The highest degree earned was a master’s degree at 88.89% and 11.11% had a doctorate degree. Majority years as a principal or assistant principal showed five administrators between 5 to 10 years. No one had 5 years or less of experience, one person had between 10 to 15 years, and three had 15 or more years of experience (see Table 2).

Table 2

Demographic: Number of Years as a Principal or Assistant Principal

<table>
<thead>
<tr>
<th>Years as an Administrator</th>
<th>Percentages</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-5 years</td>
<td>0.00%</td>
</tr>
<tr>
<td>5-10 years</td>
<td>55.56%</td>
</tr>
<tr>
<td>10-15 years</td>
<td>11.11%</td>
</tr>
<tr>
<td>15 or more years</td>
<td>33.33%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100.00%</strong></td>
</tr>
</tbody>
</table>
Question 7 of the demographic survey asked what percentage of teachers at their school was alternative certified, 66.67% participants answered 0-39%. The remaining 33.33% participants answered 40-59% was alternative certified (see Table 3).

Table 3  
**Demographic: Percentages of Teachers Alternatively Certified**

<table>
<thead>
<tr>
<th>Intervals</th>
<th>Percentages</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-39%</td>
<td>66.67%</td>
</tr>
<tr>
<td>40-59%</td>
<td>33.33%</td>
</tr>
<tr>
<td>60-79%</td>
<td>0.00%</td>
</tr>
<tr>
<td>80% or more</td>
<td>0.00%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100.00%</strong></td>
</tr>
</tbody>
</table>

The participant answered that 44.44% female teachers was mostly alternative certified as opposed to male teachers (see Table 4). Some answered that equally both male and female was alternative certified.

Table 4  
**Demographic: Gender of Alternatively Certified Teachers**

<table>
<thead>
<tr>
<th>Gender</th>
<th>Percentages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equally Male &amp; Female</td>
<td>33.33%</td>
</tr>
<tr>
<td>Female</td>
<td>44.44%</td>
</tr>
<tr>
<td>Male</td>
<td>22.22%</td>
</tr>
</tbody>
</table>
Finally, the last question on the demographic survey asked what department most of the teachers alternative certified in. was Career and Technology Education ranked number one, with 62.50% of participants response (see Table 5).

Table 5
Demographic: Content Area of Alternative Certified Teacher Observed

<table>
<thead>
<tr>
<th>Content Area</th>
<th>Percentages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Career and Technology Education (CTE)</td>
<td>62.50%</td>
</tr>
<tr>
<td>Science</td>
<td>12.50%</td>
</tr>
<tr>
<td>Social Studies</td>
<td>0.00%</td>
</tr>
<tr>
<td>Math</td>
<td>12.50%</td>
</tr>
<tr>
<td>English</td>
<td>12.50%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100.00%</strong></td>
</tr>
</tbody>
</table>

Data Analysis by Survey Questions

The second phase of the survey investigated research questions that focus on following six domains: (1) classroom environment, (2) instruction, (3) technology integration, (4) use of technology with data, (5) overall evaluation of Alternative Certified teacher, (6) overall evaluation of Alternative Certified teacher effectiveness on student achievement.

Domain 1 asked the following questions relating to the alternative certified teacher’s preparation program to address the classroom management.

Research Question 1

To what extent did the educator preparation program prepare the alternative certified teacher to communicate clear expectations for achievement and behavior that promote, encourage self-discipline and self-directed learning?
Research Question 1 sought to determine if the alternative certified preparation program prepared the teacher to effectively communicate clear expectations for achievement and behavior that promote and encourage self-discipline and self-directed learning. It was determined that 50% stated that the alternative certified teacher was well prepared and the remaining 50% reported they was sufficiently prepared (see Figure 1). However, participant 1 failed to answer question 1. Answering this question would have changed the response rates numbers entirely.

![Communicate clear expectations for achievement, encourage self discipline & self direct learning](image)

*Figure 1: Communicating clear expectations*

Research Question 2

To what extent did the educator preparation program prepare the Alternative Certified teacher to provide support to achieve a positive and engaging learning environment?

Research Question 2 sought to determine if the alternative certified preparation program prepared the teacher to provide support to achieve a positive and engaging learning environment. It was determined by the administrator’s responses that 50% agreed both on the alternative certified teacher being well prepared and sufficiently prepared in comparison to traditional teacher certification.
Domain 2 asked the following question relating to the alternative certified teacher’s preparation program to address the instruction.

**Research Question 3**

To what extent did the educator preparation program prepare the Alternative Certified teacher to implement diverse instruction that incorporate critical thinking and problem solving?

Research Question 3 sought to determine if the alternative certified preparation program prepared the teacher to effectively implement diverse instruction that incorporate critical thinking and problem solving. It was determined a significance difference from the administrator’s responses. The response showed 62.50% agreed that the alternative certified teacher was sufficiently prepared from the alternative certified preparation program. The remaining results displayed 37.50% agreed they was well prepared (see Figure 2 and Figure 3).

![Implement diverse instruction that incorporate critical thinking](image)

**Figure 2: Implementing diverse instruction**
To what extent did the educator preparation program prepare the Alternative Certified teacher to integrate effective modeling, questioning, and self-reflection assessment strategies into instruction?

Research Question 4 sought to determine if the alternative certified teacher integrated effective modeling, questioning, and self-reflection assessment strategies into instruction. It was determined 71.73% agreed the teacher was sufficiently prepared and 28.57% agreed the teacher was well prepared. However, one participant chose to skip this question because the administrator did not get an opportunity to observe the teacher during this part of the observation (see Figure 4).

Table 6  
Questionnaire: Integrating effective modeling

<table>
<thead>
<tr>
<th>Question 4</th>
<th>Well Prepared</th>
<th>Sufficiently Prepared</th>
<th>Not Sufficiently Prepared</th>
<th>Not at All Prepared</th>
</tr>
</thead>
<tbody>
<tr>
<td>To what extent did the educator preparation program prepare the Alternative Certified teacher to integrate effective modeling, questioning, and self-reflection assessment strategies into instruction?</td>
<td>71.73%</td>
<td>28.57%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Research Question 5

To what extent did the educator preparation program prepare the Alternative Certified teacher to set clear learning goals and align instruction with standards-based content?

