CANDIDATES' PERCEPTION OF TRAINING AND SELF-EFFICACY IN TRADITIONAL AND ALTERNATIVE TEACHER PREPARATION PROGRAMS

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This research was encouraged by the tremendous demand for teachers. Two million new teachers will be needed in the United States over the next decade. The teacher shortage has school administration, school boards, education agencies, and institutions of higher education investigating how to train and retain more teachers. Alternative certification programs have been developed to address the teacher shortage. This study examined the effectiveness of traditionally and alternatively certified teachers in two separate programs with regard to their self-efficacy, perception of their training, and their ExCET scores. Traditional candidates (10) and alternative candidates (74) were examined using survey research. According to this data on self-efficacy, perception of training, and ExCET passing rates, there is no significant difference between those teachers who receive traditional training and those who are trained in alternative certification programs.
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CHAPTER 1
INTRODUCTION

Two million new teachers will be needed in the United States over the next decade (Chaika, 2000; Guignon, 1998). For many states, a teacher shortage represents a crisis in both public and private school education. ABC News (Wang & Simpson, 1999) reported that Texas began the 1999 school year with more than 10,000 full-time teaching positions unfilled. For 2001, the Texas Education Agency expected a shortage of approximately 40,000 in its districts’ schools (Taylor, 2001). Similarly, reports on the shortage in California suggest that 250,000 new teachers will be needed in the next ten years to comply with a class size reduction mandate (McKibbin, 1999). The twenty thousand new teachers hired in 1998 represented a 400% increase over the previous year (McKibbin, 1999). Four thousand ninety teachers graduated from public or private colleges in Georgia in 2000. However, the Georgia public school systems needed to hire 10,200 teachers that same year (Donsky, 2001). These examples indicate the pervasiveness of the teacher shortage throughout the United States schools.

In many states there has been a critical need (Feistritzer, 1994; McKibbin & Ray, 1994; Neumann, 1994; Roth, 1986; Sandlin, Young, & Karge, 1992; Shen, 1998) for educators in specialty areas such as special education (Buck, Polloway, & Robb, 1995; Conderman, Stephens, & Hazelkorn, 1999; Dill, 1994; Weichel; 1999), math (Hawk & Schmidt, 1989), bilingual education (Dill, 1994), and science (Hawk & Schmidt, 1989). The statistics regarding the teacher shortage are even higher in inner city and rural areas (Chaika, 2000; Akin, 1988). In 1988, Akin reported the most critical shortage is among
teachers of students with emotional and behavioral disorders (EBD). The average retention for teachers of students with EBD is six to seven years at the elementary level and five to six years at the secondary level.

In 1980, the National Center for Educational Statistics predicted the teacher shortage that is now evident. The Center’s predictions were based on four assumptions: “(1) Elementary, and then secondary school enrollments would increase; (2) Attrition rates for teachers would rise; (3) No more people would study to be teachers than did in the early 1980’s; and (4) A substantial number of teachers would soon reach retirement age” (p.1). Others also predicted the current shortage. For example, the 1986 report, *A Nation Prepared: Teachers for the 21st Century* reported that within seven years of entering the profession, nearly half of all teachers would leave their teaching positions (Wisniewski & Gargiulo, 1997).

Numerous factors have contributed to the teacher shortage. One is the growing number of immigrants and an increase in the children of “baby boomers” have caused an increase in the enrollment in public and private schools (Chaika, 2000). In addition, the “baby boomers” who teach will soon be reaching retirement age; so there will again be less teachers (Donsky, 2001). Immigration in states like Texas, Florida, and California has also magnified the need for English as a Second Language and bilingual teachers (Chaika, 2000 & US Census, 2000). Importantly, states along the United States southern border will need more teachers who speak Spanish and school districts are struggling to find these individuals.
Another significant factor impacting the teacher shortage is that while schools are experiencing increased enrollment, there is an emerging trend toward smaller classes (Toch, Streisand, & Butler, 1997). As a result, California recently created 17,000 new classrooms because of the classroom reduction initiative, which allows no more than 22 students per classroom. The mandates are a result of research studies showing higher rates of success among students in classrooms with less than 22 students (Toch et al., 1997). In Tennessee, students in smaller classes outperformed those in larger classes on state tests. Additionally, students in the smaller class environment exhibited improved school behavior. Such findings have motivated states to reduce the class size and create more classrooms, therefore creating a need to hire more teachers.

Another factor contributing to the teacher shortage is dissatisfaction with the profession of teaching (Billingsley & Cross, 1991; Chaika, 2000; George & George, 1995; Steffensen, 1994; Toch et al., 1997. Teachers may become dissatisfied because they feel overworked and frustrated (George & George, 1995; Johnson, 2001). The responsibility of public schools to produce students who have received a quality education and are prepared to enter the workforce or pursue a secondary degree rests on the shoulders of teachers (Steffensen, 1994). In preparing to draw prospective teachers into the field of education, pressured teachers face the extra difficulty of making their own jobs appear attractive to their students. There are elevated expectations and a lack of teachers to meet the growing demands.

Some teachers have also become frustrated with a lack of administrative support. George and George (1995) found that lack of adequate support was often cited as a
reason for leaving the field of special education. In addition, they noted this
dissatisfaction could often be attributed to the isolation special educators feel in their
specific programs. These teachers may be the only people in their schools trained to work
with students receiving special education services; therefore, they do not have colleagues
with whom to share ideas and develop solutions.

In January of 2001, Johnson discussed the need to attract new people to the field
of education as an uphill battle because of “dissatisfaction in the workplace.” The
research stated that 20% of new teachers will retire from teaching during the first four
years of their career. Billingsley and Cross (1991) discovered “burnout” was the reason
for classroom departure for 40% of those sampled. In many cases “burnout” results from
poorly trained teachers unable to successfully manage a classroom, lack of administrative
support, or a lack of desire to teach. Johnson (2001) also encountered teachers who find
limited support for ambitious goals and leadership opportunities because of the lack of
individual recognition outside of the classroom.

The teacher shortage has school administration, school boards, education
agencies, and institutions of higher education investigating how to train and retain more
teachers. School districts as well as state education agencies increase recruiting efforts,
offer incentives, and provide professional training (Feistritzer, 1994). Many districts offer
signing bonuses and scholarships for graduate education as incentives. In addition, states
and individual metropolitan districts are developing training programs to alternatively
certify educators.
The United States Department of Education defines alternative certification as:

“Teacher preparation programs that enroll non-certified individuals with at least a bachelor’s degree, offering shortcuts, special assistance, or unique curricula leading to eligibility for a standard teaching credential” (Guyton, Fox, & Sisk, 1991, p. 1). The American Association of Colleges for Teacher Education defines alternative certification as “any significant departure from the traditional undergraduate route through teacher education programs in colleges and universities” (Grable & Odgen, 1994, p. 470).

President George H. Bush’s America 2000 allowed for alternative certification to begin addressing the shortage in the 1980s. Soon after, President Clinton addressed the crisis by increasing funding to hire and train more teachers. More recently, the Business Wire (1999) reported that one of the five critical education issues for the 1999 United States legislature was creating a market to hire and retain quality educators. This type of governmental support has allowed these alternative certification programs to prosper.

Alternative certification programs produce additional teachers for areas of severe shortage such as special education, bilingual education, English as a second language, math, and science (Dill, 1994; Hawk & Schmidt, 1989; Sindelar & Marks, 1993; Shen, 1998). Alternative certification programs enroll individuals who hold a baccalaureate degree in areas other than education and have an interest in teaching. These preservice teachers attend training workshops, often held during the summer to learn strategies and classroom management skills. At the conclusion of the summer program, they are eligible to be hired as classroom teachers. In Texas, the intensified training programs require candidates to be supervised by master teachers during their first year of teaching as they
demonstrate competencies required by the Texas State Board of Education (Miller, McKenna, & McKenna, 1998) and the Texas Education Agency.

As well as increasing the pool of certified teachers, alternative certification programs have been identified as a means of diversifying the teaching force. For example, alternative certification programs often recruit and attract males, minorities, and people with broader life experiences (Buck et al., 1995; Dill, 1994; McKibbin & Ray, 1994; Shen, 1998). Many of the candidates have worked professionally in the field in which they would like to teach. Practical experience allows these candidates to help students realize why they are learning what they are learning, and how they might utilize skills after they graduate from high school (McKibbin & Ray, 1994). For example: a math teacher who is an experienced accountant can share how and why the lesson is important in the “real world.” She can apply the algebraic equations to a problem an accountant may face in the workplace. Nurses could teach science or health using former work experiences to teach the objectives. Teachers with applicable life experiences can share the practical side of their knowledge.

If alternative certification is to be used to prepare teachers, the quality of their teaching and the longevity of their careers must be examined. Adams (1996) found that alternatively certified teachers are more likely to retain their teaching position in the same district than those who participated in a traditional university program. Therefore, school administrators can feel confident about hiring alternatively certified educators and in investing the time of a master teacher to mentor them during their first year in the classroom (Adams, 1996).
Research suggests that alternative programs are successful because of their focus on strong mentor programs (Dill, 1994; Hawk & Schmidt, 1989; McKibbin & Ray, 1994). Typically, alternative certification participants are required to utilize a mentor teacher throughout their first year of teaching. Many alternative certification programs provide joint inservice activities to develop these mentor relationships. In essence, a mentor is crucial to success during the first year of teaching regardless of the certification program.

The effectiveness of alternatively certified teachers as compared to teachers who obtain a teaching certificate through a traditional program should be researched. Hawk and Schmidt (1989) reported that “those with undergraduate disciplinary majors do not demonstrate greater content knowledge on the National Teacher Exams than education majors who pursue similar fields for certification” (p.53). Conversely, in a cautionary stance, Darling-Hammond (1992) summarized several recent studies of traditional certification versus alternative certification and concluded:

Studies of teachers admitted through quick-entry alternate routes frequently note that the candidates have difficulty with curriculum development, pedagogical content knowledge, attending to students’ different learning styles and levels, classroom management and student motivation (p. 131).

Others have written that the effectiveness of educators is difficult to measure and compare. Therefore, the question still remains whether traditionally or alternatively certified teachers are more effective in the classroom (Miller et al., 1998).
To be effective, teachers must believe they can facilitate student learning. This belief is an abstract, yet powerful, concept known as self-efficacy and can affect student achievement. Training quality teachers who believe in themselves can further translate into creating a sense of self-esteem and comfort in their students (Dembo & Gibson; 1985; Woolfolk & Hoy, 1990).

Albert Bandura (1986) wrote, “Self efficacy beliefs are the product of a complex process of self-persuasion that relies on cognitive processing of diverse sources of efficacy information…. Once formed, efficacy beliefs contribute significantly to the level and quality of human functioning” (p. 186). Teaching self-efficacy is a measure of how well a teacher feels prepared to teach in the classroom. Research suggests that the more strongly teachers perceive their self-efficacy, the more effort they will put forth in their endeavors (Bandura, 1986). With this understanding, it becomes important to investigate how teachers develop self-efficacy and how it can be improved.

Bandura’s research on self-knowledge has revealed the importance of the role of personal self-efficacy on people’s everyday lives. In essence, someone’s personal self-efficacy could impact their job performance and, more importantly, how they interact with others. Gibson and Dembo (1984) learned from teachers “that teacher efficacy may influence certain patterns of classroom behavior known to yield achievement gains” (p. 579). The relationships between teacher self-efficacy and student performance has also been investigated by others with similar conclusions (Bandura, 1993; Bandura, 1986; Dembo & Gibson, 1985; Gibson & Dembo, 1984; Guyton, Fox, & Sisk; 1991; Hebert,
Knowledge of the relationship between teacher self-efficacy and student learning and achievement should be of concern to those who prepare teachers. In addition to building a strong knowledge base in content and pedagogy, teacher training programs should endeavor to build self-efficacy in their candidates. Bandura (1993) proposed that “Teachers’ beliefs in their personal efficacy to motivate and promote learning affect the types of learning environments they create and the level of academic progress their students achieve” (p. 117). This statement notes the importance of nurturing teacher self-efficacy as educators begin to touch the lives of students. In summary, those with high self-efficacy are effective teachers and vice versa (Dembo & Gibson, 1985; Guyton et al., 1991; Hebert et al., 1998; Ross, 1995; Scribner, 1999). Thus, teacher training programs then may want to identify students with low self-esteem or self-efficacy and modify their program to address these areas.

In addition to believing one will be an effective teacher after completing the coursework, candidates from both traditional and alternative programs must also pass a teaching competency examination. These examinations vary from state to state and serve as evidence that a candidate has the knowledge base to become an effective classroom teacher. Candidates are asked about pedagogy, classroom management, curriculum, and content information based on the subjects they will be teaching. In Texas, the teacher competency examination is the Examination for the Certification of Educators in Texas (ExCET). Most states utilize competency exams as part of the certification process.
(Hardy, 1998). These exams are controversial because of the difficulty in determining if a teacher who makes an exemplary score will in turn be an exemplary teacher (Dybdahl, Shaw, & Edwards, 1997; Jonson & Jones, 1998).

Identifying the pervasive problem of attracting quality educators forces states and higher education systems to be creative in certifying and training classroom teachers. School systems may have to take risks in order to keep teachers in the classrooms. These new programs responding to immediate need should be examined just as more traditional programs have been examined through the years. Researchers should investigate what factors contribute to candidates becoming effective educators and use this knowledge in planning curriculum for alternative certification as well as for traditional training programs.

Purpose of the Study

The purpose of this study was to investigate the relationship between self-efficacy and the type of training candidates receive. In addition, teacher perceptions were examined about the quality of training received with in the fourteen ExCET competencies. Teachers in their first year of teaching were surveyed to explore the relationship between the method of training received and self-efficacy. The group ExCET passing rates of each method of training were also examined. Teacher training programs may find such information useful as they seek to enhance their curriculum and better prepare candidates to face the challenges of teaching in today’s classroom.
Significance of the Study

The teacher shortage will have an important effect on the training of many of tomorrow’s teachers. As more teachers from alternative certification programs enter the profession, higher education and education experts must ensure these programs are producing quality teachers. In 2001, the Region X Texas Education Service Center certified approximately 180 special education teachers, while fewer than thirty were certified at the undergraduate level from the University of North Texas. These figures are similar to other major universities in Texas and across the United States. The need for teachers is growing faster than traditional programs are able to prepare them. As a result, it has become necessary to develop alternative certification programs. These programs are intensive and training should be strategic so that teachers are learning the skills needed to be effective in the classroom.

This study will explore the self-efficacy of candidates in teacher training programs with special attention to their perceptions regarding their preparation for teaching as measured by the ExCET. Information from this study may aid those who are responsible for preparing teachers in both types of programs. Teacher trainers will be encouraged to consider their role in building self-efficacy in their teacher candidates. This self-efficacy research could also lead to more research on choosing the best candidates for traditional and alternative certification programs.

In addition, the information gained from the research will assist the University of North Texas as it develops its own alternative certification program. It is becoming increasingly necessary to produce more teachers, and the University of North Texas can
play a significant role in meeting the needs of Texas schools by adding to the pool of certified teachers. This information will assist alternative teacher training programs in developing alternative training programs that will positively impact their candidates.

Research Questions

The research questions for this study are designed to investigate differences between perception of training, self-efficacy, and the ExCET scores of teachers who were traditionally and alternatively certified.

1. Is there a difference between the self-efficacy of traditionally and alternatively prepared candidates?

2. Is there a difference between the perception of preparedness of traditionally and alternatively prepared candidates?

3. Is there a difference in the pass rate of traditionally and alternatively prepared candidates on the Generic Special Education ExCET?

4. Is there a difference between perception of preparedness and self-efficacy of traditionally and alternatively prepared candidates?

Definition of Terms

Alternative Certification – Any systematic teacher preparation program that departs from the traditional foundations-pedagogy-student teaching model (McKibbin & Ray, 1994). For the purpose of this study the term refers to programs offered through the Texas Education Service Centers or independent school districts. The program consists of summer training, three university courses, and a year-long internship program.
**Alternatively Certified Teacher** - A person who holds a college degree in a field other than education and gains certification through an alternative certification program.

