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Dynamics of Teacher Self-Efficacy: Middle School Reading and Language Arts Teacher Responses on a Teacher Sense of Efficacy Scale

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by

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Dedication

Work of this magnitude is never simply an accomplishment. Rather, it has been the transforming experience that Bandura discusses. This journey began 25 years ago and though it will never fully be finished, I have several people to whom my utmost gratitude and respect must be expressed.

I dedicate this book to: My Lord and Savior Jesus Christ, without you ABD would have been actualized, my husband Ed, for without you this journey would have been a moot point, and to my little big men Alex and William; your love is more than I shall ever deserve.

In 1996, as I sat in a make-shift classroom at Centennial Elementary listening to various professors lecture me on how not to lecture my students, I realized, something is definitely wrong with this process. I needed to teach teachers. As I served pecan blueberry pancakes to a customer who would become a mentor and dear friend, the door-way to my academic life opened, Susan I thank you for being instrumental in opening the door and providing an opportunity to substantiate my dreams. This work is also for, Mary Lou, who from the very beginning eight years ago treated me as a friend and continues to push me to support my thoughts, in all ways. As I have grown professionally and personally, it is abundantly clear your involvement in my life remains imperative.

This body of work, this extension of my life, the words on these pages will forever, remind me of the times I missed a baby play date because mommy had to "write", and the summer outings neither of boys knew was being missed. This

work is for all the missed evenings on the couch with my beloved, who when I asked if I could quit my job and get my master's degree eight years ago simply said, "Sure". This work is for my family who never gave up hope and never asked the "When is that thing going to be done" question. But most of all, it is for me; it is for me to say, I can do anything; I know that anything is possible and that God will provide me with what I need, not always what I want. And so, though I have named some in this dedication, this body of work is dedicated to all those who known and unknown, have impacted my life and helped me to see in sometimes all too real ways, that life is a journey not a destination.

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To my committee, when I interviewed each of you, inviting you to be on my committee, it was for a reason. You each possessed a quality I knew would be paramount in the successful completion of my journey into the professorate. Given that I would never order you in anyway other than alphabetical by last name after Mary Lou, I acknowledge you here:

Mary Lou, the support and love you displayed over the last eight years has never gone unnoticed, or underappreciated. Your compassion, integrity, and tolerance are astounding and unmatched.

Roger, from Starbucks at the library to dog-sitting, I have gained the insight to look at the impact my thoughts might have on the global community and the social justice essential to make a decision.

Susan, you have taught me to be a better juggler than I ever thought possible. It has been your love of analogies, understanding of differences, and unwavering expectations that have helped me to push myself farther than I have ever thought possible and helped to mold me into the professor I want to be.

Pat, our time together has shown me that without questions, there would be no answers. You welcomed me into your fold investing the time to teach this neophyte about secondary literature and the world of better writing. You pushed me to write at levels I never had before and this work is a demonstration of your hard work.

Jeff, I remember introducing myself as “Ed Schwartz’s wife” and thinking, “Oh man, I hope this guy is tolerant of non-math people” and indeed, you are. Your calm presence has impacted me beyond words and the notion of numbers is now comforting and exciting rather than daunting and intimidating.

Prior to this experience, I would have said that I could only pray to someday become the educator that represents each of the qualities mentioned above. As a result of this transforming experience, I believe I am that educator and now pray to be the mentor of others as each of you have mentored me.

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Abstract

Efficacy is created early in a career and not easily influenced over time yet states and school districts loose tremendous amounts of money annually educating and training teachers who elect to leave the profession as a result of low self-efficacy. The purpose of this study was to examine the perceived levels of self-efficacy of middle school Language Arts and reading teachers at various stages in their teaching careers in an attempt to inform the practices of teacher preparation. The Teacher Sense of Efficacy Scale along with a Teacher Demographic Survey was used to identify how preparation method, content area, and years of experience might relate to self-reported teacher self-efficacy scores. Findings suggest preparation method does play a significant role in self-efficacy of teachers specifically regarding classroom management. Content area of instruction did not reveal a significant difference among participants scores while years of experience did. Participants' self-efficacy increased as the total number of overall years teaching experience increased. Nevertheless, when focusing on the number of years at one location, this finding did not hold true. Teacher self-efficacy scores increased only until the 10 year and beyond mark then decreased. Demographic factors such as participant age, sex, ethnicity, and school location were not identified as predictive variables of a teachers' self-efficacy. Findings suggest school factors at the 6-8 grade levels may impact

teacher efficacy scores. Implications and recommendations to schools districts and teacher preparation programs are offered.

Chapter One

Introduction

"There is no silver bullet in education. When all is said and done, if students are to be well taught, it will be done by knowledgeable and well-supported teachers" –National Commission on Teaching and America's Future, 1996, p. 10.

In this chapter, the main problem of the study is set in the context of the middle school 6th-8th grade classrooms and then related to both K-12 and higher education communities. The chapter includes background information, the statement of the problem, purpose of the study, research questions and hypotheses, theoretical framework and a brief paragraph regarding the methodology of the study. Also included in this section are the assumptions of the study, limitations to the study, and definitions of terms. The chapter ends with a summary of its contents.

For over twenty years the preparation of America's teachers has been a topic of fierce debate riddled with political initiatives that influence the financial livelihoods of the school districts and institutions that educate teachers (Borman & Dowling, 2008; Darling-Hammond, Chung, & Frelow, 2002). One of the edicts of the Federal No Child Left Behind (NCLB) Act of 2001 is that a "Highly Qualified Teacher" (HQT) be in every content classroom and each academic classroom in America by the end of the 2005-2006 school year. An obvious and integral

component to ensuring that a HQT spearheads each American classroom is to ensure traditional teacher preparation and alternative certification programs (ACPs) are rigorous and systematic in their course work and expectations as well as successful production of effective, competent, and confident teachers (Guarino, Santibanez, & Daley, 2006, p. 173).

Groups such as the Carnegie Task Force on the Future of Teaching (1986), the American Association of State Colleges and Universities (1999), and the Holmes Group (1986) of education deans pressured universities and establishments which provided teacher training programs to require more systematic and rigorous work from teacher candidates. The pressure applied coupled with the 2001 No Child Left Behind Act (NCLB) demanded the reform and restructuring of teacher education programs that would increase teacher candidates' knowledge of strategies to instruct students of diverse populations, improve pedagogical content knowledge, and generate a more systematic clinical experience for teacher candidates (Borman & Dowling, 2008; Darling-Hammond, et al., 2002). In doing so, teacher education programs and institutions have attempted to fill the nation's classrooms with teacher education graduates who are effective, efficacious, and prepared to endure and answer their own call to service (Guarino, et al., 2006).

Universities and colleges are not alone in their quest to educate teacher candidates and meet the demand to fill America's classrooms with competent and qualified teachers. States, school districts, and consortiums across the nation use various alternative options such as Alternative Certification Programs (Morton, Williams, & Brindley, 2006), Educator Preparation Institutes, and

Alternative Certification Pathways (Darling-Hammond, et a., 2002) to assist adults seeking careers in education but hold degrees in fields other than the education classes they wish to teach. These alternative certification program and pathway options are often referred to as ACPs. These programs are meant to provide would-be-teachers with the pedagogical content necessary to be qualified in the classroom under the NCLB mandates (Darling-Hammond, 2000; Flores, Desjean-Perrotta, & Steinmetz, 2004; USDOE, 2006; Zientek, 2006).The U.S. Department of Education Secretary's Annual Report for 2006 revealed the number of teacher graduates is up 7% reaching a four-year high of 220,777 and the number of ACP recipients increased almost 40% from 2000 to 2004.Moreover, these teacher graduates have passed state licensing assessments at an overall 96% pass rate.

Context of the Problem

The challenge in providing and sustaining sufficient numbers of highly qualified teachers has been a struggle for teacher education programs and school districts alike. Ingersoll (2003) reported school staffing problems are not isolated to teacher supply shortages. Approximately 534,861 teachers entered schools during the 1999-2000 academic year. However, 539,778 teachers either moved among schools or left their schools by the end of the year. Attrition and migration – the moving from one school to another, has increased by nearly 400,000 from the decade before (Boe, Bobbitt, & Cook, 1997).This attrition or migration of teachers impacts school districts nationwide. Some of this staff movement is considered a result of a 'revolving door' phenomenon where teachers leave education for reasons other than retirement (Ingersoll, 2001,

2003). The 1994-1995 school year migration rate of “movers” was approximately 7% (204, 680) while attrition claimed some 213,000 or 7.3% of the total attrition population. Teacher shortage concerns posed by attrition and the moving from one site to another were not isolated to the 1990’s (Ingersoll, 2003). More currently, teacher attrition and migration statistics from the 2007-2008 school year revealed that “…of the 3,380,300 public school teachers, 84.5 percent remained at the same school (“stayers”) for the 2008-2009 school year. However, those who did not remain at their school site are considered by some (see Ingersoll, 2003 and Keigher, 2010) as “movers” to other schools within a county and “leavers”, or those who left the profession. This 15.5% of movers and leavers (7.5% and 8.0% respectively) is the average national percentage of the teaching workforce, who in some way transition either into, between, or out of schools over the 2008-2009 school year.

Statement of the Problem

To put this teacher movement in perspective as it relates to the fiscal budget of a school district and state, if a state produced approximately 6,000 traditional teacher education program graduates in 2008, a 7% attrition rate suggests a little over 400 teachers would have quit teaching at the end of that school year. Upon initial glance, just over 400 teachers is not an impressive number, however, if taken over a five-year period, say from the time a child moves from kindergarten through fourth grade, over 2,000 teachers would have left the teaching profession. An illustration of the fiscal implications such loss might demonstrate is warranted: for example, a teacher in the southeast United States might attend professional development trainings and workshops as a way

to gain certification renewal credits. If the 400 teacher who left the district attended staff developments and were paid roughly $20.00 an hour to attend such professional development workshop and class, for the roughly 70 recertification hours necessary , the loss of 400 teachers annually, or over 2,000 in five years, amounts to a substantial amount of financial resources that are not recouped or benefiting students.

Some research suggests that the efforts by universities and states to strengthen teacher preparation may be producing teachers who feel better prepared, enter and remain in the teaching profession, and are rated by supervisors as more effective (Darling-Hammond, et al., 2002). Other research suggests that at times teaching deprives good teachers of their motivation and sense of personal self-esteem and that there are no "… teacher-proof reforms…the success of all improvement efforts depends on the quality and determination of the classroom teacher" (Ashton & Webb, 1986, p. 2). Brissie, Hoover-Dempsey, & Bassler (1988) suggest that teachers' sense of self efficacy can be predictive of teacher attrition. A strong link connects teacher efficacy with commitment to remain in teaching (Allinder, 1994; Guskey, 1984) as well as teachers' willingness to implement innovation (Smylie, 1988), and teacher stress (Brown & Nagel, 2004; Parkay, Greenwood, Olejnik & Proller, 1988). Teachers with a low sense of efficacy are more likely to drop out of the teaching profession (Glickman & Tamashiro, 1982). Moreover, teacher self- efficacy (or teaching efficacy) affords teachers the ability to persevere when things don't go smoothly or when goals are not met. It provides them with the necessary confidence to be

resilient and help their students aspire to greatness as well as increase their own aspirations as teachers (Tschannen-Moran & Woolfolk Hoy, 2001).

Purpose of the Study

Research on the effectiveness of various teacher certification routes report mixed findings. Some suggest traditional teacher certification programs produce more effective and higher-rated teachers (Darling-Hammond & Cobb, 1996). Other reports suggest there is no difference, in perceived effectiveness by supervisors, between traditionally trained and alternatively certified teachers (Zeichner & Schulte, 2001). Additionally, research suggests that teacher efficacy beliefs form during early years of a new situation and are resistant to change (Long & Moore, 2008; Tschannen-Moran, Woolfolk-Hoy, & Hoy, 1998). It was the intent of this study to investigate the differences in teachers' perceptions of their own efficacy, or capabilities. Specifically, the purpose of this study was to examine the perceived level of self-efficacy of middle school Language Arts and reading teachers as well as the areas and factors that may account for variations in these teachers' reported efficacy levels. Factors included number of years of teaching experience, pedagogical or teaching program preparation, and teacher demographics such as age, sex, ethnicity and school location. It was hypothesized that the three variables, number of years teaching, the type of teacher preparation program, content area, and teacher demographics would be associated with teacher self-efficacy. The conceptual model included dependent and independent variables and is found in Figure 1.1.

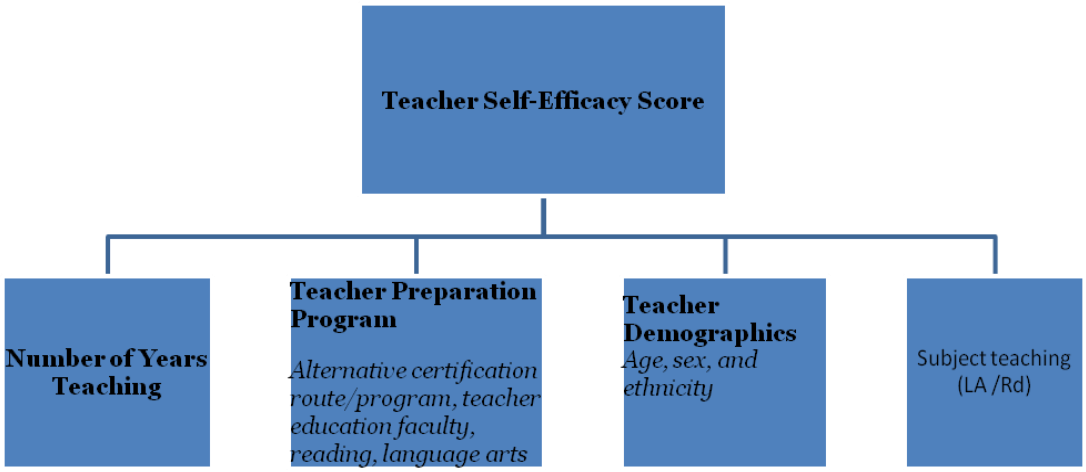

Figure 1 Conceptual Model of the Study

Research Questions

The following research questions were addressed:

1. How are differences in teacher self- efficacy scores related to teacher preparation? For example, did teachers who graduated from traditional preparation programs report higher efficacy levels than alternatively certified teachers?

2. How are differences in teacher self- efficacy scores related to the content area taught? For example, did Language Arts teachers have a higher level of efficacy compared to that of reading teachers with comparable variables?

3. To what extent are differences in teacher self- efficacy related to years of teaching experience? For example, were tenth-year teachers' more efficacious compared to first and third-year teachers?

4. To what extent can differences in teacher self- efficacy be associated with participants' demographic factors a) age, b) sex, c) ethnicity, and d) school location?

Research Hypotheses

1. Traditionally educated teachers' self-efficacy will be reported as significantly higher than Alternative Certification Pathway/Program teachers.

2. Reading teachers' self-efficacy will be reported as significantly higher than Language Arts teachers.

3. Experienced teachers' self-efficacy will be reported as significantly higher than less experienced teachers.

4. Differences in Teacher Self-Efficacy Scores can be positively and strongly associated with teacher demographics of age, sex, ethnicity, and school Title 1 status. Specifically, older teachers will be more efficacious than younger teachers; male teachers will be more efficacious than female teachers; white teachers will be more efficacious than non-white teachers; teachers from Non-Title 1 schools will be more efficacious than teachers from Title 1 schools.

Methodology

The research design employed in this study was one of descriptive survey research involving a census of middle school reading and Language Arts teachers from a large school district in the southeastern United States with a student population of roughly 190,000 students. Data were collected using the Teacher Sense of Efficacy Scale (TSES) and Teacher Demographics Questionnaire (TDQ). More specifically, this study was designed to explore

differences in teacher self-efficacy based on certification type and program characteristics, years of teaching experiences, and demographics.

Theoretical Framework

Teacher efficacy, the notion of human agency, and perceived control are central to the study of teacher efficacy. Indeed, as the field regarding teacher efficacy and studies that focused on teacher perceptions of their own abilities was researched, the works of Bandura (1977) and Rotter (1966) were consistently identified as the lenses through which the construct of teacher efficacy was viewed (Capa, 2005; Glickman & Tamashiro, 1982, Tschannen-Moran, et al., 1998; Vasquez, 2008). Therefore, this study was grounded in psychology and linked to Rotter's (1966) social learning theory in general and locus of control as well as Bandura's (1977, 1994) general social cognitive theories and self-efficacy, which are used to frame the construct referred to as teacher efficacy.

Rotter's (1966) locus of control contends that human agency is determined by an individual's perception of their ability to influence. If the individual believes that they control the situation, they can influence the outcome; Rotter's theory suggests that the person has an internal locus of control. The reverse holds true as well. If the individual believes the control to change an outcome is dependent upon the environment; Rotter's theory suggests the person has an external locus of control. The seminal RAND Corporation teacher efficacy study (Armor et al., 1976) relied upon Rotter's locus of control theory. The three measures that came out of the RAND studies included the Teacher Locus of Control Scale, Responsibility for Study Achievement, and The Webb

Scale (Capa, 2005). Rotter's contributions to teacher efficacy measures are added to the theoretical framework addressed here as they are without question however; the present study did not address the loci of control construct with teacher participants specifically.

Bandura's social cognitive theory (1986) suggests that human behavior is a reciprocally dynamic interaction of personal factors, the environment, and behavior. Each of these works in congruence with each other in triadic reciprocality (or determinism). According to Bandura, reciprocal determinism is the notion that all three above interactions mutually influence a person just as a person can influence all three. This is to say a person's behavior is both influenced by and influencing based upon personal factors and environment. Central to this theory is the construct of self-efficacy. It is the combination of these three factors that influence one's perception of ability. Self-efficacy is defined as the "belief in one's capacity to organize and execute the courses of action required to produce given attainments" (Bandura, 1997 p. 3).

Bandura's (1997) theory suggests that efficacy may be most malleable during early learning. He suggests self-efficacy is formed one of four ways: mastery experience, vicarious experience, verbal persuasions, and physiological states. The ways by which an individual can acquire efficacy requires the individual to either experience an event (mastery experience), compare oneself to another (vicarious experience), be exposed to the verbal judgments of others (verbal persuasion), or experience mental and physical states based on his or her own expectations such as anxiety, fatigue, and stress (physiological states). Each factor informs self-efficacy as a person anticipates an event. However,

Bandura goes on to suggest efficacy has "…a generative capability in which component cognitive, social, and behavioral skills must be organized into integrated courses of action to serve innumerable purposes" (p. 122). More specifically, knowledge of the task to be performed, and a short lag-time between self-efficacy ratings and performance provide the greatest increase in self-efficacy as the social, cognitive, and behavioral skills of the participants are able to be organized into executable courses of action that provided satisfactory results (Pajares, 2002). If self-efficacy is most powerfully influenced by mastery experiences, then to be highly qualified, teachers would have to continually increase their knowledge base and strategy repertoire. Certainly one-way to do this is by attending professional development courses, seminars, and workshops where courses of action for expected outcomes are made. Mastery experiences increase one's efficacy and thus as one increases experiences the notion that self-efficacy may be increased over time is more plausible.

Therefore, teachers of varying years of teaching experience are of specific interest. It is possible that not only are the first years of teaching critical to the long-term development of teachers' sense of efficacy but so too are the experiences of teachers as they encounter new situations and requirements for success. The framework of other teacher efficacy researchers contributed to this study (see Carleton, Firch, & Krockover, 2008; Glickman & Tamashiro, 1982; Tschannen-Moran, et al., 1998) and were used to identify possible connections and correlations between teacher efficacy specifically based on demographic information, preparation method, and number of years teaching.

Significance of the Study

Pajares (1997) talks of teacher efficacy and that it "…has become an important construct in teacher education" (p. 19) and he continues encouraging the exploration of "…how teacher efficacy develops, what factors contribute to strong and positive teaching efficacy in varied domains and how teacher preparation programs can help teachers develop high teacher efficacy." (p. 19). Ingersoll (2001) reported multiple factors influence teacher attrition with "…low salaries, inadequate support from the school administration, student discipline problems, and limited faculty input into school decision-making all contribute to higher rates of turnover, after controlling for the characteristics of both teachers and schools" (p. 5). Good and Tom (1985) specifically recommended that researchers focus on how teacher education programs might affect sense of efficacy. However little research has been conducted that focuses on influences preparation programs might have on teachers' sense of efficacy (Woolfolk & Hoy, 1990). Teacher enrollment projections by the National Center for Educational Statistics (NCES, 2006) report a 26% increase in new hires for public school elementary and secondary teacher by the year 2018. New hire, as defined by the NCES, is any person who teaches in a sector or curriculum in which they did not teach previously, but not a teacher who moved from one school to another within the same sector. This 375,000 plus increase in new teacher hires is to accommodate the 9.9 million (or 9 %) increase in student enrollment by 2018. As a result degree granting educational institutions may experience an increase in teacher education enrollment.

However, given that some 66% of teachers prepared through alternative school district pathways and 33% of teachers prepared through traditional education leave within the first 3 years of employment (Morton, et al., 2006), it is crucial that as a research community we have a better understanding of the confidence levels teachers maintain in the work-place experience based on their preparation. Moreover, it is also imperative that as a teacher education body, we employ methods that are effective over the span of a teacher's career. That is to say, as a professorate, we must prepare teachers with skills necessary to adapt to curriculums while simultaneously not losing efficacy in their abilities to teach.

The findings of this study may be helpful for a wide audience including educational policy makers, administrators, pre-service and in-service teachers, teacher preparation faculty, and school districts. Factors found significant in influencing teachers' sense of efficacy might in turn, help teacher educators better prepare teachers for not only their beginning years, but also for the extent of their careers. Still too, findings from this study might influence teacher induction programs as it could provide a framework for ways to better support and promote efficacious teachers.

The experiences of this researcher's own efficacy evolution, the voiced lack of efficacy from college students and fellow teachers drove the questions asked. How can teacher educators better prepare graduates for the challenges they face with content instruction, pressures of high-stakes assessments, and national mandates. During that first year of this researcher's teaching career, several opportunities to quit and change career paths were presented, but like so many fellow teachers, the gestalt of the profession was larger than the sum of its

parts. Indeed, “high perseverance usually produces high performance attainments” (Bandura, 1982, p. 123).

Assumptions of the Study

Due to the nature of this study the following assumptions were made.

1. The Teachers’ Sense of Self-Efficacy Scale (TSEFS) accurately captured the characteristics of each participant’s sense of self-efficacy.

2. The construct of efficacy was accurate for this study.

Limitations

Every study has limitations. The first involved reliance on teacher self-reported data. Reported data may be inaccurate based upon participants’ views; the data may be reported as under or overestimated (Pajares, 2002). Another limitation was the use of on-line polling as participants may not have been comfortable with technology or may have worried that the results were not confidential and therefore may not have answered truthfully.

Definition of Terms

The following terms were used in the study and are defined alphabetically.

Alternative Certification Pathway or Program

The pathway or program a teacher candidate follows for preparation and training for teacher certification beyond a traditional four year university or college education program. For purposes of this study, the Alternative Certification Program (or ACP) self-reported by teacher participants was a program offered by the school district of this study to teachers who did not hold a valid state certification for teaching but held a bachelor’s degree or above in the content area for which they sought credentialing.

Ethnicity

The ethnic membership of a person as identified by the participant and matched in categories to that of the school district: Asian, Black, Hispanic, Indian, or White.

Mastery Experience

The most powerful source of efficacy information one can receive (Bandura, 1997). It anticipates one's success or failure based on experience. Successful performance tends to raise self-efficacy and failures tend to lower it (Bandura, 1982)

Middle School

Middle schools are defined as schools providing instruction using middle school (grades 6-8) and junior high school configurations (grades 7-9). This category also includes schools serving a single grade in the 6-8 range (e.g., a 6th grade center). As well as combination schools that provide regular or other instruction in grade groupings that include more than one of the other school type categories (e.g., PK-8, 6-12, K-12, etc.). In the case of this study, combination schools will be the two K-8 schools within the district.

Physiological State

Defined as the source of self-efficacy that produces an effect when a persons' emotional, mental, or psyche is such that it can alter and influence a person's judgment. An example would be if a person is experiencing stress, fatigued, or anger. These are moods that alter the person's belief in their ability (Bandura, 1977)

Self-efficacy

This is a perceived construct that looks at “beliefs in one’s capabilities to organize and execute a course of action required producing a given attainment” (Bandura, 1997, p.3).

Sex

*T*he sex of a person as self-reported on the survey instruments as male or female.

Social Cognitive Theory

A theoretical framework to predict and explain the changes in participants based on different modes of treatment. It suggests that human behavior is a reciprocally dynamic interaction of personal factors, the environment, and behavior (Bandura, 1986)

SpringBoard (SB)

A district-wise implemented scripted curriculum for all 6-8th grade Language Arts teachers. At the time of this study, SB was in it’s third year of adoption with the school district.

Teacher Efficacy

This is a “Teachers’ beliefs or convictions that they can influence how well students learn, even those who may be considered difficult or unmotivated” (Guskey & Passaro, 1994, p. 628).

Teacher s’ Sense of Efficacy Scale (TSES)

This scale is also referred to as the Ohio State Teacher Efficacy Scale. This is a teacher efficacy measure developed by Tschannen-Moran and Woolfolk Hoy in 2001. This measure is either a 24-item or 12-item Likert-type survey

instrument with a nine point scale or three subsections. Chapter Three provides reliability and validity information on this measure.

Verbal Persuasions

Source of self-efficacy producing an effect based on exposure to verbal judgments made by another (Bandura, 1977).

Vicarious Experiences

Source of self-efficacy that produces an effect based on social comparisons and observations of person with qualities deemed similar to those of the person whose efficacy is in question (Bandura, 1977).

Summary

The construct of teacher efficacy has been measured in numerous ways and in various contexts over the last 30 years. Grounded in the field of psychology, the elusive construct of self-efficacy is impactful to all facets of a teacher's career. A teacher's sense of her/his own efficacy in the classroom and with students influences not just student achievement, but also a teacher's own satisfaction and commitment to the field. As teacher educators, it is critical that we prepare our graduates for the realities of the teaching world. The ability to increase and maintain efficacy in the face of national mandates requiring highly qualified teachers as well as the ability to deal with other pressures on teachers is the basis of teaching success.

Research suggests that efficacy is created early in a career and not easily influenced over time. The purpose of this study was to examine the perceived levels of self-efficacy of middle school Language Arts and reading teachers at

various stages in their teaching careers in an attempt to inform the practices of teacher preparation.

Chapter Two

Review of the Literature

It is the intent of this section to, “present results of similar studies, to relate the present study to the ongoing dialogue in the literature, and to provide a framework for comparing the results of a study with other studies” (Creswell, 1994, p. 37). Given that social cognitive and social learning theories are the psychological groundwork upon which self-efficacy resides, a brief discussion of social cognitive and social learning theories is necessary. This discussion is expanded with s a description of the construct of self-efficacy. A review of the literature involving studies which have focused on teachers’ sense of efficacy with specific attention paid to teacher preparation programs, and number of years teaching is presented. A key component of this study will be the integration of Tschannen-Moran et al., (1998) teachers’ sense of efficacy model (TSEM). A comprehensive discussion of existing measures involving teachers’ senses of efficacy are presented along with description of the TSEM and scale. Overall, this chapter provides background and context for understanding teacher self-efficacy studies, documenting the importance of the efficacy construct as it relates to teacher preparation.

Literature Search Method

Broad searches of literature on teacher efficacy and middle school were conducted using several search strategies. Computerized reference databases

including Education Full Text; ProQuest Dissertations Abstracts and International; JSTOR; Web Wilson: Academic Search; and ERIC focusing on articles or research reports published from 1980 to 2009 were used. Descriptor Keywords to narrow the search of extraneous materials included at least one of several terms related to teachers and their confidence or efficacy (i.e., *teacher's sense of self-efficacy, teacher efficacy, certification pedagogy, teaching certification methods, reading teachers, Language Arts teachers, secondary education, teacher preparation, teacher education, and middle school teachers*). A second method utilized Google and allowed the researcher to collect all related material cited in recent reviews of literature as well as World Wide Web documents from Organizations and government websites. A third search method involved snowball citations. That is, publications were read and cross-checked for references perhaps overlooked or missing from database queries.

Social Theories of Learning

Henson (2001) and Vasquez (2008) discuss the construct of teacher efficacy and state that the majority of research involving teacher efficacy is grounded in the social cognitive theory work of Bandura (1986). Indeed, the vast amount of articles reviewed framed their research based on social cognitive theory. While the works of Bandura were utilized by researchers across the nation, another framework was used to frame one of the first teacher-efficacy measures. The works of Rotter (1954, 1966) discusses the construct of control referred to as locus of control and focuses on whether a person deems control to be internally driven or externally driven. Both theories are intermingled in self-efficacy reports and are therefore reviewed here.

Bandura's Social Cognitive Theory

In his theoretical framework to predict and explain the changes in participants based on different modes of treatment, Alfred Bandura (1971) attempted to fuse a divergence between theory and practice suggesting that "successful performance is replacing symbolically based experiences as the principle vehicle of change" (p. 191). In the early 1970's human behavior was thought to be acquired and regulated in terms of cognitive processes. However, there was growing interest in the notion that performance-based procedures were effecting physiological changes. Social cognitive theory (Bandura, 1986) suggests human behavior is a reciprocally dynamic interaction of personal factors, the environment, and behavior. There is a mutual reliance upon each of these triadic elements informing and influencing how a person will, in turn, influence his/her environment and how the environment will influence the person in return. Suggesting that "How people interpret the results of their own performance attainments informs and alters their environments and their self-beliefs which, in turn, alter subsequent performances" (Pajares, 1997, p 2).

Bandura's (1986) view of reciprocal determinism suggests that the beliefs one holds about oneself based on human behavior, environment, and personal factors are mutually interact and serve as determinants of each other. Bandura does not imply that these factors influence each other equally or simultaneously. Instead, the strength of the influence depends upon the activity, the circumstance, and the individual.

Behavior and personal factors share a two-directional relationship. Although personal factors influence behavior, behavior can, in turn, influence

personal characteristics, or factors such as expectations, beliefs, and cognitive competencies (Bandura, 1986). Finally, the factors of behavior and environment are mutually connected because both are producers and products of their environment.

Rotter's Social Learning Theory

Utilizing the three basic concepts of behavior potential, expectancy, and reinforcement value, the social learning theory is intended to measure and predict behavior (Rotter, 1954). Rotter (1966), described locus of control as the process by which individuals acquire expectancies of internal or external control over desired outcomes. If a person deems control of an outcome to be within their control or something he/she can influence, then that person is thought to have an *internal* locus of control. Dichotomously, if a person believes that events are beyond their control and outcomes will be a direct result of the environment, then the person is said to have an *external* locus of control.

Self-Efficacy

Social cognitive theory is Bandura's (1986) larger umbrella construct under which self-efficacy resides. The construct of self-efficacy dates back to 1971 when the seminal work of Bandura suggested that most people learn behaviors by observing others and then modeling the behaviors they perceive to be effective. This type of observational learning contrasts noticeably with the process of learning through direct reinforcement. He characterized this phenomenon as "efficacy" (DeMoulin, 1993). In this notion of self-efficacy, "People avoid activities that they believe exceed their coping capabilities, but

they undertake and perform assuredly those that they judge themselves capable of managing" (Bandura, 1977, p. 194).

Sources of Self-Efficacy

According to Bandura (1997), there are four main sources of information upon which individuals base their self-efficacy: mastery of experiences, vicarious experiences, verbal persuasions, and physiological states.

Mastery experiences. Asserted as the most powerful of the four sources, this concept offers the most realistic information for an individual, or learner. Through experience an individual recognizes necessary skills/conditions essential to success. Having that knowledge increases their self-awareness of ability or outcomes. As learners master new skills, they tend to increase their expectations of ability (Bandura, 1997). Individuals who perceive themselves as successful tend to have higher self-efficacy while those who are not successful have lower efficacy (Bandura, 1997).

Vicarious experiences. Considered the second most powerful of the four sources, this concept proposes influence to efficacy based on the experiences of others. When a learner watches or vicariously attends to a model, the learner is able to anticipate his or her ability based on the experiences of the model. The more closely the learner identifies with the model, the more powerful the experience. The learner's efficacy level is increased when they observe a task performed with success (Bandura, 1997). It is noteworthy to mention that the failure of a model has a more negative effect on the self-efficacy of a learner, or observer, when the observer judges themselves as having comparable ability to the model. If, on the other hand, observers judge their capability as superior to

the model's capability, failure of the model does not have a negative effect (Brown & Inouye, 1978).

Verbal persuasions. This third source of efficacy involves exposure to verbal judgments of others and is therefore less powerful than the two previously mentioned sources (Bandura, 1997). A learner can be persuaded of the likelihood of success for a task. Yet, if the task is not deemed successful by the learner, it will be disregarded. Still too, verbal judgments can play an important part in self-belief development (Zeldin & Pajares, 1997); for if the task is deemed successful by the learner, it will produce a positive influence on the learner (Bandura, 1997).

Physiological states. This is the final and least powerful of Bandura's (1997) sources of influence on efficacy. Physiological states include notions that anxiety, stress, fatigue, and other emotional states will impact the perception of ability on an individual. Individuals can influence and even alter their thinking based on physiological reactions in their body. People, "read their visceral arousal in stressful and taxing situations as an ominous sign of vulnerability and dysfunction" (Bandura, 1982, p. 127).

Effects of Self-efficacy on Beliefs

It is important to note that the integration of efficacy information influences learners' beliefs because they are developed by cognitively processing diverse sources of information. Bandura (1997) goes on to suggest that the effects of self-efficacy on the beliefs of teachers is thought to be most powerful during the early learning of tasks and that varying tasks require different sources and performances of efficacy. Learners weigh and integrate multidimensional

information while making judgments regarding their efficacy in a very personal and uniquely individual process. In this weighing process, the value of each source of information and how to combine the sources change for each individual and for different situations (Bandura, 1997). Given that each source of information will not have the same performer or task; it is questionable as to whether efficacy can increase over time considering each new source of information potentially requires a new task. Meaning, as a teacher experiences an event and makes a decision, the decision is based on a multitude of information from various sources. The outcome can not be repeated because the situation and sources of information will never again be identical to those previously experienced by the teacher.

Interaction of the Two Theories

Very few of the studies reviewed focused on Rotter's (1954) Social Learning theory of Personality. Of particular interest for this study is *Postulate 5.* A person's experiences (or his interactions with his meaningful environment) influence each other. Otherwise stated, personality has unity. New experiences are a partial function of acquired meanings, and old acquired meanings or learnings are changed by new experience (Rotter, 1954).

This suggests that as a teacher or personality increases in years of experience, the perception of their control is changed. Bandura says that essentially your schema provides confidence and efficacy for expected outcomes and Rotter says that new experiences change old understandings and meanings. This means that experienced teachers might in fact have a low self-efficacy because of a lack of schema for the new experience and its meaning. Bandura

(1997) argued that even though self-efficacy and locus of control are often viewed as the same construct, they in fact correspond to entirely different phenomena. Originally developed under the umbrella of Rotter's social learning theory, locus of control construct refers to the degree to which an individual believes the occurrence of events, or reinforcements, is contingent on his or her own behavior. Locus of control is an outcome expectancy that, according to Bandura (1997), could be defined as "a person's estimate that a given behavior will lead to certain outcomes" (p. 193). High locus of control does not necessarily indicate a sense of empowerment and well-being. For example, a teacher may believe that high student performance is entirely dependent on his/her ability to teach the curriculum (high locus of control), but feel hopeless because they believe they lack the skills to help their student produce superior academic performance (low self-efficacy).

Teacher Efficacy

The construct of teacher efficacy is generally grounded in the psychological frames of both Bandura (1986) and Rotter (1966) and is determined by many variables (Capa, 2005). Wheatley (2005) suggests that teacher efficacy is easily confused with teacher effectiveness. A teacher's belief in their ability may in fact underestimate, overestimate, or accurately measure the true efficacy of the teacher. Meaning, students who perform well or achieve, may unintentionally affect the teacher by projecting an overestimated sense of efficacy. Similarly, students who perform poorly due in no part to the teachers' ability might internalize the event as their having done a poor job. Herbert, Lee, and Williamson (1998) sum up the crux of the situation, "teacher efficacy remains

a conceptually elusive construct" that is "…difficult to assess with certainty" (p. 224).

Nonetheless, the "elusive construct" is defined and regarded for this study as the "extent to which the teacher believes he or she has the capacity to affect student performance" (Bergman, McLaughlin, Bass, Pauly, & Zellman, 1977, p. 137). More recently, Tschannen-Moran et al. (1998) define teacher efficacy as, "teacher's belief in his or her own capability to organize and execute courses of action required to successfully accomplish a specific teaching task in a particular context" (p. 233). Teaching Efficacy (TE) of inservice teachers has been identified as a predictor for critical variables such as teachers' professional commitment (Coladarci, 1992; Evans & Tribble, 1986; Glickman & Tamashiro, 1982), teachers' classroom management strategies (Woolfolk, et al., 1990), teacher absenteeism (Imants, & Van Zoelen, 1995), and teacher stress (Bliss & Finneran, 1991; Parkay, et al., 1988). Also reported to impact teacher self-efficacy are differences in teacher preparation and certification attainment (Darling-Hammond, et al., 2002; Silvernail, 1998; Tournaki, Lyublinskaya, & Carolan, 2009; Zeintek, 2007),

Measures of Teacher Efficacy

Studies of teacher self-efficacy date back to the 1970s with RAND researchers' examination of teacher characteristics and student reading gains (Armor et al., 1976). Since then researchers have based their studies on two different theories: Bandura's (1977) social cognitive theory and Rotter's (1966) locus of control theory.

RAND Study

With theoretical connections to Rotter (1966) and locus of control, RAND Corporation (Armor, et al. 1976) published findings that included two efficacy items in their self-administered, open-ended question survey instrument coupled with face-to-face interviews of classroom teachers, reading specialists, and principals (n=81of 83). The two items to measure teacher efficacy were: (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," and (2) "If I really try hard, I can get through to even the most difficult or unmotivated students." Responses to both questions are combined into a single teacher efficacy measure. This measure was designed to identify the degree to which teachers consider environmental factors as beyond the control the teacher has in the classroom (external locus of control) or within the control the teacher has in the classroom (internal locus of control).

Though some have attempted to expand the construct of teacher efficacy by developing longer and more comprehensive measures, the RAND study and questionnaire remain regarded as one of the first teacher efficacy measures (Brouwers & Tomic, 1998; Carleton, et al., 2008; Pajares, 1996; Tschannen-Moran & Woolfolk Hoy, 1998).

Guskey's Responsibility for Student Achievement

Guskey (1981) developed the Responsibility of Student Achievement (RSA) instrument to assess teachers' beliefs in their responsibility for student failures and successes by providing separate subscales for positive (R+) and negative (R-) performance outcomes. The RAS shares the aim of the locus of

control scales by attempting to measure beliefs about internal versus external responsibility (Guskey, 1991). Test and re-test reliability and validation rates involved 215 elementary and secondary teacher participants from a large metropolitan area that maintained schools in rural, urban, and suburban areas. Factor analysis revealed roughly 70% of the variation in scores were attributable and explained by R (+) and R (-) factors.