Research Question 5 sought to determine if the alternative certified teacher set clear learning goals and align instruction with standards-based content. It was determined 66.67% agreed the alternative certified teacher was sufficiently prepared. The remaining 33.33% agreed the teacher was well prepared. However, participant 1 and 2 skipped this question. Answering this question by both participants would have impacted the response rates tremendously.

Domain 3 asked the following question relating to the alternative certified teacher’s preparation program to address integrate available technology effectively into curricula and instruction.

Research Question 6

To what extent did the educator preparation program prepare the Alternative Certified teacher to provide technology-based classroom learning opportunities that allow students to interact globally to make learning more actively engaging for students?
Research Question 6 sought to determine if the alternative certified teacher provided technology-based classroom learning opportunities that allowed students to interact globally to make learning more actively engaging. It was determined 62.50% of administrator’s agreed the educator preparation program sufficiently prepared the alternative certified teacher. Of the administrators, only 37.50% of agreed the alternative certified teacher was well prepared.

Domain 4 asked the following question relating to the alternative certified teacher’s preparation program to address available technology with date to increase student achievement.

**Research Question 7**

To what extent did the educator preparation program prepare the Alternative Certified teacher to use available technology to collect, manage and analyze student data using software programs (such as Excel or an electronic gradebook)?

Research Question 7 sought to determine if the alternative certified teacher use available technology to collect, manage and analyze student data using software programs (such as Excel or an electronic gradebook). It was determined 62.50% agreed that the alternative certified teacher was well prepared in this area and 32.50% agreed the teacher was sufficiently prepared (see Figure 5).

<table>
<thead>
<tr>
<th>Survey Question 7</th>
<th>Well Prepared</th>
<th>Sufficiently Prepared</th>
<th>Not Sufficiently Prepared</th>
<th>Not at All Prepared</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use available technology to collect, manage and analyze student data using programs such as Excel/Gradebook</td>
<td>5</td>
<td>3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Figure 5: Using technology Excel/Gradebook*
**Research Question 8**

To what extent did the educator preparation program prepare the Alternative Certified teacher to use available technology to collect and manage formative assessment data to guide instruction?

Research Question 8 sought to determine if the alternative certified teacher use available technology to collect and manage formative assessment data to guide instruction. It was determined 50% agreed to the alternative certified teacher was well prepared. Only 37.50% of administrators agreed the teacher was sufficiently prepared and 12.50% agreed the teacher was not sufficiently prepared.

![Pie chart showing percentages of responses to Research Question 8](image)

**Figure 6: Using available technology**

Domain 5 asked the following question relating to your overall evaluation of the alternative certified teacher’s preparation program.

**Research Question 9**

What is your overall evaluation of how well the educator preparation program prepared the Alternative Certified teacher for the realities of the classroom at your school?
Research Question 9 sought to determine the overall evaluation on how well the educator preparation program prepared the Alternative Certified teacher for the realities of the classroom at their school. It was determined 57.14% agreed the teacher was sufficiently prepared. However, one participant skips this question. This question was not answered because it was not evaluated on the alternative certified teacher observation. The remaining 42.86% agreed the alternative certified teacher was well prepared.

Domain 6 asked the following question relating to your overall evaluation of the alternative certified teacher’s effectiveness about influencing student achievement.

**Research Question 10**

How would you rate Alternative Certified teacher’s influence on student achievement?

Research Question 10 sought to determine the ratings of the Alternative Certified teacher’s influence on student achievement. It was determined 4 administrators agreed the alternative certified teacher was exceptional, 3 agreed the teacher was good, and 1 agreed the teacher was average using the four-points Likert scale rating (see Figure 6).

![How would you rate Alternative Certified teacher’s influence on student achievement?](image)

*Figure 7: Overall rating teacher rating on student achievement*
Chapter 5 - Implications

Context and Review of the Problem of practice

This quantitative research study was intended to explore the administrator’s perceptions of the effectiveness of teachers who have gone through alternative pathways for teacher certification in three small school districts in South Carolina. A Likert-type scale survey was created to address the satisfaction of the alternative certified teacher. All questions was reviewed to ensure validity. Questions and score patterns was also analyzed to ensure validity. A descriptive analysis of frequency was conducted for categorical variables that measured the mean for independent variables. The study also helps administrators to determine if alternative certification programs produced great teachers for employment. Findings included results of the demographic survey and questionnaire, which was the administrator’s perceptions of teachers who went through an alternative certification program.

Data from (CERRA, 2018) survey results reported PACE participants agreed or strongly agreed that their PACE training was effective (total survey average 3.23 out of 4.00). Most administrators from the findings of this survey revealed they too was satisfied about the alternative certified teachers. Most of the administrators ranked them as sufficiently prepared. One of the nine administrator strongly believed that alternative certified teachers are not as effective in the classroom as traditional certified teachers. The administrator believes the teacher need to have the education, training, and knowledge from the traditional route to teacher certification. Another administrator stated the alternative certified teacher was well prepared in majority of the domains provided in the survey. The administrator also stated teacher have been effective and remained teaching at the school for many years.
Discussion

South Carolina still faces the challenge of fewer students completing a traditional teacher certification program. The Commission on Higher Education data revealed a decrease in the number of teachers obtaining a license from traditional routes through South Carolina colleges and universities. The amount of South Carolina students graduating with a bachelor’s degree qualified for teacher certification decrease by 30% within four years (CERRA, 2018). Many states have established alternative routes to certification programs combined with the traditional teacher certification program. It is projected that at least 20% of new hires entering the teaching profession will do it through an alternative certification route (Woods, 2016).