**Candidates** – Preservice teachers attending a certification program who are not yet certified.

**Competency Tests** – Tests used to verify knowledge gained through a teacher preparation program upon which certification is based.

**Education Service Center** - Regional centers developed and funded by the Texas Education Agency to support districts in their area by offering training and special support services for students and teachers.

**Examination for the Certification of Educators in Texas (ExCET)** – Competency examinations administered in Texas, at the time of this study, that verifies preparation and knowledge of educators in certification areas.

**Generic Special Education ExCET** – The competency examination used in Texas, at the time of this study, to verify preparation and knowledge of candidates seeking certification in special education.

**Self-Efficacy** – People’s judgments of their capabilities to organize and execute courses of action required to attain designated types of performances. It is concerned not with the skills one has but with judgments of what one can do with the skills one possesses. For the purpose of this research Gibson and Dembo’s (1984) definition of self-efficacy as “teachers’ evaluation of their abilities to bring about positive student change” (p.570) will be used.

**Student** – A child, adolescent, or young adult in pre-kindergarten through twelfth grade.
Traditionally Certified Teacher- A person receiving certification by completing a four-year college program while earning a bachelor’s degree in science and arts.

Limitations

There are certain limitations present when evaluating programs and investigating how people perceive their own effectiveness in the classroom. First, only alternative certification candidates from the Region X Education Service Center Summer 2001 program were examined. There were approximately 200 teachers. However, there were less than 30 traditional certification teachers who graduated from the University of North Texas in Spring and Summer of 2001. It is difficult to compare two groups with such different subject pools; however, this difference in numbers also provides additional support to the role of alternative certification programs in addressing the teacher shortage, specifically in special education.

Secondly, recently certified teachers will have to distinguish between what they learned in their training programs at the Education Service Center training or at the University of North Texas and what they learned from previous life experiences. This may be more difficult for some than others, as many of the candidates for alternative certification have already been in the classroom as paraprofessionals, substitute teachers or in some other capacity. It may be arduous to determine knowledge learned through these experiences opposed to information gained through a teacher training program.

A third limitation relates to the origin of a person’s self-efficacy. Some people naturally have a higher self-efficacy, while others build their self-efficacy from positive experiences and/or learning. For the purposes of this study, assume that the majority of
the factors contributing to a high self-efficacy in the classroom were gained from the traditional and alternative training programs.

Organizational Plan of Research

This project will use survey research to determine if there is a difference between perception of training, self-efficacy, and ExCET scores of Alternative Certification candidates from the Region X Education Service Center in Richardson, Texas and traditional certification candidates from the University of North Texas in Denton, Texas. Those who completed the alternative certification program during Spring 2002 and those who graduated from University of North Texas in the Spring and Summer of 2001 will be asked to complete a survey based on their training experiences in relation to the ExCET competencies as delineated by the State of Texas and the Texas Education Agency. In addition, the candidates will be surveyed based on their self-efficacy using the Teacher Efficacy Scale (1984) by Sheri Gibson, Ph.D. The results will be compiled using the aggregate data.

Summary

The teacher shortage combined with increased enrollments and reduced class size has compounded the need to find more quality teachers. Alternative certification programs have been developed to address the teacher shortage. This study will examine the effectiveness of traditionally and alternatively certified teachers with regard to their self-efficacy, perception of their training, and their ExCET scores. This information could be used to develop and refine teacher training programs.
CHAPTER 2
REVIEW OF THE LITERATURE

The literature base established for this review was located through following an extensive search of available electronic and print resources. Using the libraries at the University of North Texas and Texas Women’s University, computerized searches were conducted through the Educational Resources Information Center (ERIC) database of journals, books, and documents, the Psychological Abstracts, and Dissertation Abstracts International (DAI) databases. Searches were also conducted through OCLD FirstSearch, PsychLit, and the Education Index. Key search terms included but were not limited to: alternative certification, traditional certification, competency tests, teacher training, self-efficacy, teaching efficacy, teacher perceptions, teacher training, certification requirements, teacher shortage, and special education certification. The key terms were used, in a variety of combinations, to identify literature which examined similar issues. The focus of the review includes the years 1959 through 2002.

This review of pertinent literature is organized into four areas: (a) Preparation of Teachers, (b) Self-Perception, (c) Self-Efficacy, and (d) Competency Testing for Teacher Certification. These areas will be discussed to clarify the purpose and necessity of the research regarding the relationships between training programs, self-perception, self-efficacy, and competency training.

The evolution of teacher certification and preparation has in many cases evolved from the necessity to produce more qualified teachers. The next sections will describe
this evolution and the prominent certification programs recognized today—traditional and alternative. It was because of the critical shortage of teachers that states recognized that traditional programs were not producing a sufficient number of teachers. Alternative methods began emerging and were recognized as a viable way to prepare and certify effective teachers (Chaika, 2000; Feistritzer, 1994; Guignon, 1998; McKibbin & Ray, 1994; Neumann, 1994; Roth, 1986; Sandlin, Young, & Karge, 1992; Shen, 1998).

Two million new teachers will be needed in the United States over the next decade (Chaika, 2000; Guignon, 1998). For 2001, the Texas Education Agency expected a shortage of approximately 40,000 in its districts’ schools (Taylor, 2001). Similarly, reports on the shortage in California suggest that 250,000 new teachers will be needed in the next ten years to comply with a class size reduction mandate (McKibbin, 1999). The twenty thousand new teachers hired in 1998 represented a 400% increase over the previous year (McKibbin, 1999). Four thousand ninety teachers graduated from public or private colleges in Georgia in 2000. However, the Georgia public school systems needed to hire 10,200 teachers that same year (Donsky, 2001). These examples indicate the pervasiveness of the teacher shortage throughout the United States schools.

In many states there has been a critical need (Feistritzer, 1994; McKibbin & Ray, 1994; Neumann, 1994; Roth, 1986; Sandlin et al., 1992; Shen, 1998) for educators in specialty areas such as special education (Buck et al., 1995; Conderman et al., 1999; Dill, 1994; Weichel; 1999), math (Hawk & Schmidt, 1989), bilingual education (Dill, 1994), and science (Hawk & Schmidt, 1989). The statistics regarding the teacher shortage are even higher in inner city and rural areas (Chaika, 2000; Akin, 1988). The teacher
shortage has school administration, school boards, education agencies, and institutions of higher education investigating how to train and retain more teachers. School districts as well as state education agencies have increased recruiting efforts, offered incentives, and provide professional training (Feistritzer, 1994). Many rural and inner city schools offer signing bonuses and scholarships for graduate education as incentives. In addition, states and individual metropolitan districts are developing training programs to alternatively certify educators.

President George H. Bush’s America 2000 allowed for alternative certification to begin addressing the shortage in the 1980s. President Clinton and 1999 United States also addressed the issue of the teacher shortage (Business Wire, 1999). In addition to the high demand for certified teachers, this type of governmental support has allowed these alternative certification programs to prosper. The next section provides a historical context for the preparation of teachers, which includes traditional and alternative methods.

Preparation of Teachers

Historical Perspectives

David Angus (2001) has traced teacher education to early Roman times. However, it was not until the early nineteenth century that America began to investigate the necessity for national standards to ensure a strong education for America’s children. As early as 1785, private or state-subsidized academies or seminaries began to offer teacher preparation courses. Being a minister, for instance, in the late 1700’s and early 1800s, no longer provided sufficient credentials for teaching in America’s public school
system. The public was beginning to seek educator standards, which usually included an examination and training programs referred to as normal schools. The name *normal* was used as a derivative of pattern, model, or standards. The idea was to help teachers develop and learn the principles of educating others (Hinsdale, 1898). As a result of these standards Reverend Samuel Hall in Vermont established the first private normal school or “teaching seminary” in 1823 (Angus, 2001).

Horace Mann followed suit in 1839 by helping to establish the first state normal school in Lexington, Massachusetts (Angus, 2001; Morrison, 1997). Dr. Mann continued to be instrumental in furthering the development of normal schools (Angus, 2001; Smith, 1937). He opened two more state normal schools by the end of 1840 (Angus, 2001).

Payson Smith (1937) noted the following about Mann’s dedication to teacher training:

> He saw the teacher as the make of the school. He knew that there could not be good schools unless there were good teachers. He knew that a good teacher could rescue education from complete failure even though other factors were not all that could be desired. He saw no hope for the betterment of education except through the betterment of teachers (p. 17).

Horace Mann lobbied for the state of Massachusetts to establish more normal schools, and in 1846 Dr. Mann remarked,

> I believe normal schools to be a new instrumentality in the advancement of the race. I believe that, without them, Free Schools themselves would be shorn of their strength. …Neither the art of printing, nor the trial by jury, nor a free press,
nor free suffrage, can long exist to any beneficial and salutary purpose, without
schools for the training of teacher (Smith et al., 1938, p. 51).

Due to the lack of normal schools during the second half of the nineteenth
century, local officials certified the vast majority of teachers in the United States.
Because there were so few normal schools, many high schools offered teacher
preparation programs as part of their curriculum. Teachers trained often taught in public
schools, then called common schools. Many of the land grant colleges created in the
1870’s began establish teacher training programs. In 1890, approximately one dozen
colleges had education departments, and many of those were a department of one
educator. It became increasingly evident that more programs would be needed. Even
during these times, rural schools struggled to find enough teachers (Angus, 2001). There
was nationwide shortage during World War I because women, who were typically
teachers, left the ranks of teacher to take the place of the men in the work force who went
off to war (Angus, 2001). As the war ended people began to go back to school, and again
there was a growing need for teacher preparation programs.

By the 1930s there was an overabundance of teachers, and administrators began
to raise the certification standards. In 1933, there were over 100 different education
departments in existence across the country offering several hundred classes total. In
addition, educational organizations such as the National Education Association (NEA)
became more active in the mid 1900’s. The NEA began placing demands on the training
programs and wanted a larger role in the professional development of teachers. In the
1950’s the Cold War, and Sputnik among other concerns forced the United States to
measure the American students against those in other countries. The public seemed to demand higher standards in public schools when the American students did not measure up to those of the foreign countries, particularly students of the Soviet Union.

Angus (2001) found these demands and debates caused the state of teacher preparation to change dramatically. By the 1980’s the United States education system again began to notice a shortage of teachers, and higher education and public school officials were forced to become more creative and develop ways to attract and train more teachers. It was from these efforts that alternative certification programs came to exist.

Current Trends

One way of classifying current teacher training programs is traditional or alternative. This section will begin by defining a traditional training program as it relates to requirements and candidates. Next, alternative certification programs will be defined and explained with regard to their candidates and requirements. The quality of teacher preparation by programs will also be examined. This analysis will establish the foundation for investigating how the method of teacher training affects teacher perceptions, self-efficacy, and competency testing.

Traditional Certification

Traditional certification refers to those teachers who receive their bachelor’s or master’s degree in education, pass the required competency exam and become certified. Ornstein and Levine (1997) characterize traditional teacher preparation programs as having three components: “(1) liberal (or general) education, (2) specialized subject-field education, and (3) professional education” (p. 14). They describe the liberal education as
the broad background knowledge a teacher needs to encourage awareness of themselves and other cultures. Secondly, a teacher needs specialized subject-field information based on their desired potential teaching assignment. For example, a special educator would take courses focusing on the various types of disabilities as well as strategies to help improve the learning of students with disabilities. Finally, the professional education would include coursework regarding the theories and foundations of education as well as pedagogy on which to base the learned strategies and knowledge from the previous two components.

Traditional candidates typically attend a four-year university or college; however, their major and coursework depends on the requirements of the state. Typically, “a college or university submits (to the state education agency) a plan for a teacher preparation program for each discipline and/or grade level(s), following state established guidelines” (Feistritzer, 1994, p. 132). These guidelines may vary depending on the area the candidate desires to teach. Most training programs may differ for early childhood, elementary, secondary, and special education as well as specialized teaching fields such as math, science or physical education. Some debate exists over whether traditional programs are best delivered over a four or five year timeframe.

In the late 1800’s and the early 1900’s teacher preparation programs consisted of learning how to teach in a two-year time frame. In the 1950’s many of the normal schools transitioned to state teacher colleges, which are now state universities and typically offer four-year teaching degrees (Morrison, 1997). These degrees differ in title; however, they are similar in that they all lead to teacher certification. Four-year programs generally
consist of two years developing the “liberal education” with the final two years devoted to specialized and professional education. Most often at least the last semester requires a student teaching experience. In essence, the candidate spends one semester working with a master teacher, first by observing and then gradually taking over the classroom responsibilities.

Some universities require a fifth year; however, teacher training experts disagree on how to utilize this fifth year. Some five-year programs emphasize content knowledge in the subject area the candidate will teach during the first four years. Foundations and theories in education and field experiences are emphasized in the final year. Other five year programs spread the professional development (foundations and theories of education) and content information over the four years and spend the fifth year on clinical experience and training (Morrison, 1997; Ornstein & Levine, 1997). Regardless of the training program, four or five-year, candidates usually spend at least 300 classroom hours training to be educators and countless more doing classroom observations (Feistritzer, 1994; Ornstein & Levine, 1997).

Aside from the preparation requirements of the college or university, there are also guidelines established by those who issue accreditation to teacher training programs in colleges and universities. The National Council for Accreditation of Teacher Education (NCATE) is at the forefront of encouraging professional development within colleges and schools of education. NCATE encourages “institutions to meet rigorous academic standards of excellence in professional education.” Although the NCATE standards do not state a specific number of semester hours for teacher training programs, the following
standards must be met: (1) candidate knowledge, skills, and dispositions, (2) assessment system and unit evaluation, (3) field experiences and clinical practice, (4) diversity, (5) faculty qualifications, performance, and development, and (6) unit governance and resources. Each standard is carefully examined by an accreditation committee to determine if the college of education in question is meeting or exceeding the standards through coursework, field experiences, and review of the administration of the college of education.

NCATE uses the Council for Exceptional Children’s *Standards for All Beginning Special Education Teachers* to review colleges offering training in special education. The standards are as follows: (1) Foundations, (2) Development and characteristics of learners, (3) Individual learning differences, (4) Instructional strategies, (5) Learning environments and social interactions, (6) Communication, (7) Instructional planning, (8) Assessment, (9) Professional and ethical practice, and (10) Collaboration. Programs applying for NCATE accreditation must provide documentation to the accrediting committee demonstrating how each standard was addressed. Accreditation is given based on how well the standards are taught and exemplified throughout a university program.

Many of these standards are addressed in training programs participating in “professional development schools.” Such schools are “designed to link a local school district with a college or school of education” (Ornstein & Levine, 1997 p.24). The schools form a partnership with the local university to provide mentors and support for student teachers. The university in turn provides research and expertise to the school to create a “community of learning” for teacher candidates, students, and the current school
faculty and staff (Ornstein & Levine, 1997). Professional development schools function to improve student achievement, introduce teachers to educating students, and develop and enhance teachers’ abilities to utilize best teaching practices (Morrison, 1997).

Completion of student teaching usually serves as the benchmark for completion of the training program and the point at which the student graduates. However, this benchmark does not automatically lead to certification. Completion of student teaching and in some cases participation in student teaching qualifies a student to take a program or capstone competency examination. Passage of the local exam signifies for the preparation program that candidates are prepared to sit for state or national competency examinations. State and national competency examinations will be discussed in a section that follows.

Individuals interested in teaching at the University of North Texas must first be admitted to the university. According to the University of North Texas website (2001), to be admitted to the university as incoming freshmen, the prospective teacher candidates must be in the top 50% of their graduating class. Additionally, they must have a minimum of 1010 on the SAT, or be in the top 75% of their class with a 1180 on the SAT. There are separate admission criteria for the teacher education program. A candidate must have a minimum of 60 semester hours, with a 2.75 University of North Texas grade point average, and passing scores on all sections of the Texas Academic Skills Program (TASP) exam. The TASP is a measure of basic competency in reading, writing, and math. Satisfaction of these criteria qualifies a student to enroll in the first teaching methods course.
Once in the program, candidates begin to choose their areas of emphasis (early childhood, special education, reading). Candidates participating in the current study chose generic special education. This program consists of 24 semester hours of training specifically in teaching students with disabilities across a variety of educational settings. Students also received training for certification in general education with the special education course work serving as an endorsement to the general education certification. The special education courses focus on classroom management, vocational skills, life skills, pedagogy, and learning strategies that can be adapted to children from birth to twenty-one years of age or pre-kindergarten through twelfth grade. Candidates who are interested in working with the students who have severe or profound disabilities may be required to take additional courses for the generic endorsement because of the specific nature of such disabilities.