Rose and Medway's Teacher Locus of Control

Rose and Medway (1981) developed a 28-item forced-choice scale called the Teacher Locus of Control (TLC) scale specifically to measure elementary school teachers' perceptions of control in the classroom. Similar to the Responsibility for Student Achievement (RSA) scale created by Guskey (198), the TLC measures teachers' inclination to attribute student success with internal or external perceptions of control (or locus) as well as has two subscales added together for a final score. Higher scores indicate greater internalization of classroom control or tendency to accept responsibility for classroom events. Four administrations of the measure occurred (n =183 elementary school teachers). Validity and reliability were reported on the final administration of the instrument to 89 female fourth grade teachers from a school district with student population of approximately 50,000. Correlations between the two subscales were significant but moderate ($r = +.33$, $p < .04$).

While the measures created by Rotter (1966), Guskey (1981), or Rose and Medway (1981) have been used extensively in the literature (Tschannen-Moran & Woolfolk Hoy, 2001), and are firmly grounded in Rotter's theory of loci of control, during the 1980's other researchers created measures based on

Bandura's (1977) social cognitive theory (Vasquez, 2008). Some measures did not gain application and acceptance with researchers (see Ashton & Webb, 1986: Ashton Vignettes) while others did (see Gibson & Dembo, 1984: Teacher Efficacy Scale). Still contributions made by Ashton and Webb to the field have been foundational in the development of other, more complex measures by providing support for teacher interview and correlational data for at least two-efficacy dimension: teaching efficacy (GE) and personal teaching efficacy (PE) (Ashton & Webb, 1982, 1985; Gibson & Dembo, 1984; Guskey, 1987).

Ashton and Webb Vignettes

Bandura (1995, 1997) defined outcome expectation as "a judgment of the likely consequence such performances will occur," and efficacy expectation as "the conviction that one can successfully execute the behavior require to produce the outcome" (p. 21). Expanding the RAND methodology by using Bandura's social cognitive learning theory the Ashton and Webb (1986) scale revealed the factor centering on general perceptions of the consequences of teaching as "teaching efficacy" which corresponded to the first RAND question. Efficacy expectations that reflect the personal ability of the teacher to bring about desired outcomes was labeled "personal teaching efficacy" and corresponded to the second RAND item.

Gibson and Dembo's Teacher Efficacy Scale (TES)

Building on the work of Ashton and Webb (1982; 1986) Gibson and Dembo (1984) developed the TES to not only provide construct validation support and measurement for the construct of teacher efficacy as well as its dual dimensions but also examine relationships between teacher efficacy and

observable behaviors (such as flexibility and verbal ability). In order to validate the construct of teacher efficacy it had to be distinguished from other variables that might affect student achievements. Therefore, Gibson and Dembo conducted a tri-phase investigation: Phase 1 factors analysis, Phase 2 multi-trait multi-method analysis, and Phase 3 classroom observations. The pilot study involved a 53-item scale administered to 90 teachers. Items with poor validation were removed resulting in a 30-item 6-point Likert format scale ranging from "strongly disagree" to "strongly agree".

Phase 1 analysis used the 30-item scale and was administered to 208 elementary (K-6) teachers. Factor analysis revealed that the two-factors (correlating with Bandura's two-factor model of self-efficacy) were only moderately correlated ($r = -.19$) suggesting that the two factors are related but independent constructs. Results state Factor 1 accounts for 18.8% of variance and Factor 2 accounts for 10.6% of variance, totaling 28.8% of variance.

Phase 2 was conducted to identify if teacher efficacy could be differentiated from other constructs and if it converged when gathered from different sources in different ways. Using four different measures each given at a different administration, this phase used 55 graduate education student participants at a California state university. The measures were the TES from phase 1, another "open-ended measure of teacher efficacy", the Verbal Facility Test (Coleman, et al., 1966) and the finding Useful Parts and the Planning Test (adapted from French, Ekstrom, & Price, 1963). Reliability for the TES and Verbal Facility Test were .72. These results verify a distinction between the two constructs of verbal ability and flexibility and that of teacher efficacy.

Phase 3 focused on classroom observations of 8 teachers (4 high efficacy and 4 low efficacy) from 2 of the 13 schools and participant base from Phase 1. Participants were selected based on Phase 1 factor scores. Only participants who fell in the top 6% of Factor 1 and bottom 22% of Factor 2 were considered "high teaching efficacy" while participants who scored in the bottom 45% of Factor 1 and the top 27% for Factor 2 were considered "low teaching efficacy" (Gibson & Dembo, 1984). Measures used were the teacher-use-of-time measure and a question-answer-feedback sequence measure adapted from Good and Brophy (1973). Interrater reliability for the seven observers ranged from .73 to .91 with each teacher observed three times during morning "academic" classroom time (p. 572).

Gibson and Dembo's (1984) TES is the basis for many other teacher efficacy scales that range from Science Teaching Efficacy (Riggs & Enoch, 1990); classroom management (Emmer & Hickman, 1990); and in the context of special education (Coladarci & Breton, 1997). Although the TES has been widely adapted or used, statistical and conceptual problems remain (Tschannen-Moran, et al., 1998).

Issues with Gibson and Dembo TES. Gibson and Dembo (1984) reported that Factor 1 represent a teachers sense of personal teaching efficacy (PTE, alpha = 0.78), and they reported it to correspond with Bandura's self-efficacy dimension. Factor 2 was reported to represent a teachers' general sense of teaching efficacy (GTE, alpha = 0.75), and therefore correspond with Bandura's outcome expectancy. When the RAND items were added to the factor analysis, the first question "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," loaded on the GTE factor. The second RAND question, "If I really try hard, I can get through to even the most difficult or unmotivated students," loaded on the PTE factor (Coladarci, 1992).

In a later investigation, Woolfolk and Hoy (1990) used a 16-item version of the TES coupled with a 4 other items that focused on teacher preservice preparation to measure the perceived teaching efficacy of 182 liberal arts majors from a large university enrolled in a teacher education program. Gibson and Dembo used principal factor, and because as many factors should be extracted as variables (www.visualstatistics.net) Woolfolk and Hoy reanalyzed the data using Kaiser's criterion of eigenvalues greater than one and scree plot. Three factors were reported explaining 32.8% of the variance, compared to 28.8% as reported by Gibson and Dembo. Woolfolk and Hoy identified a third, overlooked, factor: one for teaching efficacy and *two* for personal efficacy. The personal efficacy factors were now broken into personal responsibility for positive outcomes and personal responsibility for negative outcomes.

Guskey and Passaro (1994) focused on the wording used for the TES items. Items with the referent "I" were positive and had an internal "I can" locus, while items with the referent "teachers" were negative and had an external "teachers cannot" locus (p. 630). Though identified as an anomaly by Guskey and Passaro, they were correct in that the wording may confound the findings. Using 238 experienced K-12 classroom teachers with an average 10.4 years teaching experience and 59 preservice teachers (n=342), Guskey and Passaro administered an "altered" TES.

Prior to administering the altered assessment, Guskey and Passaro (1994) used the original 16 Gibson and Dembo (1984) items that were identified as significant factor loadings, plus three additional items that Woolfolk and Hoy (1990) found to yield significant factors loadings, and the two RAND items (n=21 items). Items were then altered by rewording the orientation of seven of the 12 personal efficacy items and four of the 9 teaching efficacy items. For example, the personal-internal orientation (P-I) item "When a student does better than usually, many times it is because I exert a little extra effort," was altered to read, "When a student does better than usually, many time it is because, *the teacher,* exerts a little extra effort" (p. 633).

All items were reassembled in the same order in the Woolfolk and Hoy (1990) study. With a 92% return rate from the teachers and 95% from the preservice teachers, comparisons of subsamples were run. Analysis results confirmed internal and external dimensions instead of personal and teaching efficacy dimensions. Guskey and Passaro hasten to point out that both sets of researchers, Gibson and Dembo as well as Woolfolk and Hoy, identified the same distinctions; it was in the identification of teaching versus personal distinction that obstructed the identification of internal versus external orientation.

Bandura's Teacher Self-Efficacy Scale

Teacher efficacy is situation specific (Bandura, 1997). Therefore, the teacher self-efficacy scale is a 30-item instrument with seven subscales: efficacy to influence decision-making, efficacy to influence school resources, instructional efficacy, disciplinary efficacy, efficacy to enlist parental involvement, efficacy to enlist community involvement, and efficacy to create a positive school climate.

Each item is measured on a 9-point scale anchored by the following: notion, very little, some influence, quite a bit, and a great deal (as cited in Capa, 2005). Unfortunately, validity and reliability information regarding this instrument is not available.

Tschannen-Moran and Woolfolk Hoy and Hoy's Teachers' Sense of Efficacy Scale

Developed by Tschannen-Moran, Woolfolk-Hoy, and Hoy (1998) the Teacher Sense of Efficacy Scale, previously called the *Ohio State Teacher Efficacy Scale,* is offered as another model for understanding the relationship between Bandura's theory of self-efficacy and Rotter's (1966) locus of control orientations. The Tschannen-Moran et al., (1998) integrated model of teacher self-efficacy includes two dimensions: teaching tasks and context, the second dimension is the teachers' self-perception of teaching competencies. This model focuses on teacher performance in the classroom context; teaching specific subjects to students in a specific setting. Reduced three times, the instrument's current long and short forms reflect how Tschannen-Moran, Woolfolk-Hoy, and Hoy have honed the measure based on participants' responses to better accurately reflect teacher perceptions. Originally, the 52-item measure was issued to 146 preservice and 78 inservice teachers using a 4-point response scale of not at all, somewhat, important, and critical. After principal-axis factoring with varimax rotation, ten factors emerged with eigenvalues greater than one with 57.2% of the variance in the respondents' score. Criterion loading was set at 0.60 and created the revised 32-item TSES.

A second performance study containing 70 preservice and 147 inservice teachers yielded eight factors with eigenvalues of greater than one accounting for 63% of the variance in respondents' scores. After the varimax rotation and scree assessment, Tschannen-Moran and Woolfolk-Hoy reduced the items down to 18 items and three factors (or subscales): efficacy for student engagement (8 items), efficacy for instructional strategies (7 items), and efficacy for classroom management (3 items) as the measure's subscales. Reliability alphas were 0.82, 0.81, and 0.72 respectively (Tschannen-Moran & Hoy, 2001).

According to Tschannen-Moran and Hoy (2001) to gauge construct validity against existing measures in the field, Study 2 participants also responded to the RAND items, the Hoy and Woolfolk (1993) 10-items adaptation of the Gibson and Dembo (1984) TES, the pupil control ideology form (Willower, Eidell, & Hoy, 1967), and the work alienation scale (Forsyth & Hoy, 1978). Total scores on the TSES were positively related to both the RAND items ($r = 0.35$ and .28, $p < .01$) as well as the Gibson and Dembo PTE and GTE factors ($r = 0.48$ & 0.30 $p < 0.01$ respectively). To better ensure against skewedness, correlations were run a second time without preservice participants data "with very similar results" (p. 798).

After being field-tested in a psychology class, where 17 teachers and 2 teacher educators provided feedback, the final 36-item instrument was ready. The TSES was presented to the 410 third study participants (103 preservice and 255 inservice teachers). The same analyses were run as previously. Four factors were identified with eigenvalues greater than one, accounting for 58% of the variance in the respondents' score. The same three factors as identified in Study

2, instruction, management, and engagement were discovered. The researchers removed the 8 items with the highest loading on each factor. Subscale reliabilities were 0.91 for instruction, 0.90 for management, and 0.87 for engagement and intercorrelations between subscales were 0.60, 0.70 and 0.58 respectively.

Finally, the long (24-item) and short (12-item) measures were subjected to two separate factor analyses for both preservice teachers (n = 111) and inservice teachers (n = 255). Running the same analysis as with the other studies, the varimax rotation revealed three strong factors for both inservice and preservice teachers. Because the preservice factor structure was less distinct, a single factor was determined to be most appropriate when principal-axis factoring called for one factor to be extracted. Preservice teachers' responses loaded 0.60 and 0.85 (long and short forms) on the one factor accounting for 57% and 61% of the variance respectively. A long and short form test for construct validity was run by assessing the correlation of the new measure and the same measures as with Study 2. Test score results for the TSES were positively related to both the RAND ($r = 0.18$ and .53, $p<0.01$) and Gibson and Dembo PTE ($r = 0.64$, $p<0.01$) and GTE ($r = 0.16$, $p<0.01$) factors of the TES.

Summary of Teacher Efficacy Measures

Teacher efficacy studies over the past 40 years have been grounded in the psychological framework of Bandura (1977) and Rotter (1966) and have yielded over dozens of efficacy measures, each attempting to elicit and yield data as well as insight into human perceptions and belief systems. For purposes of this study, the Teacher Sense of Efficacy Scale (TSES) developed by

Tschannen-Moran, Woolfolk-Hoy, and Hoy in 1998 was used. This instrument has been offered as another model for understanding the relationship between Bandura's theory of self-efficacy and Rotter's (1966) locus of control orientations.

Teacher Experience

Research discussing a teacher's time-in-the-field or years' of teaching experience identifies and reports as either a grouped range of years, such as 1-5 years being a new or novice teacher, or years are listed individually. School districts often label a teacher as "New" if they have three or fewer years experience in the district.

Beginning, First-year, and Novice Teachers

The terms beginning, first-year, and novice teachers tended to be used interchangeably within the research (Capa, 2005; Carleton, et al., 2008; Glickman & Tamashiro, 1982; Woolfolk-Hoy & Burke-Spero, 2005). For example, Capa (2005) used the term first-year teacher to discuss her findings of perceived sense of self-efficacy and reported three variables as being significant in the perceived sense of self-efficacy of 617 first-year teachers in Ohio. Carleton et al. (2008) used a category of five or fewer years to describe Standards-Based Integrated Science Instruction (SISI) institute. Glickman and Tamashiro (1982) also grouped participants into three categories; five years of experience, those who dropped-out prior to completing five years in the profession, and those who had signed first-year teaching contracts. This lack in uniform definition makes comparison of measures that focus on new, novice, beginning, and first-year teachers difficult.

Capa's (2005) finding that preparation programs predicted to yield a .34 standard deviation difference in the efficacy levels of first-year teachers is important to this study as it suggests the sub-components within the variable (coursework, teacher education faculty, and field experiences) are vital elements to a first-year teachers efficacy.

Indeed, Howerton (2006) reported that of the 15 teachers in his study, 71% of novice teachers with 1-5 years teaching experience believed they were prepared to teach reading teachers with 6-15 years experience scored (54%) while only 50% of the veteran teachers believed themselves as prepared to teach beginning reading strategies and skills to struggling readers. The training these secondary participants experienced was to assist and challenge proficient readers, not to teach beginning literacy. Moreover, given that many alternative certification pathway participants generally do not hold field experiences prior to beginning of their teaching careers, sense of self-efficacy may therefore be impacted.

Veteran Teachers

Tschannen-Moran and Woolfolk-Hoy (2007) reported that career teachers (n=181), those who had taught for four or more years, self-reported higher overall efficacy compared to novice teachers (n=74) on two of three subcategories: instructional strategies and classroom management. However, no significant difference was reported between the two groups on the third subcategory: student engagement. Both participant groups believed themselves to influence students' lives but the career teachers were more comfortable with strategies and classroom management. This is not surprising given mastery experience to try

various strategies for both subcategories are vital. A teacher must try a strategy to know if it will work in a particular content with a particular group of students.

Summary of Teacher Experience

Due to inconsistent definitions of incremental teaching experiences, the measurement of novice teachers it is difficult to extract results generalizable across categories; participants, who might fit into the teaching experience bracket of one researcher might not fit into a comparable teaching experience bracket of another researcher. However, what can be said is that career or veteran teachers with over three years of experience were more confident in their use of classroom management and content strategies than teachers with less than three years experience.

Teacher Preparation

Capa (2005) discussed the national legislative need for highly qualified teacher's impact on education as being at two levels: K-12 students receiving quality educational services and post secondary levels where educators are trained and become highly qualified. Teacher education and preparation programs face the daunting task of ensuring graduates not only absorb and internalize the content curricular knowledge for which they will be held responsible, but also the preparation for the trials and tribulations, obstacles and challenges, which might also be encountered by the neophyte educator. These non-content items include behavior management, district paperwork and expectations, confidence, parent involvement and relationships, and the school milieu or culture. How a teacher educator is prepared and trained will impact how classroom situations are handled, internalized, and answered (Henke, Chen, &

Geis, 2000). How the experience is perceived by the teacher impacts future interactions and experiences (Bandura, 1977). As such, the preparation the educator is afforded in the three subcategories or sub scales, of the Teacher Sense of Efficacy Scale; Student Engagement, Instructional Strategies, and Classroom Management, will impact that educator's perceived and subsequently reported teacher efficacy. This section addresses teacher preparation from programs and training options.

Darling-Hammond (2003) and others (see Henke, et al., 2000) identified teacher preparation as influencing whether a teacher migrates to another school or completely leaves the profession. Using Baccalaureate and Beyond data, Henke et al., (2000) reported 29% of new teachers who did not engage in any student teacher experiences during their educational training left within their first 5 years of teaching. This is 14% more than those who had conducted student teaching a part of their preparation program. Henke, et al., (2000) also reported 20% of newly hired teachers across the nation had self-reported working in a field other than education between graduating from college and becoming teachers. In a six and a half year longitudinal study conducted in a large school district in Texas, Adams (1996) reported of the just over 2,300 teacher participants, those who were alternatively certified or prepared teachers (n= 733) were less likely to leave the teaching profession than traditionally prepared teachers (n=1,594). However, due to the nature of the Cox regression analysis conducted by Adams, explanations regarding possible reasons as to why the differences between the two groups of certification types were not discussed clearly in his report.

Traditional Four Year Programs

Traditional four year preparation programs involve three primary components: liberal arts education, professional program of study, and practical experience (Capa, 2005). Each four year teacher preparation program, even those endorsed by the National Council for the Accreditation of Teacher Education (NCATE), have varying degrees of compliance to and with the three components and slight variation in the amount of outcome expectations.

Liberal Arts Education. This subcategory of traditional education often focuses on the single content or subject matter of interest for the educator. For example, this liberal arts category would involve elementary education content courses, grades 7-12 mathematics courses, and exceptional student education to name a few. This category involves the content knowledge expected to be later taught to K-12 students.

Professional study. Often referred to as foundations courses, the focus of this subcategory is on non-content coursework or pedagogy. These courses assist the teacher candidate in developing the foundational framework necessary to succeed in the classroom beyond content. Example courses in this category include educational psychology, teaching methods, and introduction to teaching (Capa, 2005).

Practical experience. This final component is hinged upon practica or field experiences the teacher candidate engages in prior to graduation. During this experience component, the candidate receives a variety of experiences depending on the liberal arts program upon which the candidate entered. For example, some traditional programs require Elementary Education majors to

complete a series of at least three practica or field-based internships while other traditional programs require candidates experience a minimum of two field-based or practicum internships.

Though the professional study, content knowledge, and practical experiences will be varied based on course of study or program each teacher candidate pursues, the professional study courses and preparation expectations as well as rigor may be similar. Each program ultimately capstones with at least a baccalaureate degree in education.

Alternative Teacher Certification Pathway or Programs

Alternative certification programs and pathways (ACP) vary from state to state as well as within university settings and have become a priority to many states and school districts as a way to fulfill the need for classroom teachers (Darling-Hammond, 2003). ACP options differ from traditional teacher preparation programs as they often take the form of paid internships where districts train their own teacher candidates, or for-profit companies that offer compressed programs with quick turn-around times or master's degrees (Flores, et al., 2004). However, due to inconsistent pathway definitions, identification of alternative pathways can be difficult to measuring in terms of their effectiveness (Tournaki, et al., 2009).

Other examples of an alternative pathway can be the Master's of Arts in Teaching (MAT), and Master's of Education (M. Ed) programs which some accredited institutions offer. In some cases, these programs are designed to "…attract candidates with a degree in a field outside education" (Morton et al., 2006, p. 41*)* and are considered alternative in their design because the teacher

candidate completes the set number of course credits and modules that offer teachers to gain experience through student teaching under the management of a mentor or college faculty member while simultaneously enrolled in courses that provide theoretical and methodological knowledge and training. Therefore, as with most of Alternative Certification Programs, a bachelor's degree and passing score on basic skills tests are required (Finn & Madigan, 2001). Teacher candidates transition to teaching as a second year student and generally have several years work experience in either the private or public sector (Flores, et al., 2004). MAT and M. Ed programs offered through universities are often designed to approximate the initial certification program requirements offered through traditional undergraduate programs and therefore, it is important to note in these cases, alternative does not mean lacking rigor. Indeed, MAT and M. Ed programs, as well as other university-based programs where rigor and expectation have been established demand more from their students than district-delivered ACP programs with coursework and field experiences that mirrors traditional preparation (M. L. Morton, Personal Communication, June, 10, 2010). Still too, for purposes of this study, Alternative Certification refers to the district-sponsored program which supports teachers as they enter the profession with the content but not necessarily pedagogical knowledge necessary for state certification.

Relatively new to the alternative certification route for teacher certification are Educator Preparation Institutes (EPIs). EPIs provide an alternate route to teacher certification for mid-career professionals and college graduates who were not education majors (Florida Department of Education, FLDOE, 2010).

Educator Preparation Institute programs have over-arching guidelines established by the state and are designed to offer instruction in conjunction with other ACPs. EPIs also offer individual classes as part of professional development for established teachers, substitute teachers, and paraprofessionals. Students with a baccalaureate degree from a regionally accredited college or university may enter an EPI program, which consists of competency-based instruction, to prepare students to take the state teacher certification exam covering both the professional preparation and education competences. Students must also demonstrate general knowledge and subject area competence. However, general knowledge and subject area instruction is not covered by EPI programs as subject areas vary, depending on students' baccalaureate preparation (FLDOE, 2010).

Summary of Teacher Preparation

Teachers today have a variety of preparation and training programs from which to select. Each program offers a unique entity to the student. For example, traditional preparation programs are often housed in the curriculum and instruction departments of colleges of education as are the Master of Arts in Teaching (MAT) programs allow graduate level coursework for would-be teachers who hold bachelors in other areas and often mirror undergraduate preparation. Alternative certification programs and pathways provide teachers on-the-job training while attending pedagogy, classroom management, and content area courses at night and during the summer. However there is a lack of systematic expectations and requirements across alternative certification options, accredited colleges and university preparation programs yet each type of

program offers candidates who complete the requirements a opportunity to take the state certification exam eligible and “qualified” to teach.

Influence of Preparation on Efficacy

Though the influence of preparation of a teachers’ sense of efficacy has been well document (Capa, 2005; Darling-Hammond, et al., 2002; Glickman & Tamashiro, 1982; Tournaki et al., 2009) participant level and line of inquiry posed by researchers regarding preparation programs have differed. For example, Glickman and Tamashiro focused on teaching within the field or who had recently left the field. Darling-Hammond et al concentrated on teachers with fewer than 4 years experience. Research participants in the Capa study were pre-service teachers, and finally, Tournaki et al focused on graduate students in their final semester of coursework. These aforementioned studies are presented below in greater detail.

Glickman and Tamashiro.

Glickman and Tamashiro (1982) surveyed 129 bachelor degree earning graduates from a traditional teacher education institute in the southeastern United States. The sample consisted of three groups: graduates of the 1975 class who had taught for five years (n= 49), 1975 graduates who dropped–out from the profession prior to five years (n= 30), and graduates of the 1980 class who had secured a first year teaching assignment (n= 50). Grade level representation equaled 40% elementary, 20% middle school or junior high, and 40% high school. This particular study focused on three measures: perceptions of self-efficacy, ego development, and problem-solving fluency. Findings revealed both the first and fifth year teachers were significantly higher in efficacy

levels, tending to think they influenced student lives more than teachers who resigned prior to their fifth year of teaching [F (2, 129) =7.44, p<0.05]. First and fifth year teachers also reported significantly higher levels of ego development than the former teacher participants [F (2, 129) =6.90, p<.05]. However, neither group significantly differed in their reporting of problem-solving fluency. These findings might suggest that during the first 5 years of teaching, self-efficacy levels are not perceived to be significantly different. Furthermore, Glickman and Tamashiro believe teachers who leave the profession have lower perceptions of self-efficacy.

Darling-Hammond, Chung, & Frelow

Using a sample of 2,956 New York City beginning teachers, Darling-Hammond, et al., (2002) administered a survey specifically about teachers' perceptions of preparedness. They found the mean rating of teacher education program graduates to be significantly higher than the ratings of teachers without program preparation. Defining "beginning teachers" as those with 4 or fewer years of experience, Darling-Hammond, et al., also reported that teachers who felt better prepared were statistically more likely (p<.001) to believe they could impact or reach all their students as well as make a difference in the life of the students. These reported findings suggest a teacher sees him or herself as more prepared and therefore believes he or she can affect and make a difference in the life of a student if they have successfully completed a teacher education program.

Tournaki, Lyublinskaya, and Carolan. Tournaki, et al., (2009) used the Danielson Observation Scale and the Teacher Efficacy Scale (Danielson, 2008; Gibson &

Dembo, 1984) to measure teacher effectiveness and teacher efficacy of 83 graduate students during their last semester of coursework in New York City. Data was categorized into one of three sections or pathway affiliations. Viewed as a traditional pathway (TP) this option is used when teacher candidates are admitted into a master's degree program having been eligible for initial certification based on undergraduate work. The candidates have up to 5 years after undergraduate completion to enter and complete this program.

Identified by Tournaki et al (2009) as one of two possible alternative pathways (AP) this option also involves master's degree students but they have not fulfilled undergraduate initial teaching certification. After 100 preservice training hours, the candidate is eligible for NY state 2 year certificate. Should the candidate not find full time employment, a completion of a student internship is required. Reported as an accelerated version of Pathway 2, this option requires candidates "complete 110 hours of student teaching and 6 hours of course work during a summer session, and they take two certification exams" (Tournaki, et al., 2009, p. 100). A 3-year certification is awarded after program completion.

After two pre-arranged classroom observations conducted roughly 2 to 3 weeks apart by the same observer, Tournaki et al (2009) participants were each asked to complete the TES and a demographic questionnaire. No significant effects of pathway on the three domains of effectiveness were identified: one's planning and preparation scores, one's classroom environment score, or one's instruction score ($F(2, 72) = 0.52; 2.40; 3.11$, *ns* respectively). Also, no significant relationship was reported between pathways and personal/teacher efficacy levels.

Summary of Influence of Preparation on Efficacy

America's classrooms are filled with highly qualified personnel from varying preparation programs. Some programs stem from a traditional four-year teacher accredited institutions while other programs provide second-career options for non-teacher trained individuals through state, district, and university master's pathways. The training involved for each teacher candidate varies along with the program. Some require student teaching experiences, others involve intensive 10 – 12 week student teaching the two semesters after completing coursework, others provide minimal experience in classrooms, and still too, other programs do not require any student teaching as the teachers are full-time district teachers by day and students by night.

Implementation and Use of Curriculums

"While there is no national curriculum in the United States, states, school districts, and associations require or recommend that certain standards be used to guide instruction" (USDOE, International Affairs Office, 2009, p. 1). As such, the literature fields were searched to identify research involving the use of reading and Language Arts curriculum program and teacher efficacy scales. However, no studies were found that focused specifically reading and Language Arts curriculum programs and teacher efficacy. Therefore, discussed below are the two middle school curricular options employed by the school district from which teacher participants were invited. These two curricular options, one reading and one Language Arts are discussed below as they might have influenced the teaching self-efficacy perception of a teacher-participant in this study.

Structured Reading Curriculum

The state, in which the participants lived, required each school district to submit a comprehensive research based "Plan" specifically outlining how each district will address student achievement. Each plan is a contract with the state and is to be adhered to by all employees. The middle school reading curriculum to be used by faculty is determined based on individual student state assessment scores and is considered structured. This means that while it is not scripted, the "Plan" does provide the classroom teacher with guidelines or structure to follow. For example, lowest scoring reading students are scheduled into an uninterrupted 100-minute double-blocked Language Arts and reading class. The structure of the class must include but is not limited to include whole group explicit instruction, small group differentiated instruction, independent reading practice monitored by the teacher, a focus on informational text at a ratio matching the state mandated assessment, and infusion of the state standards (FLDOE, 2010). Reading teachers are only required to use this structure *if* their rosters of students have earned one of the two lowest scores on the state mandated assessment. If a student has earned one of the three other possible scores (3-5) then the teacher is permitted to use professional discretion to the meet needs of a student providing the teacher follows the state approved standards (FLDOE, 2010). As a result, Reading teachers have the structure of specific elements that must be addressed but are not held to prescriptive and explicit lesson requirements.

Scripted Language Arts Curriculum

One of many scripted curriculums on the market, SpringBoard (SB), is a product of The College Board, and provides 6th – 12th grade students and teachers with the online resources and print materials necessary to provide the intellectual opportunities that a student might experience in high school advanced placement coursework or during the first year of college (A. Wuckovich, Personal Communication, July 7, 2009). Intended to "increase rigor" in English and mathematics courses, SpringBoard is purported to be comprehensive enough to be used as a core curriculum while also flexible enough to be used initially with other programs to ease the transition into total curriculum replacement. As of 2008, the program was implemented in over 24 of the nation's top 100 largest school districts (The College Board, 2009), with this study's population included. The use of SpringBoard as a curriculum is now in its second generation phase after receiving revision suggestions from the teachers and administrators who used it and professional development resource facilitators who assisted those teachers and administrators in its initial implementation stage. SpringBoard is a monitored program that has district level resource professionals as well as SB consultants visit school sites monthly and all 6-12 Language Arts teachers within the county are required to adhere to the SB curriculum.

Westat (2008) reported data from the 2006-2008 school years of implementation, or the first generation, which compared SpringBoard users with non-SpringBoard users from the same school districts. Findings from this nation-wide study suggest that comparison teachers were more likely to indicate that they had the resources they needed to meet the needs of their students than

SpringBoard teachers. However, in terms of teacher efficacy, Westat reported SB teachers agreed or strongly agreed to the statements that all students can achieve the state standards and the SB teachers felt able to help the students who are included in their classes compared to non-SB teachers (*n*=85, 79 respectively). When focusing solely on SB participants, 87% agreed the teaching strategies were “effective” and SB changed the “mix of strategies [they] used” (p. 7).

Summary of Implementation and Use of Curriculums

The school district in this study employs the use of two different curriculums. Language Arts teachers are required to use a scripted curriculum, SpringBoard, that is in its fourth year and second phase of implementation. Reading teachers in the district are required to use structured programs provided to them by the district on the condition that they have students who have earned the lowest two state assessment grades.

Teacher Attrition

School Context

Ingersoll (2001, 2003) writes that teacher attrition is often examined from an individual characteristic level. That is, the reasons why teachers leave or depart from the profession are viewed from an individualistic standpoint and are then grouped together based on themes. In an effort to expand the field of research, Ingersoll focused on teacher attrition from a sociological perspective, which suggested that teacher or school staffing problems should be examined at the organizational, or school, level. Ingersoll therefore researched teacher attrition and migration (or leaving one school location for another) from a level

that places the characteristics of the teachers in context of their respective organizations. In doing so, he corroborated what others found that teachers tend to leave or depart from teaching in a U-shaped pattern in which they leave early in their careers (younger than 30), "settle-in" between the ages of 30 and 50 (Ingersoll, 2001, p. 502), and then increase again in number as retirement age, over 50, approaches. Teacher resiliency could be higher for teachers between 30 and 50 years of age.

Data from the 1990-1991 SASS and 1991-1992 TFS suggests nationally, the overall teacher attrition and migration turnover rate was 13.2% (7.2% for migration and 6.0% for attrition) when the school or organizational context was taken into consideration (Ingersoll, 2001). When reporting the top three reasons for teacher turnover, Ingersoll listed the most frequent as poor salary (45%), second highest reason reported was lack of student motivation (30%) and the third most reported reason for teacher turnover as reported by Ingersoll was retirement (27%). This data is relevant to the current study as student motivation or the perception of a teachers' ability to motivate his or her students is related to that teacher's loci of control and the Teacher Sense of Efficacy Scale Student Engagement subscale used in the study (see Chapter Three for instrument specifications).

Summary of Teacher Attrition

Whether leaving a school or leaving the profession, the reasons that teachers leave are varied. Some leave near the beginning of their careers while others leave toward the end with little movement out of the field is reported during middle years. Once teachers commit themselves to the profession, they

were reported as staying until retirement. This suggests that the self-efficacy levels of experienced teachers might be higher than that of less experienced teachers.

Surveys

The history of using surveys to gather data can be traced back to Egyptian times when data regarding population counts and surveys yielded information covering a variety of areas: number of children, crop type and production amount (Borg & Gall, 1983). In the field of education, school districts (and other administrative bodies) use survey data to gather information for evaluative and exploratory purposes such as the perceived effectiveness of district-wide programs or faculty understanding of school-level curriculum implementation (Nardi, 2003). Survey research is often used when a population is too large to observe naturally, as it allows participants to reveal experiences in a systematic, replicable, and objective way (Nardi, 2003).

Traditional Surveys

The consideration of surveys in the field of education often involves the analysis of relationships and the characteristics of a population (Fraenkel & Wallen, 2006). School districts in particular often explore and evaluate aspects of the school system itself such as building maintenance, school climate or culture, curriculum, and job satisfaction (Borg & Gall, 1983). The methods of reaching participants and acquiring information have changed over the past decades shifting from larger direct administration of a group with follow-up contingency personal interviews, to the mailing out of individually typed names and addresses on letters and telephone surveys (Fraenkel & Wallen, 2006). This global shift

away from face-to-face interactions allowed researchers to increase the number of surveys administered as well as response rate (Dillman, 2007). Researchers became able to reach any number of eligible participants by mailing out a survey complete with postage for a return reply. Some researchers suggest traditional mailed paper surveys have a better response rate than online polling because participants have increased confidence about the anonymity (Nardi, 2003, Wiersma & Jurs, 2009). As such, the use of traditional mail services remains a viable method for survey delivery to this day; however they do include a cost to the researcher. An online survey was deemed to be the best method for the current study.

Online Surveys

The number of responses a study garners is a real and persistent problem within questionnaire studies (Wiersma & Jurs, 2009). A practical alternative to the traditional distribution of surveys is one of online distribution (Dillman, 2007). Heath, Lawyer, and Rasmussen (2007) report no differences in the proportion of students who completed online end-of-term course evaluations to those who completed pen-and-paper end-of-term course evaluations. Heath, et al., (2007) also reported that participants who completed the online evaluations were more likely to leave longer supplemental qualitative comments than participants who filled out the pen-and-paper version. Other advantages of online polling include absence of printing and First Class Mail costs as well as a decrease in response time (Wiersma & Jurs, 2009).

A popular online survey clearing house is SurveyMonkey. Though research exists involving the use of web-based surveys and how to increase

response rates (see Archer, 2007, 2008; Cook, 2000) searches conducted within educational literature databases such as Education Full Text, SAGE Full-Text Selection, and ERIC did not glean research regarding the specific use of SurveyMonkey as a process and gathering tool; information to either support or dismiss the use of the clearing house was not found. The district in which this study took place implemented the use of SurveyMonkey for all administrative and professional development questionnaires and surveys during the 2008-2009 academic school year. As such, all returning district middle school teachers were expected to be relatively aware of the function and anonymity associated with SurveyMonkey. Furthermore, the College of Education through which this study was conducted also employed the use of SurveyMonkey on a regular basis as a method to gather data from students, faculty, and staff. The ease of use and the familiarity teachers within the district had with SurveyMonkey helped make this particular web-based survey clearinghouse ideal as participant involvement might have been increased as a result of familiarity (Archer, 2007).

Survey Summary

As noted above, the use of surveys in educational research has changed over the decades. The online data clearinghouse, SurveyMonkey, was selected as the collection agency for this study because of its large-scale and global access appeal. SurveyMonkey also provided the anonymity essential for ethical collection of data with which participants were familiar and comfortable. This query method provided not only an economically affordable and ecologically responsible option, SurveyMonkey also helped to better ensure comfort and familiarity which are critical to a successful return rate.

Chapter Summary

This chapter provides a review of the literature regarding the concept of self-efficacy as well as the instruments that have been employed to measure the concept. Also within this chapter is a review of the studies that involved similar components with the current study. Finally, this chapter includes a discussion of the literature found that incorporate the types of curriculum teachers in the study implemented, the study's instrument delivery methodology, teacher preparation program options, and literature that discusses teacher preparation options as well as attrition.

Chapter Three

Methodology

This chapter explains the pilot study, description of sample, data collection, descriptions of dependent and independent variables, and the instruments used to measure the variables for this middle school teachers' self-efficacy for teaching reading and Language Arts study. Also included in this chapter are the research design, distribution method of the survey instruments, and discussion of non-respondent biases as well as an explanation of validity.

Purpose of the Study

Research on the effectiveness of various teacher certification routes report mixed findings. Some suggest traditional teacher certification programs produce more effective and higher-rated teachers (Darling-Hammond & Cobb, 1996). Other reports suggest there is no difference, in perceived effectiveness by supervisors, between traditionally trained and alternatively certified teachers (Zeichner & Schulte, 2001). Additionally, research suggests that teacher efficacy beliefs form during early years of a new situation and are resistant to change (Long & Moore, 2008; Tschannen-Moran, Woolfolk-Hoy, & Hoy, 1998). It was the intent of this study to investigate the differences in teachers' perceptions of their own efficacy, or capabilities. Specifically, the purpose of this study was to examine the perceived level of self-efficacy of middle school Language Arts and reading teachers as well as the areas and factors that may account for variations

in these teachers' reported efficacy levels. Factors included number of years of teaching experience, pedagogical or teaching program preparation, and teacher demographics such as age, sex, ethnicity and school location. It was hypothesized that the three variables, number of years teaching, the type of teacher preparation program, content area, and teacher demographics would be associated with teacher self-efficacy.

Research Questions

The following research questions are addressed:

1. How are differences in teacher self- efficacy scores related to teacher preparation? (For example, how do teachers in traditional teacher education programs compare to teachers with alternative certification program preparation?).

2. How are differences in teacher self- efficacy scores related to the content area taught? (For example, do Language Arts teachers have a higher level of efficacy compared to that of a reading teacher with comparable variables?).

3. To what extent are differences in teacher self- efficacy related to years of teaching experience? (For example, are eighteenth-year teachers' more efficacious compared to first and fourth-year teachers?).

4. To what extent can differences in teacher self- efficacy be associated with participants' demographic factors a) age, b) sex, c) ethnicity and d) school location? (For example, are older teachers more efficacious than younger teachers? Are females more efficacious than males? Are teachers from schools with non-Title1 status more efficacious than those from Title 1 schools?).

Research Hypotheses

1. Traditionally educated teachers' self-efficacy will be reported as significantly higher than Alternative Certification Pathway/Program teachers.

2. Reading teachers' self-efficacy will be reported as significantly higher than Language Arts teachers.

3. Experienced teachers' self-efficacy will be reported as significantly higher than less experienced teachers.

4. Differences in Teacher Self-Efficacy Scores will be positively and strongly associated with teacher demographics of age, sex, ethnicity, and school Title 1 status. Specifically, older teachers will be more efficacious than younger teachers; male teachers will be more efficacious than female teachers; white teachers will be more efficacious than non-white teachers; teachers from Non-Title 1 schools will be more efficacious than teachers from Title 1 schools.