South Carolina public school districts continue to have teacher shortages yearly. Compared to 2016-17, districts reported a rise in the amount of teaching positions available, teachers employed, vacancies, and teacher departures (CERRA, 2018). It would be helpful to find out why there is a high number of candidates applying to other school districts in South Carolina and what could be changed to retain them. It would also be helpful to study the characteristics and demographics of the alternative certified teachers including race, gender, age, the total amount of teachers that are both alternative and traditionally certified for each district.

Alternative certification in general is an excellent route to be a part of particularly in the Career and Technical Education (CTE) field. Many teachers who obtain an alternative route to teacher certification in CTE are career switchers. Opponents of Career and Technical Education believe that alternative certified teachers are not highly qualified as traditional certified teachers. CTE has been considered separate from traditional academic learning. There has been a constant scrutiny on the value and purpose of CTE from varying philosophic perspectives. John Dewey (1916) stressed that traditional teaching needed to compose of students’ actual experiences and
active learning. He also argued that teaching practical skills separate from basic skills, like reading, made it problematic for individuals to gain proficiency in both. I strongly think alternative certified CTE teachers are highly qualified compared traditionally certified teachers. Most alternative routes programs requires an applicant to take general and educational courses because they have met the requirements for the technical courses.

I was certified to teach in North Carolina, South Carolina, Maryland and Virginia public schools. South Carolina and North Carolina alternative certification requirements was discussed earlier in the research. There are many alternative routes to teacher certification programs in Maryland. According to the Maryland State Department of Education (2019), a candidate obtain a certification while teaching through the Maryland Approved Alternative Preparation Program (MAAPP). MAAP provides pathways for career changers or a recent graduate. The requirements are:

1. Maryland Approved Programs from a college or university
2. Maryland Approved Alternative Preparation Programs
3. Official Transcript(s)
4. Out-of-state preparation programs
5. Out-of-state or out-of-country experienced professional

The state of Virginia offers program providers for alternative certification routes. However, there is an initial certification process that must be met (VDOE, 2019):

1. Application to one of the program providers
2. Obtained bachelor’s degree
3. Pass a Professional Teacher’s Assessment approved by the board
4. Complete requirements for endorsement experience or content area
5. Minimum five years full-time work experience

All of the alternative certification routes required you to complete the basic requirements which included completing the application, provide official transcripts, have a bachelor’s degree or above in the content area of course you are interested in teaching, minimum 2.5 GPA or higher, and complete a background check. Outside of the basic requirements, North Carolina also require a candidate to complete educational courses to prepare me for the classroom and pass the Praxis II subject area test within three years. South Carolina required same basic requirements, it was also required to show proof of full-time work experience such as student teaching, take PACE approved courses, and pass both the Praxis II subject area test and the Principles of Learning and Teaching (PLT) test within one year. The South Carolina certification felt overwhelming especially for someone who was a career switcher trying to work full time and meet PACE standards all within one year. The state Maryland require the same as the basic requirements, however if you had years of teaching experience teaching at a university, those years of experience and credits was not honored. In the state of Virginia, alternative certification program also required the basic standards and the years of experience and credits was honored. However, it is required for the alternative certified teacher to obtain an industry certification in a specific area.

I believe CTE teachers are highly qualified because they have the pedagogy and they are able to apply the hands-on experiences and knowledge for students to be successful once they leave high school. The curriculum provides a pathway for theoretical knowledge and skills to be used in the workforce to inspire students to persevere in academic courses that prepares them for college. CTE programs is designed to help students align educational and occupational goals with broad initiatives such as career pathways, work-based learning, and school-to-work, and
pre-engineering programs. The five career pathways taught in CTE are Agriculture Education, Business/Marketing and Education, Family/Consumer Science, Health Sciences, and Technology/Engineering Education. There are researches that examined alternative teacher certification routes. Few researches have been conducted that compares the two pathways to certification. Analyzing the results, it appears the alternative certified teacher performs well within the three school districts surveyed. Majority of alternative certified teachers are career changers; this allow the individual to incorporate real-life work experience within the classroom.

**Recommendations**

The analysis of this report was to examine the effectiveness of alternative pathways teachers based on the administrator’s perceptions of the alternative certified teacher’s preparation program and overall evaluation of the alternative certified teacher’s effectiveness influencing student achievement. The Alternative Routes to teacher certification process should implement a nationwide process to obtain a teacher license, instead of each district having different requirements from other districts to become a certified teacher. The same general requirements should be met for all states across the United States.

When providing a nationwide requirement regardless of the state, I believe it will help decrease the high rates of teacher shortages in America. Alternative certified teachers should continue to successfully prepare to educate children by completing an effective teacher preparation and mentoring program. It is important that for administrators and the alternative certified teacher allow certification instructors to remain connected to practitioners with knowledge of current classroom trends and practices.

Alternative pathways to teacher certification must continue to offer vigorous preparation programs. This will guarantee the production of highly qualified teachers to fill vacant positions
and become effective teachers to help end the teacher shortage gap. Further research should also include how alternative certified teachers are supported once the individual filled a position. Collaborations between the district, administrators, and colleagues can assist with the individual continuous career growth. Majority of the responses clearly revealed that the alternative certified teacher was well or either sufficiently prepared from obtaining a teacher certification through an alternative pathway. Future researchers may consider a long-term study measuring the sense of teacher effectiveness, and student achievement.

**Limitations**

The electronic survey through Survey Monkey provided anonymity for participants; the anonymity eliminated opportunities for subsequent communication with individual participants. The return rate of responses was rather smaller than anticipated. There was a total of 12 schools, and 20 administrators within the three districts. Only 8 participants responded after multiple attempts. A question remains as to why some administrators failed to complete both survey instruments after it was approved by the superintendent. Question 5 from the questionnaire survey, two participants failed to answer this question. I believe the alternative certified teacher set some clear learning goals and aligned instruction with standards-based content, but the administrator did not want to rate or agree that the teacher was not sufficiently or not at all prepared. I still have questions as to why the other participant did not respond to this survey question.