After completing all of their coursework, candidates spend one semester in the classroom working with a master teacher in a professional development school. This time is divided between the general and special education classrooms. During the semester, university personnel, as well as their cooperating teacher, observe the candidates. The candidate gradually acquires responsibilities for the classroom until they have complete responsibility for all lessons and classroom duties.

Teachers who complete traditional programs and become certified typically remain in the field of education for an average of seven years. Many leave because of family obligations, others for financial reasons, and still others because of teacher “burn-out.” The National Center for Education Statistics found that in 1995, 6.1% of teachers
left the teaching field. Of the 6.1% only 30.8% were retiring, 17.3 were going to be homemakers or child rearing, and another 21% were leaving to work outside the field of education. These statistics should not be surprising as the current Labor Force Statistics suggest, “The median number of years that wage and salary workers had been with their current employer was 3.5 years” (p. 1). Realizing that teachers do not remain in the classroom for many years and the shortage was not lessening, those who prepare teachers were forced to consider other options for training quality teachers.

Alternative Certification

The teacher shortage has caused state education agencies, district personnel, and institutions of higher education to become more creative with attracting and training professional educators (Neumann, 1994; Rosenberg & Rock, 1994; Sandlin, Young, & Karge, 1992; Sindelar & Marks, 1993; Wise, 2001). In addition, it is not unusual to see a newspaper article or television news report on the teacher shortage in America’s schools, especially in rural and inner city areas during the beginning of any school year (Dill, 1994; Feistritzer, 1994; Hawk & Schmidt, 1989; Sandlin et al., 1992).

Teacher shortages in special education affect the abilities of other school personnel to fulfill their duties and responsibilities (Chaika, 2000). For example, counselors are asked to execute special education Admission, Review, and Dismissal (ARD) meetings. This time-intensive task takes away from time they might spend working with students on an individual basis, possibly resulting in a difficult situation for teachers of students who have emotional disturbance or behavior disorders. If teachers of students with emotional disturbance and/or behavior disorders were adequately supported
by the administration, and more specifically the counselors, they might not feel isolated and in frustration leave the teaching profession; however, there are often not enough school counselors to give adequate support and fulfill the administrative portion of their job requirements.

Another example is in the area of speech and language, where students who would otherwise receive one-on-one speech and language therapy are often placed in a group setting because of the lack of speech/language pathologists. In addition, diagnosticians are often overworked and work on several different campuses. As a result they do not have time for thorough evaluations and -more importantly- time to fully explain the evaluation results to the teachers and parents and discuss specific strategies from which each student would benefit.

In order to meet these and other emerging needs brought about by the teacher shortage, states began to create ways to certify teachers more quickly. One of the fastest ways was emergency certification. Emergency certification programs permitted individuals to become certified by passing a state competency examination. Though program requirements vary from state to state, some did not require previous experience in teaching or training in child development or learning theories. A few states even offered teaching certificates to candidates who did not have a bachelor’s degree. More recently states are requiring a bachelor’s degree. However, emergency certification can still be granted with no training or experience required nor provided (Buck, Polloway, & Robb, 1995; Neumann, 1994; Shepherd, 1999).
The United States Department of Education defined alternative certification as:
“Teacher preparation programs that enroll noncertified individuals with at least a bachelor’s degree, offering shortcuts, special assistance, or unique curricula leading to eligibility for standard teaching credential” (Guyton, Fox, & Sisk, 1991, p. 1). The American Association of Colleges for Teacher Education defines alternative certification as “any significant departure from the traditional undergraduate route through teacher education programs in colleges and universities” (Grable & Odgen, 1994, p. 470).

In 1985, the Houston Independent School District developed the first alternative certification program in Texas because of a teacher shortage projection by the Texas State Congress (Feistritzer, 1994). This program certified 276 teachers in 1985 (Shepherd, 1999). In 1986, Texas added seven more alternative certification programs from which three models emerged. The school district (Houston) model was in place and the higher education and education service center models were soon developed. By 1990, there were a total of 13 programs in Texas (Shepherd, 1999). In 1991, the number rose to 21 programs with a total of 2,000 alternative certification candidates teaching during the 1991-1992 school year (Shepherd, 1999). In 1994 Feistritzer reported that one-fifth of all the teachers hired in Texas were from the state’s 25 alternative certification programs. By the 1999-2000 school year there were 27 alternative certification programs in the state of Texas (Shepherd, 1999).

Buck, Polloway, and Robb (1995) surveyed the fifty United States plus the District of Columbia and found that 39 states do have alternative certification programs. All states except for Wisconsin require the prospective teacher to have a bachelor’s
degree. Depending on the state, the programs can be offered from the state level, the local level or in conjunction with an institute of higher education. Typically, states provide some hybrid of these three sources of programs. These states wanted a better solution than the previous emergency certification, which does not usually require any prior experience or professional development.

McKibbin and Ray (1994) found the following objectives to be crucial to setting up a quality alternative certification program: (1) improve instruction; (2) address the shortages of qualified teachers; (3) place qualified teachers in hard-to-staff schools; and (4) measure teacher competence. If states keep these goals in mind, developing quality programs that produce well-prepared teachers could help fill the void of teachers, especially in the needed area of special education.

The alternative certification programs are typically designed for people with undergraduate degrees in fields other than education who would like to become professional educators. Many of these programs are deemed successful because candidates who participate are carefully chosen (Dill, 1994). The programs are designed for candidates “with specialized skills, particularly in selected subject areas, and strong backgrounds, including maturity and life experiences” (McKibbin and Ray, 1994). These prospective teachers are not meant to take the place of traditionally trained teachers but to extend the profession to a broader, more diverse population, specifically those with life experience in the area they would like to teach (McKibbin and Ray, 1994).

Dill, Hayes, and Johnson (1999) describe alternative candidates as “teachers with mature life experiences.” The researchers found that alternative candidates generally have
the strongest potential to create connections with at-risk students. “This ability to create a meaningful relationship goes beyond knowing content and pedagogy-- it is a capacity that increases with maturity” (Dill et al., 1999, p. 12). This idea stems from the assumption that a mature person contains a strong view of self and therefore can reach out and give others, particularly at-risk, impoverished students, a sense of empowerment (Dill et al., 1999). Dill, Hayes, and Johnson (1999) found these candidates would be successful in an alternative certification program and in the classroom.

Alternative certification programs vary in length from one intensive summer to one full year. The training usually consists of educational workshops and university classes. In addition, the candidates participate in seminars throughout the school year. Alternative certification candidates are responsible for projects and readings during the year (Weichel, 1999). Many programs also require the candidate be observed by the certification program staff as well as by the school or district personnel (Buck et al., 1995; McKibbin, 1999; Roth, 1986; Wise, 1994).

A successful component of many alternative programs is working with an onsite mentor. State regulations in Texas require that alternative candidates be provided a mentor (Shepherd, 1999). Trained mentors typically receive a stipend and release time to observe the alternative certification candidate (Shepherd, 1999). These relationships are designed to develop a sense of belonging to the school community.

Region 10 Alternative Certification candidates were examined in the current study. Candidates must hold a bachelor’s degree from an accredited college with at least a 2.5 grade point average (Shepherd, 1999). Candidates must also pass the Texas
Academic Skills Program (TASP) and perform adequately in the Haberman interview (Dill, 1994). The Haberman is a researched tested screener “designed to identify individuals who would do well as teachers in urban classrooms” (Shepherd, 1999, p. 40). Candidates previous experiences specifically with children is also examined. Once accepted into the program, students take three college courses and participate in three weeks of workshops at Region 10. Candidates must also attend mandatory workshops throughout the school year. Finally, after completing the appropriate coursework and training sessions, the candidate must pass the Examination for the Certification of Educators in Texas (ExCET) test.

Miller, McKenna, and McKenna (1998) compiled a thorough literature review regarding the previous research on alternative certification programs. They cite five reasons these programs are valuable. First, research has shown the teachers “are not inherently inferior” to each other. The researchers investigated teacher feeling toward each other based on their educational background and found that most teachers consider each other as equals. Secondly, “alternative programs have been in place as long as there have been certification programs of any kind” (p. 166), meaning there have always been exceptions, and teachers have taken different routes to become teachers. Next the researchers found that alternative programs create diversity among the teaching population by attracting more males, minorities, and people of varying age groups, while traditional programs typically attract young females. In addition, the teacher shortage will need to be met in some way, and alternative certification has been proven to be a viable
means of placing teachers in the classroom. Finally, alternative programs meet a variety of needs by certifying teachers quickly and at a lower financial cost.

These programs have been designed to fill a need. Alternative Certification programs vary in their training methods and requirements from state to state and therefore have caused a great deal of controversy and have placed institutions of higher education in an awkward position. The enormous teacher shortage led Miller, McKenna, and McKenna (1998) to state, “researchers should investigate not whether such programs (alternative) work, but which ones work best” (p. 166). The programs vary greatly from state to state, which has made conclusive research on alternative certification difficult to generalize to future program effectiveness.

Effectiveness of Certification Programs

Traditional and alternative certification remain under constant debate between those in the schools who are in desperate need of teachers and those at the university level who are trying to maintain a strong college of education (Miller et al., 1998). This problem has been debated for years and, in fact, in 1986 Dr. Robert Roth wrote, “These non-traditional routes to enter into the teaching profession pose a serious threat to teaching as a profession” (p. 4). He feared that these programs would still be available after the teacher shortage crisis was over; however, fifteen years later the shortage is even more severe. Roth’s controversial paper implied that alternative certification would be the end of teaching as a true profession.

Conversely, in 1990, C. Emily Feistritzer conducted research for the National Center for Education Information regarding school professionals’ attitudes regarding
hiring a person with a bachelor’s degree and completion of an alternative certification program. Of those who responded, the following were in favor of alternative certification: “85% of school board presidents, 82% of superintendents, 77% of public school principals, and 88% of private school principals” (p. 137). Interestingly, only 56% of public school teachers and 68% of private school teachers agreed that hiring alternatively certified teachers would improve the dire state of education in the United States.

In 1989, East Carolina University faculty members Hawk and Schmidt noted concern for the teacher shortage, especially in their rural area of Eastern North Carolina. As a result they began looking for ways to certify more teachers, specifically using an alternative certification program they named “Lateral Entry Program.” Hawk and Schmidt developed the program enrolling candidates from the area to ensure success and improve chances of teacher longevity in the classroom. The Lateral Entry teachers had a total of 255 clock hours of professional development, mostly occurring over six weeks during the summer. The traditionally certified teachers were exposed to 312 hours of clock time over a three-year time span.

Results for the comparison of the two programs were varied as indicated by the different ways of measurement. When examining the competency test, the National Teacher Exam, scores revealed that “for approximately 80% of the instructional time and considerably less chronological time, the LEP (Lateral Entry Program) provided essentially the same level of book knowledge as traditional preparation programs” (Hawk & Schmidt, 1989, p. 56). In essence, on paper they appear to be equally prepared to enter the classroom with success; however, these results varied when examining their actual
classroom performance. All of the participating teachers were evaluated while teaching and the alternatively certified teachers primarily performed “At Standard.” The traditionally certified achieved “Above Standard” ratings regarding their classroom abilities in Management of Time, Management of Students, Instructional Presentation, Instructional Monitoring, and Instructional Feedback (Hawk & Schmidt, 1989).

Sandlin, Young, and Karge (1992) found similar results when looking at a California program. The researchers stressed the concern for placing ill-prepared teachers to work with students in special education settings where more qualified teachers are needed to help students achieve their potential. It is widely known that special education teachers must have an ample supply of strategies and teaching methods in their repertoire. The California researchers noted that whether the teacher is traditionally or alternatively certified, “the process of teaching involves a continuum of learning, unlearning, and relearning” (p. 16). It is important to continue training teachers as they enter the classroom to help them meet the needs of the changing demographics. One could say that the certification program, whether it is traditional or alternative, is generally a springboard for learning how to become a professional educator.

Grable and Ogden (1994) compared traditional and alternatively certified teachers using the Texas Teacher Appraisal System. During their research, they compared five “post-baccalaureate interns” to eight traditionally certified teachers. “It appeared that accelerated (alternative) certification of post-baccalaureate interns in a program of education instruction could be an effective alternative to traditional training for teacher certification” (p. 472). They concluded that the alternative certification program focused
on instructional strategies and subject matter while the traditional baccalaureate program stressed classroom management and class structure. The emphasis of each program was evident in the style and methods used in the classrooms. Their analysis was that the alternative certification teachers had more subject knowledge because many had worked in the field in which they were teaching. Work experience allows teachers to explain to the students how knowledge can be utilized in the workplace. These beliefs can have a powerful effect on how and what children learn in the classroom. The results of Grable and Ogden seem consistent with many traditional and alternative certification programs.

In Georgia, Guyton, Fox, and Sisk (1991) examined “teaching attitudes, teacher efficacy, and teacher performance of first year teachers prepared by alternative and traditional education programs” (p. 1). The alternatively certified candidates were more positive in the beginning of the year while the traditionally certified teachers were more positive about teaching at the end of the year. The evaluators did not find a significant difference between the two groups with regard to teacher performance, teaching perceptions, and problems faced during the first year. The authors determined that alternative certification is “a reasonable alternative to traditional teacher preparation programs for persons with degrees in the subject they will teach” (p. 7).

Sindelar and Marks (1993) agreed with Guyton, Fox, and Sisk after they examined nineteen studies of alternative certification and found them to be as effective as traditional training programs. However, the researchers did admit comparison is difficult because of their state-to-state differences. The researchers also voiced concern over the alternative programs being too vague for the elementary and special educators and
perhaps too focused on child development for the high school teachers. Grable and Ogden exhibited a similar concern by citing the different emphases between the two types of training and certification programs.

Addressing the ongoing debate Arthur Wise (2001), President of the National Council for Accreditation of Teacher Education, has recommended a “differentiated staffing” (2001, p. 34) approach in which teachers would receive different levels of certification based on their training and background. Wise (1994) proposes that these licenses be displayed in each classroom much the same as a doctor, lawyer, or technician must display their credentials. Parents should be aware of the varying degrees of their teachers’ training and demand higher standards. Wise (1994) fears that if states do not enforce “rigorous accreditation and licensing standards” we will be jeopardizing the future of American children. On the other hand, Dill, Hayes, and Johnson (1999) find alternative certification as a way to “provide fresh, seasoned, professionally trained teachers, who model strong learning values for the public school system” (p. 15). Again, those who train teachers realize the need for alternative certification programs and desire to develop solid teacher training programs for both traditional and alternative certification.

Those who develop teacher preparation programs whether traditional or alternative programs are responsible for examining current trends and research as they integrate new information into their courses. Understanding self-perceptions, and what role it plays in classroom effectiveness is one such responsibility.
Self-Perception

Understanding the importance of self-perception in learning remains an important part of a teacher training program. Candidate self-perception or the self-perceptions of their students can have a dramatic effect on their success rates. How people perceive themselves in relation to their abilities, peers, and the world maintains a significant component of who they are as people (Eldersveld & Baughman, 1986; Bear, Minke, Griffin, & Deemer, 1998). Knowledge of the effect of self-perception on achievement and candidate success should suggest the concept be an integral part of any training program.

Self-perception has been noted in the research to have an effect on both students and teachers (Bear et al., 1998). The researchers (1998) investigated the relationship between achievement-related perceptions of children with learning disabilities and their actual achievement. After surveying 274 children, “hierarchical regression analyses showed that perceived teacher feedback was the best predictor of reading satisfactions” (p. 1). The research suggested that a “teacher can have a significant impact on students’ reading satisfaction and overall feeling of self-worth by providing positive feedback” (p.9). This study demonstrates the powerful effect the positive feedback from the teachers had on the students’ self-perceptions of their achievements. It was also agreed, via the survey research that the students’ perception feedback was also evident in their self-worth. In essence, the students’ self-perceptions about their learning environment developed from their teachers’ positive feedback resulted in their academic success and feelings of self-worth. The researchers (1998) concluded, “Teacher feedback was
overwhelmingly the most powerful predictor of satisfaction and was given the highest importance ratings when students were asked how they evaluated their academic progress” (p. 9). If this study was generalized, one could say, teacher candidates could improve their self-perception of their teaching abilities through effective feedback and praise from the teacher preparation program.