Research Design

The research design employed in this study was a descriptive survey research design (Nardi, 2003). The efficacy beliefs of all middle school Language Arts and reading teachers and factors influencing those beliefs were investigated using a survey instrument distributed via the on-line survey clearinghouse, SurveyMonkey. This study was designed to explore differences in certification type and program characteristics based on middle school reading and Language Arts teacher demographics listed above related to teachers' sense of self-efficacy.

Pilot Study

The purpose for implementing this pilot study was three fold: to become adept with the use of SurveyMonkey, the distribution vehicle for the survey and questionnaire, to determine if the survey directions are clear, and be sure participants can navigate the SurveyMonkey website. The survey instrument for the pilot study was the same as that of the larger study: Tschannen-Moran, Woolfolk-Hoy, and Hoy's (1998) Teachers' Sense of Efficacy Scale (TSES) and the Teacher Demographic Questionnaire (TDQ). Appendix A contains both measures in SurveyMonkey format.

In addition, the pilot study provided data on the content validity of the Teacher Demographics Questionnaire (TDQ). Pilot study responses were used to determine if items elicit appropriate and salient responses as suggested by Borg and Gall (1983); response rates are more likely to be increased the more salient items are to the participants. Information gleaned from the pilot study, such as follow-up methods with Subject Area Leaders and Reading Coaches, provided helpful assistance in gaining a greater response rate for the larger study.

Pilot sample. The pilot sample consisted of twenty middle school reading and Language Arts teachers from two schools in the northwestern section of the same county as the larger study. Given that the same survey instruments for the larger study were used in both the pilot study as well as the larger study, pilot participants were removed from the email invitation list for the larger study.

Study Population

Teachers. The teacher participants of this study taught reading and or Language Arts at one of 48 middle, junior, or combination schools in the district. Middle schools consisted of grades 6-8, junior high school included grades 7-9, and combination schools included grades K-8. Reading and Language Arts teachers in the school district who taught sixth seventh, or eight grades, or any combination of the three grade levels was included as a potential study participant. With the exception of pilot study participants, all middle, junior, and combination school Language Arts and reading faculty, as identified by a district human resources department was sent the participation invitation, and link to the survey instrument and questionnaire.

Data collection. Data for this study were collected from all middle school reading and Language Arts teachers across a school district from a large school district in the Southeastern United States. This study was considered a census (Borg & Gall, 1983) as all the members of a group were invited to participants, not simply a random selection from the group. More specifically, this census involved teachers as participants from middle schools (grades 6-8), combination schools (grades K-8) and junior high schools (grades 7-9) across one of the largest school districts in the nation educating approximately 40,000 students in 2008-2009 academic school year.

SurveyMonkey. The population school district for this study implemented the use of SurveyMonkey for all administrative and professional development questionnaires and surveys during the 2008-2009 academic school year. Returning district middle school teachers should have been relatively aware of

the function and anonymity associated with SurveyMonkey. Inquires searches centered on SurveyMonkey as a process and gathering tool did not reveal information to either support or oppose the use of the clearing house. Specifically, searches were conducted within educational literature databases such as Education Full Text, SAGE, and ERIC as well as inquiries within SurveyMonkey itself. However, given both the school district and the university through which this study was conducted both employed the use of SurveyMonkey on a regular basis, the data gathering clearing house was used.

Statistical Power

The statistical power is the ability of a test to detect an effect, if the effect actually exists (Cohen, 1977). Specifically, the test is the long term probability of the identification of a type II error and thus rejection of the null hypothesis (Cohen, 1977; 1992). A *type II* error occurs when test results report no treatment effect in the sample/population when in fact there is a real effect. The probability of making a *Type II* error (or β), and power is represented as 1-β, or the probability that *Type II* errors will be avoided (Cohen, 1977). A statistical test is conducted in either retrospect (post hoc) or prospect (a priori) of analysis. Statistical power for this research study was determined a priori to identify the required sample size necessary to achieve statistical power.

Statistical power investigates the relationship among the four components presented below:

1. The standard effect size (effect size and variation/variability)
2. Sample size (N)
3. Test size (significance level)

4. Power of the test (1-β)

Standard effect size. Standard effect size (ES) is the extent to which an alternative hypothesis is true in the population (West, 1985). Effect size attempts to answer the researcher's question of how meaningful a result might be and generally, effect size is not determined in advance of the study. However, based on the results of the pilot study, an estimated ES of .50 was applied to the larger study. The observed effect size of the pilot study was used to determine realistic criteria for ES which was applied to the larger study.

Sample size. When sample size is larger, variation (standard error) becomes smaller and thus makes standardized effect size larger. A standardized effect size thereby increases statistical power (West, 1985). In general, sample size is the most important component affecting statistical power (Cohen, 1992). Based on the 2009-2010 data set report acquired from the population school district the sample size for this study was 624.

Test size. Identified by the researcher, this number is the criterion level for rejecting the null hypothesis (Wiersma & Jurs, 2009). For most educational research, the levels used are .05 and .01. For purposes of this proposed study, the significance level was set at .05. This means that if data were revealed to be at the $p>.05$ level, the researcher failed to reject each null hypothesis being tested.

Power of the test. Cohen (1977) reported the ideal or "desired" level of power for a statistical test as .80. This means the researcher should be confident that roughly 80 times out of 100, the null hypothesis will be rejected when an effect does exist (West, 1985). The power analysis approach is based on the

researcher having an alternative hypothesis in mind asking; what is the probability that an experiment with a particular sample size would result in a statistically significant result if an alternative hypothesis were true.

To determine the Power necessary for the proposed study, multiple power analyses were performed examining whether the proposed sample size/expected survey response rate would be adequate to detect the hypothesized differences in self-efficacy among the various groups. Power calculations for the various hypotheses were performed using the 6 group ethnicity variable and the interval years of teaching variable to set parameters for the other tests because these analyses were the most demanding in terms of the sample size needed to detect different effects across groups. With a minimum of 400 responses to the survey, the probability was 80 percent that the study would detect a relationship between the most variable independent variable and the most variable dependant variable at a two-tailed .05 significance level. That is, once 400 responses were obtained, the study was adequately powered to detect group differences of 0.5 in any of the self-efficacy scale scores and associated hypotheses offered regarding teacher preparation, sex, course assignment, certification type, or years of service. Given that the results indicate adequate power to detect differences using the most demanding grouping scheme, there should have been be adequate power for the other hypothesis testing.

Teachers' Sense of Efficacy Scale

Also referred to as the Ohio State Teacher Efficacy Scale, was developed by Tschannen-Moran, Woolfolk-Hoy, and Hoy in 2001 in an attempt to create a measure that captures the multifaceted dimensions of teacher efficacy. Two

versions of the Teachers' Sense of Efficacy Scale (TSES) exist; a "Long Form" with 24-item survey and a "Short Form" with 12-item Likert-type survey. Both instruments have a nine point scale offering participants the options of 1-Nothing, 2-Very Little, 5-Some Influence, 7-Quite A Bit, and 9-A Great Deal and three subsections: Efficacy for Instructional Strategies (hereafter referred to as "Instructional Strategies"), Efficacy for Classroom Management (hereafter referred to as "Classroom Management"), and Efficacy for Student Engagement (hereafter referred to as "Student Engagement"). Teacher self-efficacy is determined as a total score (hereafter referred to as "Total") as well as the three subscales.

Construct validity as reported by Tschannen-Moran et al., (1998), the Total TSES long form reliability alpha as .94 and a short form reliability alpha as .90. Tschannen-Moran et al., conducted a factor analysis after their second administration of the instrument and indentified reliability alphas of the three subsections for both the long and short forms (See Table 1). Classroom Management reliability alphas .90 & .86; Instructional Strategies reliability alphas .91 & .86; and Student Engagement reliability alphas were .87 &.81. For loading purposes, the TSES short form subcategory questions correspond in the following manner. Teacher sense of efficacy connected to the subcategory Student Engagement loads on questions 2, 3, 4, and 11.The subscale for Instructional Strategies loads on questions 5, 9, 10, and 12. The final subscale of Classroom Management loads on the questions 1, 6, 7, and 8. Example items from each of the three subscales include:

- How much can you do to motivate students who show low interest in school work? (Student Engagement)
- How much can you use a variety of assessment strategies? (Instructional Strategies)
- How much can you do to control disruptive behavior in the classroom?

Table 1

Construct Validity for Teacher Sense of Efficacy Scale

	M		**SD**		**α**	
	Long	**Short**	**Long**	**Short**	**Long**	**Short**
TSES	7.1	**7.1**	.94	**.98**	.94	**.90**
Student Engagement	7.3	**7.2**	1.1	**1.2**	.87	**.81**
Instruction Strategies	7.3	**7.3**	1.1	**1.2**	.91	**.86**
Classroom Management	6.7	**6.7**	1.1	**1.2**	.90	**.86**

Note. Short form reliabilities are presented in **bold.**

Reliability, factor analysis and correlation analysis conducted by Tschannen-Moran and Woolfolk-Hoy (2001) revealed that both the "Subscales and the total scores for both forms can be used to assess efficacy." (p. 801). Therefore, both the Total score and Subscale scores were addressed in this analysis. Discussions with the supervisor from the school district's Office of Assessment and Accountability prompted a request to "keep the number of questions under 30" (J. Hildebrand, Personal Communication, May 30, 2009). Given that the TSES long form contained 24-items and the Teacher

Demographic Questionnaire (discussed below) had 12 questions, the total went beyond the OAA's request. The 12-item or short TSES in addition to the TDQ were used in accordance with the school district's request.

Teacher Demographics Questionnaire

The Teacher Demographic Questionnaire (see Appendix A) was created in SurveyMonkey to elicit responses that reflected the participants' education, preparation method, and certification, as well as more traditional demographic factors such as age, sex, ethnicity, and school location. The Teacher Demographic Questionnaire (TDQ) involved 12 items that obtained information about each participant; eight questions were closed-form meaning they didn't allow for information to be added. The eight questions addressed the participants' sex, ethnicity, courses and grade levels assigned to teach for current academic year (such as advanced, regular, Full Inclusion Student Education –FUSE, English Language Learner- ELL), certification attainment, school location, certification type, preparation experience and the extent to which the participant believes efficacy level is a result of preparation method. The remaining four questions on the TDQ were open form and requested the participants' birth year, and how long they had been teaching. Questions numbered 11 and 12 on the TDQ asked the participants to identify the factors perceived to either positively influence their ability (Question 11) and negatively influence (Question 12) their ability to teach.

Distribution of Measures

At the time of this study, the school district in which participants worked was undergoing leadership changes within the district Office of Assessment and

Accountability (OAA). Such a change in administration resulted in delays as the new director had to become familiar with the protocol of the OAA. As a result, the researcher worked closely with the OAA to expedite the approval of the study. As expected that both the Internal Review Board and Office of Assessment and Accountability approved the study by the end of September 2009 (See Appendix D and Distribution Timeline below).

Timeline of Measure Distribution

August
- Speak with Lynn Dougherty-Underwood and Lisa Cobb to secure 15 minutes at October's monthly meeting to go over study with Reading coaches and SALs respectively.

September
- Study approved by both sample district's Office of Assessment and Accountability and the University Internal Review Board
- Send out reminder email to Lynn and Lisa regarding how grateful I am they will give me 15 minutes at the October meetings.

October
- Meet with Language Arts Subject Area Leaders at monthly meeting
- Meet with Reading Coaches at monthly meeting
- Email potential participants informing them of the survey and to be expecting it in mid November.

November
- Initial emails to participants based on informed consent responses survey link and password will be included.

December
- First week in December
  - first follow-up emails- blanket email sent to all potential participants
- Second week in December
  - second follow-up emails go out
  - email SALs and Reading coaches thanking them for their continued support
- Third week in December
  - third follow-up emails informing potential participants last week of collection

January
- Send out blanket email thanking those who participated
- Send out thank you email to SALs and Reading Coaches

February

- Announce winner of cash lottery on February 14th

Carlton et al., (2008) reported that grade 4-9 science teacher self-efficacies increased between fall and spring semesters (see review of Carleton et al study in Chapter Two). The study reported that teachers under-estimated their abilities during pre-school planning which in turn decreased the perception they each maintained regarding their self-efficacy thereby influencing self-reports. The report goes on to state that the second self-efficacy reporting time (months later after the professional development), the efficacy scores of participants were higher because the teachers' found their knowledge of integrating new requirements and content knowledge was not as difficult as had been expected thereby resulting in increased teacher self-efficacy levels.

As a former teacher, the most confident time of the year, as it related to teaching confidence and ability, was right before Winter Break. At that time students were best understood, and they responded to teaching challenges better during that time than in early fall or spring. Still too, late fall, just after Thanksgiving Break and before Winter Break was always the calming time; having just returned from a short refreshing break and looking forward to the three weeks before Winter Break. By emailing the participants with the survey link and informed consent in mid November, there were approximately 20 days before Winter Break for teachers to complete the survey. Archer (2008) reported that of the 40 needs assessments sent out the surveys were left open for an average of 14.2 days. Survey response rates increased by 87% (moving from 48.1% to 89.9%) with a third follow-up to the initial distribution (Borg & Gall,

1983). Although Borg and Gall allowed for 20 days between initial distribution and first round of follow-up mailings to achieve the response increase, the current study had a total of 20 days to conduct the entire distribution and follow-up collection given that after Winter Break teachers and students generally begin a shift in school-wide testing mentality that may not have supported a desire for participants to take part in the study.

Approval to attend the Subject Area Leaders (SAL) and Reading Coach monthly meeting was obtained from both content area district supervisors. At both meetings, the script (Appendix B) was read and the research study was explained as was the Informed Consent process. A call for assistance to promote the research at the school sites by the Language Arts SALs and Reading Coaches was issued. Given that the Language Arts SALs were also teachers they were informed to not assist in anything other than informing the participant to address questions issues, or concerns to the researcher directly via the email address provided on the consent letter. The Informed Consent letter and district level research approval/compliance letter was also supplied at the SAL and Reading Coach meeting as a visual along with the verbal information.

In late October, all potential participants were emailed using a blanket email from within the school districts email client. The email informed the teachers of the importance of their volunteering to be a participant in the study and a date to expect the survey. Then, in mid November, another email regarding the study was sent out to all potential participants. This time, the email invited the teacher to participate in the survey and supplied a general internet link to SurveyMonkey along with the password needed to access the measure

(Appendix C). As per protocol from the Office of Assessment and Accountability, the general link to SurveyMonkey was provided from within the districts' email client in an attempt to increase participant reassurance in the confidentiality of the study. Study participants answered a two-part optional question requesting a name and contact email address should they want to participate in an offered cash lottery. Lottery incentive use is growing in popularity as the use of electronic surveys has grows (Porter & Whitcomb, 2003).

Data Management

Data was held in electronic format on SurveyMonkey's secure website during the collection process. Only administrators for SurveyMonkey and the researcher had access to the data. Upon completion of the collection process, the data were downloaded onto a portable external hard drive that was encrypted with password protection and kept in a locked filing cabinet when not in use. When not in use for aggregation (e.g. SAS programs and output analysis) and write-up, all electronic files associated with the data and generated by the data were password protected and stored on an external drive and stored in a locked filing cabinet.

Description of the Variables

Dependent variables. Dependent variables were the self-reported teacher efficacy scores as measured by the Teachers' Sense of Efficacy Scale (Tschannen-Moran et al., 1998) and assessed each participant's beliefs in their capability to attain teaching tasks in a particular context. This variable was determined by the Total score for efficacy as well as each efficacy subscale

score for each of the three areas: Student Engagement, Instructional Strategies, and Classroom Management.

Independent variables. Independent variables were age, sex, ethnicity, years of teaching experience, content taught, school location, teacher preparation program, as well as the qualitative positive and negative factors perceived by participants as influencing their ability to teach.

Age was self-reported and based on the year of birth participant's entered for the survey. The sex of a participant was self-reported on the survey as a male or female via a multiple choice. The ethnic membership of a person as identified by the participant and matched in categories to that of the district: Asian, Black, Hispanic, Indian, White, Multiracial, and Other. The item was in multiple choice form with a write-in "Other" category. The question inquiring about experience was written as two distinct items. One requested the number of years teaching anywhere and the other requested the number of years the participant had taught at their current site. The answer option were the same for both questions: less than 1 year, more than 1 and less than 3, more than 3 and less than 7, more than 7 and less than 10 and more than 10.The content area taught such as Language Arts, reading, or any combination of the two was self-reported by each participant via a matrix of choices with multiple answers per row or check all that applied format. Location of the school was self-reported by the participant who selected from a drop down box with the name of each middle school, junior high, combination school and charter school with eligible participates in the district.

Teachers selected from multiple choice option of a four year Traditional Bachelor's in Education program, Alternative Certification Program (ACP),

Masters of Arts in Teaching while teaching program, Masters of Arts in Teaching program as a full time student, 5 year Masters Program, Educator Preparation Institute, or “Other”. The “Other” category allowed for narrative comment, clarification, and the like. A list of positive factors from which the participants selected all that applied to their perception of the factors that positively influenced his/her ability to teach was provided. This item also allowed for narrative comment in the event that a factor was missing, or the participant wanted to clarify or expound on a previously identified factor as well as identify factors not included in the list. Also provided was a list of negative factors from which the participants could select all that applied to their perception of the factors that negatively influenced his/her ability to teach. This item also allowed for narrative comment in the event that a factor was missing, or the participant wanted to clarify or expound on a previously identified factor as well as identify factors not included in the list.

Threats to Validity

Internal Validity

In order to identify potential participants, a demographic report which revealed all personnel within the district was acquired. However, due to the nature of school and district job descriptions and thus district level coding, some 6th grade Language Arts and or reading teachers may have been overlooked. For example, in some schools within the district, 6th grade teachers taught multiple subjects, such as Language Arts, reading, and geography, yet they were coded at the district level as 6th grade geography teachers. In isolating sixth, seventh, and eighth grade Language Arts and reading teachers all other subject areas

were removed. As a result, if a teacher was listed as a sixth grade geography teacher yet also taught reading and Language Arts, he/she was removed.

Another threat to the validity study might have been non-response biases based upon refusal. Though the study was approved through the Internal Review Board at the college level as well as through the Office of Assessment and Accountability at the district level and the researchers contact information was on the Informed Consent as well as in the email invitations sent to each potential participant, a respondent may have elected to not inform the researcher as to his or her refusal. Moreover, a participant may not have been comfortable using technology or with the amount of anonymity they might receive. One way to curb non-response was immediate responses to participants via email answering any questions posed as well as offering to publish the findings of the report to anyone interested who participated in the study.

School location was added as a demographic independent variable to better ensure that non-respondent bias was not present (Kano, Franke, Abdelmonem, Bourque, 2008). For example, if 60% of the surveys were completed but they were done so by teachers at rural middle schools, the data are not generalizable to the broader population. Moreover, by knowing which schools responded, attention was focused on the SALs at those schools, reminding them of the importance of the study, and requesting assistance. It was interesting to note the response rate of school participants given that Kano, et al., (2008) reported urban schools had a higher survey nonresponse rate than rural but less than suburban schools (33.5%, 12.7%, 53.8%) respectively.

External Validity

Threats to external validity included a possible low response of returns not equaling the 400 necessary for power making which would have made the findings not generalize to the larger study population or other schools districts. Also, though all middle school reading and Language Arts teachers were invited to participant in the study, participation was voluntary and may not be generalized back to the larger body of knowledge.

Analysis

Research literature on teacher self-efficacy and teacher education programs also utilize many of the analyses employed for this study (Carleton, et al., 2008; Capa, 2005; Tschannen-Moran & Woolfolk-Hoy, 2001, Vasquez, 2008). The level of significance level was set at .05. Therefore, any inferential or descriptive statistics with a *p*-value less than .05 identified by the technology-based Statistical Analysis System (SAS) program was considered statistically significant.

Analysis for the four research questions involved simple descriptive analysis to gain a better understanding of the shape of the data (see Table 2). Given that issues of non-normality will yield misleading information (O'Rourke, Hatcher, & Stepanski, 2005). Identification of a normal, skewd, or kurtosis distribution as well as measures of central tendency were necessary to interpret the findings and possibly seek other analysis methods. Bivariate relationships were examined using analysis of variance (ANVOA) Tukey's Honestly Significant Difference (HSD) method as well as scattergrams. Scattergrams were generated during correlational analysis to visually inspect the relationship between the

variables. Multiple regression analysis was used for the fourth question which involved categorical variables such as participant sex, age, ethnicity, and school Title 1 status/location.

Research Question One: How are Differences in Teacher Self- Efficacy Scores Related to Teacher Preparation?

Analysis for this question was based on descriptive and inferential examination. Descriptive analysis involved the mean, standard deviation (SD), skewedness, and kurtosis of the variables in each subsection of the TSES. Inferential analyses involved an ANOVA to examine the degree of a relationship between teacher self-efficacy and preparation program. Tukey's Honestly Significant Difference (HSD) multiple comparison tests were ran where grouping variables were revealed as significant by ANOVA results.

Research Question Two: How are Differences in Teacher Self- Efficacy Scores Related to the Content Area Taught?

This question required both descriptive and inferential analysis. Descriptive analysis entailed the mean, standard deviation (SD), skewedness, and kurtosis of the variables in each subsection of the TSES. Inferential analyses consisted of ANOVA to examine the degree of relationship between the variables of Language Arts, Reading, and Both.

Research Question Three: To What Extent are Differences in Teacher Self-Efficacy Related to Years of Teaching Experience?

As with the previous two questions, the use of both of descriptive and inferential analysis was employed. Descriptive analysis involved averages and standard deviations (SD) of the variables in each subsection of the TSES. As

discussed above, the experience variable was split into two distinct questions. The response options for the variable experience were also grouped into categories of less than 1 year, more than 1 year and less the 3, more than 3 and yes than 7, more than 7 and less than 10, and more than 10 years. As such, the variables were no longer continuous but rather categorical and a Pearson Product Moment Correlation Coefficient was no longer the appropriate analysis tool. Therefore, ANOVAs were run to determine if the difference in means were statistically significant. Tukey's HSD tests were also run to determine where the effects resided.

Research Question Four : *To What Extent Can Differences in Teacher Self-Efficacy Be Associated with Participants' Demographic Factors a) Age, b) Sex, c) Ethnicity, and d) School Location?*

Analysis for this question fell into descriptive and inferential analyses. Descriptive analysis involved the mean, standard deviation (SD), skewedness, and kurtosis of the variables in each subsection of the TSES. Inferential analyses consisted of multiple regression analysis to probe the effects of certain covariates on efficacy scores. Variables for the multiple regression analysis were dummy coded to allow for the SAS program to interpret them with a referent group (Cody & Smith, 1997). The multiple regression with semi-squared correlations were run in an attempt to look at how each one of the demographic factors influenced the efficacy and how much it might forecast efficacy.

Table 2

Research Questions and Analyses

	Simple Descriptive Stats.	Ind. Two-Tailed T-Test	ANOVA	PPMCC	Tukey	Multiple Regression
Research Question 1	X/*		X/*		*	
Research Question 2	X/*	X	*		*	
Research Question 3	X/*		*	X	*	
Research Question 4	X/*					X/*

Note. X indicates analyses planned in design,* indicates the analyses run. See Chapter 4 for explanation of analysis alterations.

Summary

Using the Teacher Sense of Efficacy Scale and Teacher Demographic Questionnaire, all the Language Arts and reading teachers at the middle schools (grades 6-8), junior high schools (7-9) and combination schools across the district were invited to participate in this census survey. Each teachers' sense of efficacy score (dependent variable) was analyzed using the statistical computer program SAS as well as teacher's number of years teaching experience, pedagogical preparation or training program, and demographic information (independent variables). Analyses consisted of descriptive statistics, Analyses of

Variances, Tukey's test, and multiple regressions with a *p* value established at p< .05

Chapter Four

Results

In this chapter, data results of the Teacher Sense of Efficacy Scale (TSES) and Teacher Demographic Questionnaire are presented with each of the research questions. Also presented in this chapter are discussions that specifically address Power, representativeness of response sample, non-response bias, descriptive information regarding the participants of the study, and analysis of data. The four research questions and analysis techniques used (See Table 2) were:

Research Questions

1. How are differences in Teacher Self- Efficacy scores related to teacher preparation?

2. How are differences in Teacher Self-Efficacy scores related to the content area taught? For example, did Language Arts teachers have a higher level of efficacy compared to that of a reading teacher with comparable variables?

3. To what extent are differences in Teacher Self-Efficacy related to years of teaching experience? For example, are eighteenth-year teachers' more efficacious compared to first and fourth-year teachers?

4. To what extent can differences in Teacher Self-Efficacy be associated with participants' demographic factors a) age, b) sex, c) ethnicity and d) school location?

Purpose of the Study

Research on the effectiveness of various teacher certification routes report mixed findings. Some suggest traditional teacher certification programs produce more effective and higher-rated teachers (Darling-Hammond & Cobb, 1996). Other reports suggest there is no difference, in perceived effectiveness by supervisors, between traditionally trained and alternatively certified teachers (Zeichner & Schulte, 2001). Additionally, research suggests that teacher efficacy beliefs form during early years of a new situation and are resistant to change (Long & Moore, 2008; Tschannen-Moran, Woolfolk-Hoy, & Hoy, 1998). It was the intent of this study to investigate the differences in teachers' perceptions of their own efficacy, or capabilities. Specifically, the purpose of this study was to examine the perceived level of self-efficacy of middle school Language Arts and reading teachers as well as the areas and factors that may account for variations in these teachers' reported efficacy levels. Factors included number of years of teaching experience, pedagogical or teaching program preparation, and teacher demographics such as age, sex, ethnicity and school location. It was hypothesized that the three variables, number of years teaching, the type of teacher preparation program, content area, and teacher demographics would be associated with teacher self-efficacy.

Power

Data collection of the Teacher Sense of Efficacy Scale survey (TSES) and Teacher Demographics Questionnaire (TDQ) took place over two weeks at the end of November, 2009. Of the 624 school district employees eligible to complete the survey, 423 were submitted through SurveyMonkey yielding a 67% rate of return. Participants were not required to respond to one question in order to advance to another question. Indeed, data revealed participants either completed both or only one portion of the surveys. Eligible responses for this study are defined as those who completed both surveys, the TSES and the TDQ. Therefore, of the 423 responses, 394 completed both portions of the survey and were included in analysis and this chapter. Meaning, analysis was conducted to determine if the TSES scores from the 29 participants who did not complete the surveys were statistically different from the 394 who did complete the survey.

More specifically, as discussed in Chapter Three, a return of 400 or more surveys was necessary for this study to maintain adequate power. To determine if exclusion of the respondents with missing demographic data would bias the results of the study, a two-tailed independent t-test was run to compare the samples from the Teacher Sense of Efficacy Scores (TSES) for the 29 participants who did not provide Teacher Demographics Questionnaire information against the 394 participants who did complete both portions of the survey. However, to clarify how the t-test should be specified, an equality of variance test to evaluate if the variance of the dependent variable for the 29 cases was significantly different than the variance of the dependent variable observed among the 394 cases was run.

The F-statistic provided by the equality of variance test demonstrated how the t-test should have been specified (equal or unequal). With three of the dependent variables of interest (Total, Student Engagement, and Classroom Management), the results of the equality of variance tests indicated there were no significant differences in the variance of the non response and response groups; that of those missing demographics and all other participants. The t-test was therefore specified as assuming equal variance (p=.1136, .3033, and .5251 respectively). However, for the subscale Instructional Strategies, the p-value for the equality of variance test was significant (p=.0046) and indicated that the t-test should be specified using unequal variances.

Having established how each t-test of the dependent variables should be specified (equal or unequal variances), these tests were performed to evaluate whether there were significant differences in the dependent variables (Total, Student Engagement, Instructional Strategies, and Classroom Management). The results of these tests indicated no significant differences between the two groups; therefore, the exclusion of the 29 cases with missing demographic information would not systematically bias the findings (see Table 3).

Table 3

Participant/Non Participant Response Comparison

	Group 1	Group 2	p-value
Total	88.70 (±11.07)	89.31 (±13.47)	n/s
Student Engagement	26.94 (±4.99)	27.07 (±5.67)	n/s
Instructional Strategies †	31.06 (±3.93)	31.17 (±5.55)	n/s
Classroom Management	30.70 (±4.38)	31.10 (±4.72)	n/s
N	394	29	

Note. † Test specified using unequal variances.
*p<.05

Non-Response Bias

The district report from which the original participants were invited provided demographic details similar to those of the demographic variables provided by participants for research question four (age, sex, ethnicity, and site location). As such, analysis was run using these four demographic variables of concern to identify if the 394 participants differed from the 624 invited school district participants. The hypotheses tested were:

H_o the population surveyed does not differ from the invited population.

H_a the population surveyed differs from the invited population.

A chi-square (X^2) goodness of fit statistic determines the p-value associated with that statistic. A low p-value indicates rejection of the null hypothesis or that the data do not follow the hypothesized, or theoretical, distribution. The X^2 goodness-of-fit analysis for this study revealed that in total over 50% from each demographic category (age, sex, ethnicity, and Title 1 site

eligibility location) responded to the survey. However, those who responded within each category differed statistically from those who did not (see Table 4) For example, just under 63% of the survey respondents from the district responded to the survey but only 12.72% of them were under the age of 30 (known district population under the age of 30 was 20.19%). In the case of ethnicity, the survey asked participants to identify themselves the same as they did for the school district however, eight participants self-reported multiracial backgrounds compared with zero reported by the district report. Given that race changes for some people over time (J. Kromrey, Personal Communication, October 4, 2010), these eight responses were kept for goodness of fit analysis. Similarly, the district reported three Indian participants while four survey participants self-reported Indian ethnicity; these too were also kept for analysis.

Kano et al, (2008) discusses the response rates were higher for urban than rural but less than suburban responses (33.5%, 12.7% & 53.8% respectively). The district in which this study took place did not consistently use the terms urban, rural, or suburban to describe the geographic location of schools or the student populations within each school. For the district of this study, the reported student free and reduced lunch status percentages were used. Schools that reported a less than 40% student population eligible for free/reduced lunches were classified as “Eligible 0”, or Title 1 ineligible schools. Schools that reported a 40% student population eligible for free/reduced lunches were labeled “Eligible 1”.Title 1 schools that reported a 75% and above student population that qualified for free/reduced lunches and received federal funding as well as district recognition of Title 1 status were labeled “Eligible 2”. The

expected percentage of responses from Eligible 2 school sites was 34. 30% while the observed percentage of responses was 28.68 resulting in a X^2 value of 10.3435 as statistically different between those observed and those known or expected (p>.05). Therefore, the null hypothesis that the populations were the same was rejected. The only demographic characteristic analyzed by the goodness of fit test that did not trigger a statistically significant difference between expected and observed responses were those for sex. Female participants were well represented with 88% while only 11% were males.

Sources of Non-Response

Given that educators are a professional population, the notion that non-responses occurred due to disinterest or neutrality in opinion (Wiersma & Jurs, 2009) is a concern and the source or sources for non-response must be investigated. Reasons for non-responses might include, but would not be limited to; a teacher moving content areas and therefore no longer eligible to participate, a teacher might have elected to take a leave-of absence after the district report was generated for this study, the computer the teacher was using may have needed software updates resulting in an inconvenience to said teacher. Still in addition, a teacher may have simply elected not to participate.

Although the X^2 goodness of fit analysis revealed statistically significant differences between the known and expected population responses compared with those of the observed responses, effect size analysis suggested that between a small to medium effect would be observed (see Table4). That is to say, if the effect sizes of the demographic factors compared were medium to large (.25 or higher) the findings from this study would be suspect. However,

Given that the effect size for the demographic factors analyzed ranged from .1620 to .2000, general guidelines suggests that Cohen's, (1992) *w* for goodness of fit effect would be small to medium. As such, keeping the 63% response rate in mind, the findings from this study should be interpreted with the knowledge that a strong representation was captured but the responses did not mirror those expected for a non-statistical bias.

Table 4

Non-Response X^2 Goodness of Fit Statistics

Demographic Factors	Known Population	Sample		X^2 Value	Effect Size
		N	%		
Age under 30	20.19	50	12.72		
Age 30 -39	33.01	128	32.57		
Age 40-49	21.96	95	24.17		
Age over 50	24.84	120	30.53		
Total	100	394	100	16.8837**	.200
Female	84.94	347	88.07		
Male	15.06	47	11.93		
Total	100	394	100	3.0196	.008
Eligibility 0	23.40	117	29.70		
Eligibility 1	42.30	164	41.62		
Eligibility 2	28.68	113	28.68		
Total	100	394	100	10.3435**	.162
Asian	.79	5	1.27		
Black	18.25	46	11.68		
Hispanic	9.84	41	10.41		
Indian	.47	3	1.02		
Multiracial	1.27	8	2.03		
White	69.68	290	73.60		
Total				15.762**	.200

Note: Percentages of total for each category are reported in each column first and frequencies are in parenthesis. * p<.05, ** p<.001

Checking Assumptions

Analysis of Variance Measure

Prior to conducting any analysis of the data, the data were analyzed for assumptions using SAS v. 9.2. Assumptions for ANOVAs used for this analysis stated (See Glass & Hopkins, 1996, p. 403):

1. The $\mathcal{E}_{ij}$'s within each of the *J* populations are independent
2. Have a normal distribution with a population mean (expectation) of 0
3. Have a Variance of ∂^2

It was assumed that each participant took the scale and survey on their own only once and not in a group thus securing independence of observation. Normality of population distributions are numerically displayed for each of the preparation methods in the Appendices portion at the end of this research report (see Appendix E-I). Deviation from normality was identified, plots for each independent variable were reviewed and although some variables were above the recommended |1| for kurtosis, the findings are relatively robust for violations of normality based on the sample size (Steven, 2007). The Shapiro- Wilk test for normality revealed statistically significant differences for some variables as stated above, the sample size afforded robustness. Specifics of skewness and kurtosis are discussed for each research question in the analysis. Levene's test was run as part of each ANOVA analysis. Given that the design of the ANOVA was balanced and Levene's test did not reveal violations to the homogeneity of variance for the Total TSES or any of the three subscale scores for any of the three research questions that used ANOVA analysis, homogeneity of variance was assumed.

Multiple Regression Analysis

Similar to the assumption checking procedures for the ANVOA measures, analysis of the data for Multiple Regression analysis were also analyzed for assumptions using SAS v. 9.2. Glass and Hopkins (1996) state that multiple regression analysis assumptions are:

1. The *Y* scores are independent and normally distributed at all points along the regression line.
2. If $\hat{Y}$ values are plotted on the *X*-axis and *Y* values on the vertical axis there is a linear relationship between the *Y*'s and $\hat{Y}$'s- at all points along the straight regression line.
3. The variance of the residuals is uniform for all values of $\hat{Y}$.

As with the ANOVA assumptions, it was assumed that each participant took the scale and survey on their own only once and not in a group thus securing independence of observation. Also, sample size increased the robustness for violations of normality as each was greater than 40 (Steven, 2007). Normality of population distributions are numerically displayed for each of the variables involved in the multiple regression in the appendix (see Appendix U-X) (see Osborne & Waters, 2005). The plots of residuals for homosedacity or uniform dispersion of data were reviewed and no pattern was detected (see Appendix Y-AB). Both ANOVA and Regression reported findings should be interpreted with confidence that the populations are within a normal range.

Research Findings

Presented below are the descriptive statistic results from the collection of data for each research question. Analyses of findings related to each research question are also presented below.

Research Question One: How are Differences in Teacher Self- Efficacy Scores Related to Teacher Preparation?

The Teacher Demographic Survey offered seven response choices asking participants to select how teaching certification was attained. Answer options ranged from Traditional Bachelor's program in Education (183), Alternative Certification Program, or ACP (91), Educator Preparation Institute (15), Master of Arts in Teaching while teaching as a Part-Time student (37), Master of Arts in Teaching Program as a Full-Time (33), 5th year Masters Program (11), and Other (24). Of the participants who answered their training and preparation experience as "Other," seven wrote ACP in the comment field, while five included narrative about their traditional acquisition of a bachelor's in education. Samples of other responses included in this category were, Master's of Middle Childhood Education, Juris Doctorate, Master's of Social Work, Master's of Education, Master's of Reading, Master's of Library Science, Masters in Educational Leadership, Bachelors of Science (not Art) in Education, Master's degree "Outside of education", and four participants with exceptional student education backgrounds. Refer to Figure 2 for graphic illustration of preparation type and number of participants.

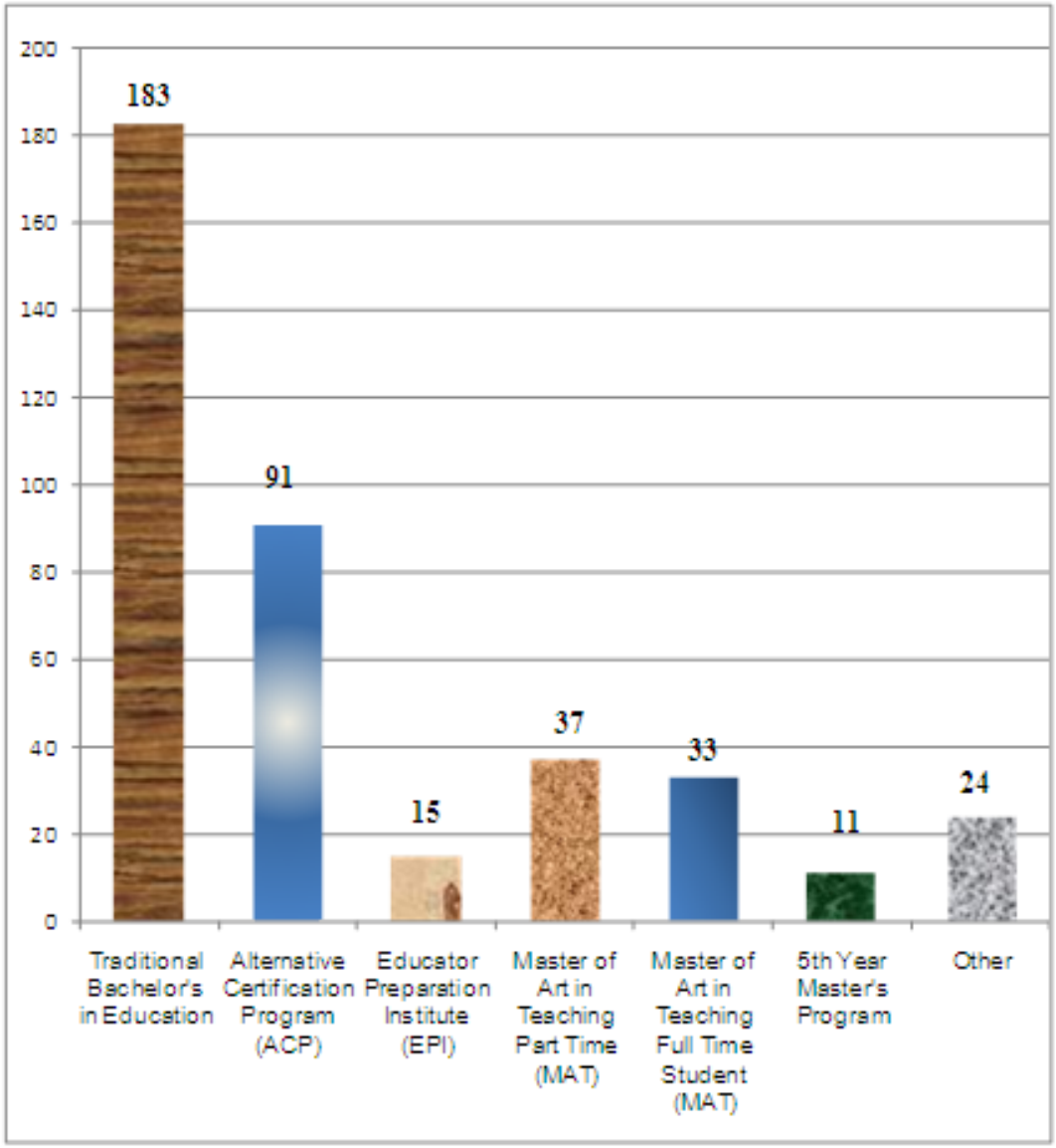

Figure 2 Percentages of Participants by Preparation Method

Illustrated in Table 5 the simple statistics show the participant with the highest Total TSES scores by preparation type were from the "5th Year Master's Program" category (*n*=11, M= 92.18). The second highest reported scores came from participants in the "Other" category (*n*=24, M=91.54). Participants who reported an Educator Preparation Institute (EPI) preparation method indicated the lowest Total TSES score (*n*=15, M=82.27). Reported means for the two subcategories Student Engagement and Instructional Strategies follow the same

pattern until the third subcategory, Classroom Management. In this last subcategory participants from the "Other" category reported slightly higher (.03) means than participants from the 5th Year Master's Program. Participants from the EPI category reported the lowest scores across the scale.