**Conclusion**

In summary, the amount of alternative teacher certification programs and teaching applicants continues to rise with alternative credentials. Effective teachers have always known that what they do as a teacher makes a difference in what their students do as learners. The amount of
quantitative studies is minimal when looking at alternative teacher certification. Future research will need to include detailed description of several alternative route program structures and content before conclusions can be drawn about characteristics that make for quality alternative pathways programs. Research that compares the characteristics and performance of the alternatively prepared teachers over time will help clarify the comprehensive issues around the effectiveness of alternative programs. It is the researcher’s desire that other school districts will find this information helpful as they employ more alternative certified teachers in South Carolina.
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### Table 1
*Demographic: Position*

<table>
<thead>
<tr>
<th>Title</th>
<th>Percentages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Principal</td>
<td>88.89%</td>
</tr>
<tr>
<td>Assistant Principal</td>
<td>11.11%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100.00%</strong></td>
</tr>
</tbody>
</table>

### Table 2
*Demographic: Number of Years as a Principal or Assistant Principal*

<table>
<thead>
<tr>
<th>Years as an Administrator</th>
<th>Percentages</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-5 years</td>
<td>0.00%</td>
</tr>
<tr>
<td>5-10 years</td>
<td>55.56%</td>
</tr>
<tr>
<td>10-15 years</td>
<td>11.11%</td>
</tr>
<tr>
<td>15 or more years</td>
<td>33.33%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100.00%</strong></td>
</tr>
</tbody>
</table>
Table 2B
*CERRA 2019: Preparation program or source of the new hires reported*

<table>
<thead>
<tr>
<th>Table 2B</th>
<th>Preparation Program or Source</th>
<th>Number of FTEs Filled by Newly HIred, Certified Teachers</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Preparation Program (new to profession)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teacher education program graduate – In state</td>
<td></td>
<td>1,832.66</td>
</tr>
<tr>
<td>Teacher education program graduate – Out of state</td>
<td></td>
<td>570.50</td>
</tr>
<tr>
<td>Teacher education program graduation - Online</td>
<td></td>
<td>83.00</td>
</tr>
<tr>
<td>PACE</td>
<td></td>
<td>408.40</td>
</tr>
<tr>
<td>CATE Program</td>
<td></td>
<td>111.00</td>
</tr>
<tr>
<td>American Board</td>
<td></td>
<td>24.00</td>
</tr>
<tr>
<td>Teachers of Tomorrow</td>
<td></td>
<td>24.00</td>
</tr>
<tr>
<td>District-based Alternative Certification Program (i.e., GATE or TeachCharleston)</td>
<td></td>
<td>23.00</td>
</tr>
<tr>
<td>Teach For America</td>
<td></td>
<td>53.00</td>
</tr>
<tr>
<td>Adjunct Teaching Certificate</td>
<td></td>
<td>0.00</td>
</tr>
<tr>
<td>Montessori Initial Certification</td>
<td></td>
<td>4.00</td>
</tr>
<tr>
<td><strong>Source (new to district, not new to profession)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teacher who returned to teaching after a gap in service of more than one year and/or is serving as a substitute</td>
<td></td>
<td>353.55</td>
</tr>
<tr>
<td>Teacher coming directly from another SC public school district, charter school, or special school</td>
<td></td>
<td>2,318.65</td>
</tr>
<tr>
<td>Teacher from a SC college/university or private school</td>
<td></td>
<td>145.80</td>
</tr>
<tr>
<td>Teacher from another state</td>
<td></td>
<td>1,197.52</td>
</tr>
<tr>
<td>Teacher from another country</td>
<td></td>
<td>394.00</td>
</tr>
<tr>
<td>Private contractual service</td>
<td></td>
<td>46.50</td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td>10.00</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td><strong>7,599.58</strong></td>
</tr>
</tbody>
</table>

Table 3
*Demographic: Percentages of Teachers Alternatively Certified*

<table>
<thead>
<tr>
<th>Intervals</th>
<th>Percentages</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-39%</td>
<td>66.67%</td>
</tr>
<tr>
<td>40-59%</td>
<td>33.33%</td>
</tr>
<tr>
<td>60-79%</td>
<td>0.00%</td>
</tr>
<tr>
<td>80% or more</td>
<td>0.00%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100.00%</strong></td>
</tr>
</tbody>
</table>
Table 4  
**Demographic: What are the Majority of Teachers Alternatively Certified**

<table>
<thead>
<tr>
<th>Gender</th>
<th>Percentages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equally Male &amp; Female</td>
<td>33.33%</td>
</tr>
<tr>
<td>Female</td>
<td>44.44%</td>
</tr>
<tr>
<td>Male</td>
<td>22.22%</td>
</tr>
</tbody>
</table>

Table 5  
**Demographic: Content Area of Alternative Certified Teacher Observed**

<table>
<thead>
<tr>
<th>Content Area</th>
<th>Percentages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Career and Technology Education (CTE)</td>
<td>62.50%</td>
</tr>
<tr>
<td>Science</td>
<td>12.50%</td>
</tr>
<tr>
<td>Social Studies</td>
<td>0.00%</td>
</tr>
<tr>
<td>Math</td>
<td>12.50%</td>
</tr>
<tr>
<td>English</td>
<td>12.50%</td>
</tr>
<tr>
<td>Total</td>
<td>100.00%</td>
</tr>
</tbody>
</table>
Table 5B
CERRA 2019: Teachers with Alternative Certification Who Did Not Return 2017-2018