Kagan (1992) examined studies about teacher education and found that, after beginning to teach, teachers do not generally change their beliefs and any new learning is filtered through this belief system and transformed according to these preconceived beliefs. Kagan (1992) also discovered that teachers appear to obtain most of their “new learning” from actual practice, primarily from their own and then from the practice of fellow teachers. The research does note that the importance of good preservice instruction has become increasingly evident. The instruction should give teacher candidates a solid anchor of teaching fundamentals and theories to attach to their belief systems and develop their self-perceptions and self-efficacy. Unfortunately, the research on self-perception and teacher effectiveness is limited. The limited information regarding self-perception with regard to teaching is in the form of self-efficacy studies.

Self-Efficacy

Many educators and researchers attempt to define self-efficacy as it relates to a classroom teacher. These ideas originated from the work from Rotter and the RAND Organization in the 1960’s and 1970’s. Tschannen-Moran, Hoy, and Hoy (1998) have traced the history of teacher self-efficacy. Rotter began thinking about self-efficacy in the mid 1960’s as he noticed that teachers who appeared “confident” were often more
successful in regard to student achievement and motivation. Later, the RAND Organization researchers confirmed Rotter’s belief that teacher beliefs affected their actions. “Thus, teachers with a high level of efficacy believed that they could control, or at least strongly influence, student achievement and motivation” (Tschannen-Moran et al., 1998, p. 202).

“Perceived self-efficacy is defined as people’s judgements of their capabilities to organize and execute a course of action required to attain designated types of performances. It is concerned not with the skills one has but with judgements of what one can do with whatever skills one possesses” (Bandura, 1986, p. 391). Bandura explains that teaching self-efficacy is believing in your teaching abilities and knowing that what you have learned will affect student achievement.

Albert Bandura also explored self-efficacy, and specifically how self-efficacy affects teachers and their students. Bandura (1986) noted, “An efficacy expectation is the individual’s conviction that he or she can orchestrate the necessary actions to perform a given task, while outcome expectancy is the individual’s estimate of the likely consequences of performing that task at the expected level of competence.” Transferred to the classroom, it is setting objectives with the expectation that the students will meet the objective because the teacher feels she has the ability to improve the learning of her students.

Kagan (1992) wrote, “Self-efficacy refers to a teacher’s generalized expectancy concerning the ability of teachers to influence students, as well as the teacher’s beliefs concerning his or her own ability to perform certain professional tasks” (p. 67). As
described by Kagan, self-efficacy is a teacher’s sense that the methods and materials along with expertise will be effective in achieving the objectives. A teacher with a high sense of self-efficacy feels empowered and would not allow a student’s home environment or disabilities to diminish his or her chance of success. These teachers believe their competence and teaching expertise will allow them to lead students to accomplishing the lesson objective.

Based on the work of Albert Bandura, Gibson and Dembo (1984) developed the Teacher Efficacy Scale where 53 items were administered to 90 teachers. The items were developed as a result of teacher interviews and research analysis on the topic of self-efficacy and its effects in the classroom. After statistical analysis, the survey was shortened to 30 items. As a result, Gibson and Dembo (1985) found that as teachers become more confident in their abilities, they may become less convinced that good teaching could improve student learning; however, the teacher efficacy could possibly influence students behavior to produce achievement gains.

As a result, we can surmise that a teacher’s self-efficacy can and will affect student achievement in a positive or negative direction, although it is important to note that self-efficacy is the teachers’ perception of their abilities, not their true measurable abilities. In some cases there may be some confusion if someone is overestimating his or her own abilities. In essence, preservice teachers need to be taught the importance of lifelong learning experiences and continued education even as they become master teachers and mentors for future traditional and alternative certification candidates.
Self-efficacy in teaching is the belief that a teacher has a positive effect on the students in the classroom (Gibson and Dembo, 1984). This can be accomplished through self-esteem and knowledge building. However, it should be noted that self-esteem and self-efficacy are not interchangeable terms. Self-efficacy is specific to one task while self-esteem refers to an individual’s feelings of herself as a whole. For example: A teacher may have low self-esteem in her personal life; however, as a master teacher she would most likely have a high teacher self-efficacy because she knows she has the skills and strategies to help her students with or without special needs (Bandura, 1986).

Bandura noted that self-efficacy affects behavior and the choices one makes about one’s behavior, effort expenditure, persistence, thought patterns, and emotional reactions. In essence, those who expend more effort and persistence will master the challenge and improve their self-efficacy. Those who judge themselves with a low self-esteem or as having little or no value are therefore creating a self-fulfilling prophecy because they will not exert the energy or cognitive power to attain a goal they see as unattainable. Having a low self-efficacy can also cause difficulties when learning a new skill. If one overestimates her skill level she may negatively impact her learning (Gibson & Dembo, 1984).

As stated by the research above, self-efficacy can have a powerful impact on student growth, self-perceptions, and achievement. Noting this importance, researchers must examine and investigate accurate ways to measure self-efficacy.
Measuring Self-Efficacy

According to Bandura (1986), researchers Gurin and Miller began measuring self-efficacy in 1954 as a political measure. As RAND and Rotter developed the idea of self-efficacy, measuring it became the next obstacle. RAND continued to work and developed a two-item measure of self-efficacy that used a five-point Likert scale. Teachers were to answer from “strongly agree” to “strongly disagree.” The questions were as follows:

1) “When it comes right down to it, a teacher really can’t do much because most of a student’s motivation and performance depends on his or her home environment.”
2) “If I really try hard, I can get through to even the most difficult or unmotivated students” (Tschannen-Moran et al., p. 204).

Researchers were intrigued by the questions; however, they quickly realized that a two-item assessment would not be reliable enough, and comprehensive measures must be developed (Tschannen-Moran et al., 1998). Several others also developed scales such as the Responsibility for Student Achievement, Teacher Locus of Control, and the Webb Efficacy Scale.

Using Bandura’s work, Gibson and Dembo (1984) developed a 30 item assessment measured by a six-point Likert scale. The teachers were to answer from “strongly disagree” to “strongly agree.” The scale produced a global measure of self-efficacy by using the sum of all the questions. In addition, researchers could look at two separate scores, personal teaching efficacy and general teaching efficacy. Gibson and Dembo (1984) stated that personal teaching efficacy is the “belief that one has the skills and abilities to bring about student learning” (p. 573). This factor examines the teacher’s
sense of responsibility to ensure the learning of the students she teaches. Factor 2, or general teaching efficacy, is “the belief that any teacher’s ability to bring about change is significantly limited by factors external to the teacher such as the home environment, family background, and parental influences” (p. 574).

Self-efficacy can be difficult to measure because researchers have argued that high self-efficacy is a result of high self-concept; however, some may say that the high self-concept in the case of a classroom is because the teachers were well-trained and feel confident of their teaching abilities (Ross, 1995). In this study high self-efficacy is assumed to be the result of quality training. Most measurements of self-efficacy are taken through survey research. However, surveys do create a great deal of debate because of the ambiguity of self-efficacy and the difficulty in determining where it comes from, how to create it, how to sustain your self-efficacy, and how to build it in others. It was not until the late 1960’s that educators began to investigate self-efficacy and its effects on the classroom. Bandura has since defined and investigated teaching efficacy and personal teaching efficacy as ways of looking at effective classroom teaching.

 Effects of Self-Efficacy on the Classroom

High or low teaching self-efficacy can have a profound effect on a student’s learning (Bandura, 1986, 1993; Gibson & Dembo, 1984; Dembo & Gibson, 1985; Ross, 1995; Soodak & Podell, 1993; Hebert, Lee, & Williamson, 1998). In 1984, Gibson and Dembo used their Teaching Efficacy Scale and found “low-efficacy teachers were observed to appear flustered if there was any interruption of their routine while they were engaged with small groups, whereas the high-efficacy teachers seemed to utilize this
format with ease and flexibility” (p. 578). This may seem like a minor teaching flaw; however, if someone is teaching in a classroom today they may have many interruptions from parents, from students, and especially in a special education setting where many students have difficulty with attention and concentration.

Bandura’s (1993) work examined cognitive thought processes and how they are effected by self-efficacy. He concluded, “Seeing oneself surpassed by others undermined personal efficacy, increased erratic analytic thinking, and progressively impaired performance attainments” (p. 123). However, when students were improving, their self-efficacy improved, cognitive function was clear, and their performance improved. According to Bandura (1993), teachers who possess high self-efficacy and convey their beliefs to their students could in turn create a sense of self-efficacy that stimulates academic growth.

Ross (1995) found that teachers with a higher self-efficacy are more likely to take advantage of and utilize new teaching techniques. Oftentimes these new strategies may be somewhat difficult to implement, but the educators’ high self-efficacy gives them the confidence to learn new innovative ways of sharing knowledge such as using small groups, cooperative learning, and hands-on teaching methods. These same teachers who set high standards for their own professional growth share these standards with their students. Students, with high self-efficacy, will not only grow academically but psychologically as well.

Soodak and Podell (1993) examined the effects of teacher efficacy and student problems as factors in special education referrals. The researchers used the Gibson and
Dembo Teacher Efficacy Scale. They concluded that self-efficacy plays a significant role in teachers’ placement decisions. Both general and special educators were less likely to recommend students attend special education if they had a high self-efficacy. This confirms the previous study (Gibson & Dembo, 1984) conclusions that “teacher efficacy is a critical belief underlying teachers’ decision making” (Soodak & Podell, 1993, p. 76).

Overall, teachers who believe in their abilities take personal responsibility in the learning of their students.

In one way, creating a high self-efficacy can be described as goal setting for students (Ross, 1995). Self-efficacy plays an important role in motivation (Bandura, 1993). Students set goals along with their teachers and begin to plan how to attain these goals. They use their past performance, current performance, and analytical strategies to help them determine their goals and develop a plan for reaching the goals. Bandura (1993) summarized the effects by stating:

“People who have a low sense of efficacy in a given domain shy away from difficult tasks…. They have low aspirations and weak commitment to the goals they choose to pursue. …When faced with difficult tasks, they dwell on their personal deficiencies, on the obstacles they will encounter, and on all kinds of adverse outcomes. They slacken their efforts and give up quickly in the face of difficulties” (p. 144).

These are not characteristics one would want in a teacher or to develop in a student.

In further studies by Dembo and Gibson (1985), they found that teacher self-efficacy not only affects their classrooms, but the school as a whole. The negative chatter
in faculty workrooms can often affect self-efficacy. Administrators need to examine their school structure and determine how to empower teachers to play an active role in long-term goal planning for the school. Principals should utilize the teachers with high self-efficacy and encourage them to mentor those who seem to be disenchanted and unsure how to improve their situation (Dembo & Gibson, 1985). Many teachers often feel burdened by the bureaucracy of schools. Schools must use the power of high self-efficacy to lift the encumbrance and create a positive learning goal-oriented environment.

Kagan (1992) believes that coming to an understanding of how self-efficacy is formed leads us to “understanding how good teachers are made” (p. 85). This understanding will help those in professional development to create quality training programs that will provide teachers the skills and desire to choose teaching as a long-term career regardless of their certification route.

The skills candidates acquire and training they receive through a teacher preparation program, including a well-developed self-efficacy, do not automatically lead to certification. Candidates must then proceed through the certification process, which in most states requires passing a competency examination. These examinations may vary from state to state and region to region, however are mandatory for placement in most public school classrooms (Morrison, 1997).

Competency Testing for Teacher Certification

In 1983, the government report A Nation at Risk caused the American public school system to become alarmed. As a result, committees were formed, and reform was discussed and implemented through state and federal legislatures. Three years later the
National Board of Professional Teaching Standards were written to assist in developing a national competency examination for all teachers, and in 1995 the first national standard examinations were released. In the meantime, many states began preparing their own competency exams. Texas created the ExCET examination and has made several revisions since the first exam.

Unlike self-efficacy, the correlation between high examination scores and effective teaching remains inconclusive. However, it is a necessity to receive certification, traditional or alternative. High passing rates on competency exams have become a measure of high standards in teacher training.

Knowing this, it becomes difficult to encourage traditional and alternative training programs to guide the training by using the competency tests objectives when many studies do not find a correlation between these exams and effective classroom teaching as measured by student achievement. For example, research by Daniel (1993) suggested that “the teacher’s knowledge base, especially as measured by tests such as the National Teacher Exam, is not very highly related to actual teacher performance” (p. 16). By contrast, it would appear that GPA (grade point average) is a relatively good predictor of teaching performance.

Similar results were found in Dybdahl, Shaw, and Edward’s (1997) research. Their research failed to demonstrate any significant correlation between competency tests and quality of teaching. They also found that grade point average was a better predictor of teaching success in the classroom. Students who perform well in the training will become exemplary educators.
In an effort to maintain some quality control for educators, professional organizations such as Council for Exceptional Children have developed their own professional certification. In addition, the Council for Exceptional Children has published a manuscript titled *What Every Special Educator Must Know: The International Standards for the Preparation and Licensure of Special Educators* (1998). This document is often used as a map to guide traditional and alternative training programs through the curriculum. As well as listing knowledge and essential skills, the manuscript also includes a Code of Ethics for special educators.

After analyzing previous research regarding teacher training programs, self-perception, self-efficacy, and competency testing, it is interesting to determine whether these programs will have differences. Most of the research leads us to believe that the differences between teachers who are traditionally and alternatively certified are few. The teachers with high self-efficacy, regardless of certification, are typically, stronger more effective teachers. Finally, competency testing is not as strong of an indicator of a successful teacher as grade point average. However, the effects of such variables will be examined with regard to the method of training.

**Summary**

Teacher education has continued to be redefined throughout history, with swift development since the founding of the Normal Schools of the 1800’s. Today, the teacher shortage has forced education agencies to become more creative in the methods of teacher training. Teachers can be certified by attending a college or university and completing the requisite coursework, receiving a bachelor’s degree, and passing the
required competency exam. Other teachers receive certification through alternative
certification programs. Such programs are designed to educate those who previously
obtained a bachelor’s degree in a field other than education. These alternative candidates
are also required to pass the state-mandated competency exam.

For the purpose of this research the two types of certification programs will be
examined with regard to their self-efficacy, perception of training, and ExCET scores.
Self-efficacy has been linked to student achievement and therefore is important to
understand with regard to training and improving self-efficacy. In addition, to refine
training programs it is beneficial to examine candidates’ perceptions of the training in
comparison to the ExCET competencies.
CHAPTER 3
METHODOLOGY AND PROCEDURES

This study was completed in order to evaluate and compare traditional and alternative special education training programs as they relate to self-efficacy, perception of training, and ExCET scores. Training of teachers is a top priority in education today because of the tremendous number of teachers needed each year to fill classrooms. Teachers who have completed their training programs were asked to complete two surveys as they related to their specific training and their self-efficacy.

As the demand for qualified teachers increases, traditional four-year universities may be forced to examine alternative ways of training our teachers. The information gained from this investigation may guide training programs as they determine appropriate changes for their curriculum. Information gained from this research will add to the body of knowledge about the effectiveness of teacher training programs.

This chapter includes a description of the sites and participants used for this study, the research design, instrumentation used, and procedure for which the investigation was carried out. The research questions have been developed from an investigation of the research on traditional and alternative certification programs as well as a desire to improve certification programs in the state of Texas. This improvement would benefit the children of the Texas public school systems. Teacher educators could improve their training methods and designs by seeking answers to the following questions.

1. Is there a difference between the self-efficacy of traditionally and alternatively prepared candidates?
2. Is there a difference between the perception of preparedness of traditionally and alternatively prepared candidates?

3. Is there a difference in the pass rate of traditionally and alternatively prepared candidates on the Generic Special Education ExCET?