Table 5

Means and SD Scores by Preparation Type

		Total TSES	SD	Student Engagement	SD	Instructional Strategies	SD	Classroom Management	SD
0	**Other (*n*=24)**	91.54	12.93	28.42	5.66	32	3.66	31.13+	4.74
1	**Bachelor's (*n* =183)**	88.60	11.46	27.16	4.81	30.66	4.03	30.78	4.04
2	**ACP (*n*=91)**	87.99	9.61	26.67	4.29	31.09	4.02	30.23	3.58
3	**EPI (*n*=15)**	82.27	9.6	25.6	4.0	29.53	3.36	27.13	3.07
4	**MAT Part-Time (*n*=37)**	89.46	10.45	26.68	5.28	32.59	3.23	30.19	4.67
5	**MAT Full-Time (n=33)**	90.01	11.39	27.42	5.09	31.15	3.77	31.48	3.83
6	**5th Year Master's (*n*=11)**	92.18+	12.75	28.82+	5.10	32.27+	3.80	31.10	5.15

Note: + indicates the highest mean score reported for that scale (Total, Student Engagement, Instructional Strategies, or Classroom Management). Highest possible value for Total was 108 while subcategories were 36 points each.

Given that the predictor variable, preparation type, was nominal and the criterion variable, TSES score, was interval for this research question an ANOVA was the appropriate analysis run in search of interactive or main effects present as a result of the teacher preparation variable on reported TSES scores (O'Rourke, et al., 2005). Normality of population distribution is numerically

displayed for each of the preparation methods in Appendix E. One noted observation was that each preparation category had negatively skewed population distributions except for EPI (skewness=.99). This suggests the scores are higher across the populations with the exception of EPI participants who reported lower scores.

The Shapiro-Wilk test for normality revealed statistically significant statistics for several of the preparation types within the scales (See Appendix E). The TSES Total scale had statistically significant population distributions revealed for Traditional Bachelor's (Prep 1) and ACP (Prep 2). Statistically significant population distributions for the subscale Student Engagement were identified for Traditional Bachelor's and ACP. The subscale category Instructional Strategies revealed significant distributions in each preparation type except 5th year Master's. Analysis of the last subscale category, Classroom Management, also indicated each preparation method was significant except Educators Preparation Institute and 5th Year Master's. Inspection of the responses via box plots (see Appendix F –I), suggested a possible ceiling effect might have been involved for 5th Year Master's participants on the Total scale but not for any of the three subscales. This means that on average participants who reported a 5th Year Masters program as their preparation methodology also believed they were efficacious.

The distributions were robust; therefore analysis of variance measures were run. ANVOA results showed no significant interaction between the type of preparation or training a teacher received and the corresponding TSES Total score (see Table 6). Given that the TSES Total score was a composite based on

the three subscales, ANOVA analyses were also run on the subcategories of Student Engagement, Instructional Strategies, and Classroom Management. No significant interactions were detected between the two TSES subcategories of Student Engagement and Instructional Strategies and teacher preparation. However, the subcategory Classroom Management did register as having a significant difference from the independent variable of preparation or training program (f= 2.42 p=.026, ES= .191). This means that the average difference between the reported scores from at least two categories within the preparation variables were statistically different and yielded between a small and medium effect size.

ANOVA results for the subcategory Classroom Management warranted the *post hoc* application of Tukey's Honestly Significant Difference (Glass & Hopkins, 1996; Vogt, 2007) multiple comparison measure to test all possible pairwise comparisons between the seven preparation options and Classroom Management scores. The significant overall ANOVA identified in the subcategory Classroom Management was from the difference between the means of only three preparation categories. Efficacy beliefs of teaching ability were noted between three preparation style groupings: Full-time Master of Arts in Teaching (MAT) and Educator Preparation Institutes graduates reported a mean difference of scores of 4.351 (p<.05), graduates from traditional Bachelor's programs in education and Educator Preparation Institute graduates (M= 3.648, p < .05), and participants from the "Other" category and Educator Preparation Institute graduates (M = 3.992, p < .05). In each of these three groupings, the TSES Classroom Management mean from EPI participants was lower than the

Classroom Management mean from the compared preparation grouping (see Table 6). This suggests participants with EPI coaching were less efficacious than those with traditional Bachelor in Education, Full-Time MAT graduates, and those whose preparation was beyond identification the categories provided on the survey. More specifically, the Classroom Management subscale score of an MAT Full Time prepared teacher was on average 4.35 points higher than an EPI prepared participant while the score from the same subscale for a participant who was prepared by an option “Other” than that provided on the survey was on average 3.99 points higher than an EPI prepared participant. Finally, a traditionally prepared Bachelor’s Degree participant produced a Classroom Management subscale score on average 3.65 points higher than that of an EPI trained respondent.

Table 6

Preparation Method ANOVA and Tukey Results

	Sum of Squares	***df***	***F Value***	***P-Value***	***ES***	***Prep ID #***	***Tukey MD***	***Simult. 95% Conf. Limits***
TSES Total	1078.39685	6	1.48	0.1843	.15			
Student Engagement	135.313317	6	.98	0.4396	.122			
Instructional Strategies	189.729032	6	2.08	0.0546	.178			
Classroom Management	238.987555	6	2.42	0.026*	.191	5-3	4.3515*	.06091 - 8.0939
						0-3	3.9917*	.0361 - 7.9472
						1-3	3.8481*	.04204 - 6.8758

Note. n= 394, α .05, * p <.05. Prep ID # correlates to the identification number issued to preparation category. 0= Other, 1= Traditional Bachelor, 2=ACP, 3= EPI, 4= MAT Part-Time student, 5= MAT Full-Time student, 6= 5th Year Master's.

Research Question One Summary

Analysis suggested no significant difference in Total TSES score or the two subcategories Student Engagement and Instructional Strategies. The research hypothesis that participants from traditional bachelor's preparation programs would report higher efficacy scores than those from ACP programs was true however the differences were not statistically significant. Furthermore, the null hypothesis that no significant differences between preparation types and TSES scores was rejected based on ANOVA and Tukey Post Hoc analysis that indicated significant differences in the scores reported for the subcategory of

Classroom Management. Participants with graduate and advanced graduate education preparation as well as participants with Full-Time Master of Art in teaching preparation reported higher teaching efficacy scores than participants with traditional Bachelor's in Education, Part-Time Master of Art in teaching, Alternative Certification Program, or Educator Preparation Institute preparation.

Research Question Two: How are Differences in Teacher Self-Efficacy Scores Related to the Content Area Taught?

The second research question addressed in this study centered on how differences in Teacher Self-Efficacy scores might have been related to the content areas of Language Arts and Reading. Participants were asked to identify all the courses and grade levels each was assigned for the 2009-2010 academic school year. Courses included all general education classes for reading and Language Arts that the district offered. Included in the course offerings were, English Speakers of other Languages (ESOL) and Exceptional Student Education (ESE) co-teach classes. Frequency results indicated that 211 teachers taught Reading, and 314 teachers were responsible for Language Arts curriculum. It was also concluded during further investigation that 139 teachers were responsible for both types of content. Reanalysis concluded that 72 teachers answered as a Reading teacher, 175 answered as a Language Arts teacher, 139 answered as both with no duplications while 8 teachers reported no content instruction responsibility (see Table 7). Of these eight no-content teachers, five supplied commentary, which corroborated their Language Arts and or Reading content instructional experience. The remaining three teachers did not provide any indentifying information. However, each was provided as an

originally invited participant from the district supplied Reading and languages arts database and therefore can be considered to have been a Reading or Language Arts teacher. As such, the eight participants were separated out into their own category of “Neither” and included in analysis. Simple descriptive statistics of means and standard deviations revealed Reading teachers as reporting higher TSES Total scores than Language Arts teachers (M=89.50 and M=88.75 respectively). Teachers not responsible for either Reading or Language Arts reported the lowest TSES scores (83.75).

Table 7

Means and SD Scores by Content Area

	Total	SD	Student Engagement	SD	Instructional Strategies	SD	Classroom Management	SD
Neither (*n* =8)	83.75	8.36	25.13	5.38	32.3	2.9	28.5	2.98
Reading (*n* =72)	89.50^{+}	11.28	27.6	4.61	31.1	4.28	30.81^{+}	3.99
Language Arts (*n*=175)	88.78	11.14	27.04	4.60	31.03^{+}	3.96	30.70	4.21
Both (*n*=139)	88.47	11.02	27.11^{+}	5.04	31.02	3.78	30.34	4.06

Note: $^{+}$ indicates the highest mean score reported for that scale (Total, Student Engagement, Instructional Strategies, or Classroom Management). Highest possible value for Total was 108 while subcategories were 36 points each.

Normality of population distribution is numerically displayed for each of the content areas in Appendix J. Analysis of population distribution revealed negatively skewed results based on reported scores of participants from both Reading and Language Arts content areas across each scale. Participants from the “Both” category reported moderately platykurtic distributed scores across the

scales and were the only group to have a negative kurtosis reported for the subscale of Classroom Management. This suggested the reported scores by content were high but that teachers responsible for both content areas did not follow a normal curve, rather, they were more flat in their responses than their counterparts.

Originally, an independent two-tailed *T*-test was planned for analysis to detect if the means between the two content areas were statistically different. However, with the content variable containing four parts titled, “Neither”, “Reading”, “Language Arts”, and “Both”, the t-test was no longer the appropriate statistic to run (Glass & Hopkins, 1996, O’Rourke, et al., 2005). A better-suited F statistic designed for multiple variables was selected. ANOVA measures did not identify any significant interactions between the predictor variable of content area taught and the criterion variable (see Table 8).

Table 8

ANOVA Results for Instructional Content

	Sum of Squares	***df***	***Mean Square***	***F-Value***	***P-value***	***ES***
Total TSES	50.72701	2	25.363	0.20	0.8148	.045
Student Engagement	16.634	2	8.317	0.37	0.694	.061
Instructional Strategies	0.288	2	0.144	0.01	0.991	.010
Classroom Management	14.392	2	7.196	0.42	0.654	.065

Note. n= 394, α .05, * p <.05. ANOVA results for instructional content did not identify any significant interactions between Content and TSES

Research Question Two Summary

In response to research question two, how are differences in teacher self-efficacy scores related to the content area taught, the null hypothesis failed to be rejected. Meaning, analysis revealed no significant difference in the Total or subcategory scores reported by participants based on content area taught. This indicates that Reading teachers reported scores similar to Language Arts teachers and similar to teachers of both Language Arts and Reading.

Research Question Three: To What Extent Are Differences in Teacher Self-Efficacy Related to Years of Teaching Experience?

Ingersoll (2001, 2003) discusses teacher migration versus attrition. With this consideration, teaching experience was reported and analyzed in two ways: the number of years they had taught Anywhere and the number of years they have been teaching at their Current Site. This was done in an attempt to identify if accumulative teaching experience impacted teaching efficacy scores more than school organization characteristics. Responses for each of the two questions were categorized into the same segments of time and coded the same as the Anywhere variable. See Figure 3 for frequency distributions of teaching experience participants by grouping. The teaching experience Anywhere responses per grouping were: Five reported having taught less than one year, 50 having taught between 1 and 3 years, 101 having taught between 3 and 7 years, 47 having taught between 7 and 10, and 191 responded having taught for more than 10 years. Teaching Experience at the participants' Current Site responses were: 37 teachers reported teaching their first year at that school site, 124 had been teaching between 1 and 3 years at that site, 127 identified between 3 and 7

years at their present site, 47 teachers had been at their current site for between 7 and 10 years, and 59 teachers have been at their present site for over 10 years. Both variables were reported by all 394 responses.

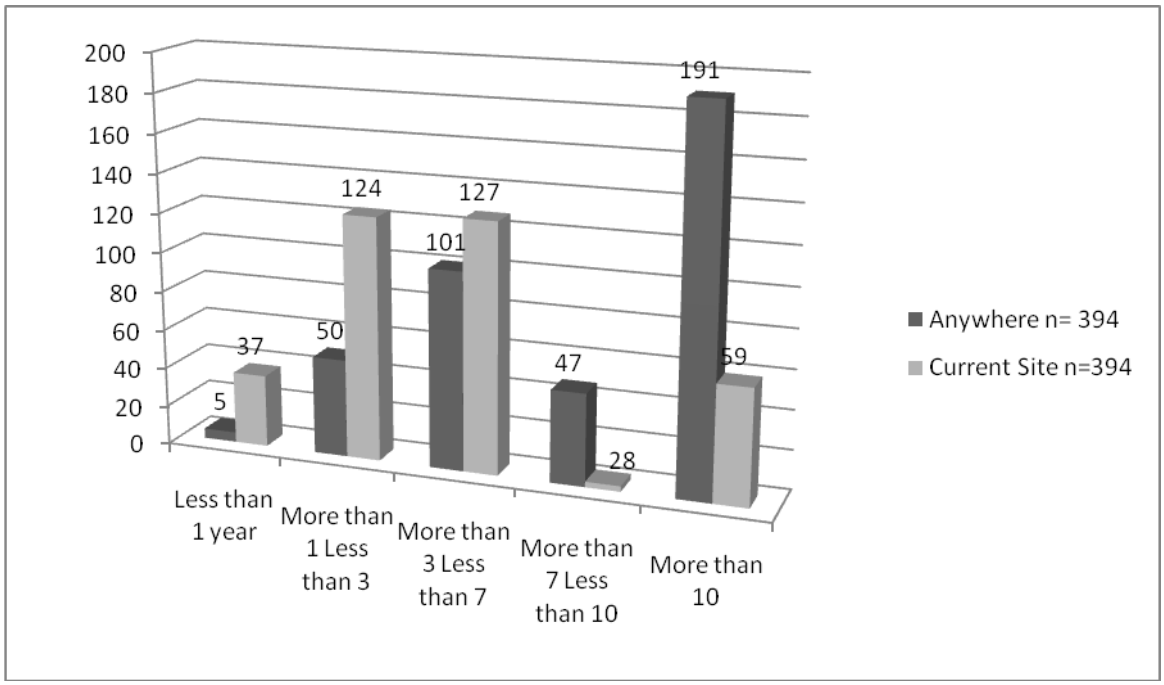

Figure 3 Number of Respondents by Experience Category

Anywhere responses. Simple descriptive statistics revealed mean *Anywhere Total* score was 3.94 (± 1.17) placing the average total years of experience a teacher held as more than 3 but less than 7 overall years. Revealed by mean scores across experience groupings, teaching efficacy appeared to increase with the number of overall years teaching experience a participant reported (See Table 9). Participants with More than 10 years teaching experience reported an average Total TSES score of 10 points more compared to participants with less than 1-year teaching experience. Reporting a Total mean response score of 99, out of 108, participants from the Less than 1 year category not only reported the lowest mean Total TSES score, they also reported the lowest minimum and lowest maximum values of the scale. It should be noted

that, participants in the Over 10 years of Anywhere experience category scored on average, the highest for each portion of the TSES while teachers with less than 1 year experience scored the lowest average in each portion of the TSES.

Table 9

Mean TSES Score by Teaching Anywhere Experience

Anywhere ID #		Total TSES SCORE	SD	Student Engagement	SD	Instructional Strategies	SD	Classroom Management	SD
1	**Less than 1 year (*n*=5)**	79.40	13.96	25.00	5.79	27.4	2.88	27.00	5.87
2	**More than 1 less than 3 years (*n*=50)**	84.46	9.66	25.96	4.09	29.6	3.54	28.90	3.88
3	**More than 3 less than 7 years (*n*=101)**	87.86	10.47	26.92	4.50	30.60	4.12	30.35	3.63
4	**More than 7 less than 10 years (*n*=47)**	88.81	11.44	26.98	5.14	31.11	4.19	30.72	4.50
5	**More than 10 years (*n*=191)**	90.47+	11.20	27.55+	4.99	31.78+	3.72	31.14+	4.12

Note: + indicates the highest mean score reported for that scale (Total, Student Engagement, Instructional Strategies, or Classroom Management). Highest possible value for Total was 108 while subcategories were 36 points each.

Normality of population distribution analysis revealed participants with less than 1-year experience reported consistently low or platykurtic scores across

scales except Instructional Strategies. The distribution of scores for participants with between 1 and 3 years experience were platykurtic in each scale except Student Engagement suggesting these scores were also consistently low. Population distribution of participants with between 3 and 7 years experience revealed negatively skewd, or higher scores, though consistently flat or platykurtic across scales. Participants from both the 7 to 10 years experience and over 10 years experience had negatively skewd distribution of scores across each scale that suggests scores were also reported high.

Analysis was run using the SAS PROC GLM in lieu of ANOVA in the event that Bonferroni or Least Square Means were necessary (O'Rourke, et al., 2005). Levene's test did not identify violations to the homogeneity of variance, again yielding robustness to the findings. Tukey's HSD multiple comparison techniques were run in the event that the PROC GLM identified statistically significant ANOVA differences between means. Analyses revealed statistically significant differences in the mean of reported teaching experience Anywhere and the TSES Total scores (f = 4.21, p=.002), as well as the subscales of Instructional Strategies (f=4.96, p=.0007) and Classroom Management (f= 4.15, p=.0026). Tukey's HSD technique identified statistically significant differences in means for each of the three TSES categories above between the More than 10 Years teaching experience category and those who reported between 1 and 3 Years experience Anywhere. Specifically, a significant difference between the mean scores from participants in the Between 1 year and 3 years teaching experience category compared to the mean scores of teachers from the More than 10 years teaching experience category. Total TSES scores averaged 6.006 points higher

for the average More than 10 years teaching experience participant compared to the average participant score from Between 1 and 3 years experience. Similarly, the average Instructional Strategies subscale score of a More than 10 years teaching veteran averaged 2.1801 points more than the average of a Between 1 to 3 year participant. More than 10 years veteran teachers also reported average Classroom Management subscale scores 2.2361 point higher than those of their less experienced peers with between 1 and 3 years teaching experience (see Table 10).

Table 10

ANOVA Results for Teaching Experience Anywhere

	Sum of Squares	***df***	***F Value***	***P-Value***	**ES**	***Anywhere ID #***	***Tukey MD***	***Simult. 95% Conf. Limits***
TSES Total	1998.573	4	4.21	.0024*	.207	5,2	6.006	1.265 - 10.747
Student Engagement	129.523	4	1.41	.230	.119			
Instructional Strategies	294.625	4	4.96	.0007**	.224	5,2	2.1801	0.5024 -3.8578
Classroom Management	270.347	4	4.15	.0026*	.205	5,2	2.2361	0.4797 - 3.9925

Note. n= 394, α .05, * p <.05, ** = *p*<.001. Anywhere ID# correlates to the identification number issued to the Anywhere experience category. 1=Less than 1 year, 2= More than 1 year and Less than 3 years, 3= More than 3 years and Less than 7 years, 4= More than 7 years and Less than 10 years, 5= More than 10 years teaching experience.

Current site responses. The average teacher was represented by the category of Between 1 and 3 years, but very close to between 3 and 7 years. The

most populated Current experience category was More than 3 and Less than 7 with 127 respondents. Highest mean TSES scores were reported by teachers with more than 7 and less than 10 years at a site (M=92.83). Unlike the teaching experience Anywhere variable, the trend to increase teaching efficacy as years of experience increases did not carry on past the 10 year mark. Lower reported mean scores after the 10 year mark was evidenced as a trend in each of the subscales as well (See Table 11). Participants who were in their first year at a site reported the lowest average scale scores; the highest reported Total TSES score for a first year teacher at a site was102 points out of a possible 108 points; no participants in the less than 1 year site experience category returned a maximum score on the survey.

Table 11

Mean TSES Score by Teaching Current Site Experience

CURRENT ID		Total TSES SCORE	SD	Student Engagement	SD	Instructional Strategies	SD	Classroom Management	SD
1	**Less than 1 year (*n*=37)**	85.49	10.70	26.38	4.27	29.73	4.27	29.38	3.95
2	**More than 1 less than 3 years (*n*=124)**	86.74	10.62	26.47	4.65	30.46	3.71	29.81	4.03
3	**More than 3 less than 7 years (*n*=127)**	90.06	10.57	27.45	4.94	31.46	4.05	31.14	3.79
4	**More than 7 less than 10 years (*n*=47)**	92.83+	11.60	28.52+	5.12	32.30+	3.71	32.02+	4.04
5	**More than 10 years (*n*=59)**	88.61	11.72	26.92	4.70	31.32	3.74	30.37	4.58

Note: + indicates the highest mean score reported for that scale (Total, Student Engagement, Instructional Strategies, or Classroom Management). Highest possible value for Total was 108 while subcategories were 36 points each.

Normality of population distribution analysis revealed negatively skewd and platykurtic distribution across scales from participants with less than 1 year experience at their current site (see Appendix L). Respondents with between 3 and 7 years current site experience reported a negatively skewd but leptokurtic distribution of scores across scales ranging from .22 to 1.098. This suggests participant scores from this category were positive and high with a peak in the distribution. Distribution of scores for the category of participants with between 7 and 10 years site experience were negatively skewd for each scale as well as platykurtic with the exception of Classroom Management subscale (0.148).

As was reported for the Anywhere, analysis was run using the SAS PROC GLM in lieu of ANOVA in the event that Bonferroni or Least Square Means were necessary (O'Rourke, et al., 2005). Levene's test did not identify violations to the homogeneity of variance and Tukey's HSD multiple comparison technique was also ran. As illustrated in Table 12, reported statistically significant mean differences were identified for TSES Total (*df* 4, F= 3.98, p <.05) as well as the two subcategories Instructional Strategies (*df* 4, F= 3.43, p <.05) and Classroom Management (*df* 4, F= 4.08, p <.05) but not for the subscale Student Engagement (*f* = 1.97, *p* = .099). Tukey's multiple comparison techniques reported statistically significant difference in means between the 4th and 1st and 4th and 2nd groupings of experience. That is to say, teachers at their Current Sites for less than 1 year and teachers at their site for between 7 and 10 years had on average a statistically significant difference Total scores (mean difference= 7.343). Teachers with between 1 and 3 years experience at their current site on average scored 6.088 points less on the Total Sense of Efficacy Scale than the average score of their peers who reported between 7 and 10 years teaching experience at that current site.

The same three groups of teaching at Current Site participants were identified as having statistically significant difference in mean scores. The subscale category Instructional Strategies had significantly different mean scores between average scores of the less than 1 year participants with those of the average scores for 7 to 10 year participants (mean difference= 2.568). Also identified as statistically significant were the average scores of the Between 1 and 3 year site experience participants compared to the average scores of the 7

to 10 year participants (mean difference=1.838). Teachers with 7 to 10 years teaching experience at a site scored on average 2.6 point higher than first year teachers at the site and more than 1.8 points higher than teachers with between 1 and 3 years on site teaching experience on the Instructional Strategies subscale.

ANOVA results for teaching efficacy as it related to Classroom Management identified significant differences in mean scores. More specifically, Tukey's HSD technique revealed significant difference between the average scores of participants in the less than 1 year experience as a site compared to peers with between 7 and 10 years teaching experience at a site with a mean difference of 2.6429. Average scores of respondents with between 1 year and 3 years Current Site experience were significantly different from the mean scores of teachers with between 7 and 10 years experience at their Current Site (mean difference=2.2068) These findings suggest teachers with between 7 and 10 years teaching experience at a site on average scored 2.6 points higher on Classroom Management efficacy measures than peers with less than 1 year experience at a site. Those same veteran teachers with between 7 and 10 years experience at a site scored on average 2.2 points higher than colleagues with between 1 and 3 years experience at a site.

Table 12

ANOVA Results for Teaching Experience at Current Site

	Sum of Squares	*df*	*F Value*	*P-Value*	*ES*	*ID #*	*Tukey MD*	*Simult. 95% Conf. Limits*
TSES Total	1892.786	4	3.98	.0035*	.201	4,2	6.088	0.970 - 11.206
						4,1	7.343	0.776 13.910
Student Engagement	179.754	4	1.97	.0985	.14			
Instructional Strategies	207.016	4	3.43	.0090*	.187	4,2	1.8382	0.0155 3.6609
						4,1	2.5681	0.2294 4.9068
Classroom Management	265.923	4	4.08	.0030*	.204	4,2	2.2068	0.3122 4.1013
						4,1	2.6429	0.2120 5.0738

Note. n= 394, α .05, * p <.05. ID# correlates to the identification number issued to the Current Site experience category. 1=Less than 1 year, 2= More than 1 year and Less than 3 years, 3= More than 3 years and Less than 7 years, 4= More than 7 years and Less than 10 years, 5= More than 10 years teaching experience.

Research Question Three Summary

Originally designed to be a correlation analysis to answer the question to what extent are differences in Teacher Self-Efficacy related to years of teaching experience, analysis for research question three turned to an ANOVA as the variable of teaching experience was categorical and not continuous. However,

the question did not change. Findings from analysis suggested the null hypothesis has been rejected: differences in teaching efficacy scores were attributed to years of teaching experience (see Table 10). More specifically, ANOVA results indicated a significant difference in the reported mean efficacy scores of teachers with more than 10 years Anywhere teaching experience compared to teachers with between 3 and 7 years Anywhere teaching experience on the Total scale, Instructional Strategies, and Classroom Management subscale levels (F= 4.21, 4.96,4.15 respectively at a $p<.05$ level). Tukey *post hoc* analysis revealed these significant differences were in the teaching efficacy areas of overall Total efficacy as well as the TSES subscales Instructional Strategies and Classroom Management.

Though not a part of the original research question, the question of teaching experience at a Current Site relationship to teaching efficacy scores was one of natural extension and interest**.** Analysis that focused on Current Site teaching experience, revealed the rejection of the null hypothesis: there are statistically significant differences in teaching efficacy scores related to the current site experience of participants (See Table 12). Specifically, ANOVA results indicated statistically significant differences between means scores for the Total scale as well as for the Instructional Strategies and Classroom Management subscales (F = 3.98, 3.43, 4.08 respectively at $p<.05$ level). Tukey HSD *post hoc* analysis reveled differences were between the mean scores of three groups of participants. These significant differences were also reported for the same scales and subscales between teachers with 7 and 10 years at a site compared to those with less than one year as well as the 7 to 10 year veterans

compared to those with between 1 and 3 years Current Site experience. The significant results were identified on the Total efficacy scale as well as Instructional Strategies and Classroom Management subscales.

Research Question Four: To What Extent Can Differences in Teacher Self-Efficacy Be Associated with Participants' Demographic Factors a) Age, b) Sex, c) Ethnicity, and d) School Location?

The use of descriptive simple statistics as well multiple regression analysis were run using the four independent predictor demographic variables of age, sex, ethnicity, and school/site location. The dependent criterion variables of Total TSES score and the three subscales of Student Engagement, Instructional Strategies, and Classroom Management were also used in regression analysis. Discussed below are the descriptive data for each of the four demographics variables followed by multiple regression analysis findings.

Age. Requesting birth years in lieu of absolute ages, prompted a question of whether a participant had reached their birthday as of the time of survey completion. A participant who had reached a birthday would move forward a year and potentially into another age bracket. Similarly, not having reached a birthday would potentially not move them forward resulting in a less accurate representation in the age brackets. To better ensure consistency, participants were placed into brackets based on age as of midnight, December 31, 2009.This provided more accurate age reporting across the population. The same brackets as those of others who conducted a national perspective study focusing on teacher attrition (see Boe et al., 1997) were used: < 30, 30-39, 40-49, and > 50 years old. Each group contained no fewer than 50 participants (See Figure 4).

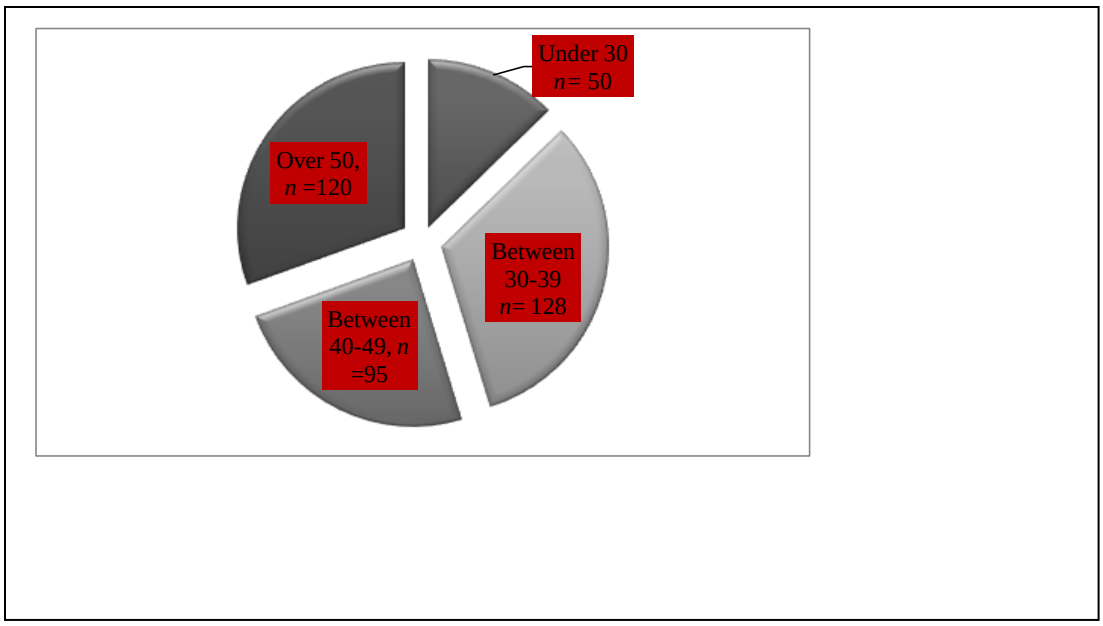

Figure 4 Total Participants by Age Group

Population distribution statistics revealed one participant entered a birth year of 1919. Given that this participant did not provide any contact information, the outlier date was removed. As a result, the total number of participants with usable data was 393. Skewness and kurtosis analysis revealed that some age bracket populations were in violation of normality distributions (See Appendix U). Across scales and age groups, the population distribution of data was negatively skewd with the exception of Instructional Strategies for 30 to 49 year old participants. This suggests that participants between 30 and 49 years old reported higher scores than those younger than 30 and older than 49. All distributions with the exception of Student Engagement scores from 40-49 year olds and the Total, Instructional Strategies and Classroom Management scores of 30-39 year olds were platykurtic ranging from -.015 to -1.151. Meaning the scores were flat and not curved in their dispersion across participants.

As illustrated in Table 13, the three categories of Total, Instructional Strategies, and Classroom Management received the highest average scores from the “Over 50” category (*n*= 120, M= 90.58, 32. 0, 30.97 respectively) while the participants ranging in age from “40-49” were the most efficacious in the Student Engagement subcategory (n=95, M=4.76). The largest age group, the “30-39 year olds” reported the lowest Total score of 82.24 with the smallest standard deviation suggesting the least amount of variation in scores among 30 to 39 year old participants. Participants in this same age bracket also reported the lowest subscale scores for Student Engagement with a mean of 26.59 and the second lowest standard deviation (SD=3.81) score among participants. The “Less than 30 year old” group reported the lowest average scores in the other two subcategories of Instructional Strategies (M=30.46) and Classroom Management (M=29.86). Based on the mean scores reported, older teachers were more efficacious than younger teachers, thereby allowing the research hypothesis for this question to be rejected.

Table 13

Mean TSES Scores by Age

	Total TSES SCORE	SD	Student Engagement	SD	Instructional Strategies	SD	Classroom Management	SD
Less than 30 years old (*n*=50)	87.26	10.81	26.94	4.64	30.46	4.39	29.86	3.85
Between 30 and 39 years old (*n*=128)	82.24	9.97	26.59	4.57	30.85	3.81	30.80	3.83
Between 40 and 49 years old (*n*=95)	87.80	11.58	27.22[+]	4.76	30.51	3.94	30.07	4.29
More than 50 years old (*n*=120)	90.58[+]	11.75	26.61	5.13	32.0[+]	3.73	30.97[+]	4.29

Note: [+] indicates the highest mean score reported for that scale (Total, Student Engagement, Instructional Strategies, or Classroom Management). Highest possible value for Total was 108 while subcategories were 36 points each.

Sex. Of the 394 participants, 47 identified themselves as males leaving the remaining 347 as females. This 88% female dominated response field is similar to the reported 87% female population of eligible participants found across the school district from which the census was taken. Descriptive statistics revealed female participants reported a higher average for each of the four scale components (See Table 14). Reported differences in scores for the four categories ranged from 1.05 for Total scores to a difference in averages of .04 for the Classroom Management subcategory. Though the research hypothesis that males were significantly more efficacious than females was addressed in the multiple regression section below, the means and standard deviations in Table

14 rejected the null as the mean scores for women in each measure was higher than that of the average male scores. On average, females had higher teaching efficacy.

Table 14

Mean TSES Scores by Sex

Sex ID #		Total TSES SCORE	SD	Student Engagement	SD	Instructional Strategies	SD	Classroom Management	SD
1	**Males (*n*=47)**	87.77	10.67	26.53	4.61	30.72	3.89	30.51	3.96
2	**Females (*n*=347)**	88.82^{+}	11.13	27.16^{+}	4.83	31.11^{+}	3.94	30.55^{+}	4.12

Note: $^{+}$ indicates the highest mean score reported for that scale (Total, Student Engagement, Instructional Strategies, or Classroom Management). Highest possible value for Total was 108 while subcategories were 36 points each.

Population distribution statistics revealed both males and females had non-normal distribution across scales (see Appendix V). Male data revealed statistically significant differences in the distribution of scores for the subscales Instructional Strategies and Classroom Management. Both sexes reported negatively skewd, or high, efficacy scores across scales while females reported platykurtic, or flat with little variation in scores,

Ethnicity. Each participant was asked to "…Indicate your ethnicity as it is reported to the school district." Seven respondents listed "Other" as their ethnic identity and qualitatively provided their ethnic identification. These seven respondents were merged into the respective category that fit the definition as determined by the school district. For example, two respondents listed Native American as their ethnic identification; they were subsequently added to the

"Indian" category. Two respondents provided "White" and "Caucasian" respectively as responses in the "Other" category. These two participants were added in to the "White" category while another two respondents classified themselves as "Other" identifying "Multiracial" ethnic identification and were subsequently added to the "Multiracial" category. Finally, one respondent provided an ethnic identification of "African American" and was thus added to the "Black" category. These assignments resulted in the six identity categories used for analysis, White (73.6%), Black (11.6%), Hispanic (10.4%), Multiracial (2.03%), Asian (1.27%), and Indian (1.02%).

Displayed in Table 15, the simple statistics analysis for TSES scores revealed the highest Total and Student Engagement TSES average scores were from Hispanic participants (*n*=41, M= 92.22 and 28.71 respectively). The highest average for Instructional Strategies scores were reported by Asian participants (*n*= 33; M=33.0) , and Black respondents scored the highest for Classroom Management (*n*=46; M= 31.98). Although the highest scores for the categories varied, the lowest average scores were consistently reported by Multiracial participants (*n*=8; M=76.88, 21.88, 28.75, 26.25 respectively).

Table 15

Mean TSES scores by Participant Ethnicity

	Total TSES Mean	SD	Student Engagement Mean	SD	Instructional Strategies Mean	SD	Classroom Management Mean	SD
Asian (*n* = 5)	90.40	15.24	27.6	7.50	33.0+	4.47	29.8	3.92
Black (*n*=46)	91.28	10.89	28.76	4.24	30.54	3.82	31.98+	4.03
Hispanic (*n*=41)	92.22+	10.43	28.71+	5.02	32.12	3.33	31.39	3.52
Indian (*n*=4)	86.5	13.17	26.25	5.56	30.25	3.86	30.0	4.55
White (*n*=290)	88.12	10.87	26.74	4.67	31.04	4.02	30.34	4.07
Multi (*n*=8)	76.88	10.42	21.88	4.39	28.75	2.76	26.25	5.06

Note: $^{+}$ indicates the highest mean score reported for that scale (Total, Student Engagement, Instructional Strategies, or Classroom Management). Highest possible value for Total was 108 while subcategories were 36 points each.

As illustrated in Appendix W, analyses for the normality of population distribution revealed that data from Asian participants was negatively skewd and leptokurtic for each scale with the exception of Classroom Management which had a positive skewness (0.849). This suggests Asian participants reported low Classroom Management efficacy scores. Black participants reported negatively skewd data as well with the exception of Instructional Strategies which had positively skewd data (0.127). Hispanic participants reported negatively skewd data that was platykurtic across scales with the exception of Instructional Strategies (0.356). Data from Indian respondents was both positively skewd and

leptokurtic across all scales. White participants revealed negatively skewd and platykurtic data for each scale with the exception of the Total scale with a slightly leptokurtosis distribution. Data from Multiracial participants was negatively skewed for Total and Student Engagement scales but positively skewed for Instructional Strategies and Classroom Management. Kurtosis of the data from Multiracial participants was leptokurtic for the first three scales and platykurtic for Classroom Management. The higher scores reported by Multiracial participants on the Total and Student Engagement scales compared with lower scores reported for Instructional Strategies and Classroom Management suggests Multiracial participants were more efficacious in engaging and motivating students as well as the overarching concept of efficacy than in the managing of their classroom and use of varying instructional strategies.

School location. Participants selected the variable school location from one of 56 site options. Eligible sites were defined as being a public middle school, charter school, or academy that served grades 6-8 students. At least one response was received from each middle school in the school district but no responses were received from any of the charter schools or academies. In total, 11 school sites did not have any participants. One site was involved in the pilot study and therefore was asked not to participate. The other 10 sites were either charter schools or academies within the school district and although invited to participate, elected not to do so. Upon conference with the school district assessment and accountability office, it was revealed that faculty members of charter schools and academies historically do not check their district email

accounts and therefore, would not be aware of any invitation for participation. In total, 45 of 56 sites district-wide participated in the study.