<table>
<thead>
<tr>
<th>Reason for Leaving</th>
<th>Number of FTEs Held by Teachers with Alternative Certification Who Did Not Return in 2017-2018</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total years of teaching experience</td>
</tr>
<tr>
<td></td>
<td>≤1</td>
</tr>
<tr>
<td>Retirement (includes first-time retirees, TERI period ended, and retirees not rehired)</td>
<td>0.0</td>
</tr>
<tr>
<td>Changed profession</td>
<td>7.0</td>
</tr>
<tr>
<td>Teaching position in another SC public school district, charter school, or special school</td>
<td>21.0</td>
</tr>
<tr>
<td>Teaching position in a college/university or private school in SC</td>
<td>0.0</td>
</tr>
<tr>
<td>Teaching position in another state/country</td>
<td>3.0</td>
</tr>
<tr>
<td>Non-teaching position in the same district</td>
<td>0.0</td>
</tr>
<tr>
<td>Non-teaching position in another SC school district or SC education entity</td>
<td>2.0</td>
</tr>
<tr>
<td>Non-teaching position in another state/country</td>
<td>0.0</td>
</tr>
<tr>
<td>Reduction in force (RIF)/Program or grant conclusion</td>
<td>0.0</td>
</tr>
<tr>
<td>Did not qualify for state certification</td>
<td>2.0</td>
</tr>
<tr>
<td>Termination or contract/letter of agreement non-renewal</td>
<td>17.0</td>
</tr>
<tr>
<td>International teacher returned to country of origin</td>
<td>0.0</td>
</tr>
<tr>
<td>Returned to school to obtain advanced degree</td>
<td>1.0</td>
</tr>
<tr>
<td>Moved out of area (includes spouse relocation, military assignment, etc.)</td>
<td>4.0</td>
</tr>
<tr>
<td>Death/disability/illness (includes self, caring for sick child, caring for sick or aging parent, etc.)</td>
<td>2.0</td>
</tr>
<tr>
<td>Personal choice (includes staying home with children, resignation, no reason given, etc.)</td>
<td>22.0</td>
</tr>
<tr>
<td>Other</td>
<td>0.0</td>
</tr>
<tr>
<td>TOTAL</td>
<td>81.0</td>
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</table>

Table 6
Questionnaire: Integrating effective modeling

<table>
<thead>
<tr>
<th>Question 4</th>
<th>Well Prepared</th>
<th>Sufficiently Prepared</th>
<th>Not Sufficiently Prepared</th>
<th>Not at All Prepared</th>
</tr>
</thead>
<tbody>
<tr>
<td>To what extent did the educator preparation program prepare the Alternative Certified teacher to integrate effective modeling, questioning, and self-reflection assessment strategies into instruction?</td>
<td>71.73%</td>
<td>28.57%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 7
**Questionnaire: Survey Questions with Mean Score**

<table>
<thead>
<tr>
<th>Participant #</th>
<th>Question 1 Communicate clear expectations for achievement, encourage</th>
<th>Question 2 Provide support to achieve a positive and engaging learning</th>
<th>Question 3 Implement diverse instruction that incorporate critical thinking</th>
<th>Question 4 Integrate effective modeling, questioning, and self-reflection</th>
<th>Question 5 Set clear learning goals and align instruction with standards-based</th>
<th>Question 6 Provide technology-based classroom learning opportunities that</th>
<th>Question 7 Use available technology to collect, manage and analyze student data</th>
<th>Question 8 Use available technology to collect and manage formative assessment</th>
<th>Question 9 How well did the educator preparation program prepare the Alternative Certified teacher?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>2</td>
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<td>2</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Mean Score</td>
<td>1.428571429</td>
<td>1.625</td>
<td>1.5</td>
<td>1.857142857</td>
<td>1.666666667</td>
<td>1.625</td>
<td>1.375</td>
<td>1.5</td>
<td>1.714285714</td>
</tr>
</tbody>
</table>

Table 8
**Questionnaire: Individual Participants Survey Response**

<table>
<thead>
<tr>
<th>Survey</th>
<th>Participant 1</th>
<th>Participant 2</th>
<th>Participant 3</th>
<th>Participant 4</th>
<th>Participant 5</th>
<th>Participant 6</th>
<th>Participant 7</th>
<th>Participant 8</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Communicate clear expectations for achievement, encourage self discipline &amp; self direct learning</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>2) To what extent did the educator preparation program prepare the Alternative Certified teacher to provide support to achieve a positive and engaging learning environment?</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>3) To what extent did the educator preparation program prepare the Alternative Certified teacher to implement diverse instruction that incorporate critical thinking and problem solving?</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>4) To what extent did the educator preparation program prepare the Alternative Certified teacher to integrate effective modeling, questioning, and self-reflection assessment strategies into instruction?</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>5) To what extent did the educator preparation program prepare the Alternative Certified teacher to set clear learning goals and align instruction with standards-based content?</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>6) To what extent did the educator preparation program prepare the Alternative Certified teacher to provide technology-based classroom learning opportunities that allow students to interact and engage globally?</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>7) To what extent did the educator preparation program prepare the Alternative Certified teacher to use available technology to collect, manage and analyze student data using programs (Excel/Electronic grade-book)?</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>8) To what extent did the educator preparation program prepare the Alternative Certified teacher to use available technology to collect and manage formative assessment data to guide instruction?</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>9) What is your overall evaluation of how well the educator preparation program prepared the Alternative Certified teacher for the realities of the classroom at your school?</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>
Table 9  
*Questionnaire: Four-Point Likert Scale Categories with Mean Score*

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Communicate clear expectations for achievement, encourage</td>
<td>4</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2) Provide support to achieve a positive and engaging learning</td>
<td>4</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3) Implement diverse instruction that incorporate critical thinking</td>
<td>3</td>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4) Integrate effective modeling, questioning, and self-reflection</td>
<td>2</td>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5) Set clear learning goals and align instruction with standards-based</td>
<td>2</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6) Provide technology-based classroom learning opportunities that</td>
<td>3</td>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7) Use available technology to collect, manage and analyze student</td>
<td>5</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8) Use available technology to collect and manage formative assessment</td>
<td>4</td>
<td>3</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>9) How well the educator preparation program prepared the Alternative</td>
<td>3</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>3.375</td>
<td>4.125</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>
Table 10  
*Questionnaire: Teacher Rating*