4. Is there a difference between perception of preparedness and self-efficacy of traditionally and alternatively prepared candidates?

These questions were answered using two surveys administered to both traditionally and alternatively certified candidates upon completion of their first year of teaching.

Sites and Participants

Traditional Certification Candidates

The traditional certification site was the University of North Texas located in Denton, Texas, which is about thirty miles north of Dallas. The University of North Texas is the fourth largest university in Texas with more than 30,000 students, undergraduate and graduate. The university offers ninety-eight bachelor’s degrees, one hundred twenty five master’s programs, and forty-seven doctoral degree programs. According to the University of North Texas website, as a doctoral and research university North Texas has been ranked in the top four % of colleges in the United States by the Carnegie Foundation. Candidates from the College of Education Programs in Special Education were surveyed for this project.

The College of Education is accredited by the State Board for Educator Certification (SBEC) and the National Council for Accreditation of Teacher Education (NCATE). The College of Education mission states, “The College seeks to improve the
quality of leaders in the fields of education, health, human services, and communities of
learning including business and industry.” The college states that it strives to prepare
students who are lifelong learners and will be able to adapt their skills to the constantly
changing society. A variety of programs from counseling, administration and kinesiology
to special education and educational diagnostician are available. More recently, the
College of Education added an alternative certification program in special education to
their offerings; however, only those candidates receiving traditional certification from the
University of North Texas were utilized for this study.

Contact information on teacher candidates who completed certification from the
University of North Texas College of Education with an emphasis in special education
during the Spring and Summer of 2001 were requested from the Office of the Registrar.
Once these names, addresses, and phone numbers were received, the list was compiled
into a computer database. The twenty-four candidates who completed certification from
the College of Education Programs in Special Education during the Spring or Summer of
2001 were contacted by mail. Candidates were sent a demographic sheet asking specific
questions about age, gender, ethnicity, and experience (Appendix A), the Gibson-Dembo
Teacher Efficacy Survey (Appendix B), a survey asking the candidates perception of the
training they received based on the fourteen ExCET competencies (Appendix C), and an
addressed and stamped envelope to return the information. The initial mailing also
included a letter explaining the purpose of the research and requesting the information be
returned by a set date.
After the initial mailing and return date had passed, only six surveys had been returned from the traditional candidates. A second mailing was arranged and sent to the same twenty-four traditional candidates with a letter from Dr. Bertina Combes, Program Coordinator for Programs in Special Education, requesting the information be returned as it would be helpful to the program (Appendix D). The second letter resulted in an additional four demographic information sheets and surveys. Follow-up phone calls were also made to all UNT candidates. Ten of the twenty-four surveys were eventually returned.

Alternative Certification Candidates

The alternative certification candidates were trained at the Region 10 Education Service Center in Richardson, Texas. According to the Region 10 web site, “The Region 10 Teacher Preparation and Certification Program provides an opportunity for highly qualified individuals with baccalaureate degrees to become certified teachers in the state of Texas.” Region 10 serves more than 500,000 students and 40,000 educators in North Texas. The region is composed of eighty-one public school districts, several Charter Schools, and a number of private schools across eight counties in North Texas.

The Teacher Preparation and Certification program is approved and monitored by the State Board of Education Certification in the state of Texas. The alternative certification program is a collaborative program developed by the Texas Education Agency, Texas A & M University at Commerce, and Region 10. The Teacher Preparation and Certification program began in 1992 as a result of the growing need for teachers in North Texas.
According the Region 10 website, the program strives to achieve three main goals: “1) To attract talented, energetic, college-educated professionals into teaching; 2) To deliver training with a year of internship, including mentoring and supervision; and 3) To provide additional well-qualified teachers for Texas classrooms in areas of critical need.” The goals are attained through intensive summer training programs which are taught through the Region 10 Education Service Center and Texas A & M University at Commerce. In addition, candidates are required to attend workshops throughout their first year of teaching as well as work with their mentor and continue to be monitored by the staff of the Region 10 Teacher Preparation and Certification Program.

The candidates identified for this study were those working towards a certification in the area of special education. These candidates participated in the Summer 2001 workshops and were considered teacher interns for the 2001-2002 school year in public schools in the North Texas region. The names and addresses of the one hundred eighty-two special education certification candidates were requested and received from Region 10. After compiling the list, a letter describing the research project (Appendix A), a demographic page (Appendix A), an addressed and stamped envelope, the Gibson Teacher Efficacy Scale (Appendix B), and the survey regarding the candidates perception of training based on the fourteen ExCET competencies (Appendix C) were mailed to the one hundred eighty-two special education teacher candidates. After the initial mailing seventy-four candidates returned their surveys. No further mailings were deemed necessary.
Research Design

In this study, survey research was utilized to determine differences among traditional and alternative certification teachers. Both groups of candidates were asked to provide demographic information (Appendix A) as well as to respond to two surveys, one regarding their perception of training they received (Appendix C) and another measuring their self-efficacy (Appendix D). The data was returned by mail with no identifying information on the envelope or surveys. The results were examined using aggregate data for each group of candidates, traditional and alternative. In addition, percentile passing rates for the ExCET exam were acquired from the University of North Texas and the Region 10 Education Service Center Teacher Preparation Program.

Instrumentation

After a thorough review of the literature was conducted, and the research questions were developed, it then became necessary to explore the possible methods of answering the questions. As a result, the perception of training survey was developed by the researcher. The Gibson Self-Efficacy Survey was selected as a measure of examining the effects of self-efficacy on teaching. In conjunction with the surveys, the ExCET passing rates for the traditional and alternative certification candidates were examined. The following is a discussion of the surveys used to attempt to answer the research questions.

In order to measure perception of preparedness, a survey was developed using the fourteen ExCET competencies for the Generic Special Education ExCET. The fourteen competencies were used to determine the level of training received in each setting. Each
The competency as written by the State Board of Education was to be read with the sentence “I feel comfortable with my training in: .” The candidates were then asked to rate their comfort level on a scale that ranged from one (strongly disagree) to six (strongly agree). The ExCET competencies were written as they appear in the ExCET review and test booklet. Candidates were asked to rate each competency using the scale provided on the survey (Appendix C).

To establish reliability for this survey, which had not been used in any previous research projects, the survey was administered to twelve University of North Texas student teachers during the Spring of 2002. The student teachers completed the survey in the beginning of March and then again in the beginning of April. The data was then statistically analyzed using the Cronbach Alpha as a means of establishing reliability. The survey was determined to be reliable with an Alpha level of .94. Content validity was established as a result of the experts who developed the ExCET competencies. The ExCET competencies, as well as the ExCET examinations, are developed by experts in the field of special education from across the state of Texas. These competencies have been reviewed and accepted by the State Board of Education, by experts in the field of special education from institutions of higher education, and by those currently working with exceptional students.

The Gibson Self-Efficacy Scale was used to determine the level of self-efficacy in the traditionally and alternatively certified teachers. Dembo and Gibson (1983) based the survey questions on research developed by Bandura. Gibson began with an initial pool of 53 items. After Gibson piloted the survey using 90 teachers, 30 items were retained as
reliable and valid when measuring for teaching self-efficacy. Gibson and Dembo used factor analysis generated by the Statistical Package of the Social Sciences (SPSS) and the 30 most informative and true items were retained from the original 53.

The final measure of effective teaching is the ExCET. The Generic Special Education ExCET is derived from a panel of experts in the field of special education in Texas. The examination questions are based on the 14 competencies, which list the information needed to be a quality special educator. This examination is accepted throughout the state of Texas as a measure of competency, as well as required for certification.

Procedures

Initial permission to conduct the study using the University of North Texas graduates was granted by the College of Education (Appendix E). A letter of intent to cooperate with the research was also received from the Region 10 Education Service Center Teacher Preparation and Certification Program. In addition, a proposal was submitted and accepted by the University of North Texas Institutional Review Board (IRB).

Once the approval of the IRB and the doctoral committee was granted, the researcher was permitted to proceed with the project. A request was submitted to the University of North Texas Office of the Registrar to receive the names, addresses, and phone numbers of those students who completed the Generic Special Education Certification program from the College of Education during the Spring and Summer of 2001. A similar request was made simultaneously to the Region 10 Teacher Preparation
and Certification program for a list of those special education alternative certification candidates who completed the program during the Spring of 2002. Once these requests were granted, a database was developed to input the data received.

The Perception of Preparedness and the Self-Efficacy surveys along with a demographic sheet were mailed to the candidates. The mailing also included a letter describing the research project and its benefits to the field of teacher training and special education. Candidates were asked to complete the surveys and return them in the stamped and addressed envelopes. The traditional candidates received their surveys on purple paper and the alternative candidates on white so the examiner could determine differences and responses could remain confidential. An identical second set of surveys was mailed to the University of North Texas graduates in order to secure additional surveys. In addition, follow-up phone calls were made to these candidates. After the receipt of the surveys, an effort began to compile and organize data for analysis.

Data Analysis

All data gathered was analyzed in the aggregate form to protect anonymity of perceptions, self-efficacy, and ExCET scores. The data was organized according to method of training the candidates received.

In order to answer the first research question, “Is there a difference between the self-efficacy of traditionally and alternatively prepared candidates?” the data was grouped using the method of training as the independent variable. A \( t \) test was conducted to determine a difference between the self-efficacy of traditionally and alternatively certified teachers as measured by the Gibson Self-Efficacy Scale. The \( t \) test is most
commonly used to determine if there is a statistical difference between the means of two groups. However, because of the difference in the number of candidates in each group the following variation was used to calculate the standard error of difference (Sprinthall, 2000):

$$SE_d = \sqrt{\frac{N_1 SD_1^2 + N_2 SD_2^2}{N_1 + N_2 - 2}} \left( \frac{1}{N_1} + \frac{1}{N_2} \right)$$

Once this number was established the normal $t$ test calculations were utilized.

The same process was used to answer the second question regarding the perception of preparedness as it relates to the method of training. The mean for each question will be figured and used to produce the standard deviation as well as the standard error of difference. Again, due to the large difference in group size a different calculation will be used to determine the $t$ test.

In order to answer question three, the ExCET passing rates were obtained from the cooperating agencies. Both the University of North Texas and Region 10 reported their passing rates in percentile. These numbers were compared and reviewed with regard to the method of training received by the candidates.

Finally, in order to examine a difference between perception of preparedness and self-efficacy in traditionally and alternatively certified teachers, and multiple analysis of variance (MANOVA) was calculated. MANOVA was used because there were two dependent variables, being the surveys (Bray & Maxwell, 1985). This question required a combination of the first two questions as they related to both methods of training. Finally, the data was analyzed and the questions were answered.
Summary

Research on the method of training and self-efficacy, perception of training and ExCET scores was conducted via surveys. The surveys were developed and chosen from an extensive literature review based on the research questions, which are as follows:

1. Is there a difference between the self-efficacy of traditionally and alternatively prepared candidates?
2. Is there a difference between the perception of preparedness of traditionally and alternatively prepared candidates?
3. Is there a difference in the pass rate of traditionally and alternatively prepared candidates on the Generic Special Education ExCET?
4. Is there a difference between perception of preparedness and self-efficacy of traditionally and alternatively prepared candidates?

The surveys were distributed via mail to one hundred eighty-two alternative certification special education candidates of the Region 10 Education Service Center and the twenty-four teacher candidates who graduated from the College of Education at the University of North Texas with an emphasis in special education. The returned surveys were compiled and examined with determining relationships between the two methods of training. In addition, the demographics of each group were examined and described to delineate the differences among each population.

Finally, the best statistical practices were determined and calculated on the compiled data. This data will be described in detail in the following chapter.
CHAPTER 4

ANALYSIS OF DATA

This study was completed in order to evaluate and compare one traditional and one alternative special education teacher training program as they relate to self-efficacy, perception of training, and ExCET scores. Teachers who have completed the traditional certification program from the University of North Texas and those who completed the alternative certification program from Region 10 Education Service Center were asked to complete a demographic page and two surveys as they related to their specific training and their self-efficacy.

The research questions have been developed out of an investigation of the research on traditional and alternative certification programs as well as a desire to improve certification programs in the state of Texas. The research questions are as follows:

1. Is there a difference between the self-efficacy of traditionally and alternatively prepared candidates?
2. Is there a difference between the perception of preparedness of traditionally and alternatively prepared candidates?
3. Is there a difference in the pass rate of traditionally and alternatively prepared candidates on the Generic Special Education ExCET?
4. Is there a difference between perception of preparedness and self-efficacy of traditionally and alternatively prepared candidates?
These questions were answered by both traditionally and alternatively certified candidates as the candidates completed their first year of teaching.

Data Analysis for Question One

Research question one asks, “Is there a difference between the self-efficacy of traditionally and alternatively prepared candidates?” The method used to answer this question began with having the teacher candidates complete the Gibson Efficacy Survey. The data was then compiled and inputted to begin using a $t$ test to investigate the possibility of statistical differences between traditional and alternative certification candidates.

First, histograms were examined to investigate the possibility of outlier observations. Once it was determined that the data presented as normal, it was also determined that the $t$ test assumptions seemed to be met. Due to the large difference in sample size between the traditional certification candidates (N=10) and the alternative certification candidates (N=74), the $t$ test was figured using the standard error of difference. Once this was manually calculated, the $t$ test score was figured. The $t$ test is used to determine whether the means of the traditionally certified and alternatively certified candidates are statistically different. In the case of the two groups who filled out the Gibson Self-Efficacy survey the $t$-score was -.35. From this data one can surmise that there is no statistical difference in the self-efficacy of traditionally certified teachers and alternatively certified teachers because the score must be higher than 1.96 to be significant at the .05 level of significance.
According to the calculated results there appear to be no statistically significant differences between traditionally and alternatively certified teachers with regard to self-efficacy as rated by the Gibson Self-Efficacy survey.

Data Analysis for Question Two

Question two, “Is there a difference between the perception of preparedness of traditionally and alternatively prepared candidates?” was investigated using a survey deemed from the fourteen ExCET competency domains. The candidates, both traditional and alternative, were to rate their comfort level with the level of training they received on each ExCET domain. The candidates were asked to rate the domains with the introductory statement “I feel comfortable with my training in”. Responses on the scale ranged from one to six, one being “strongly disagree”, two “moderately disagree”, three “disagree slightly more than agree”, four “agree slightly more than disagree”, five “moderately agree”, and six being “strongly agree”.

Ten University of North Texas candidates completed and returned the survey rating their comfort level based on the training they received at the University of North Texas. The range for the means was between 4.2 and 5.2, indicating they feel somewhat comfortable with the training they received when based on the fourteen ExCET competencies. The table below exhibits the means and standard deviations for each competency domain.
Table 1: University of North Texas Training Comfort Levels

<table>
<thead>
<tr>
<th>I feel comfortable with my training in:</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>learning and factors that may affect learning in students with disabilities and uses this knowledge to respond to individual learners’ needs and take advantage of their capacities.</td>
<td>5.10</td>
<td>1.10</td>
</tr>
<tr>
<td>the effects of disabilities on developmental processes and progressions in various domains.</td>
<td>4.70</td>
<td>1.16</td>
</tr>
<tr>
<td>formal and informal assessment procedures designed to evaluate individual differences and make placement and programming decisions.</td>
<td>4.80</td>
<td>1.14</td>
</tr>
<tr>
<td>establishing a positive learning climate that is responsive to the learners’ academic, social, and affective needs.</td>
<td>5.20</td>
<td>.92</td>
</tr>
<tr>
<td>fostering the development of learners’ social competence in a variety of settings.</td>
<td>4.90</td>
<td>1.20</td>
</tr>
<tr>
<td>recognizing the purposes of communication, awareness of factors and processes influencing the development of communication in learners with disabilities, and knowing how to provide instruction to help learners with disabilities become more effective communicators.</td>
<td>4.70</td>
<td>1.42</td>
</tr>
<tr>
<td>facilitating learners’ functional living competence in current and future environments.</td>
<td>4.20</td>
<td>1.48</td>
</tr>
<tr>
<td>promoting learners’ academic performance in the content areas by facilitating their achievement in a variety of settings and their application of knowledge and skills in new situations.</td>
<td>4.60</td>
<td>1.51</td>
</tr>
<tr>
<td>promoting learners’ academic performance in reading/language arts by facilitating their achievement in a variety of settings and their application of knowledge and skills in new situations.</td>
<td>4.60</td>
<td>1.43</td>
</tr>
<tr>
<td>promoting learners’ academic performance in mathematics by facilitating their achievement in a variety of settings and their application of knowledge and skills in new situations.</td>
<td>4.40</td>
<td>1.43</td>
</tr>
<tr>
<td>knowing how to establish partnerships with other school staff and support service providers to enhance learning opportunities for students with disabilities.</td>
<td>4.90</td>
<td>.99</td>
</tr>
<tr>
<td>knowing how to foster strong school-home relationships to enhance learners’ ability to achieve desired learning outcomes.</td>
<td>5.00</td>
<td>.82</td>
</tr>
<tr>
<td>encouraging school-community interactions that enhance learner opportunities to be an integral part of the community.</td>
<td>4.40</td>
<td>1.26</td>
</tr>
<tr>
<td>knowledge of requirements, expectations, and constraints associated with teaching special needs populations in Texas and applying this knowledge to ensure educational excellence and equity for these learners.</td>
<td>4.60</td>
<td>1.51</td>
</tr>
</tbody>
</table>

The alternative certification candidates mean scores for each domain were between 4.38 and 5.35. This indicates that those who participated in the Region 10 alternative certification program generally are comfortable with their level of training in
the fourteen ExCET domains. The following chart lists the fourteen ExCET competencies along with the mean and standard deviation based on the responses of the Region 10 alternative certification candidates.