Though some of the individual school site WebPages did describe the geographic demographics of the school population, such was not the case across the school district. In fact, the school district itself did not consistently use urban, rural, suburban or other geographic terms to distinguish schools. Schools were therefore chunked into one of three categories based on the district reported percentage of students eligible for Free/Reduced lunch services for the 2009-2010 school year. Of the 45 participating sites, each was given an identification number and classified into one of three Title 1 eligibility groupings. Groupings were determined by the district-reported percentage of students who qualified for free and reduced lunches. Schools that reported a less than 40% student population eligible for free/reduced lunches were classified as “Eligible 0”, or Title 1 ineligible schools (*n*= 133). Schools that reported a 40% student population eligible for free/reduced lunches were labeled “Eligible 1” (*n*=157). Title 1 schools that reported a 75% and above student population that qualified for free/reduced lunches and received federal funding as well as district recognition of Title 1 status were labeled “Eligible 2” (*n*= 106). Identification per site is presented in Appendix AC along with the number of responding participants by site.

Descriptive statistics were analyzed to determine normality of the distribution. Participants from schools that had populations of 40% and less eligible for free/reduced lunches reported the highest TSES scores (n= 223, M=89.23) while teachers from Title 1 schools with 75% of their student population

eligible for free/reduced lunches reported the lowest Total TSES scores (*n*= 113, M=87.66). Participants from Eligible 0 school sites also reported the highest Student Engagement efficacy scores (*n= 58,* M=27.38). Highest averages for both subcategories, Instructional Strategies and Classroom Management, were submitted by Eligible 1 participants (M=31.19, 30.79 respectively). However, the lowest recorded TSES score of 55 (out of 108) was reported by a participant at an Eligbile1 school. Respondents from Eligible 2 schools reported the lowest efficacy scores for each of the categories except Student Engagement (see Table 16).

Table 16

Mean TSES Scores by Site Location/Eligibility

	Total TSES SCORE	**SD**	**Student Engagement**	**SD**	**Instructional Strategies**	**SD**	**Classroom Management**	**SD**
Eligible 0 (*n*=117, 29.70%)	89.23[+]	11.25	27.38[+]	4.94	31.13	3.98	30.72	4.20
Eligible 1 (*n*=147, 41.62%)	88.66	10.27	26.67	4.37	31.19[+]	4.20	30.79[+]	3.61
Eligible 2 (n=113, 28.68%)	87.66	11.11	26.72	4.73	30.86	3.71	30.09	4.13

Note: [+] indicates the highest mean score reported for that scale (Total, Student Engagement, Instructional Strategies, or Classroom Management). Highest possible value for Total was 108 while subcategories were 36 points each.

Along with simple descriptive statistics, tests for normality were also run. Kurtosis and skewness for each section within the Title 1 Eligible category was reviewed (see Appendix X). Prior to multiple regression analysis of the

demographic variables of age, sex, ethnicity, and site location, categorical independent variables were assigned dummy variables or codes as required by SAS v 9.2 (Cody & Smith, 1997) that equate to either zero (0) or one (1). All zeros within the coding were considered a member of the referent group to which each other independent variable was compared. Participants less than 30 years old were selected as the referent Age variable group. Each of the other Age categories were assigned the dummy code one. The selection of the Less than 30 years old as the referent group was done based on research that suggested younger teachers were more efficacious than older teachers (see Boe et al., 1997, Howerton, 2006). The independent variable Sex was dummy coded with females as the referent group, or zero, while males received the dummy code of one. The female participants received the referent assignment as they did in other studies (see Boe et al., 1997, Tournaki et al, 2009). Research reviewed for this study reported ethnicity as artificially dichotomous; white and non-white (see Capa, 2005 and Tournaki et al., 2009). As such, the data here was coded with white being the referent group and non-white as the dummy variable group of one. School location or site Title 1 non-eligibility was assigned based on the research of Capa (2005) where student participants were either non-free reduced lunch recipients or free/reduced lunch recipients. Therefore, the referent group for this multiple regression was non-Title 1 eligible sites (Eligible 0) while Eligible 1 and Eligible 2 sites were assigned the dummy variable one. In all, five ethnicities, three age brackets, one gender, and two Title-1 eligibility were assigned a dummy variable of 1 while the intercept referent group represented White females under the age of 30 who work at non-Title 1 eligible work sites.

All data were analyzed by regression analysis to determine how much the variance of the Teacher Sense of Efficacy Scale score reported by participants using the regressors, age, sex, ethnicity, and site location attributed to participant demographics (O'Rourke, et al., 2005). Individual regression analyses were also run using each of the subscales, Student Engagement, Instructional Strategies, and Classroom Management as criterion variables to identify how much of the variance would be attributed to the predictor variables (age, sex, ethnicity, or site location).

Results indicated regression analysis for TSES Total scales was a rather poor fit (R^2= .061, ES=.0652) but the relationship was significant ($F_{11, 382}$=2.26, p< .05). Meaning, on average, 6% of the TSES score variance was attributed to the independent variables of age, sex, ethnicity, and site location (See Table 17). Meaning, 94% of the variance in TSES Total and subscale scores were contributed by factors other than those investigated in the current study.

Upon review, three variables were identified as statistically significant each within the Ethnic category: Hispanic participants (β= 3.93, p= .0125), Multiracial participants (β= -10.03, *p=.0183*) and Black participants (β= 4.4, *p=.0292*). Meaning, with other variables held constant, on average Hispanics scored 4.4 points higher than white participants, black participants scored 3.9 points higher than white participants, and Multiracial participants scored 10.03 points less than the white participants. However, to determine how the 6% explained variance was explained by a particular variable, only one predictor variable while holding all the others constant, a squared semi-partial correlation analysis was run (see Table 17). The uniqueness of these indices revealed that

of the three variables identified as statistically significant, each only accounted for less than 1.6% (or .04272) of the R^2 6%. The remaining 0.01848 of the TSES Total score.

Lending support to the findings reported here that on average, African American and Hispanic teachers are more likely than White teachers to report higher self-efficacy scores and by extension might be more likely to survive in the profession (Adams, 1996)g. One noteworthy fact is that the number of White participants totaled 290 that was nearly 74% of the total population while the Black participants had the next highest responding ethnicity with 46 participants or 11.6%.of the responses. This example illuminates the 61% response difference between these two ethnic groups and suggests the ethnicity with fewer participants rates scored higher than those from the participant group with a larger number of responses. By extension, this also suggests participants from each ethnicity other than the referent White group might have reported higher scores than participants from the White ethnic group.

Table 17

TSES Total Multiple Regression Parameter Estimates

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value
Model	1	2945.901	267.81	2.26*
Error	382	45185	18.286	
Corrected Total	393	48131		
	Root MSE	10.87593	R^2 . 0612	
	Dependent Mean	88.69797	Adj. R^2 . 0342	
	Coeff Var	12.26175		

Variable	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|	Squared Semi-partial Corr Type II
Intercept	1	87.71679	2.30603	38.04	<.0001	
Eligible 1	1	0.34864	1.62502	0.21	0.8302	0.00011312
Eligible 2	1	1.64615	1.32063	1.25	0.2133	0.00382
Male	1	-0.62241	1.74395	0.36	0.7214	0.00031304
Between 30 and 39	1	0.75562	1.81528	0.42	0.6775	.00042583
Between 40 and 49	1	0.29372	1.92801	0.15	0.8790	0.00005704
Over 50	1	3.31481	1.83531	1.81	0.0717	0.00802
Indian	1	2.67458	5.58236	-0.48	0.6321	0.00056413
Black	1	3.93440	1.79686	2.19	0.0292	0.01178
Asian	1	3.17852	4.95992	0.64	0.5220	0.00101
Multiracial	1	10.02915	3.99739	-2.51	0.0125	0.01547
Hispanic	1	4.40134	1.85734	2.37	0.0183	0.01380

Note: Intercept or referent group included white females under the age of 30 from non-Title 1 schools.
*p<.05.

Multiple regression analysis conducted on TSES subscale Student Engagement data revealed a slightly better fit (R^2=.069, ES=.0743) yet the regression remained weak with only 6.9 of the variance attributed to the regressor variables ($F_{11, 382}$= 2.58, p<.05). On average, student engagement scores were 2.4 points higher for Black participants than those of White participants (see Table 17). Hispanic participants reported an average of 1.9 points higher on this subscale than White participants. Participants who reported a Multiracial ethnic background scored an average of 4.6 points less than White participants on this subscale (See Table 18). Squared semi-partial correlation examination recognized that the variables identified as statistically significant under multiple regression analysis accounted for 5.4% that of the nearly 7% explained variance. More specifically, on average 2.3% of the variance was explained by Black participants while Multiracial and Hispanic participants explained for a little more or less than 1.5% respectively of the remaining 3.09. %. In total, all but 2.29% of the variance was attributable to the independent variables of ethnicity, specifically Black, Hispanic, Multiracial, and White.

Table 18

TSES Student Engagement Multiple Regression Parameter Estimates

Analysis of Variance				
Source	**DF**	**Sum of Squares**	**Mean Square**	**F Value**
Model	11	626.896	56.99055	2.58*
Error	382	8430.17	22.06851	
Corrected Total	393	9057.066		
	Root MSE	4.69771	R^2 .0692	
	Dependent Mean	27.08629	Adj. R^2 .0424	
	Coeff Var	17.34351		

Variable	**DF**	**Parameter Estimate**	**Standard Error**	**t Value**	**Pr > |t|**	**Squared Semi-partial Corr Type II**
Intercept	1	27.12605	0.99606	27.23	<.0001	.
Eligible 1	1	0.63801	0.70191	-0.91	0.3639	0.00201
Eligible 2	1	-0.81708	0.57043	-1.43	0.1528	0.00500
Male	1	-0.18264	0.75328	-0.24	0.8086	0.00014324
Between 30 and 39	1	-0.52395	0.78408	-0.67	0.5044	0.00109
Between 40 and 49	1	0.16167	0.83278	0.19	0.8462	0.00009183
Over 50	1	0.62062	0.79274	0.78	0.4342	0.00149
Indian	1	-0.70122	2.41123	-0.29	0.7714	0.00020607
Black	1	2.39985	0.77613	3.09	0.0021	0.02330
Asian	1	0.99397	2.14237	0.46	0.6429	0.00052450
Multiracial	1	-4.57985	1.72662	-2.65	0.0083	0.01714
Hispanic	1	1.91124	0.80225	2.38	0.0177	0.01383

Note: Intercept or referent group included white females under the age of 30 from non-Title 1 schools. *p<.05:

Regression analysis conducted on the dependent variable Instructional Strategies continued the misfit trend (R^2 = .049, ES= .0515) however, the relationship was not a statistically significant one ($F_{11, 382}$= 1.79, *p*>.05). Nearly 5% of the variance was accounted for when holding the independent variables constant (see Table 19) however, 93% of the variance in scores for this subscale remained unexplained. Further analysis revealed participants over 50 years old scored on average, 1.6 points higher than participants under 30. Squared semi-partial correlation examination identified that on average, only 1.4% of R^2 was attributed to being over 50 years old (see Table 18). The remaining 3.47% of the explained variance was distributed among the independent variables.

Table 19

TSES Instructional Strategies Multiple Regression Parameter Estimates

Analysis of Variance				
Source	**DF**	**Sum of Squares**	**Mean Square**	**F Value**
Model	1	2945.902	267.809	2.26*
Error	382	45185	18.286	
Corrected Total	393	48131		
	Root MSE	10.876	R^2 .0612	
	Dependent Mean	88.698	Adj. R^2 .0342	
	Coeff Var	12.262		

Variable	**DF**	**Parameter Estimate**	**Standard Error**	**t Value**	**Pr > |t|**	**Squared Semi-partial Corr Type II**
Intercept	1	30.33732	0.82434	36.80	<.0001	.
Eligible 1	1	0.16288	0.58090	0.28	0.7793	0.00019573
Eligible 2	1	-0.06556	0.47208	-0.14	0.8896	0.00004801
Male	1	0.06315	0.62341	0.10	0.9194	0.00002555
Between 30 and 39	1	0.45168	0.64891	0.70	0.4868	0.00121
Between 40 and 49	1	-0.07465	0.68920	-0.11	0.9138	0.00002920
Over 50	1	1.57202	0.65607	2.40	0.0170	0.01429
Indian	1	-1.67332	1.99552	-0.84	0.4023	0.00175
Black	1	-0.40241	0.64232	-0.63	0.5314	0.00097713
Asian	1	2.29154	1.77302	1.29	0.197	0.00416
Multiracial	1	-1.83284	1.42894	-1.28	0.2004	0.00410
Hispanic	1	1.24846	0.66394	1.88	0.0608	0.00880

Note: Intercept or referent group included white females under the age of 30 from non-Title 1 schools.
*p<.05.

Regression analysis of the final TSES subscale, Classroom Management, was not a good fit either (R^2=.0622, ES=.0663) even though the relationship between the predictor variables, (Age, Sex, Ethnicity, and Site Location) and the criterion variable (the Classroom Management subscale), was statistically significant ($F_{11, 382}$= 2.30, p<.05). With other variables held constant, Black participants averaged 1.9 points higher on the Classroom Management subscale than White participants (see Table 20). However, Multiracial participants reported an average of 3.6 points lower than White participants for this subscale. Additional examination of regression scores revealed that with all other variables held constant, Black participants on average accounted for 2% of the variance and participants with Multiracial ethnicity accounted for nearly 1.5% variance (see Table 19). The remaining 1.3% of the 6.2% explained variance is unexplained. Moreover, of the variance explained by the regressor participant age, sex, ethnicity, and school location, 93.8% of the variance remains unexplained.

Table 20

TSES Classroom Management Multiple Regression Parameter Estimates

Analysis of Variance				
Source	**DF**	**Sum of Squares**	**Mean Square**	**F Value**
Model	11	626.896	56.991	2.58*
Error	382	8430.17	22.069	
Corrected Total	393	9057.07		
	Root MSE	4.6977	R^2 .0692	
	Dependent Mean	27.086	Adj. R^2 .0424	
	Coeff Var	17.343		

Variable	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|	Squared Semi-partial Corr Type II
Intercept	1	30.25342	0.85359	35.44	<.0001	.
Eligible 1	1	0.12649	0.60151	0.21	0.8336	0.00010856
Eligible 2	1	-0.76351	0.48884	-1.56	0.1191	0.00599
Male	1	-0.50292	0.64554	-0.78	0.4364	0.00149
Between 30 and 39	1	0.82789	0.67194	1.23	0.2187	0.00373
Between 40 and 49	1	0.20669	0.71367	0.29	0.7723	0.00020592
Over 50	1	1.12218	0.67935	1.65	0.0994	0.00670
Indian	1	-0.30004	2.06635	-0.15	0.8846	0.00005176
Black	1	1.93696	0.66512	2.91	0.0038	0.02082
Asian	1	-0.10700	1.83595	-0.06	0.9536	0.00000834
Multiracial	1	-3.61646	1.47966	-2.44	0.0150	0.01467
Hispanic	1	1.24164	0.68751	1.81	0.0717	0.00801

Note. Intercept or referent group included white females under the age of 30 from non-Title 1 schools.

*p<.05.

Multiple regression analysis revealed that, with the exception of Instructional Strategies, each scale had statistically significant variables identified within them but none of the variables provided a good linear fit. Meaning while holding each predictor variable constant, none of them were able to account for more than 7% of the variance for each scale.

Factors that Influence Teaching and Teacher Feedback

This portion contains teacher narrative responses to two questions: 1) Which of these factors positively influence your ability to teach, and 2) Which of these factors negatively influences your ability to teach. Factors available for selection included experience, school administration, your age, formal education, school culture, class size, student motivation, parent involvement, staff development/continuing education, available materials, planning time, and other teachers. Directions for both questions asked the respondent to “select all that apply” as well as provided an identified “Other” area for response write-ins. All narratives offered in the “Other” section, were analyzed in an attempt to identify all possible units of measure. Data presented below was quantitative and qualitative in nature. It was therefore, conflated where possible and grouped into chunks of meaningful information.

Positive Factors

Responses in Table 21 identified positive factors participants perceived as impacting their ability to teach. The table also separates the frequency of each factor by sex and Title 1 status. The category of factors participants believed positively affecting their ability to teach that had the highest frequency was “Experience” (*n*=335). While the category with the lowest reported positively

impacting factors was “Age” (*n*= 148). Males and Females identified “Experience” and as the most positively impactful factor that influenced their teaching. (*n*=40 and 25 respectively). When broken into Title 1 Eligibility categories by sex, males from Eligible 0 schools identified “Other Teachers” (*n*= 16) while Eligible 1 male teachers listed “School Culture” and “Experience ”, and males from Eligible 2 schools also indicated “Experience” (*n*= 16) to have impacted teaching most positively. Females, as a group, also identified “Experience” (n=295*)* as the most impactful category on their teaching. When sectioned out into Title 1 eligibility females did not differ from the category of “Experience” regardless of school eligibility 0, 1, or 2 status (*n*= 173, 41, 81 respectively).

The least frequently identified factor (*n*=148*)* for males and females was “Age” (*n*=16, 132 respectively). When broken into Title 1 Eligibility groupings by sex, males from all three school types, Eligible 0 , Eligible 1, and Eligible 2, schools identified “Age” (*n*= 8, 3, 5 respectively) as the least positively impacting on their teaching ability. Females, as a group, also identified “Age” (n=132*)* as the least impactful positive factor on their teaching. When sectioned out into School Title 1 eligibility females from Eligible 0 schools paralleled males at Eligible 0 schools in identifying “Age” (*n* = 178) while female participants from Eligible 1 and Eligible 2 schools reported “Parent Involvement” as the least impactful of the teaching (*n*= 22, 27)

Table 21

Positive Factors Influencing Ability

Positive Factors	ELIGIBLE	Males	Females	Grand Total	%	Total %
Experience	0	15	173[+]	188	56.1	
	1	9[+]	41[+]	50	14.9	
	2	16[+]	81[+]	97	28.9	
Total		40[+]	295[+]	335[+]		85.0
School Administration	0	14	116	130	59.4	
	1	5	30	35	16.0	
	2	10	44	54	24.7	
Total		29	190	219		55.6
Your Age	0	8	78	86	581.	
	1	3	24	27	18.2	
	2	5	30	35	23.6	
Total		16	132	148		37.6
School Culture	0	14	128	142	61.2	
	1	9[+]	34	43	18.5	
	2	7	40	47	20.3	
Total		30	202	232		58.9
Formal Education	0	10	98	108	53.5	
	1	7	28	35	17.3	
	2	11	48	59	29.2	
Total		28	174	202		51.3
Class Size	0	15	129	144	59.2	
	1	6	34	40	16.4	
	2	10	49	59	24.3	
Total		31	212	243		61.7
Student Motivation	0	11	131	142	62.2	
	1	7	33	40	17.5	
	2	7	39	46	20.2	
Total		25	203	228		57.9
Parent Involvement	0	10	93	103	62.8	
	1	6	22	28	17.1	
	2	6	27	33	20.1	
Total		22	142	164		41.6
Staff Development	0	9	126	135	55.3	
	1	6	32	38	15.6	

Positive Factors	ELIGIBLE	Males	Females	Grand Total	%	Total %
	2	13	58	71	29.1	
Total		28	216	244		61.9
Other Teachers	0	16[+]	147	163	61.3	
	1	7	36	43	16.2	
	2	9	51	60	29.7	
Total		32	234	266		67.5
Available Materials	0	13	131	144	59	
	1	5	35	40	16.3	
	2	9	51	60	24.6	
Total		27	217	244		61.9
Planning Time	0	14	134	148	61.2	
	1	5	35	40	16.5	
	2	8	46	54	22.3	
Total		27	215	242		61.4

Note. [+] indicates highest frequency in that category. Though *n*= 335, the total percentage *is not* equal to 100% as participants were able to identify more than one item

The 'Other' Positive Factors

Twenty-seven of the 394 participants entered narrative information into this question's final field to mark an "Other" field. Though originally coded and banded into seven categories, responses were ultimately conflated into five overarching categories: personal characteristics, personal experience, knowing your students, support structures, pedagogical freedom, and research. Provided in Table 22 and discussed below are examples of each category. See Appendix AH for participant responses.

Table 22

The 'Other' Positive Factors that Influence Ability

Theme	Number of Comments
Personal Characteristics	10 Comments
Personal Experiences	7 Comments
Knowing Students	3 Comments
Support Structures	3 Comments
Research	2 Comments
Pedagogical Freedom	2 Comments
Total	27 comments

Personal characteristics. Originally two separate categories classified as *desire,* and *personal characteristics,* this one category was created because the descriptors or response entries provided by participants detailed the personal characteristics responsible as positive factors. Responses such as "love of teaching," "love of my profession" were originally "desire*"* while "teacher enthusiasm", "attitude", "natural ability" as well as personality and "self-reflection" were part of personal characteristics. In all, 10 participants provided responses that fit into this category.

Personal experience. Also originating as two categories and later merged into one, this category housed responses that involve *parental experience* and *previous experience*. Specifically, four participants listed "being a parent" as

influencing their teaching ability. Similarly, two participants (one as an extension of a parent comment and one as a separate respondent) originally grouped under *previous experience* offered “remembering what it was like to be their age” and “industrial experience” as submissions. In total, seven responses were grouped into this larger *personal experience*s category.

Knowing students. As its title suggests, this category focused on supplied responses that talked about “knowing the kids and relating to them on their level,” “getting to know them and their circumstances” and “relationships with students.” Only one of the three submissions was part of a larger response.

Support structure. This category included the mention of family, mentors, and other school faculty as support and positive factors influencing teaching ability. All three participants mentioned only the factor that fit in this category and were not a part of the larger submission category “other”.

Research. Two responses involved the mention of research. Each respondent simply wrote the word as its entry and neither entry was part of a larger submission.

Pedagogical freedom. Two participants fit into this category based upon supplied responses. One listed “hands on learning opportunities outside of the classroom” and the other respondent provided “flexibility in the classroom to do whatever is effective” as statements of positive teaching factors.

Negative Factors

Responses identified in Table 23 represented negative factors perceived by participants as impacting their ability to teach. The table also separates the frequency of each factor by sex and school Title 1 status. Nearly 200 of the 394

participants (50.76%) identified Student Motivation as a primary factor that negatively impacted the teachers' ability to instruct. Both male and female participants from each of the Title 1 Eligible schools (0, 1, 2) identified "Student Motivation" as a negative factor impacting their ability to teach (*n*= 8, 1, 13 for males at Eligible 0, 1, 2 schools respectively and *n* =94,29, 50 for females at Eligible 0, 1, 2 respectively. Negative factors identified the least often by each sex for each school site grouping are listed in Table 23. In terms of the least frequently selected negative factors participants viewed to impact their teaching ability, responses across Title I status sites by males and females were minuscule. At Non-Title 1eligible school sites, the solitary response representing males reported "Staff Development" (*n*=1), "Experience" (*n*=1), "School Administration" (*n*=1), Teacher "Age" (*n*=1), and "Formal Education" (*n*=1) as the negative factors that impact teaching ability. Similarly, only one male participant from Eligible 1 school sites reported were less varying in their perception; "Staff Development" (*n*=1) was the less frequent factor selected by participants while again only one male participant from Eligible 2 sites reported both "Formal Education" (*n*=1) and "Age" (*n*=1) as the negative factors impacting teaching ability. Females were better represented at Eligible 0 school sites. Like their male counterparts, females reported "Staff Development" (*n*=7) as the negative factor that impacted their ability to instruct. This frequency of 7 was almost as high as the 8 females from eligible 0 schools who reported "Age" as the Positive Factor with the least frequency to impact their teaching ability. Only one female participant from Eligible 1 sites agreed and added "Formal Education" (*n*=1) as a

negative factor. Females respondents from Eligible 2 sites agreed that “Formal Education” (*n*=2) was a negative factor.

Table 23

Negative Factors Influencing Ability

Negative Factors	ELIGIBLE	Male	Female	Grand Total	%	Total %
Experience	0	1	9	10	47.6	
	1	1	3	4	19	
	2	2	5	7	33.3	
Total		4	17	21		53.3
School Administration	0	1	42	43	49.4	
	1	2	16	18	20.6	
	2	6	20	26	29.8	
Total		9	78	87		27.4
Your Age	0	1	9	10	55.6	
	1	2	2	4	22.2	
	2	1	3	4	22.2	
Total		4	14	18		45.7
School Culture	0	2	45	47	43.1	
	1	2	15	17	15.6	
	2	8	37	45	42.3	
Total		12	97	109		27.6
Formal Education	0	1		1	20	
	1		1	1	20	
	2	1	2	3	60	
Total		2	3	5		.01
Class Size	0	5	72	77	51.7	
	1	2	25	27	18.1	
	2	11	34	45	30.2	
Total		18	131	149		37.8
Student Motivation	0	8^{+}	94^{+}	102	51.3	
	1	5^{+}	29^{+}	34	17.1	

Negative Factors	ELIGIBLE	Male	Female	Grand Total	%	Total %
	2	13[+]	50[+]	63	31.6	
Total		26	173	199[+]		50.5
Parent Involvement	0	6	80	86	52.4	
	1	3	23	26	17.7	
	2	8	44	52	31.7	
Total		17	147	164		41.6
Staff Development	0	2	7	9	50.0	
	1	1	1	2	11.1	
	2	2	5	7	38.9	
Total		5	13	18		4.57
Other Teachers	0	3	34	37	51.3	
	1	3	10	13	18.1	
	2	4	18	22	30.1	
Total		10	62	72		18.3
Available Materials	0	4	56	60	50	
	1	3	24	27	22.3	
	2	6	26	32	26.9	
Total		13	106	119		30.2
Planning Time	0	6	74	80	54.7	
	1	6	26	32	21.9	
	2	5	29	34	23.2	
Total		17	129	146		37.1

Note. [+] indicates highest frequency in that category. Though *n*= 199, the total percentage *is not* equal to 100% as participants were able to identify more than one item

The 'Other' Negative Factors

The nature of the survey's narrative component coupled with not wanting to constrict participants' response the survey write-in portion allowed participants to list more than one written factor on a line as well as duplicate previously checked-off factors from a preceding survey question. In total, sixty-seven

participants supplied “Other” narrative responses which were coded into 11 categories using a Constant Comparative (Leech & Onwuegbuzie, 2005) method of reading and re-reading the narratives in search for evolving themes (see Appendix AI for participant responses). Identified themes were color-coded and each new theme was added as it emerged. Once the 11 categories were identified, they were then conflated into three overarching levels: State/District Level, School Level, and Class Level (See Table 24). The first of the three-tiered levels was the State/District Level which comprised of narratives fitting into a curriculum, policy, or assessment category. The second category, School Level, was the largest including subcategories such as technology, planning time, meetings, school culture, professional development and paperwork. The final level was that of Class Level which included parent involvement and student topics.

Table 24

The 'Other' Negative Factors that Influence Ability

Tiered Level	Theme	Frequency
District/State		
	District/State Policies	9
	Curriculum	7
	Assessments	3
School		
	Planning Time	12
	Paperwork	10
	Meetings	6
	School Culture	4
	Technology	3
	Professional Development	2
Class		
	Parent Involvement	7
	Students	4
Total		67

District/State level. Of the seven responses included within the Curriculum category of this tier, two participants mentioned that a "Rigid" and "Mandated" curriculum was being used; two entries specifically mentioned the school districts' Language Arts curriculum by name. Three respondents revealed the use of testing and/or grades as negative factors in teaching. District and state

level policies was the top this tier of themed responses. This tier included nine responses that included but was not limited to the pairing of inexperienced teachers of exceptional student education with content teachers, miscommunication and conflicting information from district-level personnel to school-level staff as well as inconsistencies between district rhetoric and school level support of teachers and administration, and a perceived lack of support from district personnel to not discipline students. Finally, in this State/District Level was the concern of “bureaucracy” and having “too many hoops to jump” were provided by participants as negative factors.

School level. The School Level tier held the greatest variety of responses conflated into themes as well as the most frequencies of such themes. Meaning, teacher responses in this tier were vast in assortment as well as frequency. For example, a lack of “planning time” was the most frequently occurring response written in by respondents with 12 participants citing it as a negative factor impacting teacher ability. This supports the findings of Slaton, Atwood, Shake, and Hales (2006) who reported the amount of time afforded to experienced teachers for planning, collaboration, and knowledge building was insufficient for effectiveness. Added second most frequently to this category was, teacher “paperwork” written in by 10 participants. Six teacher respondents identified “excessive” and “meetings” as negative factors that impacted their ability. The final three negative school level subcategories of “school culture”, lack of “technology”, and infrequent “professional development” were four, three, and two in their frequency by respondents. The largest in terms of response subcategories, this section of School Level negative factors provided an

immense area of information to better help colleges of education and alternative certification programs better prepare teachers in the workforce and for the workforce.

Class level. Class level is a subcategory of the larger category which focuses on factors that Reading and Language Arts teachers' believe negatively influence their ability to teach and include two themes, parent involvement and students. Therefore, factors added by respondents that fit into this category influence teachers at a classroom level more than at a school, district or state level. Comprised of two other categories titled, "Parent Involvement" and "Students", this middle level category had submissions totaling seven Parent Involvements that focused on the "lack" of engagement and support parents often demonstrate to teachers. For example, responses included "…parents are not respectful or supportive" or that parents lack "support for what teachers are trying to accomplish in the classroom" while others added that "some parents make up excuses for their kids". The four "Student" write-ins for the subcategory involved student factors in some capacity such as "student attendance" and "student behavior" or a lack of "student motivation".

Table 25.

Summary of Significant Findings by Research Question

Research Question		Total TSES	Student Engagement	Instructional Strategies	Classroom Management
1	**Preparation Type**				X
					5-3, 0-3, 1-3
2	**Content Area**	n/s	n/s	n/s	n/s
3	**Experience Anywhere**	X		X	X
		5-2		5-2	5-2
	Experience Current Site	X		X	X
		4-2, 4-1		4-2, 4-1	4-2, 4-1
4	**Demographic Factors**				
	Age		X Over 50 years old		
	Sex				
	Ethnicity	X		X	X
		Hispanic Black Multiracial		Hispanic Black Multiracial	Hispanic Black Multiracial
	Site Location				

Note. X indicates scale where statistically significant differences were revealed. Variables are identified by label for ethnicity and age categories. Research questions 1-3 have Independent variable identification numbers that correspond to appropriate identification labels discussed within the chapter.

Summary of Research Findings

Illustrated in Table 25 are the findings from this study.

Research Question One: How are differences in teacher self- efficacy scores related to teacher preparation?

Analysis suggested participants from each of the preparation groups did not significantly differ in their perceptions of ability in total efficacy or on two of the three subscales and categories; the exception was Classroom Management. Highest mean efficacy scores were reported from respondents with 5th year Master's and "Other" preparation programs (that would have included Master's in Educational Leadership, Juris Doctorate, Master's of Curriculum and Instruction to name a few). Classroom Management data analysis suggested participants with graduate and advanced graduate education preparation as well as participants with Full-Time Master of Art in teaching preparation reported higher teaching efficacy scores than participants with traditional Bachelor's in Education, Part-Time Master of Art in teaching, Alternative Certification Program, or Educator Preparation Institute preparation.

Analysis of findings in response to Research Question Two: How are differences in teacher self- efficacy scores related to the content area taught?

No significant difference in the Total or subcategory scores were identified by participants and thus not identified by analysis. Therefore, the null hypothesis failed to be rejected.

Findings for Research Question Three: To what extent are differences in teacher self- efficacy related to years of teaching experience?

Findings were reported in two experience levels. Average teaching experience Anywhere efficacy scores increased with the number of years of experience. Statistically significant differences were identified between teachers with more than 10 years experience and those with between 1 and 3 years experience in each of the scales except Student Engagement. Current school teaching experience average efficacy scores also increased with number of years of experience at a school site until the 10th year mark. Teachers with more than 10 years experience at a site had lower average scores than those with between 3 and 7 years site experience.

Research Question Four: To what extent can differences in teacher self-efficacy be associated with participants' demographic factors a) age, b) sex, c) ethnicity, and d) school location?

Findings suggested on average, participants Over 50 were the most efficacious overall as well as in their perception of ability to deliver Instructional Strategies and Classroom Management techniques. Participants between 40 and 49 were on average the most efficacious in their perceptions of Student Engagement. The research hypothesis that older teachers would be more efficacious than younger teachers would hold true. Males however were not more efficacious than females as hypothesized. Analysis of teacher self-reported ethnicity identified non-whites, Hispanic participants in particular, as having the highest average teaching efficacy score for each scale with the exception of one. Asian participants reported the highest average Instructional Strategies scores of the ethnicity categories. The null hypothesis was therefore rejected. Teacher efficacy was hypothesized to be greater at schools with non-Title 1 eligibility. This

research hypothesis held true for two of the four scales. Non-Title 1 teachers were more efficacious overall as well as with Student Engagement. However, teachers at Title 1 eligible but not receiving schools were more efficacious in their ability to deliver Instructional Strategies and Classroom Management than their Title 1 eligible and receiving teaching peers. As a result, the null hypothesis that no difference existed was rejected.

Positive and negative factors were reported based on collected quantitative information as well as narratives. As collective categories, the top two factors that most positively impacted participants' ability to teach were Experience (*n*=335), and Other Teachers (*n*=266) while the most negative influence on a participant's ability to teach were Student Motivation (*n*=199) followed by Parent Involvement (*n*=164). Participants who elected to write-in an option narrative of perceived positive and negative factors, identified personal characteristics and personal experience as having the most impact as positive factors. Meanwhile, participants also labeled planning time and paperwork as the two most negatively impacting factors that influenced their teaching abilities.

Chapter Five

Discussion

Within this chapter, a discussion of the major findings for each research question is presented. Specific attention is paid to unanticipated findings and implications of the findings for teacher education programs and school districts. A discussion regarding suggestions for increased staff development opportunities as well as clinical internships is presented along with recommendations for future research. This chapter culminates with a brief summary of the study.

Purpose of the Study

Research on the effectiveness of various teacher certification routes report mixed findings. Some suggest traditional teacher certification programs produce more effective and higher-rated teachers (Darling-Hammond & Cobb, 1996). Other reports suggest there is no difference, in perceived effectiveness by supervisors, between traditionally trained and alternatively certified teachers (Zeichner & Schulte, 2001). Additionally, research suggests that teacher efficacy beliefs form during early years of a new situation and are resistant to change (Long & Moore, 2008; Tschannen-Moran, Woolfolk-Hoy, & Hoy, 1998). It was the intent of this study to investigate the differences in teachers' perceptions of their own efficacy, or capabilities. Specifically, the purpose of this study was to examine the perceived level of self-efficacy of middle school Language Arts and Reading teachers as well as the areas and factors that may account for

variations in these teachers' reported efficacy levels. Factors included number of years of teaching experience, pedagogical or teaching program preparation, and teacher demographics such as age, sex, ethnicity and school location. It was hypothesized that the three variables, number of years teaching, the type of teacher preparation program, content area, and teacher demographics would be associated with teacher self-efficacy.

Research Questions

The following research questions were addressed:

1. How are differences in Teacher Self- Efficacy scores related to teacher preparation? For example, did traditionally educated teachers' have higher self-efficacy than the alternative certification program teachers?

2. How are differences in Teacher Self-Efficacy scores related to the content area taught? For example, did Language Arts teachers have a higher level of efficacy compared to that of a Reading teacher with comparable variables?

3. To what extent are differences in Teacher Self-Efficacy related to years of teaching experience? For example, are eighteenth-year teachers' more efficacious compared to first and fourth-year teachers?

4. To what extent can differences in Teacher Self-Efficacy be associated with participants' demographic factors a) age, b) sex, c) ethnicity, and d) school location?

Limitations of the Study

Every study has limitations. The first limitation involved reliance on teacher self-reported data. Another limitation was the use of on-line polling as

participants may not have been comfortable with technology or may have worried that the results were not confidential and therefore may not have answered truthfully.

For this study all Language Arts and Reading middle school teachers from a large school district of over 25,000 teachers were invited to participate; just under 400 (*n*=394) provided useable information. As a result, the 63.1% return rate yielded findings for research questions specific to the middle school context and yielded data transferable to teacher education and preparation programs as well as school districts across the nation.

A limitation based upon the notion that participants might have responded by over or underestimating their efficacy (Pajares, 2002) as it related to Current site teaching experience is a possibility. Specifically, a possible ceiling effect may have been a factor as the findings that teachers who teach between 7 and 10 years at one school site were more efficacious than teachers in general who teach between 7 and 10 years anywhere by 2 points. Side by side box plots (see Appendices L-S) reveal that as a whole, participants responded with higher efficacy scores for their Current site years than their Anywhere years in each category except those who had taught at one site for 10 or more years. Given that self-efficacy is context specific and often decreases as the time of the performance draws near (Bandura, 1997; Ross, Cousins, Gadalla, & Hannay, 1999), this is a possible limitation to the study as it suggests the measure used may have had low construct validity when requesting the efficacy beliefs of participants beyond the current or future. Or it might mean that when participants think about current experiences the variables or factors that influence the

participants' thinking are different than when they think about their overall experiences; site level factors such as school culture, might play a larger role thus confounding the findings.

An additional limitation possibility is that Language Arts and Reading teachers who responded may not have been able to discern the difference between there content. That is to say, many teachers believe themselves to be teachers of Reading although their district assigned course was not specifically Reading. As a result, the number of teachers who identified they taught *both* Language Arts and Reading courses, may have in fact only taught Language Arts for the school district. Therefore, the findings of this study with specific regards to Research Question Two, may have been confounded.

Finally, the true preparation of a teacher may not have been captured due to the uniqueness of each program. In other words, the 24 teachers who listed "Other" as their preparation program held or were pursuing graduate and advanced graduate degrees yet did not fit into one of the pre-assigned options. For example, a participant who held a Master's of Educational Leadership identified "Other" because M.Ed. was not listed as a preparation option.

Discussion of the Findings

As discussed in Chapter Three, a return of 400 or more surveys was necessary for this study to maintain adequate power. To determine if exclusion of the respondents with missing demographic data would bias the results of the study, a two-tailed independent t-test was run to compare the samples from the Teacher Sense of Efficacy Scores (TSES) for the 29 participants who did not provide Teacher Demographics Questionnaire information against the 394

participants who did complete both portions of the survey. The results of the independent two-tailed t-tests indicated no significant differences between the two groups; therefore, the exclusion of the 29 cases with missing demographic information would not systematically bias the findings (see Table 3).

Research Question One: How are Differences in Teacher Self- Efficacy Scores Related to Teacher Preparation?

How are differences in teacher self- efficacy scores related to teacher preparation? For example, did teachers who graduated from traditional preparation programs report higher efficacy levels than alternatively certified teachers?

The purpose of this question was to investigate possible differences among teachers who were prepared in traditional university programs, those who earned a Master's of Arts in Teaching (MAT) degree through a university, those earning alternative certification through school district sessions, and those who studied in Educator Preparation programs. The importance of this question was to determine what programs help teachers feel most efficacious. Findings from this study mirror some of the results of Tournaki et al. (2009), in that ANOVA results indicated no significant interaction between teacher preparation types and overall TSES Total, subscale Student Engagement, or Instructional Strategies scores. However, a portion of the findings reported by Tournaki et al., are contradicted as ANOVA investigation in this study did reveal statistically significant differences in the means between participant groups for the Classroom Management subscale (F= 2.42 p=.026). Such differences suggested

the difference in scores by preparation method was significant resulting in post hoc analysis to identify where the differences lay.