<table>
<thead>
<tr>
<th>Last Survey Question</th>
<th>The Teacher is Exceptional</th>
<th>The Teacher is Good</th>
<th>The Teacher is Average</th>
<th>The Teacher is Below Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>10) How would you rate Alternative Certified teacher's influence on student achievement?</td>
<td>4</td>
<td>3</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

**Figure 1**  
*Questionnaire 1*
Figure 2
Questionnaire 3

Implement diverse instruction that incorporate critical thinking

- Well Prepared
- Sufficiently Prepared
- Not Sufficiently Prepared
- Not at all Prepared

Figure 3
Questionnaire 3

Implement diverse instruction that incorporate critical thinking

Not at all Prepared
Not Sufficiently Prepared
Sufficiently Prepared
Well Prepared
Use available technology to collect, manage and analyze student data using programs such as Excel/Gradebook

<table>
<thead>
<tr>
<th>Survey Question 7</th>
<th>Well Prepared</th>
<th>Sufficiently Prepared</th>
<th>Not Sufficiently Prepared</th>
<th>Not at All Prepared</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use available technology to collect, manage and analyze student data using programs such as Excel/Gradebook</td>
<td>5</td>
<td>3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Figure 6

**Questionnaire 8**

**To what extent did the educator preparation program prepare the Alternative Certified teacher to use available technology to collect and manage formative assessment data to guide instruction?**

- Well Prepared: 50%
- Sufficiently Prepared: 12.50%
- Not Sufficiently Prepared: 37.50%
- Not at all Prepared: 0%

---

**Figure 6

Questionnaire 10**

**How would you rate Alternative Certified teacher's influence on student achievement?**

- The Teacher is below average
- The Teacher is average
- The Teacher is good
- The Teacher is exceptional

<table>
<thead>
<tr>
<th>Scale</th>
<th>0</th>
<th>0.5</th>
<th>1</th>
<th>1.5</th>
<th>2</th>
<th>2.5</th>
<th>3</th>
<th>3.5</th>
<th>4</th>
<th>4.5</th>
</tr>
</thead>
</table>
Figure 7
Four Point Likert Scale Categories Comparison Chart

![Four Point Likert Scale Categories Chart](image)

Figure 8
Four Point Likert Scale Categories Chart

![Survey Questions](image)
APPENDIX B

Letter to Superintendent Requesting Permission

Doctoral Project Proposal Survey

“The Effectiveness of Alternative Routes to Teacher Certification”
Researcher: Tiffany Spann Casey, Ed.D. Candidate
Northeastern University

August 7, 2018

Dear Superintendent,

I am currently a candidate for the Doctor of Education program at Northeastern University in Boston, Massachusetts. The purpose of this letter is to request permission for employees within your district to participate in my research completing a short survey. Participation is voluntarily, and all data will be kept confidential in a secure protected file on the researcher’s computer if the employees chose to participate. The administrators will rate the perceptions of teachers who are alternatively certified.

The topic for my research is “The Effectiveness of Alternative Routes to Teacher Certification”. The purpose of this study is to understand and explore the perceptions of administrators regarding the effectiveness of teachers who are alternative certified. The data gathered will be used to refine and answer research questions posed in the research project of my dissertation.

Questions have been derived from review of literatures on the principles of andragogy, a learner centered approach defined by Malcolm Knowles which states the following: adults need to know why they are to learn, adults are self-directed to learn, adults have a large quantity and quality of experience that can relate to learning, adults are life tasked and problem centered, and, while adults respond to external motivation the stronger motivators are intrinsic.

Thank you in advance for your consideration for permission of this study to help finalize the research portion of my dissertation. If you have any questions, please feel free to contact me at or spann.t@husky.neu.edu.

Sincerely,

Tiffany Spann Casey
Researcher
APPENDIX C

Letter to Participants

Doctoral Project Proposal Survey
“The Effectiveness of Alternative Routes to Teacher Certification”
Researcher: Tiffany Spann Casey, Ed.D. Candidate
Northeastern University

August 7, 2018

Dear Administrators,

I am currently a candidate for the Doctor of Education program at Northeastern University in Boston, Massachusetts. The purpose of this letter is to request permission for you to participate in my research completing a short survey. Participation is voluntarily, and all data will be kept confidential in a secure protected file on the researcher’s computer if the participant chose to participate. The administrators will rate the perceptions of teachers who are alternatively certified.

The topic for my research is “The Effectiveness of Alternative Routes to Teacher Certification”. The purpose of this study is to understand and explore the perceptions of administrators regarding the effectiveness of teachers who are alternative certified. The data gathered will be used to refine and answer research questions posed in the research project of my dissertation.

Questions have been derived from review of literatures on the principles of andragogy, a learner centered approach defined by Malcolm Knowles which states the following: adults need to know why they are to learn, adults are self-directed to learn, adults have a large quantity and quality of experience that can relate to learning, adults are life tasked and problem centered, and, while adults respond to external motivation the stronger motivators are intrinsic.

I would greatly appreciate your willingness to participate in this study to help finalize the research portion of my dissertation. Thank you in advance for your time and participation. If you have any questions, please feel free to contact me at spann.t@husky.neu.edu.

The survey takes approximately (2 mins) to complete. Please click on the URL link below to answer the brief survey: https://www.surveymonkey.com/r/37S6PBX and a demographic survey https://www.surveymonkey.com/r/VSSXMFJ

Sincerely,

Tiffany Spann Casey
Researcher
APPENDIX D

Demographic Survey Letter to Participants

Doctoral Project Proposal Demographic Survey

“The Effectiveness of Alternative Routes to Teacher Certification”
Researcher: Tiffany Spann Casey, Ed.D. Candidate
Northeastern University

Position: ________________________________

District: ________________________________

The purpose of this study is to understand and explore the perceptions of administrators regarding the effectiveness of teachers who are alternative certified. The data gathered will be used to refine and answer research questions posed in the research project. These questions have been derived from review of literatures on the principles of andragogy, a learner centered approach defined by Malcolm Knowles which states the following: adults need to know why they are to learn, adults are self-directed to learn, adults have a large quantity and quality of experience that can relate to learning, adults are life tasked and problem centered, and, while adults respond to external motivation the stronger motivators are intrinsic.