Table 2: Region 10 Training Comfort Levels

<table>
<thead>
<tr>
<th>I feel comfortable with my training in:</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>learning and factors that may affect learning in students with disabilities and uses this knowledge to respond to individual learners’ needs and take advantage of their capacities.</td>
<td>5.07</td>
<td>1.02</td>
</tr>
<tr>
<td>the effects of disabilities on developmental processes and progressions in various domains.</td>
<td>4.77</td>
<td>1.07</td>
</tr>
<tr>
<td>formal and informal assessment procedures designed to evaluate individual differences and make placement and programming decisions.</td>
<td>4.38</td>
<td>1.13</td>
</tr>
<tr>
<td>establishing a positive learning climate that is responsive to the learners’ academic, social, and affective needs.</td>
<td>5.35</td>
<td>.93</td>
</tr>
<tr>
<td>fostering the development of learners’ social competence in a variety of settings.</td>
<td>4.93</td>
<td>1.00</td>
</tr>
<tr>
<td>recognizing the purposes of communication, awareness of factors and processes influencing the development of communication in learners with disabilities, and knowing how to provide instruction to help learners with disabilities become more effective communicators.</td>
<td>4.81</td>
<td>1.09</td>
</tr>
<tr>
<td>facilitating learners’ functional living competence in current and future environments.</td>
<td>4.35</td>
<td>1.09</td>
</tr>
<tr>
<td>promoting learners’ academic performance in the content areas by facilitating their achievement in a variety of settings and their application of knowledge and skills in new situations.</td>
<td>4.84</td>
<td>.97</td>
</tr>
<tr>
<td>promoting learners’ academic performance in reading/language arts by facilitating their achievement in a variety of settings and their application of knowledge and skills in new situations.</td>
<td>4.64</td>
<td>1.09</td>
</tr>
<tr>
<td>promoting learners’ academic performance in mathematics by facilitating their achievement in a variety of settings and their application of knowledge and skills in new situations.</td>
<td>4.58</td>
<td>1.10</td>
</tr>
<tr>
<td>knowing how to establish partnerships with other school staff and support service providers to enhance learning opportunities for students with disabilities.</td>
<td>4.77</td>
<td>1.00</td>
</tr>
<tr>
<td>knowing how to foster strong school-home relationships to enhance learners’ ability to achieve desired learning outcomes.</td>
<td>4.88</td>
<td>.95</td>
</tr>
<tr>
<td>encouraging school-community interactions that enhance learner opportunities to be an integral part of the community.</td>
<td>4.53</td>
<td>.97</td>
</tr>
<tr>
<td>knowledge of requirements, expectations, and constraints associated with teaching special needs populations in Texas and applying this knowledge to ensure educational excellence and equity for these learners.</td>
<td>5.01</td>
<td>.97</td>
</tr>
</tbody>
</table>
Following the same analysis as question one, first, histograms were examined to investigate the possibility of outlier observations. Once it was determined that the data presented as normal, it was determined that the \( t \) test assumptions seemed to be met. Due to the large difference in sample size between the traditional certification candidates \((N=10)\) and the alternative certification candidates \((N=74)\) the \( t \) test was figured using the standard error of difference. Once this was manually calculated, the \( t \) test score was figured. The \( t \) test is used to determine whether the means of the traditionally certified and alternatively certified candidates are statistically different. In the case of the two groups who filled out the comfort level survey, the \( t \)-score was 1.92. The total mean for University of North Texas candidates was 66.1; however the total mean for the Region 10 candidates was 66. According to the calculated results, there appear to be no statistically significant differences between traditionally and alternatively certified teachers with regard to their perception of the level of training based on the fourteen ExCET competencies.

Data Analysis for Question Three

Question three investigates the ExCET passing rate of candidates in both the traditional and alternative certification programs. It states, “Is there a difference in the pass rate of traditionally and alternatively prepared candidates on the Generic Special Education ExCET?” UNT reported a passing rate for special education candidates to be 92.86%. Region 10 alternative certification program special education candidates had a passing rate of 98.5%. Region 10 had 201 candidates take the exam and 198 passed on their first attempt. Therefore, there is not a significant difference between passing rates of
those traditionally or alternatively certified from the University of North Texas and Region 10 Education Service Center.

Data Analysis for Question Four

Is there a difference between perception of preparedness and self-efficacy of traditionally and alternatively prepared candidates? Potential differences between perception of preparedness and self-efficacy in traditionally and alternatively certified teachers were examined using multiple analysis of variance (MANOVA). This question requires combining all of the data compiled from the two groups to determine if one group can be distinguished from another. MANOVA was used because there were two dependent variables, being the surveys. This question required a combination of the first two questions as they related to both methods of training. MANOVA allows the researcher to simultaneously test each factor effect on the dependent groups. Interactions between the items are automatically assessed.

It was determined that the assumptions for MANOVA were met and histograms were examined to negate the possibility of outlier observations. The two surveys were used as the dependent variables. The independent variable was the type of training received, whether traditional or alternative. Wilks’ lambda F(2,80) = .116, p = .891. A nonsignificant Wilks’ lambda was found. Therefore, there are group differences on the two surveys or no multivariate effect. In addition, any differences obtained in this study can be attributed to variation in the sample, not necessarily in the traditional and alternative certification groups as individual groups.
Demographics

The demographic page asked a variety of questions including age, educational background, race, gender, and past experience with children including those with exceptional needs. In addition, candidates were asked to respond to questions regarding their current teaching position and school environment.

Traditional Certification Candidates

According to the demographic information compiled from the traditionally certified candidates’ returned surveys, all respondents were female (N=10). The University of North Texas traditionally certified candidates ranged from age 20 to 55 years of age. One candidate (10%) was age 20 to 25, four (40%) 26 to 30, one (10%) 31 to 35, two (20%) 36 to 40, one (10%) 46 to 50, and one (10%) 51 to 55. Nine of the candidates were White or of non-Hispanic origin (90%) and the remaining candidate was Hispanic (10%).

All of the candidates had previous experience with children and/or adolescents and some in more than one area. Six (60%) of the traditional candidates had experience through volunteer work and/or babysitting. One candidate (10%) had been a classroom aide or paraprofessional. Three (30%) of the respondents were parents, and four (40%) had worked with children through religious education programs. In addition, some of the candidates were experienced in the area of working with students with special needs including babysitting, spending time with a neighborhood or family friend, parenting, religious education, sibling interaction, and paraprofessional work. In fact, five noted experiences with children with special needs through volunteer work.
During the 2001-2002 school year these candidates served a wide population of exceptional students. In addition, some of the teachers worked with several grade levels. One teacher (10%) reported that she taught all levels, six (60%) worked with elementary students, five (50%) with middle school students, and one (10%) taught at the high school level. Due to the ten respondents, one can agree that several of the teachers work with more than one level of students. The candidates were also responsible for providing instruction to students with varying degrees of disabilities. Nine candidates (90%) agreed they worked with students with learning disabilities, six (60%) with students with mental retardation, and five (50%) with those who have autism. Nine out of the ten (90%) also agreed they educated students with emotional disturbance and/or behavior disorders, and seven (70%) worked with students with speech and language impairments. It is important to note that some of the overlap could be students who experience more than one difficulty.

These traditionally certified teachers also work across several different settings and levels of services. Six (60%) of the teachers taught students who are in a self-contained classroom. Two (20%) helped those students who receive services from a content mastery program. Five of the ten (50%) worked in a resource room type of setting and five (50%) worked as inclusion teachers. One teacher (10%) marked “other” and stated she worked in a “pull-out” program.

The candidates were then asked, “How accepted do you feel by your current school staff?” (see Table 3). They were to respond on a likert scale from one to six, one being “very unaccepted” and six being “very accepted”. The average for all ten responses
was 4.6. One (10%) answered two, one (10%) responded three, two (20%) were fours, three (30%) circled five, and three (30%) candidates marked six.

Table 3: How accepted do you feel by your current school staff?

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<tbody>
<tr>
<td>Very Unaccepted</td>
<td>0%</td>
<td>10%</td>
<td>10%</td>
<td>20%</td>
<td>30%</td>
<td>30%</td>
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</table>

The questionnaire then asked, “What factors do you feel effect how well you are accepted by your current school staff?” Four (40%) responded to age, one (10%) agreed to ethnicity, seven (70%) noted their experience with children and adolescents, two (20%) gender, two (20%) type of teacher preparation, and six (60%) commented other. The handwritten comments included, “what previous school I came from,” “the lack of knowledge about special education,” “their perceived importance of my program,” “NEED,” and “no one like special education teachers.” The traditional certification candidates generally feel accepted by their current school staff.

In summary, the ten female respondents from the University of North Texas were considered the sample for the traditionally certified candidates. Their responses were calculated and interpreted based on the four research questions of the study.

**Alternative Certification Candidates**

Of the seventy-four Region 10 alternative certification candidates who returned their information, there were fifteen men and fifty-nine women. The teachers ranged from age 20 to older than 56 with a mode between 26 and 30 years of age. Nine candidates
(12%) were between 20 and 25, twenty (27%) between 26 and 30, six (8%) between 31 and 35, nine (12%) between 36 and 40, eleven (15%) between 41 and 45, twelve (16%) between 46 and 50, five (7%) between 51 and 55, and two (3%) older than 56. Sixty-six of the candidates (89%) were White or of non-Hispanic origin, four (5%) were African American, two (3%) marked Hispanic or Latino, and one (1%) Asian or Pacific Islander. One candidate (1%) marked other but did not specify.

The alternative certification candidates came from a wide variety of backgrounds. The population held bachelor’s degrees in business, psychology, English, history, anthropology, and animal science. One person, formerly an attorney, held a doctorate of jurisprudence. Their backgrounds or previous careers varied from nurses, sales representatives, retail workers, investment bankers to several who had served in the military. Many of the candidates had previously worked with children through day care facilities, churches, or staying at home with their children. In fact, all seventy-four candidates agreed they had had some experience with children and/or adolescents before beginning the program. Forty-six candidates (62%) got their experience through babysitting, twenty-five (34%) through being a classroom aide and/or paraprofessional, and three (4%) were home-school educators. Forty-five alternative certification candidates (61%) were parents, thirty-eight (51%) had worked as religious educators, and forty-six (62%) had completed some volunteer work with children. Many of the candidates also agreed that they had had some experience with children and/or adolescents with special needs. Thirteen (18%) gained their experience by babysitting, twenty-three (31%) from practicing as a classroom aide or paraprofessional, four (5%) as
a home school educator, and twenty-three (31%) from spending time with a neighborhood or family friend. Eight of the candidates (11%) are parents of a child or children with special needs, ten (14%) have taught religious education to students with special needs, and five (7%) have siblings with special needs. Twenty-nine of the seventy-four candidates (39%) volunteered with or for exceptional children and/or adolescents.

Similar to the traditionally certified candidates, the alternative certification candidates serve a variety of students in all levels of public education. Forty-one of the candidates (55%) work with elementary students, sixteen (22%) in middle schools, and eleven (15%) in high school settings. Twelve of the candidates (16%) work across all levels. Sixty-five of the teachers (88%) work with students with learning disabilities and sixty-three (85%) teach students with emotional disturbance and/or behavior disorders. Of the seventy-four candidates forty-four (59%) agreed that they instructed students with mental retardation. Fifty-two (70%) work with students with speech and language impairments and thirty-four (46%) teach students with autism. The teachers work in a variety of settings including thirty-eight (51%) in self-contained classrooms. Twenty-two (30%) serve students through a content mastery program, thirty-nine (53%) in resource rooms, and twenty-five (34%) in the general education classroom through inclusion. One teacher (1%) marked “other,” however did not specify what type of setting.

The alternative certification candidates were also asked to respond to the following question: “How accepted do you feel by your current school staff?” (see Table 4). The answers were compiled using a one to six likert scale, one being “very
unaccepted” to six being “very accepted.” The mean for the alternative certification candidates was 5.01, indicating that they feel mostly accepted by their colleagues. One candidate (1%) circled one as very unaccepted, one (1%) circled two, and two candidates (3%) circled three. Moving towards the very accepted six (8%) agreed with number four, twenty-three (31%) marked their acceptance as five and thirty-eight (51%) agreed with the number six or very accepted.

Table 4: How accepted do you feel by your current school staff?

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<tbody>
<tr>
<td>Very Unaccepted</td>
<td>Very Accepted</td>
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<tr>
<td>1%</td>
<td>1%</td>
<td>3%</td>
<td>8%</td>
<td>31%</td>
<td>51%</td>
</tr>
</tbody>
</table>

When asked, “What factors do you feel effect how well you are accepted by your current school staff?” forty-nine of the candidates (66%) indicated experience working with children and adolescents as their number one factor. Forty-one (55%) agreed with age, and twenty-three marked the type of teacher preparation received. Nineteen (26%) agreed with gender as a factor and eight candidates (11%) marked ethnicity. Twenty-seven (36%) candidates marked “other” and some of their handwritten comments included, “my expectations for the students,” “my attitude and confidence, my past experience,” “maturity and professionalism,” and “attitude toward children.”

After the demographic information was compiled, analysis for the four research questions began using the ExCET scores and information gathered from the two surveys
distributed. The information was compiled as group data divided between traditional and alternative certification.

Summary

In summary, there was no significant discrepancy between the traditionally and alternatively certified candidates as rated by the Gibson Self-Efficacy survey, the comfort level of training as based on the fourteen ExCET competencies, or their ExCET passing rates. The traditionally and alternatively certified teachers performed equally as well on all areas researched.
CHAPTER 5
SUMMARY, CONCLUSIONS, AND IMPLICATIONS

This chapter is divided into three sections: 1) the summary of the research and study, 2) conclusions, and 3) implications and recommendations for further research in the field of teacher certification. The first section will include information regarding the development of the research questions, the research questions, and the design of the research. The conclusion portions will summarize and discuss the findings as addressed by the research questions. The final section will include possibilities for interpreting the data as well as the potential for further research in the field of teacher education, specifically in special education.

Summary

Literature Review

This research was encouraged by the tremendous demand for teachers. Two million new teachers will be needed in the United States over the next decade (Chaika, 2000; Guignon, 1998). For 2001, the Texas Education Agency expected a shortage of approximately 40,000 in its districts’ schools (Taylor, 2001). In many states there has been a critical need (Feistritzer, 1994; McKibbin & Ray, 1994; Neumann, 1994; Roth, 1986; Sandlin, Young, & Karge, 1992; Shen, 1998) for educators in specialty areas such as special education (Buck, Polloway, & Robb, 1995; Conderman, Stephens, & Hazelkorn, 1999; Dill, 1994; Weichel, 1999), math (Hawk & Schmidt, 1989), bilingual education (Dill, 1994), and science (Hawk & Schmidt, 1989). The National Center for Educational Statistics predicted in 1980 the teacher shortage that is now evident. Others
also predicted the current shortage. The 1986 report, *A Nation Prepared: Teachers for the 21st Century* reported that within seven years of entering the profession, nearly half of all teachers would leave (Wisniewski & Gargiulo, 1997).