Tukey post hoc analysis revealed the mean differences between preparation types for the Classroom Management subscale were specific to two graduate level and one undergraduate level preparation options. More specifically, Educator Preparation Institute (EPI) graduates compared with both graduates from MAT full-time programs, Bachelor in Education programs and participants from “Other” programs were statistically different with Full-time MAT and Other participants scoring an average of 4 points higher than EPI graduates. Although, no significant difference was detected between graduate and undergraduate levels beyond the EPI preparation level, the Teacher Demographic Questionnaire did not offer a choice for “traditional university master’s program”.

As described in Chapter Two the TSES has been positively related to both the RAND ($r = 0.18$ and .53, $p<0.01$) and Gibson and Dembo Teacher Efficacy Scales (TES) which measures Personal Teaching Efficacy (PTE, $r = 0.64$, $p<0.01$) and General sense of teaching efficacy (GTE, $r = 0.16$, $p<0.01$) (Tschannen-Moran et al., 1998). Personal Teaching Efficacy corresponds to Bandura’s self-efficacy while General sense of teaching efficacy corresponds to Bandura’s outcome expectancy (Coladarci, 1992). Having established the research-based support for the TES compared to the TSES and the reliability rates associated with each, the findings from this study suggest that teacher preparation does in fact influence perceptions of efficacy as compared to Tournaki et al. (2009) reported that the teacher preparation pathway was in no

way related to teachers' beliefs about their ability to overcome "…external factors or to personally effect changes" (p.105).

A possible reason significant differences were indentified was the fact that Educator Preparation Institutes are considered an alternate route option provided by an accredited community college, university or private college for college graduates who were not education majors and therefore lacked the pedagogical and content knowledge necessary for success. The purpose of EPIs is to provide competency-based instruction designed to prepare would-be educators for the successful passing of state certification exams (FLDOE, 2010). However, EPI programs do not necessarily include a supervised internship as many of the participants were hired as temporary teachers who must complete the coursework and receive state certification to remain teaching. EPI participants from the current study reported the lowest mean TSES scores across scales, which suggested participants who studied in EPI programs believed themselves as not prepared for teaching. The other teacher participants (*n*= 288) who received their preparation through rigorous coursework and supervised internships or those who were prepared through on-the-job mentoring such as ACP participants (*n*= 91) were more efficacious in their teaching abilities. Indeed, unlike the Tournaki et al (2009) study, participants from this study who had experienced additional course work that included field-based or clinical internships (such as traditional bachelor's in education and MAT teachers) had increased efficacy toward their profession over those who did not (particularly EPI participants).

Teacher preparation programs have received criticism in the past decade for having not adequately prepared educators (see McFadden & Sheerer, 2006). However, Darling-Hammond et al. (2002) reported that graduates from teacher education programs held significantly higher feelings of preparedness than respondents who became teachers through alternative certification routes. The current study supports Darling- Hammond and colleagues' findings as a statistically significant difference between the means of participants from traditional bachelors, MAT full-time and graduates from other forms of university-based education methods of preparation compared to EPI prepared teachers were reported.

An interesting teacher preparation method finding was that significant differences among the participant groups of MAT, traditional bachelors, and "Other" were identified against EPI participants only in the Classroom Management subscale. The research hypothesis for this question was formed on the knowledge that traditional teacher education undergraduates as well as MAT graduate students generally have the pedagogical and methodological courses as well as supervised clinical experiences proving mastery experiences to better prepare them for the classroom (Flores et al., 2004). Moreover, ACP programs (and MAT students) participants generally enter the teaching workforce as a second career, thus bringing corporate, life, and world, experiences resulting in a potentially higher personal efficacy level (Flores et al., 2004). One reason Classroom Management scores of EPI preparation program participants might have significantly differed from those of MAT, traditional bachelors, and "Other"

preparation program participants may have been due to a lack of clinical training or field experiences or coursework similar in rigor.

Another possible explanation for the significant differences in Classroom Management subscale scores is suggested by Maloy, Gagne, and Verock-O'Loughlin (2009). In their study, middle grade teacher candidates, in their first year, attempted expansion of their teaching methods as the year progressed. This is to say, that if this survey were given at the end of the school year, the reported efficacy levels for EPI participants might have increased. An extension of that thought is the thought that of the participants who self-reported as having attained their certification by way of ACP, none explicitly identified themselves as current ACP participants. That is to say, no study participant selected "Other" as their certification option providing a clarifier suggesting they were a current ACP participant.

Still too, Woolfolk-Hoy and Burke-Spero (2005) reported that alternative certification teachers TSES efficacy scores decreased after being in the classroom for a year compared to their TSES efficacy scores prior to going into the classroom. EPIs are an alternative certification option and the possibility that the realities of classroom challenges (Brown & Nagel, 2004) affected their teaching self-efficacy scores. Meaning, the EPI teacher participants may have been interested in the subjects and content that they were prepared to teach but the realities of the classroom challenged them to a significant degree. Indeed, the Classroom Management subscale scores were significantly different from those participants who had classroom clinical experiences prior to teaching. Darling-Hammond, Hudson and Kirby (1989) reported that teachers from short-term

programs (such as alternative certification summer institutes) were less satisfied with their preparation and thereby less committed to remaining in the profession.

Teaching efficacy affords teachers the ability to persevere when things do not go smoothly or when goals are not met. It provides them with the necessary confidence to be resilient and help their students aspire to greatness as well as increase their own aspirations as teachers (Tschannen-Moran & Hoy, 2001).Given that EPI programs are an alternative to traditional pathways into education, and for teachers who are off during summers the option to take several courses over the summer terms is inviting, it may not be as surprising that participants from EPI programs reported the lowest mean teaching efficacy score. It is crucial for EPI participants and graduates to receive the site and district level and support necessary to increase their efficacy levels and remain in the school districts that invest the time and effort to help them persevere and stay in the profession.

Research Question Two: How are Differences in Teacher Self- Efficacy Scores Related to the Content Area Taught?

The purpose of this question was to investigate how the new scripted SpringBoard curriculum Language Arts programs may adversely affect teachers' sense of efficacy. Crocco and Costigan claim that (2007) the use of scripted curricula, especially within the fields of literacy and mathematics, has increased across the nation as states and school districts face the "age of accountability". Within the context of *scripted* curricula are those that provide teachers with prescriptive instruction that delineates every aspect of the lesson, including the words a teacher should use, the order in which the lesson should follow, and in

some cases, even the gestures a teacher should use as well as any ancillary materials (Crocco & Costigan, 2007). Districts across the nation have turned to scripted curriculums to assist in meeting the guidelines established by NCLB Reading First Initiative (Milosovic, 2007). Though some scripted curricula are supported by scientific research (Westat, 2008) and uniformity in classrooms might help schools achieve high educational standards, the diverse cultural and ethnic makeup of today's classrooms virtually ensure no one textbook or script will meet the interests and needs of all students (Ede, 2006). Indeed, the scientific research that supports the use of the SpringBoard curricula used by the school district in this study was supplied by the executive summary published by a research company, but multiple attempts by this researcher to retrieve the original published report received no response.

Ultimately this "Deskilling" (Shannon, 1987), "Shrinking Space" (Crocco & Costigan, 2007), or removal of decisions teachers made based on content and experiential knowledge, reduced their feelings of professionalism toward their work and diminished the personal connections often experienced by more student centered-curriculum (Crocco & Costigan, 2007). This "Deskilling" or "Shrinking Space" would be derived through the use of commercial instructional materials. An indirect concern worthy of consideration too is teachers using a script might feel the need for their content knowledge and skill was lessened. This deskilling or removing the need for a qualified educator, teaching rather than reading from a scripted curriculum may have impacted participants' reported efficacy scores. And in such "Spaces", teachers reported little room for individualized student attention, and classroom-based decision making (Crocco &

Costigan). This is to say, efficacy scores of participants might have been lowered as a result of outside expectations and demands, beyond the teachers' perceived locus of control (Rotter, 1954). However, as discussed in a later section, the Language Arts curriculum was in its third year of implementation at the time of this study and as such, participants might have become accustomed to using it.

Of the 394 participants of the current study, 139 identified responsibility for instruction that covered both Reading and Language Arts. The research question was designed to focus on Reading or Language Arts, not both and responsibility for both content areas of instruction confounded the findings. This means if the content areas examined could had been more exclusively taught and thus divided, an interaction may have been identified. The mean differences in scores from Language Arts participants compared with Reading participants were slight (88.78 and 89.50 respectively). Reading teachers reported higher efficacy scores compared with Language Arts teachers in each of the scales with the exception of Instructional Strategies.

Several factors why higher efficacy scores reported by Reading teachers in each subscale except Instructional Strategies could be explained. One possible explanation is the use of the scripted Language Arts curriculum (Springboard) which was adopted in the 2006-2007 school year. The curriculum provides strategies for each lesson as well as offering a variety of other options in the event that a teacher does not feel comfortable with the strategy accompanying the lesson. Moreover, though teachers could not be forced to attend trainings, every secondary Language Arts teacher in the district was encouraged, and paid, to attend the 6-hour staff development training designed

to help transition teachers as they learned to use the new scripted curriculum. Trainings were offered at various times of the day and weekends, over summer, as well as ongoing through the school year. In some cases, if a teacher were identified as struggling, that teacher would be encouraged to attend the trainings more than once.

In addition to trainings, the school district monitored teacher progress and adherence to the curriculum by way of administration and district level-led classroom walk-through observations on a monthly basis (A. Wuckovich, Personal Communication, 2008). The District's implementation of Springboard followed the presupposition theory needed for successful implementation in which teachers develop themselves by putting new insights into practice, utilize reflection and collaborate with other professionals offered by Geijsel, Sleegers, van den Berg, and Kelchtermans (2001).

Hare and Heap (2001) reported the cost of losing a teacher ranges from between 25-35% of a teacher's annual salary plus benefits. Applying the pay example from Chapter One here, each teacher was paid roughly $20.00 an hour (for 6 hours) to attend the Language Arts curriculum training and there were 175 specific to Language Arts, the total would be a little over $26,000 for staff development. That did not account for teachers who teach multiple content areas such as exceptional student education teachers, Reading teachers responsible for some Language Arts curriculum, Language Arts teachers, other content area specialists and administrators who needed to be familiarized with the new curriculum yet who were also paid to attend the trainings. Also not taken into account in this $26,000 example were teachers encouraged to take the training

multiple times to assist with adherence to the scope and sequence provided during the first training. With a district providing such support, financial incentive, and follow-up expectation, a lack of statistical difference between the content areas was a surprise. One possible conclusion as to why no significant differences were detected suggests teachers were comfortable with the scripted curriculum to support a shift in expectation. Indeed, one participant stated “It is what it is, just accept it and move on” when discussing her thoughts on the Language Arts program being used (S. Gillis, Personal Communications, February, 14, 2010). Such response to the curriculum adoption suggested this teacher, who had been teaching Language Arts for all three of the adoption years was not fazed by the curriculum and was possibly secure with her own teaching practices.

Though analysis three years into the Language Arts curriculum implementation produced no statistical difference between any of the three content categories (Reading, Language Arts, and both Reading and Language Arts), participants who were responsible for instruction of *both* content subjects reported the lowest Total TSES scores (88.47). This might be explained by the requirements associated with being responsible for multiple curriculums (Crocco & Costigan, 2007). Indeed, 146 participants out of 394 identified planning time as a negative factor that influenced their teaching ability while seven participants wrote-in planning time as a negative factor in the qualitative portion of the TDQ. In three instances, teachers were so emphatic that planning time was a negative factor that they selected it as a factor and wrote it as a comment. As it relates to teaching efficacy, Chan, Lau, Nie, Lim, & Hogan, (2008) discussed teacher

preparation having moved beyond preparing teacher candidates for the classroom and now encompassing professional functionalities such as resource utilization and working with peers. In fact, participants from the current study who were responsible for multiple content might also have had resources exponentially larger than participants who taught only one content area; recourses for which the participants were accountable to utilize and implement. Still too, the teachers with multiple contents might be torn between multiple meetings and planning times because they had more content for which they were held accountable (K. DeLeo, Personal Communication, January, 2010). For example, a teacher responsible for Language Arts and Reading might have to select only one content area to attend for a monthly Reading or Language Arts meeting. Given that efficacy is context specific (Bandura, 1997), it is no wonder that efficacy levels of teachers who taught both curriculums were lower than those who taught only one content area; they had to potentially be prepared to work with not only multiple contents, students, and parents but also resources, peers and administration.

Quantitatively, content area taught could not inextricably explain a participant's efficacy score. However, qualitative narratives provided by participants were helpful in shedding light specifically on participants' opinions of positive and negative factors related to curriculum and content area. Seven participants wrote in the narrative that use of curriculum was a negative factor influencing their ability to teach. Some of these participants mentioned the "Rigid" and "Mandated" curriculum being used and two participants specifically mentioned the school districts' Language Arts curriculum by name. Still too, no

write-in comments alluded to or specifically mentioned district Reading programs. These sentiments of dislike for a confining curriculum mirror sentiments reported by Crocco and Costigan (2007).

The fact that only seven responses reported curriculum or SB as a factor was surprising. The research hypothesis that Reading teachers would be more efficacious than Language Arts teachers was grounded not only in the findings of Capa (2005) who reported that novice Reading teachers believed they were more prepared to teach than teachers with more years experience as well as the researcher's first-hand knowledge of teachers' complaints regarding the rigidity of SB coupled with classroom walk-through observations by site administration and district personnel who expected to see student artifacts as well as conformity to the program protocol. However, like Crocco and Costigan (2007), it is acknowledged that although respondents from the current study might have reported what they thought was appropriate but not necessarily what they thought, the data supplied by the self-reports of teachers on the TSES is reliable and therefore not in question.

Research Question Three: To What Extent are Differences in Teacher Self-Efficacy Related to Years of Teaching Experience?

The importance of this question can inform districts and universities about the need to develop methods to sustain teachers as well as help discover when staff development may need to address teachers at different levels of experience. Findings from this study are contradictive as well as supportive of the existing research in the field. First, the findings here support the research of others suggesting teachers with more than three years experience have higher

efficacy levels than those with less than three years experience (Tschannen-Moran & Woolfolk-Hoy, 2007) and overall teaching experience (or for this study, teaching Anywhere experience) has a positive effect on teaching efficacy (see Flores et al., 2004; Tournaki et al., 2009). Nevertheless, multiple comparison analyses in this study detected significant differences in the efficacy scores of teachers with less than one-year experience and those with between 3 and 7 years experience which is unsubstantiated by the findings of others (see Glickman &Tamashiro, 1998). Specifically, Glickman and Tamashiro reported higher efficacy scores for fifth year teachers over first year teachers but no statistical difference between the two groups was identified. The fifth year teachers from the Glickman and Tamashiro study would have fallen into the three to seven year group for this study. Tukey's HSD measure on the data from this study identified a statistically significant and higher difference in mean scores from the three to seven year group compared with first year teachers.

Tschannen-Moran and Woolfolk-Hoy (2001) recommended research be conducted that focuses on the efficacy beliefs of teachers in response to a change in leadership at the school. The current study did not focus on leadership or school culture, the notion of a new administration altering the perception an experienced teacher holds of his/her own teaching efficacy was of interest. Ingersoll (2001) discusses the notion of migration from one site to another and that such movement could be viewed as a change in leadership. As such, one reason that teaching efficacy levels in this study did not follow the pattern of increasing over time across all time categories of teaching experience is perhaps due to a change in leadership.

The findings of this study add to the existent body of research by distinguishing that the teaching efficacy increased over time at one site location only up to a certain point and then it decreased. Findings reported in this study revealed participants who taught at the same site for between three and 10 years reported increasing levels of teaching efficacy over the time periods but efficacy scores decreased once the 10 year mark was reached. Though this supports the statements of Brown and Nagel (2004) that a natural ebb and flow in the managing of student conduct occurs in the classroom and it tends to improve over time, the downward trend of efficacy after ten years at a site could relate to a number of possible ideas.

One idea as to why teaching efficacy scores for teachers at the 10 years and more mark decreased based on years experince at a Current Site, is perhaps that teachers begin to see their loci of control as shifting to external and not internal. With responses such as “It is what it is, just accept it and move on” suggests that at least this teacher saw that she had no control in the way she had to deliver her curriculum instruction. Perhaps, she subsequently believes she has little impact over the outcomes of student success. In this case it was the curriclum however; a shift in loci of control can be due to any number of reasons. For example, a change in school leadership or increased accountability demands (Ingersoll, 2003, Pajares, 2002).

Additional thoughts as to why teaching scores decreased for teachers who remained at one school site for 10 or more years are the notions of teacher burn-out and apathy. Still too, teachers with 10 or more years experience might have had a tendency to be more cognizant of the practices with which they have

success and those with which they do not. The result of experienced teachers being contextually awareness of their own to abilities and limiations, their responses on the TSES might have been more accurate which in turn suggests organizational factors beyond the independent variables of this study were involved such as collective efficacy or school attitude.

Finally, an explanation of such efficacy shifts over time is connected with Bandura's (1986) reciprocal determinism. Reciprocal determinism as discussed by Pajares (2002) is about behavior, and the theory supposes that behavior influences, and is influenced by the personal factors one maintains, as well as the environment. As it pertains to the current study, if teaching efficacy shifts over the year, it would do so because of the participants' environment (how one perceives their environment) and though their personal factors have not really changed, the understanding participants have of their role as educator does (Maloy, et al., 2009). In other words, familiarity with the situation seems to increase a teacher's sense of efficacy to deal with it.

Experience was identified by the most participants as having a positive influence on their ability to teach (*n*=335). In some cases, as revealed in the narrative portion of the TDQ measure, the experience came from being a parent, and in other instances, the participants identified with their students, that the participants had experienced something similar in their own lives with that of the students. This means that relate-ability in the form of experience was a major contributor toward participant teaching efficacy. Participants who commented they had school-aged students also believed they were more efficacious.

Still too, the notion of transforming experiences (Bandura, 1997; Pajares, 1997) might influence the teaching efficacy of participants. Transforming experiences are powerful events or performances that occur in a person's life which forever alters their efficacy level. Pajares uses the example of a doctoral students' completion of study and the confidence in ability that ensues is dramatic enough to transform efficacy perception in areas unrelated to education. Such events might have included perhaps competing in a marathon, or some other arduous accomplishment that permanently impacted the participant's efficacy perception.

Research Question Four: To What Extent Dan Differences in Teacher Self- Efficacy Be Associated with Participants' Demographic Factors a) Age, b) Sex, c) Ethnicity, and d) School Location?

Age. Ingersoll (2009) reported the median age of teachers across the nation as "40.5 in Kentucky to 49 in West Virginia" (p. 3). Participants with that age in this study reported an average TSES score of 87.80 (SD=11.58) while participants between 30 and 39 reported the lowest total efficacy score (M=82.24, SD= 10.81). With the exception of Student Engagement, mean scores were highest in each of the scales for participants over the age of 50. Multiple regression analysis identified a statistically significant difference in scores for participants who reported their age as older than 50 on the Instructional Strategies subscale than participants under the age of 30 with those over 50 years of age scoring an average of 1.5 points higher.

Still too, the reported efficacy scores of those under 30 year old teacher participants were quite similar to those reported by teacher participants from the

40-49 year old category (M=87.29 and 87.80; SD=10.81 and 11.58 respectively). However, teacher participants between the ages of 30 and 39 reported the lowest average of Total TSES scores with the smallest standard deviation (M= 82.24, SD= 9.97). This suggests that although they reported lower efficacy scores, the 30-39 year old teachers were less deviating in their scores across the age group than their older (or younger counterparts). Further consideration suggests that the 30-39 year old participants might have been more secure in their knowledge of what they can, cannot, will, or will not accomplish by way of teaching efficacy.

Sex. Regression analysis revealed that although males on average scored .6 points lower than females on the TSES, sex was not a statistically significant factor in the prediction of efficacy scores. This mirrors Tournaki et al. (2009) who studied three pathways teachers embarked upon to earn certification and the level of efficacy teacher candidates from each pathway exhibited. In their study, males reported lower efficacy scores than females. Data from this study also reported the mean TSES score of females ranged from 1.05 to .04 points higher that that of males. Thus, the hypothesis that males would score higher was incorrect. Furthermore, Tuettemann and Punch (1994) reported female efficacy and sense of achievement significantly lessened the stress females reported while males did not experience any stress-relief with increased efficacy. An extension of this thought might be that an increase in teaching efficacy does not affect stress levels; rather participant sex might produce an unidentified effect on efficacy.

A further extension suggests that perception of ability (Bandura, 1993) a teacher holds about him/her self may place greater stress on themselves to perform or achieve. Bandura suggests ability is viewed in two lights (perspectives); as an acquirable skill and as an inherent capacity. Individuals who view ability as an acquirable skill seek the growth that provides knowledge acquisition; and view mistakes as learning opportunities. Those who view ability as an inherent capacity fear failure and view performance as diagnostic; mistakes pronounce areas where deficiency lie. This notion of ability may have had an affect on the participants; perhaps their loci of control were impacted by ability being perceived as acquired or inherent.

Ethnicity. The link between culture and self-efficacy remains unclear (Pajares, 2002). This study sought to help explain the differences in teacher efficacy scores by ethnicity in a hope to clarify said variances. However, regression analysis revealed that only 6.1% of the scores could be attributed to ethnicity. This means that 94% of scores don't relate to ethnicity, resulting in ethnicity not explaining the different efficacy scores among participants. Hispanic participants reported the highest averaged efficacy scores for the Total and Student Engagement scales, Asian participants reported the highest averaged score for the Instructional Strategies subscale and Black participants reported the highest average efficacy scores for the Classroom Management subscale. The research hypothesis that White participants would report higher efficacy scores compared to non-White participants also proved false. Point of fact, three of the non-White ethnicity categories reported higher mean efficacy scores than White participants.

School location. Of the 45 participating sites, each was given an identification number and classified into one of three Title 1 eligibility groupings. Groupings were determined by the district-reported percentage of students who qualified for free and reduced lunches. Schools with a student population of less than 40% eligible for free/reduced lunches were classified as “Eligible 0”, or Title 1 ineligible schools (*n*= 21). Schools that reported a student population of 40% to 75% eligible for free/reduced lunches were labeled “Eligible 1” (*n*=8). Title 1 schools that reported a student population of 75% and above who qualified for free/reduced lunches and received federal funding as well as district recognition of Title 1 status were labeled “Eligible 2” (*n*= 16). Identification per site is presented in Appendix AC along with the number of responding participants by site. Findings reported participant Total TSES mean scores were highest for non-Title 1, or Eligible-0, teachers. This supports the alternative hypothesis presented in Chapter Three that teachers from non-Title 1 schools will be more efficacious than teachers at Title 1 schools. Multiple regression analysis reported the teachers at Title 1 eligible (Eligible 1 sites) but not receiving funds on average would score .35 points lower and teachers at Title 1 (Eligible 2) receiving schools would score on average 1.65 lower points on the TSES when compared with teachers from non-Title 1 eligible schools but the effect was not statistically significant. These findings of higher efficacy for non-title 1 teachers mirror the studies conducted by others (see Crocco & Costigan, 2007). It was surprising that the Eligible 2 schools did not score significantly different in efficacy expectations given the challenges faculty experience in such situations. However, this school district has provided extensive staff development (with extra

pay) for teachers who work at the Eligible 2 schools for the past few years. These efforts may have helped develop teachers' sense of efficacy.

Other positive and negative factors. Four of the respondents who cited "excessive meetings" as negative factors also reported the requirement of excessive paperwork suggesting the meetings produced an increase in paperwork output/requirements. In this time of strict accountability measures (Crocco Costigan, 2007) this is an oft-cited complaint of teachers that is believed to interfere with enjoyment of teaching and time to plan.

Of the factors provided on the TDQ, Student Motivation was the most selected, by both female and males teachers, across all three site types (Eligible 0, 1, and 2) as influencing ability to teach (*n*= 102, 34, 63 respectively). To support this finding, the subscale Student Engagement was the only measure across research questions to not have a statistically significant difference in means among any of the variables or categories. This suggests that teachers across site locations, levels of experience, type of preparation program completed, as well as content areas agree, Student Motivation or a lack thereof influences the teachers' perception of ability to teach. With questions such as "How much can you do to motivate students who show low interest in school work?" on the subscale, participants were clearly efficacious about their ability to motivate students and a lack of statistically significant difference between Student Engagement subscale mean scores suggests the participants were confident in their perceived ability to motivate or engage their students. (see Bandura, 1971 ; Pajares, 1996). However, by identifying Student Motivation as a negative factor the participants were not confident that their efficacy would be

enough to influence their students. It is unclear from the findings though if participants citing student motivation as a problem mean they were blaming the students for lack of learning rather than taking responsibility for their own lack of efficacy to change strategies that would result in increasing student motivation. Did they perceive this as an outside locus of control that they could not affect?

Another finding of interest was that planning time was the fourth most frequently selected negative factor that influenced participants' ability to teach (*n*=146) in the selection portion on the TDQ but it was the most frequently written-in factor (*n*=12). Initial figures of planning time as the fourth most identified factor appear contradictive to the findings (see Gilles, McCart-Cramer, & Hwang, 2001), who reported planning time as the most frequently identified concern that impacted mastery level teachers. However, the percentages of responses from Giles et al. were 24% suggests approximately 30 or the *n*= 123 total comments in that study is comparable to 37% or approximately 35 people from the146 participants who commented. This is relevant given the number of responses are comparable, that planning time (and time in general) was listed by the Gilles et al. participants as a priority while participants from this study found a lack of planning time as influencing ability just not the key element.

Table 26

"Other Factors" Comparative Table

	Positive	Negative
Experience	335	21
School Administration	219	87
Your Age	148	18
School Culture	232	109
Formal Education	202	5
Class Size	243	149
Student Motivation	228	199
Parent Involvement	164	164
Staff Development	244	18
Other Teachers	266	72
Available Materials	244	119
Planning Time	242	146

Table 26 illustrates 228 teachers reported Student Motivation was a positive influence on their ability to teach, while 199 teacher stated the opposite. This could mean that teachers are blaming the student. That is to say, the teachers might not be changing their instructional strategies to meet the diverse needs of their student population and thus the teachers might be placing blame on students for an apparent lack of motivation. Of course, with only 28 teachers separating those who believed Student Motivation to be positive and those who perceived it as negative, the point the Student Motivation plays an impactful role in the perception of a teacher's ability to teach, remains certain.

A point of interest revealed in Table 26 involved the identification of the positive and negative factors for Parent Involvement. This factor was perceived by the same number of teacher participants as both positive and negative (*n* =164). Although 42% of teacher participants commented that Parent Involvement influenced their ability to teach, only seven participants included parent involvement as a negative factor for both the checked-off as well as in the "Other" write-in portion of the questionnaire. The comments offered by the seven participants ranged from a lack of [Parent] support to non-involvement. The findings suggest that though Parent Involvement was important to the teacher participants overall, it was more so when perceived as a factor that negatively influenced the teacher participants teaching than as a positive factor.

Finally, 202 teacher participants reported Formal Education as a positive influence on teaching ability while five participants reported it as a negative influence on ability. This suggests that the participants believed the experiences gleaned from formal education prepared them for the realities of the classroom in a way that positively impacted efficacy exponentially more than those who reported it otherwise. This is further supported by the 335 teachers who reported Experience was a positive factor on their ability to teach compared with only 21 who reported Experience as negative. Clearly, participant experiences in which ever fashion reported, was perceived as positive more than negative.

Implications

Implications based on findings from this study are presented below. Specifically, this section begins with a discussion of the overarching implications to teacher preparation programs and colleges of education with focused

emphasis on Mastery Experiences and Enrichment Coursework. The section then lays out implications for School Districts with specific attention to Staff Development, Peer Mentoring, and Teacher Retention. This Implications section culminates with the implications for Research Methodology.

Brissie, et al., (1988) suggest that teachers' sense of self-efficacy can be predictive of teacher attrition. Indeed, they recorded that teacher-reported self-efficacy decreased as the number of years teaching experience also decreased. Keigher (2010) reported in 2008-2009 school year just over 52,000 (9%) teachers leave the profession within the first 3 years. One way to thwart teacher attrition is through staff development that can build a teacher's self efficacy. During professional development teacher change is encouraged but follow-up with classroom application is needed (Guskey, 1986) and during the follow-up and application is where ongoing guidance and support from peers and administration can support teacher confidence as new ideas are attempted and remain crucial for younger teachers (Guskey, 1987; Turley, Powers, & Nakai, 2006). For example, site-based specific professional development designed around the needs of the teachers not by district-level resource teachers but by the Literacy, Science, and Math coaches trained in content and professional development techniques who would provide opportunities for cross-experienced discussion of ideas and extensions of support that are site or content specific. Follow-up might take the shape of meeting with a peer, keeping dialogue journals where expression of ideas and thoughts are not lost once they are uttered.

For Teacher Preparation Programs

Mastery experiences. Bandura (1977) speaks of successful performance being the "principal vehicle of change" (p. 191) over that of symbolically based experiences. The observance of the effects one's behavior has on outcomes is more powerful than examples supplied by others. The most salient positive factor participants believed influenced their ability to teach was "Experience" (*n*=335). Investigation of the data revealed the independent variable "Experience" also had the highest response frequency for each ethnic category. As stated in Chapter Two, Bandura (1997) reported mastery experience is the most powerful way to increase self efficacy for through experience a person believes in his or her ability. Therefore, teachers who reported experience as a positive factor were suggesting that having lived or experienced an event similar to or exactly like that of the one they were now experiencing was a direct influence over their perceived ability or efficacy.

With the subscale Classroom Management as the only measure the preparation variable identified as significant raises the question: are secondary teachers adequately prepared to handle classroom management. With questions, such as "How much can you do to get children to follow classroom rules?" and "How well can you establish a classroom management system with each group of students?" why was such a variation in scores between trained education program participants such as MAT full-time, and traditional students compared with EPI prepared respondents revealed? The answer may lie within the structure of the programs. EPI programs are unique and relatively new. The goal of Educator Preparation Institutes is to provide competency-based

instruction to help graduates with a baccalaureate degree outside of education to take the state teacher certification exams professional preparation and education competences sections (FLDOE, 2010). Educator Preparation Institute programs have over-arching guidelines established by the state and are designed to offer instruction in conjunction with other ACPs. EPIs also offer individual classes as part of professional development for established teachers, substitute teachers, and paraprofessionals.

That being said, the largest and most explanatory aspect of these programs that might explain the significantly low efficacy scores of participants was a lack of consistency among programs, specifically addressing the potential that in some cases, EPI teacher participants may not have had a clinical or field experience prior to teaching in a classroom. Though the missions of the EPI programs were consistent, the requirement of a clinical or field-based practicum or internship was not. Some institutions required two semesters of working with mentor teachers in the field while the teacher-candidate absorbed teaching responsibilities. Other institutions required only observation of K-12 classrooms with no expectation of teacher-candidates absorbing teaching responsibilities. Such variations might explain the significant difference in mean scores from three categories that involved university-level education specific experiences by way of coursework and supervised ongoing internships where gradual release of teaching responsibility is assumed. Moreover, two of the three categories, MAT full-time students, and traditional baccalaureate programs offer clinical field-based experiences. As evidence in this study, mastery experiences made a difference regardless of participant age. Indeed, Schunk (1983) reported that

children who observed their own progress during training developed higher senses of efficacy. Field-based experiences or internships provide teacher candidates with real-life experiences in which they are better able to observe their own training (Simmons, 2005). The EPI program and by extension short term teacher preparation programs that do not offer supervised internships, are providing a disservice to teachers by having them experience-as-they-go (Darling-Hammond & Youngs, 2002). It is therefore recommended that in the absence of student teaching, a mentor be established for ACP and other teachers without classroom experience as they embark on their teaching journey (Simmons, 2005).

More specifically, school districts that employ EPI graduates need to pair these EPI graduates with veteran teachers. Given that teaching efficacy increased with anywhere experience and that current site experience efficacy peaked with between seven and ten years, it is advised that EPI teachers are provided mentoring from teachers with at least seven years teaching experiences. Through mastery and vicarious experience with a mentor, the EPI teacher participant might experience transforming experiences to increase teaching efficacy.

For School Districts

Staff development and enrichment coursework. Teaching efficacy is situation specific and contextually based (Bandura, 1997) and with sustained and repetitive opportunities for growth and experience, teacher efficacy increases (Carleton et al, 2008). Under investigation in this study were the various types of teacher preparation methods and if those methods and programs produced more

efficacious teachers than other programs or methods. Statistical differences were detected between those who reported EPI preparation programs compared with those who reported a traditional bachelor, full-time Masters of Arts in Teaching, or “Other” category of preparation. Each of these last three preparation options included teacher participants who held masters or above some form of education background with the exception of one who held a Juris Doctorate degree. Perhaps the characteristics of masters and beyond are the cause of difference? Long and Moore (2008) discuss the notion of teacher interest and that students who believe their teachers employ a wide range of pedagogical content knowledge suggests the teacher is interested in not only the content but also interested in them as students and therefore have knowledge of how to teach effectively. Long and Moore go on to say that interest empowers learning it if is sustained by knowledge. Teachers who invest effort in and outside of the classroom into the subject they teach are interested in the subject. Therefore, teachers with advanced and terminal degrees in education are interested in the subject area(s) and are thereby more efficacious as evidenced with higher mean efficacy scores from teachers in the “Other”, MAT, and 5th year Master’s categories (see Table 5).

The use of staff development was listed by 62% of participants as a positive factor contributing to their reported teaching efficacy. Mastery experience is the most powerful way to influence self-efficacy (Bandura, 1997) and the continual building of knowledge bases and strategy repertoires through staff development and university-based course work may increase the teaching efficacy levels of teachers. Tschannen-Moran, et al., (1998) believed the

formation of efficacy to be cyclical in which teachers gained information by way of experience, processed it, and then applied it in applicable situations based on internal or external factors they believed would most influence ability. Carleton et al, (2008) reported teacher efficacy is recurring; teachers hone the skills necessary to achieve success. Teachers with higher efficacy persevere and take responsibility for the learning that takes place in their classrooms. However, once most graduates attain their teaching degrees, Tschannen-Moran et al., (1998) discuss the notion of efficacy developing early on in a career and that that early-developed sense of efficacy is resistant to change. Results from this study support these lines of thinking as participants who reported efficacy scores based on the total teaching number of years teaching averaged higher for teachers with 10 or more years teaching experience; as Bandura (1997) says, "…Compelling feedback that forcefully disputes the preexisting disbeliefs in one's capabilities" (p. 82) must occur. Feedback can be in the form of discussions with peers, reflection with self, teacher research in action, and student achievement.

Change is difficult, gradual, and teachers must have encouragement, support, and feedback until evidence of success is witnessed and experienced by the teacher (Guskey, 1984). This was the case with Language Arts content area teachers. The school district provided ongoing, multiple opportunities for teachers to become familiar with and experience the new curriculum. Teachers were paid to participate in professional development that was ongoing; it was offered in multiple stages, classroom walk-through and observations were ongoing by both site-level administrators and district-level personnel. Teachers who struggled were encouraged to persevere and attend more training

opportunities. The company that created the curriculum utilized a teacher-fueled online community where questions could be posted with other teachers responding. Chat rooms were created for more immediate teacher feedback. Perhaps these were some of the reasons teacher efficacy levels were not significantly lower than those of Reading teachers. For Language Arts faculty across the middle grades level, staff development was more than a workshop for a day; it became a way of teaching, a way of life.

For some teachers, staff development and university education courses are seen as irrelevant (Simmons, 2005). In fact, 18 participants from the current study identified Staff Development as a factor that negatively influenced their ability to teach. More specifically, the nine teachers were from Eligible 0 or non-Title 1 eligible schools, and seven teachers from Title 1 eligible and funding recipient schools reported staff development as a factor that negatively influenced their ability to teach. Though the total number of 18 was far from the highest category number of 199 for Student Motivation, it was a surprise that more teachers from Title 1 non-eligible populations viewed staff development more negative than participants from Title 1 receiving schools. Especially given that Title 1 schools traditionally have a greater concentration of focused objectives and trainings that must be met. Reasons why this might have occurred are varied. For examples, the professional development trainings Eligible 0 teachers received were perceived as negative because perhaps they were not aligned with helping the teacher learn new and applicable techniques (Guskey, 1987). Or perhaps, teachers from the Eligible 1 and 2 schools simply elected to not fill out that portion of the TDQ. Or still too, perhaps teachers from non-Title1

eligible schools did not view staff development as necessary because they hold higher levels of teaching efficacy.

An additional way alternative certification programs and university-based teacher education programs can provide enrichment and development opportunities that might increase the teaching efficacy of in-service teachers is through the use of online staff development and enrichment coursework. Ilmer, Elliott, Snyder, Nahan, and Colombo (2005) found participants gleaned added benefits from electronic communities such as flexibility and control which allowed for the participants to meet the demands of teaching full-time, coursework, and personal obligations. However, as school districts and university alternative certification pathways employ online coursework as a way to fulfill certification compliance requirements (Atkinson & O'Connor, 2007), the need to connect with other teachers at both the peer and mentor level remains vital for (younger) teachers (Morton, et al., 2006). This notion is supported by over 67% of participants (*n*=266) who identified "Other Teachers" as a positively influencing factor of their teaching. These "Other Teachers" coupled with the two qualitative write-in options of "Educational Research" suggests teachers seek outside resources they believe will assist them with their needs (Simmons 2005).

Peer mentoring. The use of other teachers was identified by 266 participants as a positive factor that influenced their ability to teach. Ross (1992) reported use of a coach increased teacher efficacy, as measured by the Dembo and Gibson's Teacher Efficacy Scale (TES) scale (Dembo & Gibson, 1985), and resulted in greater student success. Indeed one participant supplied a narrative stating the site Reading or literacy coach was a positive influence on that

participant's teaching ability. Though the category addressed was use of other teachers specifically, this can be extended to learning opportunities.

The second most powerful form of efficacy learning was vicarious experience (Bandura, 1997). Meaning, learning by watching, or experiencing through another such as by way of staff development, professional learning communities where teachers learn from other teachers; the exchange of ideas and information supports the notion that efficacy scores increase when learning opportunities do (Smylie, 1988). It is important to note, vicarious experience such as staff development opportunities should not be limited to veteran teachers sharing with younger ones because, as illustrated with this study, the most efficacious teacher participants were not always the most senior veterans. Rather, participants in this study with the highest efficacy scores were at times the most veteran while other times they were the participants who held between 7 and 10 years experience. School districts and universities using mentoring methods would be preparing their teachers to remain in the profession with sustained, continual/ongoing opportunities for the sharing of ideas- specifically from veteran teachers with neophytes.