(Note: All responses will be confidential, and no responses will be associated with either person or organization).

1) Gender

□ Male
□ Female

2) Ethnicity

□ American Indian/Alaska Native
□ Asian/Pacific Islander
□ Black/African American
□ Hispanic
□ White/Caucasian
□ Multiple/Other (please specify)

3) Highest Degree Earned

□ Master
□ Doctorate
□ Other (specify) ________________________________
4) Number of years as a Principal or Assistant Principal

- 0-5
- 5-10
- 10-15
- 15- more

5) What percentage of your teachers at your school is alternative certified?

- 0-39%
- 40-59%
- 60-79%
- 80% or more

6) The majority of your teachers that are alternative certified are:

- Male
- Female
- Equally male and female

7) What department are most of your teachers alternative certified?

- English
- Math
- Social Studies
- Science
- Career & Technology Education

Thank you in advance for your willingness to participate in this study. Please feel free to contact me via email to spann.t@husky.neu.edu if you have any questions.

Please respond to this survey by using the link below.

https://www.surveymonkey.com/r/VSSXMFJ

Sincerely,

Tiffany Spann Casey
Researcher
## APPENDIX E

Survey Research Questions

### Administrator Survey 2018
The Effectiveness of Alternative Routes to Teacher Certification Survey for Alternative Certified Teachers

<table>
<thead>
<tr>
<th>Campus or District:</th>
<th>Math</th>
<th>English</th>
<th>Career &amp; Technical Education</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Department of the Alternative Certified Teacher:</td>
<td>°</td>
<td>°</td>
<td>°</td>
<td>°</td>
</tr>
</tbody>
</table>

**Survey Evaluation Rating:**
When responding to questions 1-9 in this survey, please refer to the following descriptions:

<table>
<thead>
<tr>
<th>Evaluation Rating</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Well Prepared</td>
<td>All or almost all the time, the beginning teacher was able to demonstrate a thorough understanding and had the required knowledge and skills.</td>
</tr>
<tr>
<td>Sufficiently Prepared</td>
<td>Most of the time the beginning teacher was able to demonstrate a general understanding and had the required knowledge and skills.</td>
</tr>
<tr>
<td>Not Sufficiently Prepared</td>
<td>The beginning teacher demonstrated limited understanding and had partial required knowledge and skills.</td>
</tr>
<tr>
<td>Not at All Prepared</td>
<td>The beginning teacher demonstrated little to no understanding and had minimal required knowledge and skills.</td>
</tr>
</tbody>
</table>

The following questions relate to the alternative certified teacher’s preparation program to address the **CLASSROOM ENVIRONMENT**. Your answers should be based primarily on teacher behavior observed by you and/or your staff.

### Section I: Classroom Environment

<table>
<thead>
<tr>
<th>To what extent did the educator preparation program prepare the Alternative Certified teacher to:</th>
<th>Well Prepared</th>
<th>Sufficiently Prepared</th>
<th>Not Sufficiently Prepared</th>
<th>Not at all Prepared</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. communicate clear expectations for achievement and behavior that promote, encourage self-discipline and self-</td>
<td>°</td>
<td>°</td>
<td>°</td>
<td>°</td>
</tr>
</tbody>
</table>
The following questions relate to the alternative certified teacher’s preparation program to address **INSTRUCTION**. Your answers should be based primarily on teacher behavior observed by you and/or your staff.

### Section II: Instruction

<table>
<thead>
<tr>
<th>Rating</th>
<th>Well Prepared</th>
<th>Sufficiently Prepared</th>
<th>Not Sufficiently Prepared</th>
<th>Not at all Prepared</th>
</tr>
</thead>
<tbody>
<tr>
<td>To what extent did the educator preparation program prepare the Alternative Certified teacher to:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. implement diverse instruction that incorporate critical thinking and problem solving?</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>4. integrate effective modeling, questioning, and self-reflection assessment strategies into instruction?</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>5. set clear learning goals and align instruction with standards-based content?</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

The following question relates to the alternative certified teacher’s preparation program to address **INTEGRATE AVAILABLE TECHNOLOGY** effectively into curricula and instruction. Your answers should be based primarily on teacher behavior observed by you and/or your staff.

### Section IV: Technology Integration

<table>
<thead>
<tr>
<th>Rating</th>
<th>Well Prepared</th>
<th>Sufficiently Prepared</th>
<th>Not Sufficiently Prepared</th>
<th>Not at all Prepared</th>
</tr>
</thead>
<tbody>
<tr>
<td>To what extent did the educator preparation program prepare the Alternative Certified teacher to:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. provide technology-based classroom learning opportunities that allow students to interact</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>
globally to make learning more actively engaging for students?

The following questions relate to the alternative certified teacher’s preparation program to address **AVAILABLE TECHNOLOGY with DATA** to increase student achievement. Your answers should be based primarily on teacher behavior observed by you and/or your staff.

### Section V: Use of Technology with Data

<table>
<thead>
<tr>
<th><strong>Ratings</strong></th>
<th>Well Prepared</th>
<th>Sufficiently Prepared</th>
<th>Not Sufficiently Prepared</th>
<th>Not at all Prepared</th>
</tr>
</thead>
<tbody>
<tr>
<td>To what extent did the educator preparation program prepare the Alternative Certified teacher to:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. use available technology to collect, manage and analyze student data using software programs (such as Excel or an electronic gradebook)?</td>
<td>°</td>
<td>°</td>
<td>°</td>
<td>°</td>
</tr>
<tr>
<td>8. use available technology to collect and manage formative assessment data to guide instruction?</td>
<td>°</td>
<td>°</td>
<td>°</td>
<td>°</td>
</tr>
</tbody>
</table>

The following question relates to your **OVERALL EVALUATION** of the alternative certified teacher’s preparation program. Your answers should be based primarily on teacher behavior observed by you and/or your staff.