The teacher shortage has school administration, school boards, education agencies, and institutions of higher education investigating how to train and retain more teachers. States and individual metropolitan districts are developing training programs to alternatively certify educators. The United States Department of Education defined alternative certification as: “Teacher preparation programs that enroll non-certified individuals with at least a bachelor’s degree, offering shortcuts, special assistance, or unique curricula leading to eligibility for standard teaching credential” (Guyton, Fox, & Sisk, 1991, p. 1; Grable & Odgen, 1994, p. 470).

Alternative certification programs produce additional teachers for areas of severe shortage such as special education, bilingual education, English as a second language, math, and science (Dill, 1994; Hawk & Schmidt, 1989; Sindelar & Marks, 1993; Shen, 1998). Alternative certification programs enroll individuals who hold baccalaureate degrees in areas other than education and have an interest in teaching. These preservice teachers attend training during the summer to learn strategies and classroom management skills. At the conclusion of the summer program they become independent classroom teachers. Not suprisingly, the effectiveness of such training efforts has been questioned.

To be effective, teachers must believe they can facilitate student learning. This belief is an abstract, yet powerful, concept known as self-efficacy and can affect student achievement (Dembo & Gibson; 1985; Woolfolk & Hoy, 1990). Albert Bandura (1986)
wrote, “Self Efficacy beliefs are the product of a complex process of self-persuasion that relies on cognitive processing of diverse sources of efficacy information…. Once formed, efficacy beliefs contribute significantly to the level and quality of human functioning” (p. 186). Research suggests that the more strongly teachers perceive their self-efficacy, the more effort they will put forth in their endeavors (Bandura, 1986). With this understanding, it becomes important to investigate how teachers develop self-efficacy and how it can be improved.

In addition to believing one will be an effective teacher after completing the coursework, candidates, traditional and alternative, must also pass an examination of teaching competence. These examinations vary from state to state and serve as evidence that a candidate has the knowledge base to become an effective classroom teacher. Candidates are asked about pedagogy, classroom management, curriculum, and content information based on the subjects they will be teaching. In Texas, the teacher competency examination is the Examination for the Certification of Educators in Texas (ExCET). Most states utilize competency exams as part of the certification process (Hardy, 1998).

**Purpose of the Study**

The teacher shortage, combined with increased enrollments and reduced class size, has compounded the need to find more quality teachers. Alternative certification programs have been developed to address the teacher shortage. This study examined the effectiveness of traditionally and alternatively certified teachers in two separate programs with regard to their self-efficacy, perception of their training, and their ExCET scores.
Research Questions

The research questions for this study were designed to investigate differences between perception of training, self-efficacy, and the ExCET scores of teachers who were traditionally and alternatively certified.

1. Is there a difference between the self-efficacy of traditionally and alternatively prepared candidates?

2. Is there a difference between the perception of preparedness of traditionally and alternatively prepared candidates?

3. Is there a difference in the pass rate of traditionally and alternatively prepared candidates on the Generic Special Education ExCET?

4. Is there a difference between perception of preparedness and self-efficacy of traditionally and alternatively prepared candidates?

Organizational Plan of Research

This project used survey research to determine if there was a difference between perception of training, self-efficacy, and ExCET scores of traditional certification candidates from the University of North Texas in Denton, Texas, and alternative certification candidates from the Region 10 Education Service Center in Richardson, Texas. Those who completed the alternative certification program during Spring 2002 and candidates for certification from University of North Texas in the Spring and Summer of 2001 were asked to complete a survey based on their training experiences in relation to the ExCET competencies as delineated by the state of Texas and the Texas Education Agency. In addition, the candidates were surveyed based on their self-efficacy
using the Teacher Efficacy Scale (1984) by Sheri Gibson, Ph.D. The results were compiled using the aggregate data from the surveys and ExCET test results.

Conclusions

The research questions were developed from a thorough review of literature based on information gathered about teacher certification and effectiveness of teachers as it relates to self-efficacy, perception of training, and passing the state mandated certification examination. The purpose of the research was to investigate the quality of traditional versus alternative certification as it relates to self-efficacy and perception of training. The research questions are as follows:

1. Is there a difference between the self-efficacy of traditionally and alternatively prepared candidates?
2. Is there a difference between the perception of preparedness of traditionally and alternatively prepared candidates?
3. Is there a difference in the pass rate of traditionally and alternatively prepared candidates on the Generic Special Education ExCET?
4. Is there a difference between perception of preparedness and self-efficacy of traditionally and alternatively prepared candidates?

Data used to answer the previous questions indicated there was no significant difference between the two groups.

Previous data regarding traditional versus alternative certification indicated such results were likely. When examining the competency test scores, the National Teacher Exam, Hawk and Schmidt (1989) revealed that “for approximately 80 % of the
instructional time and considerably less chronological time, the LEP (Lateral Entry Program) provided essentially the same level of book knowledge as traditional preparation programs” (p. 56). Sandlin, Young, and Karge (1992) found similar results when looking at a California program. The California researchers noted that whether the teacher is traditionally or alternatively certified, “the process of teaching involves a continuum of learning, unlearning, and relearning” (p. 16).

Grable and Ogden (1994) compared traditional and alternatively certified teachers using the Texas Teacher Appraisal System. “It appeared that accelerated (alternative) certification of post-baccalaureate interns in a program of education instruction could be an effective alternative to traditional training for teacher certification” (p. 472). In Georgia, Guyton, Fox, and Sisk (1991) examined “teaching attitudes, teacher efficacy, and teacher performance of first year teachers prepared by alternative and traditional education programs” (p. 1). The evaluators did not find a significant difference between the two groups with regard to teacher performance, teaching perceptions, and problems faced during the first year. The authors determined that alternative certification is “a reasonable alternative to traditional teacher preparation programs for persons with degrees in the subject they will teach” (p. 7). Sindelar and Marks (1993) agreed with Guyton, Fox, and Sisk after they examined nineteen studies of alternative certification and found them to be as effective as traditional training programs.

The previous results are similar to those found in this research. The traditionally and alternatively certified teachers do not exhibit any statistically significant differences with regard to self-efficacy, perception of their training, and their ability to pass the
ExCET. The teachers seem to exhibit the same qualities or level of quality regardless of the method of training they received.

Implications

The teacher shortage will have an important effect on the training of many of tomorrow’s teachers. As more teachers from alternative certification programs enter the profession, higher education faculty and education experts in other preparation programs must ensure these programs are producing quality teachers. In 2001, the Region 10 Texas Education Service Center certified approximately 180 special education teachers, while fewer than thirty were certified from the University of North Texas. These figures are similar to other major universities in Texas and across the United States. Alternative certification programs are a necessity in today’s schools. The concern of the teacher educators should be to develop the intensive training so teachers are learning the skills needed to be effective in the classroom.

Although there were not statistically significant results among the differences between traditional and alternative certification programs and the sample size for traditional candidates was small, one can make some inferences regarding the data. One could say that the certification program, whether it is traditional or alternative, is generally a springboard for becoming a professional educator. We can infer that training a teacher who will continue to learn is essential. It is important to continue training teachers as they enter the classroom to help them meet the needs of the changing demographics, learning styles, and new techniques and strategies.
Again, those who train teachers realize the need for alternative certification programs and desire to develop solid teacher training programs for both traditional and alternative certification. Those who develop teacher preparation programs, whether they are traditional or alternative programs, are responsible for examining current trends and research as they integrate this new information into their courses. Understanding self-perceptions and what role they play in classroom effectiveness is one such responsibility. This information could be used to develop and refine teacher training programs.

Knowledge of the relationship between teacher self-efficacy and student learning and achievement should be of concern to those who prepare teachers. This study explored the self-efficacy of candidates in teacher training programs with special attention to their perceptions regarding their preparation for teaching as measured by the ExCET. Information gained from this study should be utilized by those who are responsible for preparing teachers in both types of programs. Teacher trainers should be encouraged to consider their role in building self-efficacy in their teacher candidates.

This self-efficacy research could also lead to more research on choosing the best candidates for traditional and alternative certification programs. Finding those candidates with a high personal self-efficacy could improve the longevity of a teacher’s career. In addition, the information gained from the research will assist the University of North Texas as it develops its own alternative certification program. It is becoming increasingly necessary to produce more teachers, and the University of North Texas can play a significant role in meeting the needs of the schools of Texas by adding to the pool of
certified teachers. This information will assist alternative teacher training programs in developing alternative training programs that will positively affect their candidates.

In addition, further research could include investigating more than the two sites considered for this study. Due to the small number of graduates from traditional programs it may be helpful to use more than one traditional program for the comparison. In addition, a qualitative study might examine where teachers perceive their self-efficacy and knowledge base originated. Do teachers consider most of their knowledge common sense, a born-to-teach ability, or from the instruction and training they have received? Many teachers have difficulty distinguishing between what they have learned in their training programs and what they have learned from previous life experiences.

It could be interesting and telling to included information comparing first and second year teachers with regard to the type of training they received. The evaluations given by the supervising principals could give insightful information into the differences or similarities of traditionally and alternatively certified teachers. Since there seems to be such a learning curve within the first two years of teaching, this investigation could be beneficial for those planning new teacher inservice and training programs.

Finally, including a qualitative study with interviews asking traditional and alternative candidates as well as their colleagues and principals about their perception of the training and transfer of abilities to the classroom could portray an in-depth picture of the training programs. Interviews could examine both self-efficacy and ability as well as how the candidates are perceived by others and if those perceptions are accurate.
Summary

Alternative certification as a method of preparing teachers may not be the first choice for many, especially those who have pursued several degrees and dedicated their professional life to teacher training in higher education; however, they are a reality. According to this data on self-efficacy, perception of training, and ExCET passing rates, there is no significant difference between those teachers who receive traditional and those who are trained in alternative certification programs. Teacher educators need to continue to review the literature and conduct studies to determine the most effective way to train quality teachers in the most efficient manner.
Appendix A

Cover Letter and Demographic Sheet
Dear Participant,

My name is Tierney Thompson and I am presently a doctoral student at the University of North Texas. I would appreciate your assistance with my dissertation research. I will be examining the training of teachers in special education through traditional and alternative methods. Special education teachers who received their training through Region X Education Service Center and the University of North Texas are the subjects of the study. Specifically, I am interested in your perception of the effectiveness of the training (traditional/alternative) you received.

Enclosed with this letter are two questionnaires and a demographic cover page. The first questionnaire asks you to rate your comfort level with the training you received through your program in the fourteen domains of the Examination for the Certification of Educators in Texas (ExCET). The ratings range from 1, reflecting a feeling of not being adequately trained, to 6, feeling very comfortable with your training. The second survey, the Teacher Efficacy Scale asks you to rate your perceptions about your ability to bring about positive student change. The rating system in this survey is based on the same six-point scale. The demographic cover sheet asks questions about your experiences with education and children and your interest in the profession of teaching. Completion of both surveys and the demographic cover page should take no longer than 30 minutes.

Please do not write your name on the questionnaire or demographic cover page. The results of the survey and demographic cover page will be summarized by the type of training received by participants, traditional or alternative. No identifying information will be collected or used. Please return the demographic sheet and two surveys in the enclosed stamped envelope by July 12th. Participation in this research project will not affect your certification or job placement in any way. Remember that your name should not appear anywhere on the papers. Any questions can be directed to Tierney Thompson at 972-517-1841 or Tierney_Thompson@winston-school.org.

Your participation in this research will help further the knowledge about effective training of teachers. It will also be helpful to the entity where you received your training as they consider modification to their curriculum to enhance the quality of their teacher preparation program.

This project has been reviewed by the University of North Texas Committee for the Protection of Human Subjects (940-565-3940). This research is being overseen by Bertina Combes, Ph.D. Assistant Dean of the College of Education (940-565-4325). The return of your survey indicates your consent to participate.

Thank you in advance for your participation in this study!

Sincerely,

Tierney Thompson
Please take a moment to fill out the following demographic information.
Thank you in advance for your participation!

Gender:
____Female
____Male

Age:
____20-25
____26-30
____31-35
____36-40
____41-45
____46-50
____51-55
____56 or older

Ethnicity:
____American Indian or Alaskan Native
____African American, Black
____Asian or Pacific Islander
____Hispanic, Latino
____White, non-Hispanic origin
____Other

Undergraduate Major: ________________________________

Graduate Degree: ________________________________

Graduate Year: ________________________________

Describe careers or jobs held prior to entering the teacher preparation program? (student, accountant, private business, military, nurse)
____________________________________________________________________________________________
____________________________________________________________________________________________
____________________________________________________________________________________________

Previous experiences with children and adolescents: (Check all that apply)
____Babysitting
____Classroom aide (paraprofessional)
____Home-School Educator

Previous experiences with children and adolescents with special needs: (Check all that apply)
____Babysitting
____Classroom aide (paraprofessional)
____Home-School Educator
____Neighborhood/Family friend

Type of students served: (Check all that apply)
____Learning Disabilities
____Emotional Disturbance/Behavior Disorders
____Mental Retardation

____Speech/Language Impairment
____Autism

Type of Classroom:
____Self-Contained
____Content Mastery
____Resource Room
____Inclusion
____Other: ________________________________

How accepted do you feel by your current school staff?
1 2 3 4 5 6
very very unaccepted accepted

88
What factors do you feel effect how well you are accepted by your current school staff?

- Age
- Ethnicity
- Experience (working with children and adolescents)
- Gender
- Type of Teacher Preparation received (Traditional or Alternative)
- Other: _________________________________________________________
Appendix B

Gibson Self-Efficacy Survey
### Teacher Efficacy Scale
By Sherri Gibson, 1983

<table>
<thead>
<tr>
<th>Item</th>
<th>Strongly disagree</th>
<th>Moderately disagree</th>
<th>Disagree slightly more than agree</th>
<th>Agree slightly more than agree</th>
<th>Moderately agree</th>
<th>Strongly agree</th>
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<td>1. When a student does better than usual, many times it is because I</td>
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<td>exerted a little extra effort.</td>
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<td>2. The hours in my class have little influence on students compared to</td>
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<td>the influence of their home environment.</td>
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<td>3. If parents comment to me that their child behaves much better at</td>
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<td>school than he/she does at home, it would probably be because I have</td>
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<td>some specific techniques of managing his/her behavior which they may</td>
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<td>lack.</td>
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<td>4. The amount that a student can learn is primarily related to family</td>
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<td>5. If a teacher has adequate skills and motivation, she/he can get</td>
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<td>through to the most difficult students.</td>
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<td>6. If students aren't disciplined at home, they aren't likely to accept</td>
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<td>any discipline.</td>
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<td>7. I have enough training to deal with almost any learning problem.</td>
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<td>8. My teacher training program and/or experience has give me the</td>
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<td>necessary skills to be an effective teacher.</td>
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<td>9. Many teachers are stymied in their attempts to help students by lack</td>
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<td>of support from the community.</td>
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<td>10. Some students need to be placed in slower groups so they are not</td>
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<td>subjected to unrealistic expectations.</td>
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<td>11. Individual differences among teachers account for the wide</td>
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<td>variations in student achievement.</td>
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<td>12. When a student is having difficulty with an assignment, I am usually</td>
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<td>able to adjust it to his/her level.</td>
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<td>13. If one of my new students cannot remain on task for a particular</td>
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<td>assignment, there is little that I could do to increase his/her attention</td>
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<td>until he/she is ready.</td>
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<td>14. When a student gets a better grade than he usually gets, it is usually</td>
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<td>because I found better ways of teaching that student.</td>
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<td>15. When I really try, I can get through to most difficult students.</td>
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<td>16. A teacher is very limited in what he/she can achieve because a</td>
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<td>student's home environment is a large influence on his/her achievement.</td>
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<td>17. Teachers are not a very powerful influence on student achievement</td>
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<td>when all factors are considered.</td>
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<td>18. If students are particularly disruptive one day, I ask myself what I</td>
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<td>have been doing differently.</td>
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<td>19. When the grades of my students improve it is usually because I</td>
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<td>found more effected teaching approaches.</td>
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<td>20. If my principal suggested that I change some of my class curriculum,</td>
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<td>I would feel confident that I have the necessary skills to implement the</td>
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<td>unfamiliar curriculum.</td>
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<td>21. If a student masters a new math concept quickly, this might be</td>
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<td>because I knew the necessary steps in teaching that concept.</td>
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<td>22. Parent teacher conferences can help a teacher judge how much to</td>
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<td>expect from a student by giving the teacher an idea of the parents'</td>
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<td>values toward education, discipline, etc.</td>
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<td>23. If parents would do more with their children, I could do more.</td>
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<td>24. If a student did not remember information I gave in a previous lesson, I would know how to increase his/her retention in the next lesson.</td>
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<td>2</td>
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<td>4</td>
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<tr>
<td>25. If a student in my class becomes disruptive and noisy, I feel assured that I know some techniques to redirect him quickly.</td>
<td>1</td>
<td>2</td>
<td>3</td>
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<tr>
<td>26. School rules and policies hinder my doing the job I was hired to do.</td>
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<td>27. The influences of a student's home experiences can be overcome by good teaching.</td>
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<tr>
<td>28. When a child progresses after being placed in a slower group, it is usually because the teacher has had a chance to give him/her extra attention.</td>
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<td>2</td>
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<td>4</td>
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<tr>
<td>29. If one of my students couldn't do a class assignment, I would be able to accurately assess whether the assignment was at the correct level of difficulty.</td>
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<tr>
<td>30. Even a teacher with good teaching abilities may not reach many students.</td>
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</tbody>
</table>
Appendix C

Perception of Training Survey
Rate your comfort level of training received in the Special Education Program at UNT.