Teacher retention. Bandura (1993) states, "People's beliefs in their efficacy influence the types of anticipatory scenarios they construct and rehearse" (p.118). This means, the perception one holds for personal ability (i.e. efficacy) in effect, dictates the scenarios they rehearse. Bandura reported that participants who viewed ability as an acquirable skill continued to set challenging goals in the presence of difficult standards. Their efficacy levels remained "steadfast" (p. 121). However, the perceived efficacy levels of participants who

viewed ability as an inherent capacity plummeted as they encountered problems. Given that attrition is more likely from teachers who have lower senses of teaching efficacy then an extension of this line of thinking suggests that teachers who view ability diagnostically, focusing on the displays of proficiency without expanding their knowledge and competencies are more likely to leave the profession. Schunk (1983) reported that ability feedback had a strong effect on self-efficacy and performance. Ability or positive feedback based on peer or supervisor observed ability, such as, “You are getting better at this” might help personnel as they gain experience. Creating learning environments for teachers that “…construe ability as an acquirable skill emphasize competitive social comparisons, and highlight self comparison of progress and personal accomplishments are well suited for building a sense of efficacy that promotes achievement“ (Bandura, 1993, p. 125). In such situations mentors and administrators would acknowledge changes the mentee has made to solve problems and better arrange for student learning.

Teacher experiences. Research indicates teachers beyond the age of 50 are more likely to leave the profession than teachers between 30 and 50 years old (Boe et al., 1997; Ingersoll, 1996). School districts that invest vast amounts (see Content example from above) of resources by way of funding and other resources for teachers to remain long term must identify what helps these teacher be more efficacious than their younger counterparts. Otherwise, the money to keep these older teachers is misappropriated. Perhaps encouraging states or school districts to offer incentive for teachers to change schools every 8 to 9 years might increase efficacy levels given the efficacy score findings

reported here of participants based on current site experience was highest between 7 and 10 years. “Self-perceived learning efficacy affects how much effort is invested in given activities and what levels of performance are attained.” (Bandura, 1982, 128).This suggests that a teacher experiencing high efficacy can be expected to contribute the most.

For Research Methodologies

In three of the four research questions, ANOVA scores for the TSES measure did not reveal significant scores between the independent variables. However, once the subscales were assessed as dependent variables along with the Total TSES scores, ANOVA analysis did identify significant differences in the mean scores of participants based on independent variables. If the subscales had not been analyzed, a type II error would have occurred: that is no findings would have been reported when in fact they should have.

Another implication for methodology is that respondents were invited to be participants based on a district-generated report. More specifically, teachers were invited to participant in the study if they taught one or both of the subjects, Reading or Language Arts. It should be noted that, eight participants indicated they were not responsible for any instruction of content. There are many reasons as to why a participant might not be assigned one or both of the content subject areas under investigation. The reasons are vast and speculative such as the person was part of a teaching unit lost due to student/teacher ratios and was assigned another subject to teach, or the teacher was in a co-teach situation for which they were not the instructor of record. However, none of the eight participants provided narrative or contact information providing for follow-up

information. The data was therefore run on good faith that the eight participants were Reading and or Language Arts teachers.

Recommendations

School Districts

As mentioned above, it is imperative for school districts that wish to be fiscally responsible by employing teachers who are confident, efficacious, and committed to the profession. By providing staff developments that are site, context, and content specific, by personnel who have the appropriate content and pedagogical preparation and training, the need for teacher incentives for enrichment coursework is necessary for teachers to increase their interest base which is sustained by knowledge ((Long & Moore, 2008). These opportunities for intellectual and content knowledge growth provide a way for teachers who are less efficacious to be in the presence of veteran teachers who tend to be more efficacious. It is through the vicarious experiences of dialogue discussion and mastery experiences offered at point of need, which will best help the teachers increase their efficacy

It is also recommended that school districts assign veteran teachers to younger teachers in an attempt to increase efficacy levels of the younger teachers as well as promote positive feedback for the veteran teacher. Finally, teacher incentives to move school sites every seven to ten years is recommended as a way to better help teachers maintain fresh expectations.

Teacher Preparation Programs

The need for mastery experiences by way of clinical or field based opportunities was evidenced as crucial in this study and is therefore

recommended to all teacher preparation programs. The needs for systematic and rigorous expectations are needed at all levels of teacher preparation programs, from Research One institutions to EPI programs. As noted in above and in Chapter Two, the lack of systematic rigor across and among EPI programs is a concern for not only the teachers who are in the field daily with low efficacy but also the students who must be on the learning end of that teacher. Is a teacher who believes he or she does not have any control over the outcome and therefore success of his or her students "qualified"?

Unanswered Questions

This study expanded the research investigating teacher efficacy and preparation method, experience, and the use of demographic factors to explain differences in self-reported teacher efficacy scores however, the four research questions addressed also presented new questions as well as left some unanswered. For example, although other researchers also did not identify significant differences between traditional and alternative certification routes (see Flores, et al., 2004), why was a significant difference in means not detected between the 5th year Master's of Arts teachers and Bachelor's in Education respondents? The MAT 5th Year group also had a low participation number (n=11) like that of the EPI participant base.

If a teacher is secure and confident in what he/she holds and controls, then that teacher is more likely to stay in the profession. How do we keep teachers if they are not confident? How do we as a professorate and as professional development staffs assist teachers to become more confident in their abilities? Given that the mastery experiences a teacher holds will afford that

teacher with the confidence to continue preparation programs more must be done to ensure the characteristics of the school at which teachers are hired hold characteristics similar to schools the teacher has experience and interest. That is to say, preparation programs must better match teachers' field and clinical internships with the anticipated student populations and school climates during field experiences with whom and in which they anticipate working (Boyd et al., 2006, Zeichner, 1996).

Pajares (2002) addresses the cognitive processes involved in the development and retention of efficacy beliefs and that Bandura's (1977) social cognitive theory is rooted in the belief of human agency; that "…individuals are agents proactively engaged in their own development and can make things happy by their actions" (Pajares, 2002 np). Reciprocal determinism purports that efficacious teachers create an environment in which they believe they will succeed. However, identification of the influences as well as the degree those influences might have on teacher efficacy remained unanswered. Efficacy, as noted in its increase over time, is not a stable trait. Some research states that efficacy is formed in formative years and is difficult to change (Tschannen-Moran et al, 1998). The research presented here suggests that it evolves, growing or diminishing as events occur. If this were not the case, then as teachers reached the 10 year mark at a site, their efficacy would either have remained the same or increased. Instead, the means scores decreased across scale measures following 10 the 10 year mark. This suggests factors other than experience play an influential part in the efficacy of teachers. Some of those factors could be changes in district expectations (such as related to acceptable curriculum and

high stakes testing), changing influence of technology on teaching and student attention, or even a lack of change in expectation by administration thus no longer challenging a teacher to excel. Still too, teachers with high self-reported teaching efficacy scores could simply see no reason to change and thus perceive themselves to be effective (Chong, Klassen, Huan, Wong, & Kates, 2010).

The cultural composition of the United States is continually changing while the teaching force remains a majority, 85% White (Keigher, 2010). While the majority (73.6%) of the participant-base for this study were White Americans, as such, the effects of individual variables (such as preparation type, teaching experience, or participant sex) identified in this study may not be present in other cultures or represented in research (Chan, et al., 2008).

Final Thoughts

This work opened with a quote from the National Commission on Teaching and American's future stating, "*"There is no silver bullet in education. When all is said and done, if students are to be well taught, it will be done by knowledgeable and well-supported teachers"* – (1996, p. 10). The data presented here suggests that teachers prepared through the Educator's Preparation Institute do not maintain the teaching self efficacy compared to that of their teaching peers. Indeed, teachers who claimed EPIs as their preparation program reported the lowest mean efficacy scores across four measures. More specifically, the mean teaching self-efficacy scores of EPI graduates in the category of classroom management were significantly different from those of traditional preparation programs, Master's of Arts in teaching programs, as well as teachers who held graduate and advanced graduate level degrees and

coursework. This data therefore suggests that graduates from EPI programs are not well prepared for the realities of teaching at the middle school level. Given that teaching efficacy is well documents as being influential on student achievement (see Capa, 2005; and Vasquez, 2008), as well as teacher attrition, (see Ingersoll, 2003) and teacher commitment (Chan et al, 2008), it is essential that EPI programs focus on the potential impact low efficacious teachers might have on student achievement as well as the fiscal responsibility of recouping the incurred costs of maintaining a highly qualified workforce.

The independent demographic variables involved in this study did not account for more than just over 6% of the variance in teacher efficacy scores. Meaning, demographic factors such as participant age, sex, site Title 1 eligibility and ethnicity, which were anticipated as influential were, in fact, not. Therefore, additional research in the areas beyond demographics should be considered. This means, with 97% of the difference in scores unexplained by demographic variables used in the current study, the identification of the other variables that might influence teaching efficacy should be investigated. For example, Boe et al., (1997) reported the number of dependent children the teacher had at home as a predictive factor in teacher efficacy while Ingersoll (2001) and others (See Crocco & Costigan, 2007) suggested the school organizational factors influence teacher efficacy.

Investigation which focuses on teachers perceptions of why they “stay” longer than 10 years at a site is warranted to inform the research field. For the current study identified that teaching efficacy levels of participants at a site over time increased to a certain point. This suggests that school level factors may

contribute to a teacher's efficacy level more than their years of experience. This is to say, teaching efficacy increased at a school site as the number of years experience did but only to the 10-year mark at which time they dropped quickly to scores comparable to a 1 to 3 year site teacher. This was not the case of participants teaching efficacy levels over time who had experience at various sties; teacher efficacy for accumulated experience did not diminish over time but rather increased. This contradicts the suggestions by Tschannen-Moran, Woolfolk-Hoy, and Hoy (1998) that views of self-efficacy seem to appear early in the career and is difficult to change. If this were the case, the efficacy scores of teachers should not decrease as their years of experience increase (as was the case with teachers after the tenth year at a site level). The findings of this study corroborate the notion that site factors may contribute to a teacher's efficacy level more than those offered as possible responses for this study. On the other hand, changing expectations makes them want things to be unchanged. After 10 years at a site, perhaps the teachers don't believe they can change anything or have an influence on/in anything from classroom management to instructional strategies. Perhaps, apathy, compliance, and or rigidity sets in. Research exploring school level factors on teacher efficacy is warranted (Ingersoll, 2001).

Although just over 6% of the variance in scores could be attributed to the variables of age, sex, ethnicity, and site location of a participant, some 93% of the variance remains unexplained. In general, researchers have established that self-efficacy beliefs and behavior changes and outcomes are highly correlated and that self-efficacy is an excellent predictor of behavior. This is important to the

greater body of research because the teachers who are efficacious and believe they can influence the lives of their students, do.

Future Research

Given that main effects were detected on the Classroom Management subscale for each research question (with the exception of content area), further research focusing on the domains of teaching efficacy is warranted (Chan, 2008).That is to say, the global domain of self-efficacy was not identified as a main effect in preparation style but classroom management was. Therefore, further research focusing on the specific domain of classroom management is reasonable.

Analysis of teacher Experience Anywhere as well as at Current Sites did not reveal main effects were on the Student Engagement subscale but did reveal main effects on the other two subscales of Instructional Strategies and Classroom Management. Though the short version or form of the TSES was utilized for this study as is reported as reliable, perhaps the long version or form of the TSES might elicit responses that reveal a main effect in the Student Engagement subscale. That is to say, the addition of eight questions which would focus on each respective subscale might illuminate additional information.

The lack of male role models in secondary liberal arts classrooms is a concern and research needs to focus on the under-representation of males in the teaching profession (Klecker & Loadman, 1999). Given that, only 12% of the participants of this study reported their biological assignment as male, the need to better prepare them for long-term sustainability in the teaching force in crucial. Klecker and Loadman found statistical differences in job satisfaction scores

between elementary level male and female teachers. Further investigation into possible statistical difference between the mean scores of males and females is worthy of consideration.

Additionally, given that signification effects were detected on the Total efficacy scale as well as two subscales (Instructional Strategies and Classroom Management) relating to teaching experience, further research is warranted which pays specific attention to the type of strategies employed by teachers regarding instructional strategies used and classroom management techniques applied. As stated in Chapter Two, research focusing specifically on the efficacy of Reading and Language Arts teachers is lacking. More specifically teaching efficacy levels of teachers without being tied to student success is a rarity. Findings from this study can add to the body of knowledge in that no significant difference in teacher efficacy is directly related to the content areas of Reading and Language Arts while holding sex, ethnicity, and age constant.

An additional area that deserves investigative consideration is the use of technology as a way to simulate field-based experiences for teacher candidates who cannot otherwise receive them. The works of Howard (1999) suggest that computer simulation for teacher preparation programs has viable legitimacy. The current study illustrated the need for field-based internships as a possible way to increase teacher efficacy, the use of computer simulations might, as Howard (1999) suggest, be a viable option for teacher education programs, supplying the student teacher, interactions necessary to develop schema and mastery experiences.

The quest to identify what makes a successful teacher, or more specifically, what are the qualities a teacher must possess to be successful remain an elusive mystery and therefore require further investigation. For if the notion that a confident teacher or a teacher that believes in his or her ability to impact student learning and achievement is therefore successful, then teacher self- efficacy is the path of research worthy of further investigation. However, if site level factors and preparation programs play the pivotal role evidenced in the current study, as they do in the larger aspect of cultivating a teacher to have belief in his or her own impact on student outcomes, then measure must be generated that can capture the unique and organic, ever changing and dynamic, factors that influence and challenge classroom teachers.

If teaching efficacy scores indicate a perception of better preparedness, findings from this study suggest that 5th year Master's and MAT full-time graduates are the most likely to believe they can impact the lives of their students. Continued research focusing on the various pathways into the teaching profession is warranted given the statistically significant differences by way of preparation method were identified within the area of alternative non-traditional four year university-based certification programs. More specifically, questions such as "What about your preparation do you believe best prepared you for your current position?" as well as the opposite "What do you believe should have been offered during your preparation to better prepare you?" would serve the research field by eliciting responses to inform teacher preparation course objectives.

Teacher commitment has been reported as a precursor of teacher efficacy (Chan et al., 2008). The current study reported teachers with more experience

were more efficacious than those with less experience, teachers with graduate and advanced level coursework appeared to be more efficacious than the teachers with undergraduate-level only coursework experience. However, participants reported the lowest scores from ACP programs and EPI programs. Furthermore, the demographics analyzed in this study as regressor variables to explain variation in teacher efficacy scores, such as age, ethnicity, sex, and school location, were not well-fit variables in the regression model; meaning the variables were not good predictors of teacher efficacy levels. Teacher preparation programs at universities as well as those established within school districts must continue to research the variables that will better explain teacher efficacy and subsequently increase the longevity of teacher careers.

Colleges of Education, state certification departments, and school districts must prepare teachers to deal with student failure and the uncertainty teachers feel about whether they are having an effect on student learning. One of the reasons teacher preparation programs are difficult to measure by way of effectiveness and preparedness of graduates is the notion of selection bias among the participants themselves (Boyd et al., 2006). This means, the program that a participant selects is the one anticipated to best meet the needs and expectations of the participant. This notion of selection bias must be taken into consideration when attempting to compare the impact of different preparatory forms of professional education and research specifically focusing on why participants select a particular pathway or program will help districts and other preparation programs as they comply with the mandates to fill America's

classrooms with highly qualified teachers. Educators generally agree that effective teaching requires mastery of content knowledge and pedagogical skills.

This study was devised to investigate the differences in teacher self-efficacy and to what extent those differences were attributed to the type of preparation program participants received, the instructional content for which participants were responsible, the number of years teaching experience participants held, and demographic variables such as the age, sex, ethnicity, and Title 1 site eligibility of the site for which participants worked. The main conclusions to be gained from this study are that the absence of a field-based or clinical experience may have been a contributing factor in the negative difference between Educator Preparation Institute graduates compared with participants from traditional bachelors programs, master's of arts in teaching, and participants with "other" or advanced degrees. Also, the implementation of district-wide, ongoing staff development may have accounted for the lack of difference in efficacy scores of Reading and Language Arts teachers. Then again, a possible explanation for this lack of difference might also be a result of the two contents being inextricably linked. Findings from this study also support the research literature which holds that teaching efficacy increases with experience and over time. However, this study provided an unanticipated finding that when a teacher remains at one location or site for more than 10 years, their efficacy level decreases instead of increases. Finally, this study adds to the research body suggesting elements such as demographics account for little by way of predictability.

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Appendices

Appendix A

Teachers Sense of Efficacy Scale and Teacher Demographic Survey

Copy of Middle School Reading & Language Arts Teacher Self-Efficacy

1. Teachers' Sense of Efficacy Scale Short Form

Thank you for taking the time to complete this survey. Your answers are confidential and are intended only to gain a better understanding of teacher confidence. Remember there are no right or wrong answers; just answer as accurately as possible. If you have any questions about the survey, please contact Kimberly A. Schwartz.

1. This questionnaire is designed to help me gain a better understanding of the kinds of things that create difficulties for teachers in their school activities. Please respond to each of the following questions using the scale provided.

	1 Nothing	2	3 Very Little	4	5 Some Influence	6	7 Quite A Bit	8	9 A Great Deal
A. How much can you do to control disruptive behavior in the classroom?	○	○	○	○	○	○	○	○	○
B. How much can you do to motivate students who show low interest in school work?	○	○	○	○	○	○	○	○	○
C. How much can you do to get students to believe they can do well in school work?	○	○	○	○	○	○	○	○	○
D. How much can you do to help your students value learning?	○	○	○	○	○	○	○	○	○
E. To what extent can you craft good questions for your students?	○	○	○	○	○	○	○	○	○
F. How much can you do to get children to follow classroom rules?	○	○	○	○	○	○	○	○	○
G. How much can you do to calm a student who is disruptive or noisy?	○	○	○	○	○	○	○	○	○
H. How well can you establish a classroom management system with each group of students?	○	○	○	○	○	○	○	○	○
I. How much can you use a variety of assessment strategies?	○	○	○	○	○	○	○	○	○
J. To what extent can you provide an alternative explanation or example when students are confused?	○	○	○	○	○	○	○	○	○
K. How much can you assist families in helping their children do well in school?	○	○	○	○	○	○	○	○	○
L. How well can you implement alternative strategies in your classroom?	○	○	○	○	○	○	○	○	○

Copy of Middle School Reading & Language Arts Teacher Self-Efficacy

8. Please check all the courses and grade levels that are included in your teaching assignment for the 2009-2010 academic school year.

	6th Grade	7th Grade	8th Grade
Intensive Language Arts	☐	☐	☐
Regular Language Arts	☐	☐	☐
Advanced Language Arts	☐	☐	☐
ESOL Language Arts	☐	☐	☐
FUSE Language Arts	☐	☐	☐
Intensive Developmental Reading	☐	☐	☐
Intensive Intensive Reading	☐	☐	☐
Advanced Reading	☐	☐	☐
Regular Reading	☐	☐	☐
FUSE Reading	☐	☐	☐
ESOL Reading	☐	☐	☐

9. Are you currently a Subject Area Leader (SAL) at your school?

- ○ Yes
- ○ No

10. Select all of the certifications and endorsements that you hold:

- ☐ English 6-12
- ☐ Middle Grades English 5-9
- ☐ Middle Grade Integrated Curriculum 5-9
- ☐ Elementary Education K-6
- ☐ Elementary Education 1-6
- ☐ Reading Certification
- ☐ Gifted Endorsement
- ☐ Reading Endorsement
- ☐ ESOL Endorsement
- ☐ Educational Leadership
- ☐ National Board Certified

11. Thinking about the courses you are currently teaching, are you certified to teach in the areas where you are currently assigned? (Note: A Temporary Certification qualifies as a certification.)

- ○ Yes, I have a permanent certificate.
- ○ Yes, I have a temporary certificate.
- ○ No, I am not certified in the area that I am currently teaching (i.e., out of field).

Copy of Middle School Reading & Language Arts Teacher Self-Efficacy

3. Teacher Feedback

In the remaining questions, please provide input about your teaching experiences. Remember, there are no right or wrong answers and your feedback is very important.

12. Using a scale from 1 to 9, where 1 represents "Not At All" and 9 represents "A Great Deal" please answer the following question.

	1 Not At All	2	3 Very Little	4	5 Somewhat	6	7 Quite A Bit	8	9 A Great Deal
To what extent do you believe your confidence in teaching is a result of your teacher preparation?	○	○	○	○	○	○	○	○	○

13. Which of these factors positively influences your ability to teach? (select all that apply)

- ☐ Experience
- ☐ School Administration
- ☐ Your Age
- ☐ School Culture
- ☐ Formal Education
- ☐ Class Size
- ☐ Student Motivation
- ☐ Parent Involvement
- ☐ Staff Development/Continuing Education
- ☐ Other Teachers
- ☐ Available Materials
- ☐ Planning Time
- ☐ Other (please specify)

14. Which of these factors negatively influences your ability to teach? (select all that apply)

- ☐ Experience
- ☐ School Administration
- ☐ Your Age
- ☐ School Culture
- ☐ Formal Education
- ☐ Class Size
- ☐ Student Motivation
- ☐ Parent Involvement
- ☐ Staff Development/Continuing Education
- ☐ Other Teachers
- ☐ Available Materials
- ☐ Planning Time
- ☐ Other (please specify)

Copy of Middle School Reading & Language Arts Teacher

15. Please use this space to provide any additional feedback that you feel may be helpful. 16. ****OPTIONAL** If you would like to be considered for the $100 cash drawing, please supply your name and email address so you can be contacted in the event that you win. With permission from the winner, the name will be announced via email by February 14, 2010.**

 **Name: Email Address:**

Appendix B

Script for Monthly Language Arts and Reading Subject Area Leaders Meeting

Hello, my name is Kimberly Schwartz. I am a doctoral candidate at the University of South Florida and a current middle school Reading Coach in this county. I would like to take just a few moments of your time today in an effort to gain your assistance. The purpose of this study is to examine the perceived level of self-efficacy of middle school Language Arts and reading teachers. Your assistance in vital in the gathering of data for my dissertation titled*: A Comparison of Teacher Self-Efficacy Among Middle School Language Arts and Reading Teachers.*

The survey will be sent to each teacher via their school email, or IDEAS, account. The email will contain a general link to SurveyMonkey.com. Once the teacher clicks on the link, he/she will be directed to the study. In reaching SurveyMonkey this way, the teacher is ensured greater anonymity. That is to say, there is no way for me to link the information provided with the participant unless they fill out the optional area and provide their name.

While teachers are asked to provide their names and other demographic information, only I, the researcher, will have access to the information. All identifying information will be coded and no names, only coded information, will be used in the dissertation write-up. Once the study is completed, the data will be destroyed.

All middle school Language Arts and reading teachers will be invited to participate in the study. Participation is voluntary; you may choose not to participate and you may withdraw your consent at any time. However, I do hope that you will elect to provide the information that is crucial to the study.

Your assistance is needed to show support for the surveys, encouraging participation if you feel comfortable doing so. As the Principal Investigator, I will be pleased to respond to any questions, issues, or concerns your teachers might have. I can be reached at (813) xxx-xxxx.

Thank you for your time and I appreciate in advance your support of this endeavor.

Sincerely,

Kimberly A. Schwartz
Doctoral Candidate.

Appendix C

Letter of Invitation to Participate in Survey- Introductory Script

Dear Middle School Reading or Language Arts Teacher,

I would like to request your cooperation in a conduct of a study concerning teacher efficacy and confidence at that middle school level. This study is part of my doctoral dissertation research at the University of South Florida. The purpose of this study is to examine the perceived level of self-efficacy of middle school Language Arts and reading teachers. As in-service teachers, your experiences in the field are valuable and it is critical that your voices are heard.

I need your help. If you choose to participate in this study, and I hope you will, please follow the link below and complete the Teachers' Sense of Efficacy Scale (TSES) and Teacher Demographic Questionnaire (TDQ). The survey will only take about 15 minutes of your valuable time. The TSES has been used extensively to measure teachers' beliefs in their ability to influence classroom outcomes. The TDQ will ask you to provide demographic information for descriptive and categorical purposes.

All responses to the survey will be treated confidentially. All data will be pooled and published in aggregated form only; your responses will be held in strictest confidence; only I will have access. Once the study is complete, the data will be destroyed.

Your participation in this research is voluntary; you may choose not to participate and you may withdraw your consent to participate at any time. It is the intent of this study to investigate the differences in teachers' perceptions of their own efficacy, or capabilities. Specifically, the purpose of this study is to examine the perceived level of self-efficacy of middle school Language Arts and reading teachers. Although there are no monetary rewards, the information you provide will help to prepare teachers both in and entering the field as well as contribute crucial information regarding the development of teacher self-efficacy. I do hope you will elect to provide the information that is vital to this study.

As the Principal Investigator, I will be pleased to respond to any questions, issues, or concerns you may have. You may either call me at (813) XXX-XXXX or email me at ----------.rr.com. This research is being conducted at the University of South Florida under the supervision of Professor Mary Lou Morton. Should you wish to contact her, call her at (813) XXX- XXXX. I will be pleased to send you a summary of the survey results if you desire. Thank you for your cooperation.

To begin the survey, please follow the link below.
PASSWORD =

Sincerely,
Kimberly A. Schwartz

Appendix D

Timeline for Survey Distribution:

- By August 26th
  - Speak with Lynn Dougherty-Underwood and Lisa Cobb to secure 15 minutes at October's monthly meeting to go over study with Reading coaches and SALs respectively.

- By September 30
  - Study approved by both sample district's Office of Assessment and Accountability and the University Internal Review Board
  - Send out reminder email to Lynn and Max regarding how grateful I am they will give me 15 minutes at the October meetings.

- October (locations and time TBA)
  - Meet with Language Arts Subject Area Leaders at monthly meeting
  - Meet with Reading Coaches at monthly meeting
  - Email potential participants informing them of the survey and to be expecting it in mid November.
    - Informed consent can be submitted at that time

- November
  - Initial emails to participants based on informed consent responses survey link and password will be included.

- December
  - First week in December
    - first follow-up emails- blanket email sent to all potential participants
  - Second week in December
    - second follow-up emails go out
    - email SALs and Reading coaches thanking them for their continued support
  - Third week in December
    - third follow-up emails informing potential participants last week of collection

- January
  - Send out blanket email thanking those who participated
  - Send out thank you email to SALs and Reading Coaches

- February 14
  - Send out notice to lottery winner

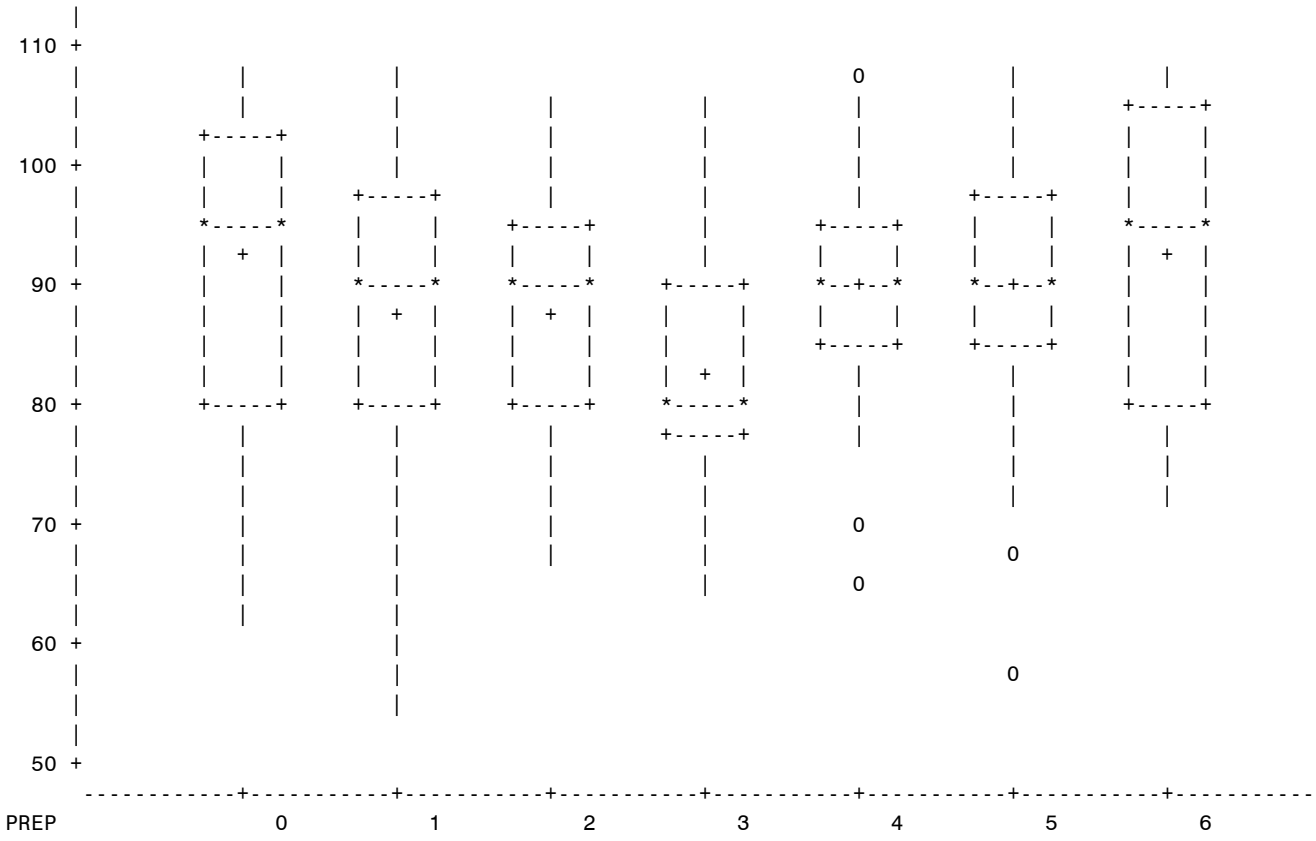
Appendix E

Normality of Population Distributions: TSES by Preparation Method

ID #		Total			Student Engagement			Instructional Strategies			Classroom Management		
		Skewness	Kurtosis	Shapiro	Skewness	Kurtosis	Shapiro	Skewness	Kurtosis	Shapiro	Skewness	Kurtosis	Shapiro
0	**Other (*n*=24)**	-0.605	-0.729	0.917	-0.929	0.464	0.931	-0.598	-0.697	0.905*	-0.502	-1.120	0.860*
1	**Trad. (*n* =183)**	-0.314	-0.404	0.98*	-0.167	-0.399	0.980*	-0.384	-0.50	0.943**	-0.576	-0.447	0.938**
2	**ACP (*n*=91)**	-0.351	-0.790	0.964*	-0.360	-0.483	0.958*	-0.674	0.0557	0.932**	-0.439	-0.492	0.958*
3	**EPI (*n*=15)**	0.471	0.99	0.965	0.967	2.99	0.893	0.692	-0.522	0.878*	0.171	0.1372	0.976
4	**MAT Part-Time (*n*=37)**	-0.386	-0.386	0.954	-0.497	0.524	0.9571	-0.672	-0.683	0.884**	-0.978	1.200	0.907*
5	**MAT Full-Time (n=33)**	-0.763	0.954	0.951	-0.590	1.032	0.959	-0.2445	-0.644	0.924*	-1.374	2.495	0.886*
6	**5th Year Master's (*n*=11)**	-0.399	-1.258	0.920	-0.425	-0.076	0.970	-0.7393	-0.813	0.859	-0.806	-0.680	0.861

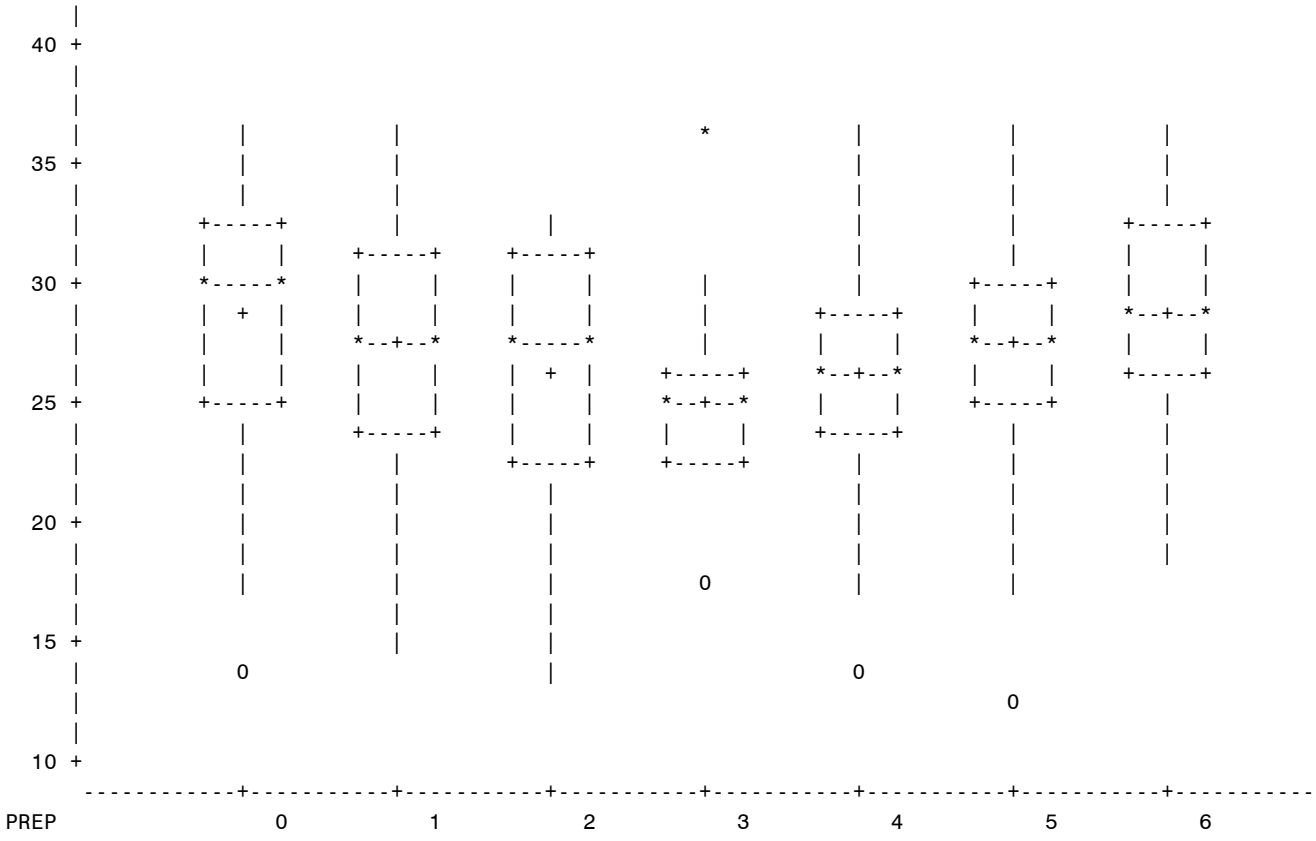
Note : * p< .05, ** p<001

Appendix F
Side by Side Box Plots for TSES TOTAL Prep Scores



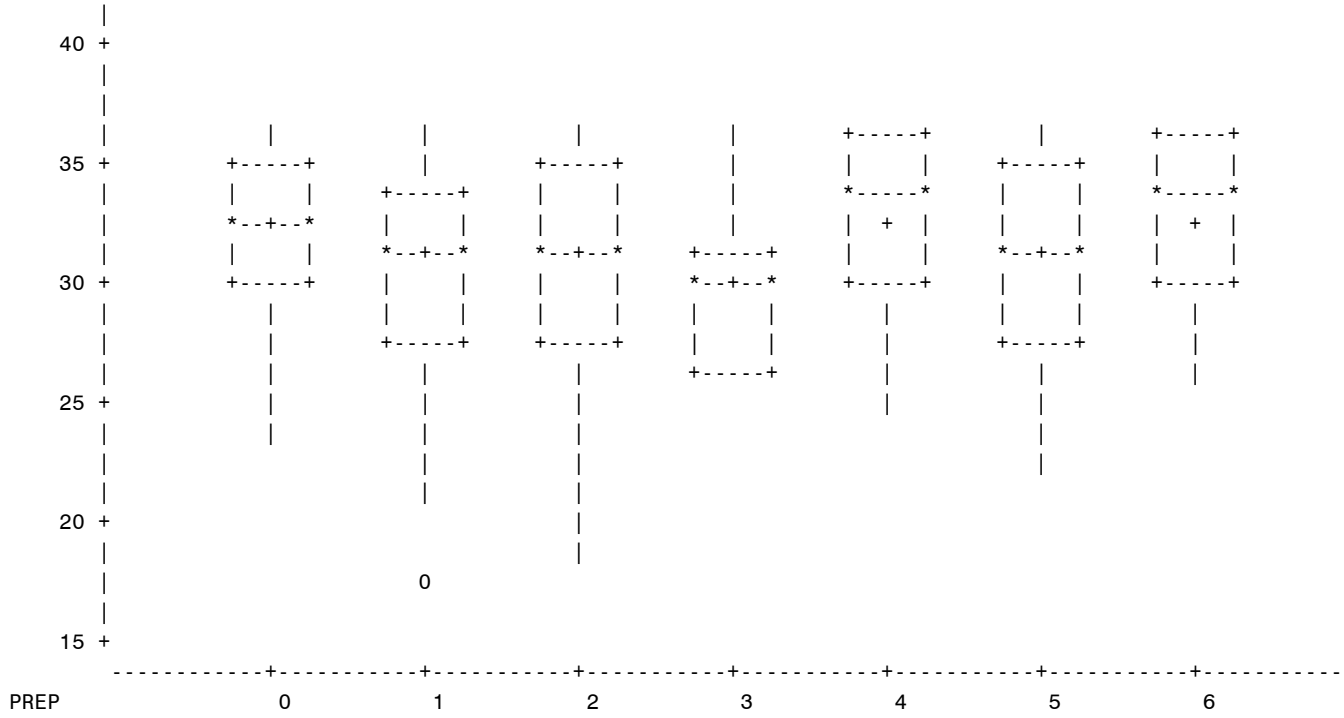
Note: Identification numbers correlate to the tables in the text.

Appendix G
Side by Side Box Plots for TSES Student Engagement Prep Scores



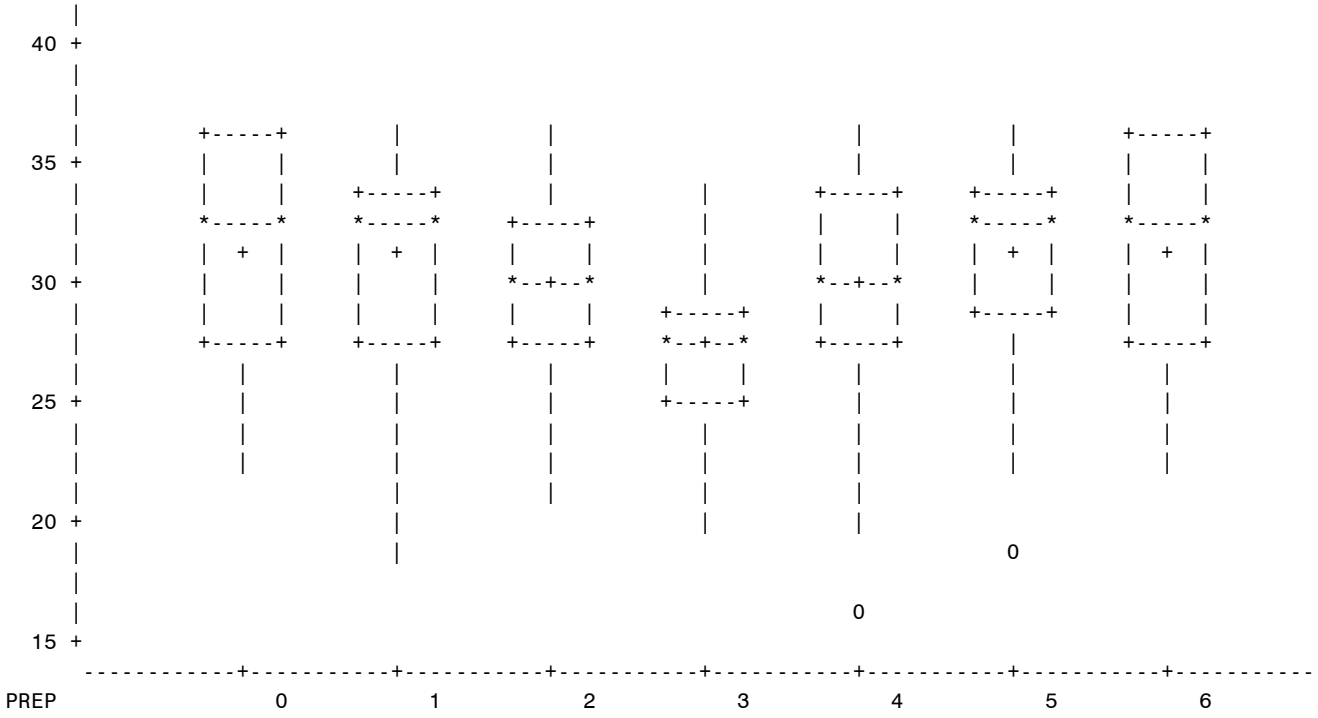
Note: Identification numbers correlate to the tables in the text.