### Section VI: Overall Evaluation of the Educator Preparation Program

<table>
<thead>
<tr>
<th><strong>Ratings</strong></th>
<th>Well Prepared</th>
<th>Sufficiently Prepared</th>
<th>Not Sufficiently Prepared</th>
<th>Not at all Prepared</th>
</tr>
</thead>
<tbody>
<tr>
<td>What is your overall evaluation of?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. how well the educator preparation program prepared the Alternative Certified teacher for the realities of the classroom at your school?</td>
<td>°</td>
<td>°</td>
<td>°</td>
<td>°</td>
</tr>
</tbody>
</table>

The following question relates to your **OVERALL EVALUATION** of the alternative certified teacher’s effectiveness with regard to influencing student achievement. Your answers should be based primarily on teacher behavior observed by you and/or your staff.
### Section VII: 
Teacher Effectiveness 
and Student Achievement

<table>
<thead>
<tr>
<th>10. How would you rate Alternative Certified teacher’s influence on student achievement? Select your answer from the following 4-point scale.</th>
<th>Ratings</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image-url" alt="Image of table" /></td>
<td><img src="image-url" alt="Image of table" /></td>
</tr>
<tr>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td><img src="image-url" alt="Image of table" /></td>
<td><img src="image-url" alt="Image of table" /></td>
</tr>
<tr>
<td>The teacher is exceptional</td>
<td>The teacher is good</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td><img src="image-url" alt="Image of table" /></td>
<td><img src="image-url" alt="Image of table" /></td>
</tr>
<tr>
<td>The teacher is average</td>
<td>The teacher is below average</td>
</tr>
</tbody>
</table>
APPENDIX F

Online Consent Form

Northeastern University, Department of: College of Professional Studies/ Doctor of Education
Name of Investigator(s): Kristal Moore Clemons, Ph.D., Tiffany Spann Casey
Title of Project: The Effectiveness of Alternative Routes to Teacher Certification

Request to Participate in Research
We would like to invite you to participate in a web-based online survey. The survey is part of a research study whose purpose is to examine how to fill the gap on the effects of Alternative Certification status on curriculum planning, effective teaching and classroom management. This survey should take about 2 minutes to complete.

We are asking you to participate in this study because you are an administrator. You must be at least 18 years old to take this survey.

The decision to participate in this research project is voluntary. You do not have to participate, and you can refuse to answer any question. Even if you begin the web-based online survey, you can stop at any time.

There are no foreseeable risks or discomforts to you for taking part in this study.

There are no direct benefits to you from participating in this study. However, your responses may help us learn more about the administrators’ perception of the effectiveness of Alternative Certified teachers. Also, the researcher will be able to complete the requirements of the College of Professional Studies/ Doctor of Education program at Northeastern University once all requirements for the research study is completed.

You will not be paid for your participation in this study.

Your part in this study is anonymous to the researcher(s). However, because of the nature of web-based surveys, it is possible that respondents could be identified by the IP address or other electronic record associated with the response. Neither the researcher nor anyone involved with this survey will be capturing those data. Any reports or publications based on this research will use only group data and will not identify you or any individual as being affiliated with this project.

If you have any questions regarding electronic privacy, please feel free to contact Mark Nardone, NU’s Director of Information Security via phone at 617-373-7901, or via email at privacy@neu.edu.
If you have any questions about this study, please feel free to contact Tiffany Spann Casey at spann.t@husky.neu.edu, the person mainly responsible for the research. You can also contact Kristal Moore Clemons, Ph.D., the Principal Investigator at k.clemons@neu.edu.

If you have any questions regarding your rights as a research participant, please contact Nan C. Regina, Director, Human Subject Research Protection, Mail Stop: 560-177, 360 Huntington Avenue, Northeastern University, Boston, MA 02115. Tel: 617.373.4588, Email: n.regina@northeastern.edu. You may call anonymously if you wish.

This study has been reviewed and approved by the Northeastern University Institutional Review Board (# xx-xxxx).

By clicking on the “Begin Survey” button below you are indicating that you consent to participate in this study. Please print out a copy of this consent form for your records.

Thank you for your time.
Tiffany Spann Casey
APPENDIX G

Interview Question Protocol

1. To what extent did the educator preparation program prepare the Alternative Certified teacher to communicate clear expectations for achievement and behavior that promote, encourage self-discipline and self-directed learning?

2. To what extent did the educator preparation program prepare the Alternative Certified teacher to provide support to achieve a positive and engaging learning environment?

3. To what extent did the educator preparation program prepare the Alternative Certified teacher to implement diverse instruction that incorporate critical thinking and problem solving?

4. To what extent did the educator preparation program prepare the Alternative Certified teacher to integrate effective modeling, questioning, and self-reflection assessment strategies into instruction?

5. To what extent did the educator preparation program prepare the Alternative Certified teacher to set clear learning goals and align instruction with standards-based content?

6. To what extent did the educator preparation program prepare the Alternative Certified teacher to provide technology-based classroom learning opportunities that allow students to interact globally to make learning more actively engaging for students?

7. To what extent did the educator preparation program prepare the Alternative Certified teacher to use available technology to collect, manage and analyze student data using software programs (such as Excel or an electronic gradebook)?
8. To what extent did the educator preparation program prepare the Alternative Certified teacher to use available technology to collect and manage formative assessment data to guide instruction?

9. What is your overall evaluation of how well the educator preparation program prepared the Alternative Certified teacher for the realities of the classroom at your school?

10. How would you rate Alternative Certified teacher’s influence on student achievement?
APPENDIX H

NIH Certificate

Certificate of Completion

The National Institutes of Health (NIH) Office of Extramural Research certifies that Tiffany Spann Casey successfully completed the NIH Web-based training course "Protecting Human Research Participants."

Date of Completion: 07/27/2018

Certification Number: 2870896