<table>
<thead>
<tr>
<th>I feel comfortable with my training in:</th>
<th>Strongly disagree</th>
<th>Moderately disagree</th>
<th>Disagree slightly more than agree</th>
<th>Agree slightly more than disagree</th>
<th>Moderately agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>learning and factors that may affect learning in students with disabilities and uses this knowledge to respond to individual learners’ needs and take advantage of their capacities.</td>
<td>1</td>
<td>2</td>
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<tr>
<td>the effects of disabilities on developmental processes and progressions in various domains.</td>
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<td>formal and informal assessment procedures designed to evaluate individual differences and make placement and programming decisions.</td>
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<tr>
<td>establishing a positive learning climate that is responsive to the learners’ academic, social, and affective needs.</td>
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<td>fostering the development of learners’ social competence in a variety of settings.</td>
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<tr>
<td>recognizing the purposes of communication, awareness of factors and processes influencing the development of communication in learners with disabilities, and knowing how to provide instruction to help learners with disabilities become more effective communicators.</td>
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<td>facilitating learners’ functional living competence in current and future environments.</td>
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<tr>
<td>promoting learners’ academic performance in the content areas by facilitating their achievement in a variety of settings and their application of knowledge and skills in new situations.</td>
<td>1</td>
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<tr>
<td>promoting learners’ academic performance in reading/language arts by facilitating their achievement in a variety of settings and their application of knowledge and skills in new situations.</td>
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<tr>
<td>promoting learners’ academic performance in mathematics by facilitating their achievement in a variety of settings and their application of knowledge and skills in new situations.</td>
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<tr>
<td>knowing how to establish partnerships with other school staff and support service providers to enhance learning opportunities for students with disabilities.</td>
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<td>knowing how to foster strong school-home relationships to enhance learners’ ability to achieve desired learning outcomes.</td>
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<td>encouraging school-community interactions that enhance learner opportunities to be an integral part of the community.</td>
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<tr>
<td>knowledge of requirements, expectations, and constraints associated with teaching special needs populations in Texas and applying this knowledge to ensure educational excellence and equity for these learners.</td>
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Appendix D

Second Request for Information of

University of North Texas Candidates
August 28, 2002

Dear

My name is Bertina Combes and I am the program coordinator for Programs in Special Education at UNT. I am writing to request your assistance with the doctoral research of Tierney Thompson. You were previously sent the enclosed materials. If you have already completed and returned the questionnaires and demographic cover sheet, thank you. Your feedback will be very helpful. If you have not returned the questionnaires and demographic cover sheet, I'd be most appreciative if you would reconsider participating. Tierney's research will examine the training of teachers in special education through traditional and alternative methods. Special education teachers who received their training through Region X Education Service Center and the University of North Texas are the subjects of the study. Specifically, she is interested in your perception of the effectiveness of the training you received while at UNT.

There are two questionnaires and a demographic cover sheet enclosed. The first questionnaire asks you to rate your comfort level with the training you received through your program in the fourteen domains of the Examination for the Certification of Educators in Texas (ExCET). The ratings range from 1, reflecting a feeling of not being adequately trained, to 6, feeling very comfortable with your training. The second survey, the Teacher Efficacy Scale asks you to rate your perceptions about your ability to bring about positive student change. The rating system in this survey is based on the same six-point scale. The demographic cover sheet asks questions about your experiences with education and children and your interest in the profession of teaching. Completion of both surveys and the demographic cover page should take no longer than 30 minutes.

Please do not write your name on the questionnaire or demographic cover page. The results of the survey and demographic cover page will be summarized by the type of training received by participants, traditional or alternative. No identifying information will be collected or used. Please return the demographic sheet and two surveys in the enclosed stamped envelope by September 9. Participation in this research project will not affect your certification or job placement in any way. Remember that your name should not appear anywhere on the papers. Any questions can be directed to Tierney Thompson at ****** or Tierney_Thompson@winston-school.org.

Your participation in this research will help further the knowledge about effective training of teachers. It will also be helpful to UNT as we begin planning a new undergraduate program in special education.

Tierney's project has been reviewed by the University of North Texas Committee for the Protection of Human Subjects (940-565-3940). I am also overseeing her research (940-565-4325). The return of your survey indicates your consent to participate.

Thank you in advance for your participation in this study!

Sincerely,

Bertina H. Combes, Ph. D.
Program Coordinator
Appendix E

Letter of Cooperation from the University of North Texas
Appendix F

Letter of Cooperation from Region 10 Education Service Center
Appendix G

Special Education Course Requirements for the

University of North Texas
Required Undergraduate Courses For Generic Special Education

The following special education courses are included in the generic special education service delivery endorsement for the elementary and secondary certificate (EDSP 3210, 3220, 3300, 3410, 3420, 3500, 4330, and 4340).

*3210. Psychology of Exceptional Learners. 3 hours. Overview of the unique physical, cognitive and behavioral needs of all types of exceptional learners. Identification and referral procedures and effective educational practices are examined.

3220. Learning Disabilities: Characteristics, Identification and Intervention. 3 hours. An examination is made of the typical characteristics associated with learning disabilities and identification procedures utilized. Emphasis is on the development of appropriate intervention programs. Prerequisite(s): EDSP 3210, and 3300 or consent of department.

3300. Special Education Practicum I. 3 hours. Practical experience in field sites (90 hours: 70 hours field experience and 20 hours classroom.) Cognitive, affective and psychomotor objectives for observing behaviors, assisting in planning for instruction and participating in diagnostic processes. Professional development is emphasized. Prerequisite(s): (1) 60 hours of undergraduate credit. (2) Overall GPA 2.75. (3) All sections of TASP must be passed.

3410. Mental Retardation: Characteristics, Identification and Intervention. 3 hours. An examination is made of the typical characteristics associated with mental retardation and identification procedures utilized. Emphasis is on the development of appropriate intervention programs. Prerequisite(s) E D S P 3210 and 3300 or consent of department.

3420. Behavioral Disorders: Characteristics, Identification and Intervention. 3 hours. An examination is made of the typical characteristics associated with severe behavior problems and procedures for identification. Emphasis is on the development of appropriate intervention programs. Prerequisite(s): E D S P 3210 and 3300 or consent of department.

3500. Educational Assessment of Exceptional Learners. 3 hours. Knowledge of basic testing procedures and terminology as related to the exceptional learner. Interpretation and utilization of test data in developing individual education plans. Introduction to curriculum-based assessment. Field experiences include administration of academic and teacher-made assessments. Prerequisite(s): E D S P 3210, 3220, 3300, 3410 and 3420 or consent of department.

over
4330. Advanced Educational Strategies for Exceptional Learners. 3 hours. Synthesis of techniques for individualizing specialized learning environments to include instruction procedures, behavioral management and communication systems. Prerequisite(s): EDSP 3210, 3220, 3300, 3410, and 3420, or consent of department.

4340. Educational Strategies for Behavioral Change in Exceptional Learners. 3 hours. Focus is upon a variety of strategies designed to affect behavioral change in students with unique problems, which include management techniques, parent communication and utilization of ancillary professional personnel. Prerequisite(s): EDSP 3210, 3220, 3300, 3410, and 3420 or consent of department.

Students must meet the following criteria prior to taking special education courses (except 3210):

1. Acquire sixty (60) hours of undergraduate credit.
2. Have a 2.75 cumulative GPA.
3. Pass all sections of the TASP.

Please Note

Students cannot major in special education. Students may choose Interdisciplinary Studies (Elementary--Option III) or Arts and Sciences (Secondary--Option II) as their major area of study. Therefore, students need to first be advised by Teacher Education and Administration. Elementary students should seek advising in Matthews Hall 206 (565-2920). Information regarding secondary advising can be obtained in Matthews Hall 204 (565-2826).

Undergraduate Courses in Special Education are offered once a year and are not offered in the summer. In addition, the courses must be taken in the following sequence.

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<tr>
<th>FALL (Junior)</th>
<th>SPRING (Junior)</th>
<th>FALL (Senior)</th>
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<tbody>
<tr>
<td>*EDSP 3210</td>
<td>EDSP 3220</td>
<td>EDSP 3500</td>
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<tr>
<td>EDSP 3300</td>
<td>EDSP 3410</td>
<td>EDSP 4330</td>
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<tr>
<td></td>
<td>EDSP 3420</td>
<td>EDSP 4340</td>
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</table>

*EDSP 3210 may be taken during the sophomore year without meeting the three criteria described above. EDSP 3210 is an introductory class and should help students determine if they desire to pursue a special education endorsement.
The Texas educator should strive to create an atmosphere that will nurture to fulfillment the potential of each student. The educator is responsible for standard practices and ethical conduct toward students, professional colleagues, parents, and community. The Code is intended to govern the profession and interpretations of the Code shall be determined by the Professional Practices Commission. The educator who conducts his affairs with conscientious concern will exemplify the highest standards of professional commitment.

PRINCIPAL I - PROFESSIONAL ETHICAL CONDUCT
The Texas educator should endeavor to maintain the dignity of the profession by respecting and obeying the law, demonstrating personal integrity, and exemplifying honesty.

STANDARDS
1. The educator shall not intentionally misrepresent official policies of the school district or educational organization and shall clearly distinguish those views from his personal attitudes and opinions.
2. The educator shall honestly account for all funds committed to his charge and shall conduct his financial business with integrity.
3. The educator shall not use institutional or professional privileges for personal or partisan advantage.
4. The educator shall accept no gratuities, gifts, or favors that impair or appear to impair professional judgement.
5. The educator shall not offer any favor, service, or thing of value to obtain special advantage.
6. The educator shall not falsify records, or direct or coerce others to do so.

PRINCIPLE II - PROFESSIONAL PRACTICES AND PERFORMANCES
The Texas educator, after qualifying in a manner established by law or regulation, shall assume responsibilities for professional teaching practices and professional performance and shall continually strive to demonstrate competence.

STANDARDS
1. The educator shall apply for, accept, offer, or assign a position or a responsibility on the basis of professional qualifications and shall adhere to the terms of a contract or appointment.
2. The educator shall possess mental health, physical stamina, and social prudence necessary to perform the duties of his professional assignment.
3. The educator shall organize instruction that seeks to accomplish objectives related to learning.
4. The educator shall continue professional growth.
5. The educator shall comply with written local school board policies, Texas Education Agency regulations, and applicable state and federal laws.

PRINCIPLE III - ETHICAL CONDUCT TOWARD PROFESSIONAL COLLEAGUES
The Texas educator, in exemplifying ethical relations with colleagues, shall accord just and equitable treatment to all members of the profession.

STANDARDS
1. The educator shall not reveal confidential information concerning colleagues unless disclosure serves professional purposes or is required by law.
2. The educator shall not willfully make false statements about a colleague or the school system.
3. The educator shall adhere to written local school board policies and legal statues regarding dismissal, evaluation, and employment processes.
4. The educator shall not interfere with a colleague's exercise of political and citizenship rights and responsibilities.
5. The educator shall not discriminate against, coerce, or harass a colleague on the basis of race, color, creed, national origin, age, sex, handicap, or marital status.
6. The educator shall not intentionally deny or impede a colleague in the exercise or enjoyment of any professional right or privilege.
7. The educator shall not use coercive means or promise special treatment in order to influence professional decisions or colleagues.
8. The educator shall have the academic freedom to teach as a professional privilege, and no educator shall interfere with such privilege except as required by state and/or federal laws.

PRINCIPLE IV - ETHICAL CONDUCT TOWARD STUDENTS
The Texas educator, in accepting a position of public trust, should measure success by progress of each student toward realization of his potential as an effective citizen.

STANDARDS
1. The educator shall deal considerably and justly with each student and shall seek to resolve problems including discipline according to law and school board policy.
2. The educator shall not intentionally expose the student to disparagement.
3. The educator shall not reveal confidential information concerning students unless disclosure serves professional purposes or is required by law.
4. The educator shall make reasonable effort to protect the student from conditions detrimental to the following: learning, physical health, mental health, or safety.
5. The educator shall endeavor to present facts without distortion.
6. The educator shall not unfairly exclude a student from participation in a program, deny benefits to a student, or grant an advantage to a student on the basis of race, color, sex, handicap, national origin, or marital status.
7. The educator shall not unreasonably restrain the student from independent action in the pursuit of learning or deny the student access to varying points of view.
PRINCIPLE V. ETHICAL CONDUCT TOWARD PARENTS AND COMMUNITY
The Texas educator, in fulfilling citizenship responsibilities in the community, should cooperate with parents and others to improve the public schools of the community.

STANDARDS
1. The educator shall make reasonable efforts to communicate to parents information which should be revealed in the interest of the student.
2. The educator shall endeavor to understand community cultures and relate the home environment of students to the school.
3. The educator shall manifest a positive role in school public relations.
REFERENCES


Capitalizing on small class size. Retrieved August 29, 2001 from

http://kidsource.com/education/money.small.class.html


http://www.educationworld.com/a_admin/admin142.shtml


sense of efficacy: Quantitative and qualitative comparisons. *Journal of Research

Hinsdale, B. A. (1898). *Horace Mann and the common school revival in the United
States*. New York: Scribner’s Sons.

career? *Phi Delta Kappan, 82*, 393-399.


*Preventing School Failure, 36*(4), 6-10.

McKibbin, M. D. (1999). Alternative certification in action: California’s teaching
internships. *Kappa Delta Pi Record, 36*(1), 8-11.


Morrison, G. S. (1997). Teaching as a profession. In G. Morrison (Eds.), *Teaching in
America* (pp. 43-86). Boston: Allyn and Bacon.
certification programs as responses to teacher shortages. *Urban Education, 29*(1),
89-108.

Teacher. In A. Ornstein & D. Levine (Eds.), *Foundations of Education* (pp.3-33).

Efficacy of collaborative, field-based teacher preparation program. *Teacher

Research on a school improvement hypothesis. *Teachers College Record, 97*,
227-251.

Roth, R. A. (1986). Alternate and alternative certification: Purposes, assumptions,

Sandlin, R. A., Young, B. L., & Karge, B. D. (1992). Regularly and alternatively
credentialed beginning teachers: Comparison and contrast of their development.


elementary education and special education. *Teacher Education and Special
Education, 16*(2), 146-154.