Appendix H
Side by Side Box Plots for TSES Instructional Strategies Prep Scores



Note: Identification numbers correlate to the tables in the text.

Appendix I
Side by Side Box Plots for TSES Classroom Management Prep Scores



Note: Identification numbers correlate to the tables in the text.

Appendix J

Normality of Population Distributions: TSES by Content Area

	Total			Student Engagement			Instructional Strategies			Classroom Management		
	Skewness	**Kurtosis**	**Shapiro**	**Skewness**	**Kurtosis**	**Shapiro**	**Skewness**	**Kurtosis**	**Shapiro**	**Skewness**	**Kurtosis**	**Shapiro**
Neither (*n* =8)	0.135	0.180	0.972	-1.022	-0.496	0.836	-0.164	-1.449	0.954	0.607	0.478	0.933
Reading (*n* =72)	-0.477	0.073	0.975	-0.189	-0.608	0.977	-0.780	0.314	0.916**	-0.650	0.062	0.934*
Language Arts (*n*=175)	-0.317	-0.432	0.979*	-0.222	0.046	0.982*	-0.418	-0.534	0.932**	-0.741	0.053	0.930**
Both (*n*=139)	0.288	-0.511	0.981	-0.312	-0.30	0.978*	-0.299	-0.933	0.940**	-0.455	-0.567	0.951**

Note: * p< .05, ** p<001

Appendix K

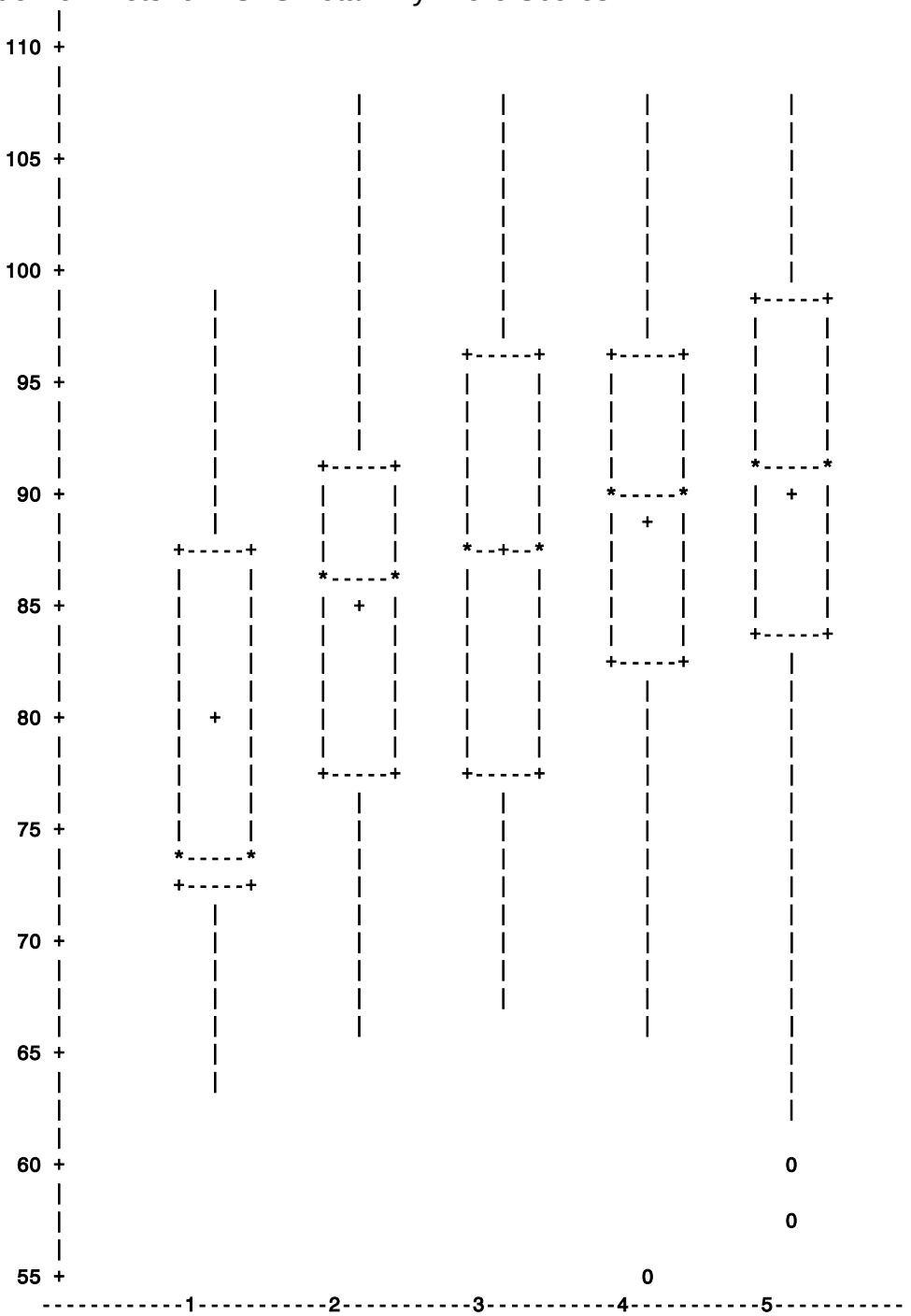
Normality of Population Distributions: TSES by Teaching Experience Anywhere

	Total			Student Engagement			Instructional Strategies			Classroom Management		
	Skewness	Kurtosis	Shapiro	Skewness	Kurtosis	Shapiro	Skewness	Kurtosis	Shapiro	Skewness	Kurtosis	Shapiro
< 1 year	0.605	-0.979	0.944	0.683	-1.742	0.872	1.217	1.331	0.871	-0.271	-0.823	0.985
>1 <3 Years	0.269	-0.135	0.982	-0.091	0.104	0.982	0.089	-0.699	0.972	-0.100	-0.767	0.975
>3 <7 Years	-0.01	-0.956	0.969*	-0.059	-0.661	0.980	-0.415	-0.456	0.944**	-0.266	-0.993	0.951**
>7 <10 Years	-0.71	0.510	0.965	-0.476	-0.097	0.953	-0.843	1.147	0.908*	-0.982	1.124	0.915*
> 10 Years	-0.57	0.005	0.967**	-0.440	0.150	0.970**	-0.593	-0.563	0.914**	-0.786	0.007	0.913**

Note: * p< .05, ** p<001

Appendix L

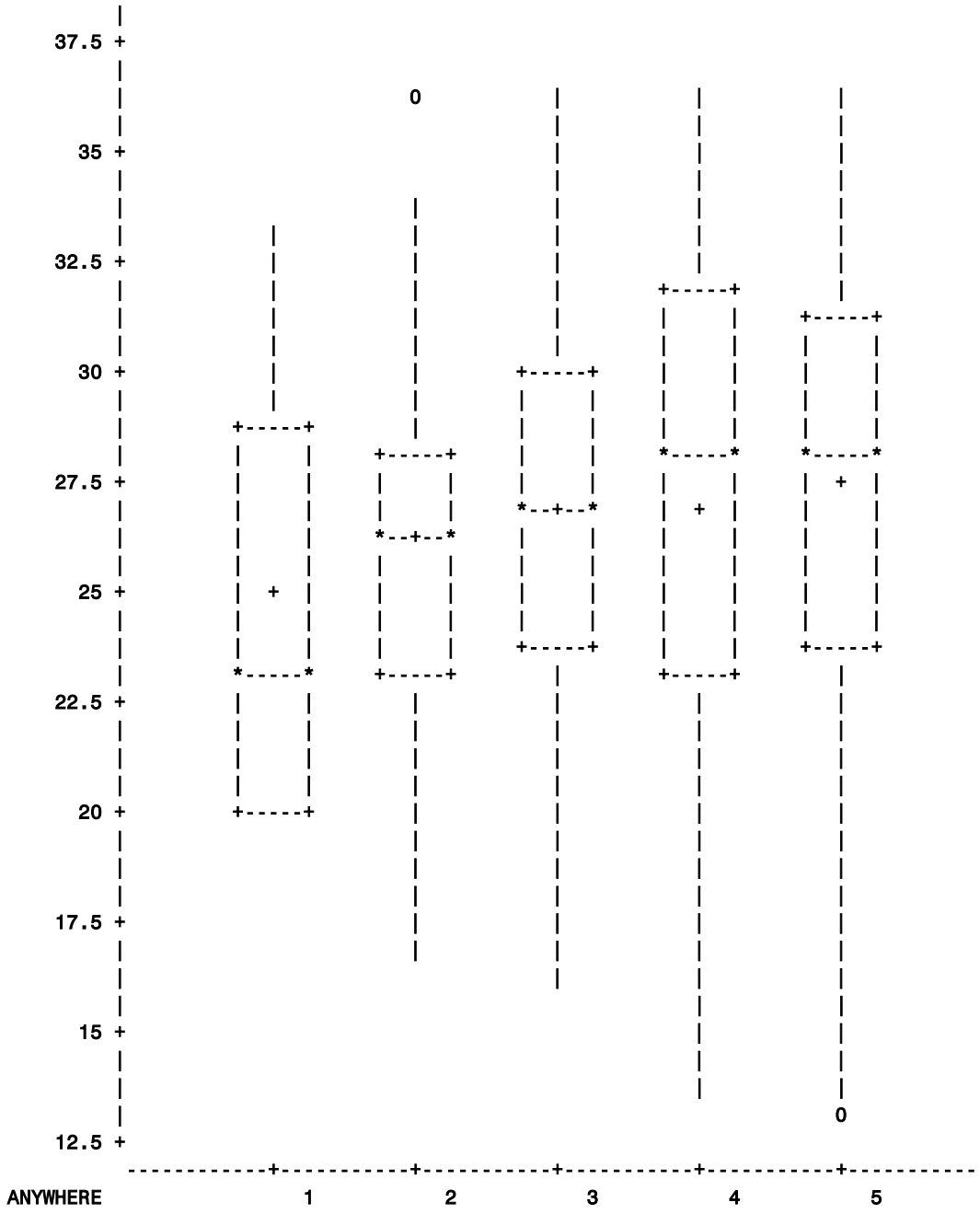
Side by Side Box Plots for TSES Total Anywhere Scores



Note: Identification numbers correlate to the tables in the text.

Appendix M

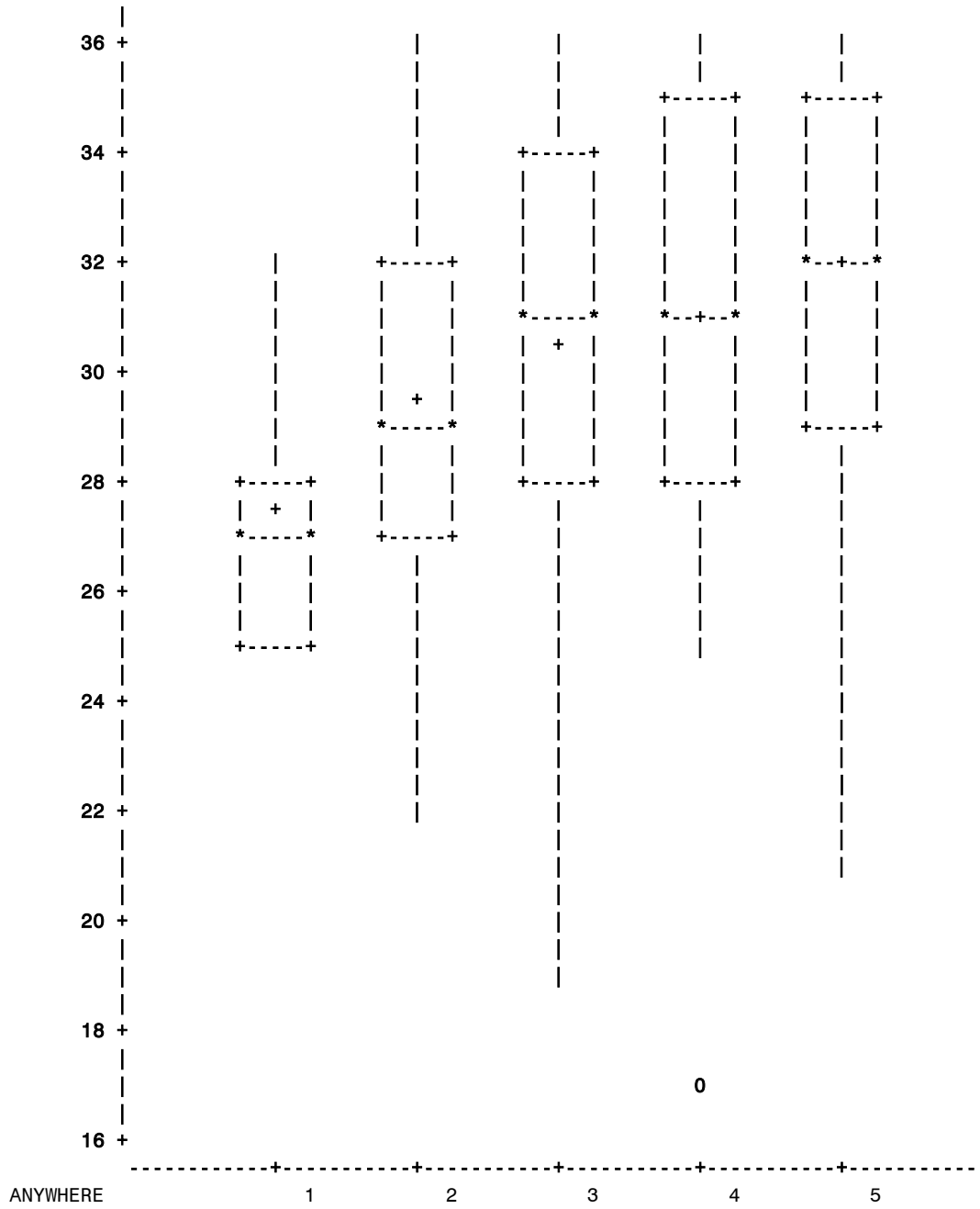
Side by Side Box Plots for TSES Student Engagement Anywhere Scores



Note: Identification numbers correlate to the tables in the text.

Appendix N

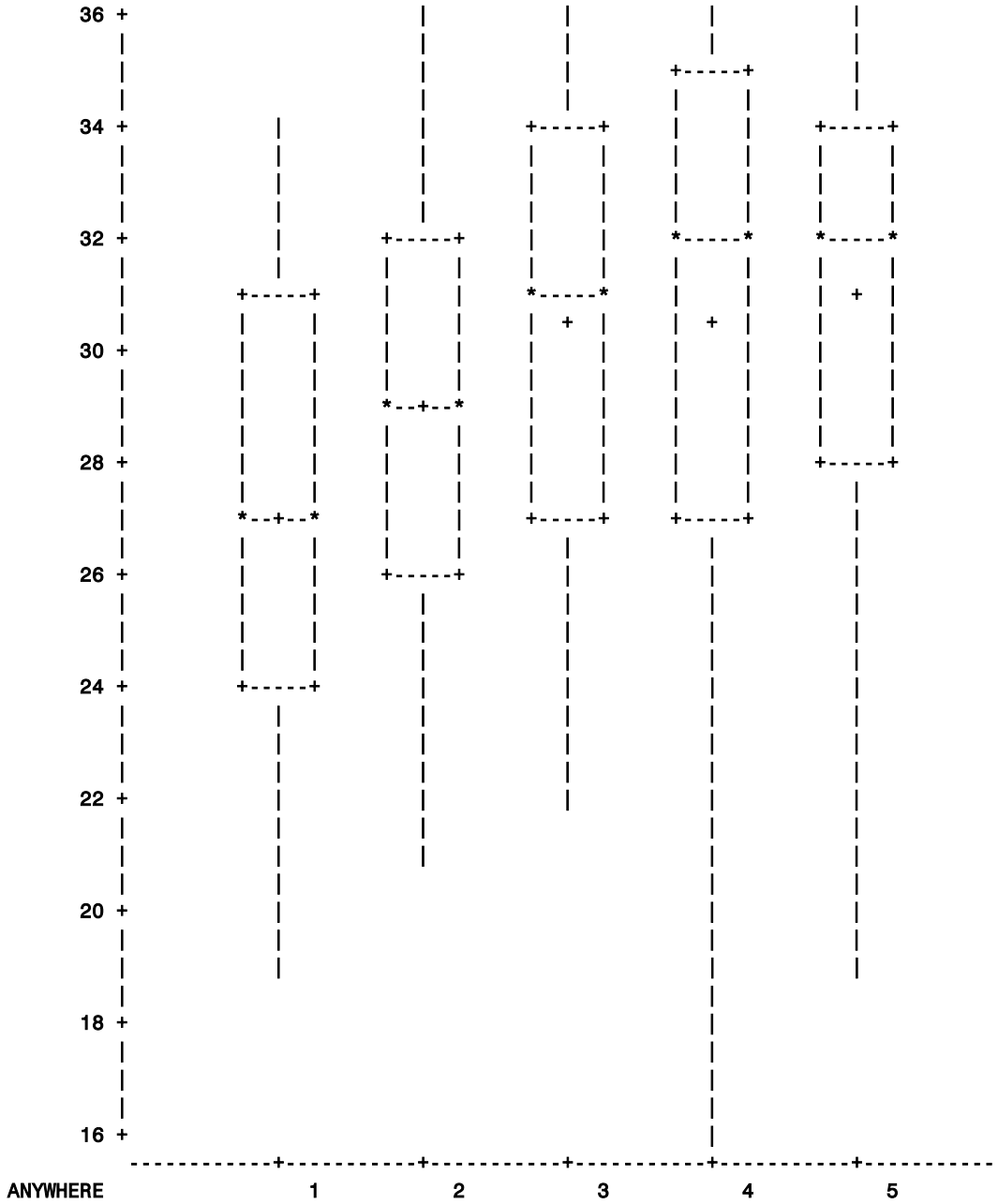
Side by Side Box Plots for TSES Instructional Strategies Anywhere Scores



Note: Identification numbers correlate to the tables in the text.

Appendix O

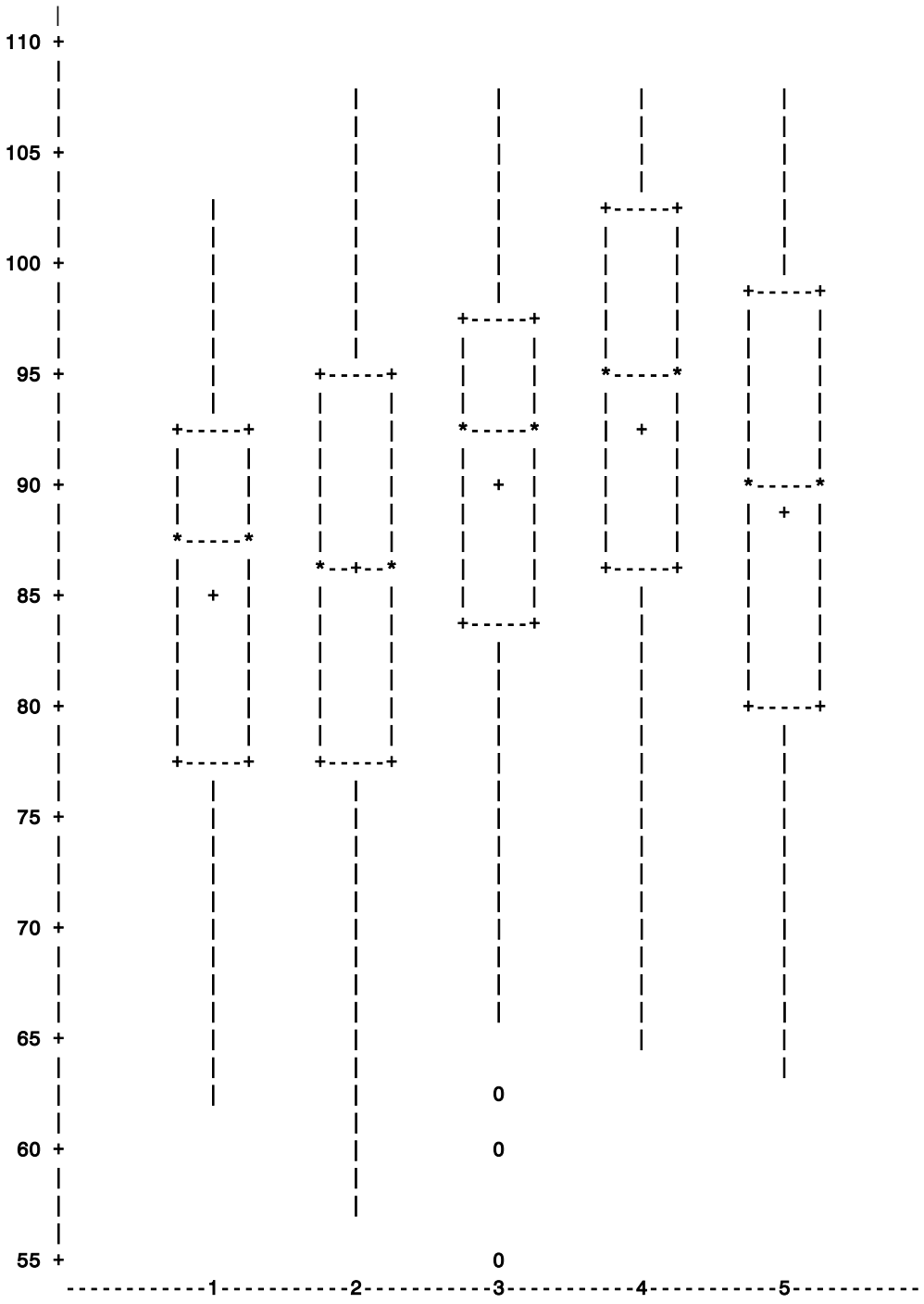
Side By Side Box Plots for TSES Classroom Management Anywhere Scores



Note: Identification numbers correlate to the tables in the text.

Appendix P

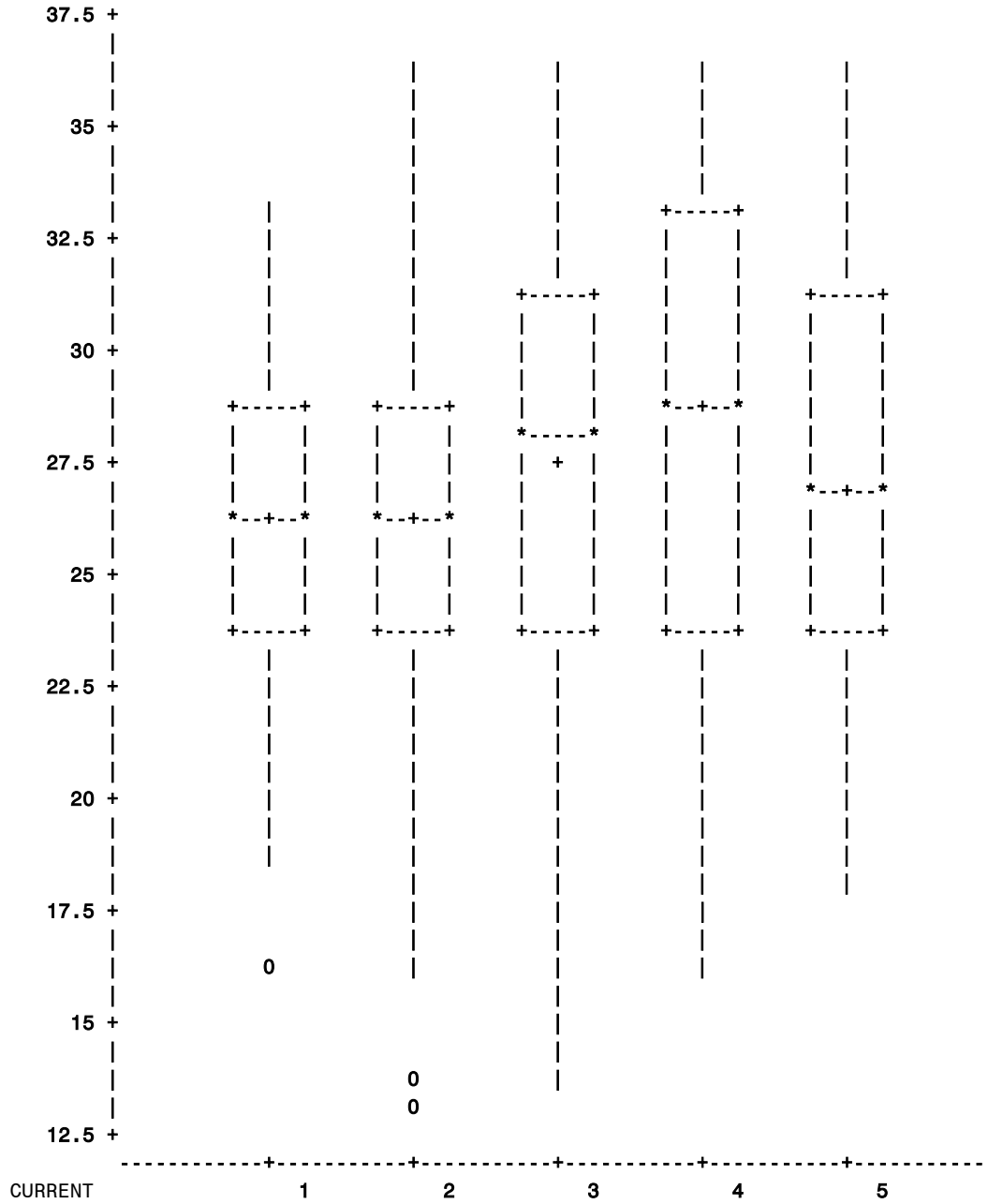
Side By Side Box Plots for TSES Total Current Site Scores



Note: Identification numbers correlate to the tables in the text.

Appendix Q

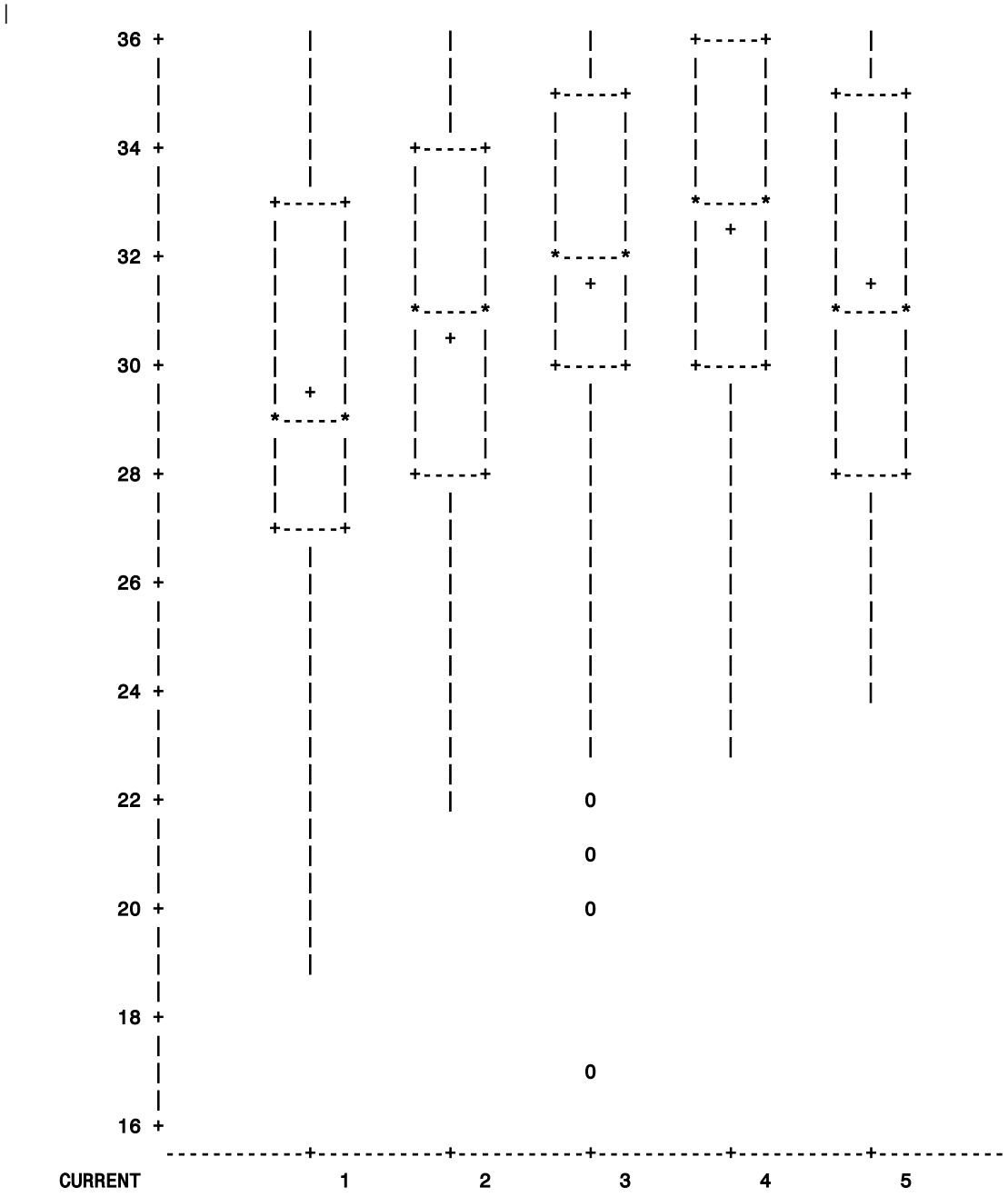
Side By Side Box Plots for TSES Student Engagement Current Site Scores



Note: Identification numbers correlate to the tables in the text.

Appendix R

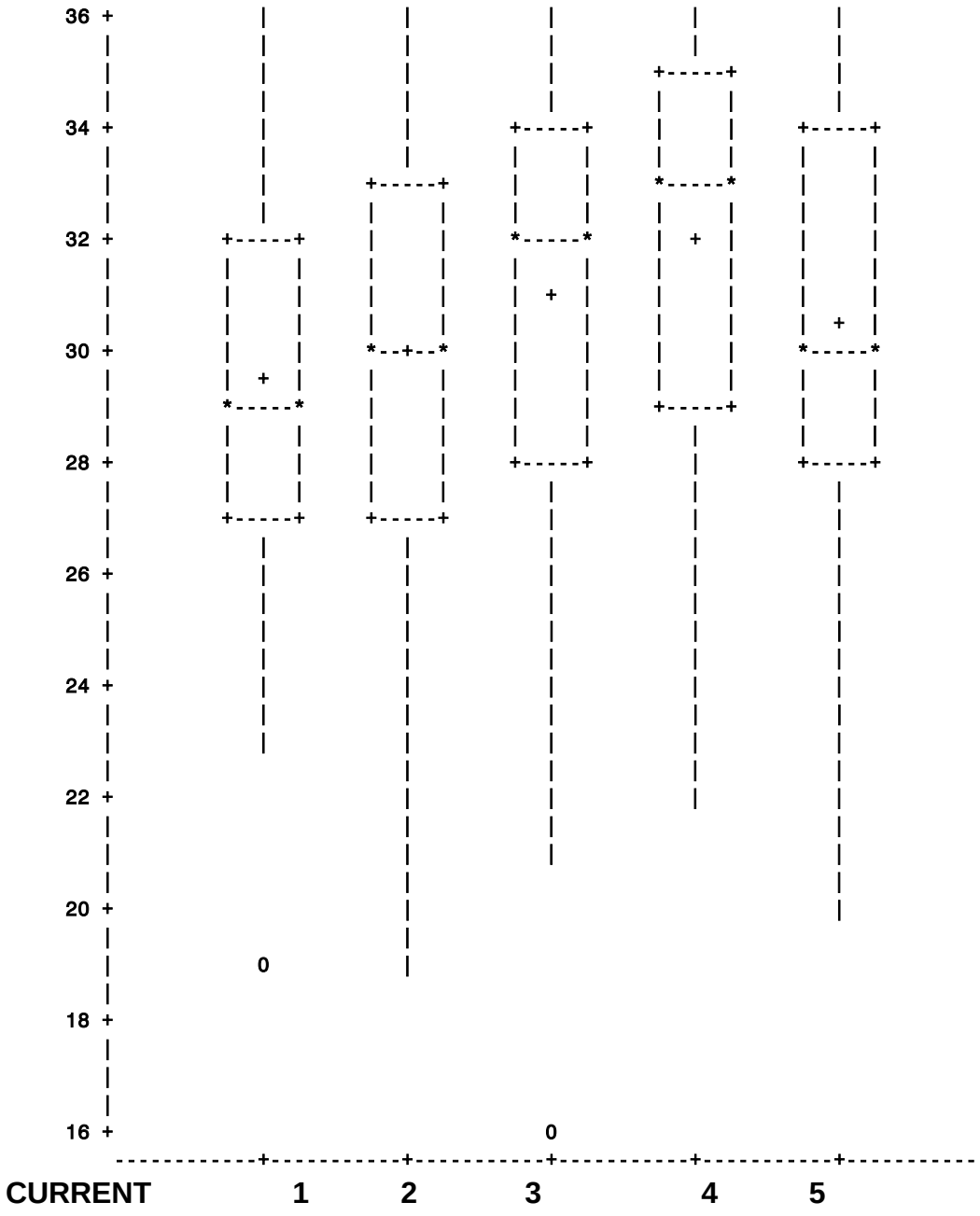
Side By Side Box Plots of Instructional Strategies for Current Site Scores



Note: Identification numbers correlate to the tables in the text.

Appendix S

Side By Side Box Plots of Classroom Management for Current Site Scores



Note: Identification numbers correlate to the tables in the text.

Appendix T

Normality of Population Distributions: TSES by Teaching Current Site

CURRENT ID #		Total			Student Engagement			Instructional Strategies			Classroom Management		
		Skewness	Kurtosis	Shapiro	Skewness	Kurtosis	Shapiro	Skewness	Kurtosis	Shapiro	Skewness	Kurtosis	Shapiro
1	**< 1 year**	-0.29	-0.593	0.962	-0.353	-0.299	0.966	-0.034	-0.411	0.934*	-0.469	-0.122	0.963
2	**>1 <3 Years**	0.07	-0.501	0.985	-0.189	0.254	0.984	-0.116	-0.935	0.956*	-0.336	-0.687	0.962*
3	**>3 <7 Years**	-0.72	0.657	0.963*	-0.591	0.225	0.964*	-0.910	0.633	0.908**	-0.867	1.098	0.931**
4	**>7 >10 Years**	-0.66	-0.423	0.937*	-0.316	-0.316	0.960	-0.762	-0.345	0.880*	-1.045	0.148	0.860**
5	**> 10 Years**	-0.30	-0.615	0.967	0.0304	-0.823	0.971	-0.270	-1.179	0.919*	-0.571	-0.521	0.912*

Note: * p< .05, ** p<001

Appendix U

Normality of Population Distributions: TSES by Age

	Total			Student Engagement			Instructional Strategies			Classroom Management		
	Skewness	**Kurtosis**	**Shapiro**	**Skewness**	**Kurtosis**	**Shapiro**	**Skewness**	**Kurtosis**	**Shapiro**	**Skewness**	**Kurtosis**	**Shapiro**
Under 30 (*n*=50)	-0.128	-0.910	0.964	-0.288	-0.280	0.983	-0.520	-0.590	0.934*	-0.239	-1.151	0.943*
Between 30 -39 (*n*=128)	-0.301	0.096	0.987	-0.285	-0.015	0.981	0.585	0.377	0.944**	-0.727	0.695	0.942**
Between 40 -49 (*n*=95)	-0.225	-0.551	0.981	-0.297	0.117	0.982	0.011	-1.166	0.930**	-0.510	-0.485	0.945*
Over 50 (*n*=120)	-0.561	-0.261	0.959*	-0.361	-0.269	0.973*	-0.725	-0.272	0.901**	-0.725	-0.231	0.916

Note: * p< .05, ** p<001

Appendix V

Normality of Population Distributions: TSES by Sex

Sex ID #		Total			Student Engagement			Instructional Strategies			Classroom Management		
		Skewness	Kurtosis	Shapiro	Skewness	Kurtosis	Shapiro	Skewness	Kurtosis	Shapiro	Skewness	Kurtosis	Shapiro
1	**Male (*n*=47)**	-0.408	0.275	0.978	-0.556	1.055	0.966	-0.126	-1.074	0.937*	-0.583	0.0785	0.925*
2	**Female (*n*=347)**	-0.311	-0.467	0.981*	-0.257	-0.275	0.982*	-0.513	-0.339	0.934**	-0.598	-0.250	0.944**

Note: * p< .05, ** p<001

Appendix W

Normality of Population Distributions: TSES by Ethnicity

	Total			Student Engagement			Instructional Strategies			Classroom Management		
	Skewness	Kurtosis	Shapiro	Skewness	Kurtosis	Shapiro	Skewness	Kurtosis	Shapiro	Skewness	Kurtosis	Shapiro
Asian (*n*=5)	-1.140	2.004	0.916	-1.546	3.148	0.843	-1.258	0.313	0.770*	0.849	2.19	0.908
Black (*n*=46)	-0.388	-0.45	0.970	-0.317	-0.284	0.970	0.127	-1.161	0.918*	-1.229	1.254	0.862**
Hispanic (*n*=41)	-0.506	-0.276	0.961	-0.592	-0.417	0.950	-0.785	0.356	**0.910***	-0.280	-0.916	0.**936***
Indian (*n*=4)	1.84	3.423	0.**761***	1.200	1.819	0.926	1.914	3.680	0.717*	0.639	1.5	0.963
White (*n*=290)	-0.296	0.375	0.985*	-0.209	-0.069	0.984**	-0.551	-0.307	0.934**	-0.563	-0.250	0.948**
Multi (*n*=8)	-0.506	0.611	0.975	-1.280	1.478	0.871	-0.551	-0.307	0.902	0.298	-0.793	0.958

Note: * p< .05, ** p<001

Appendix X

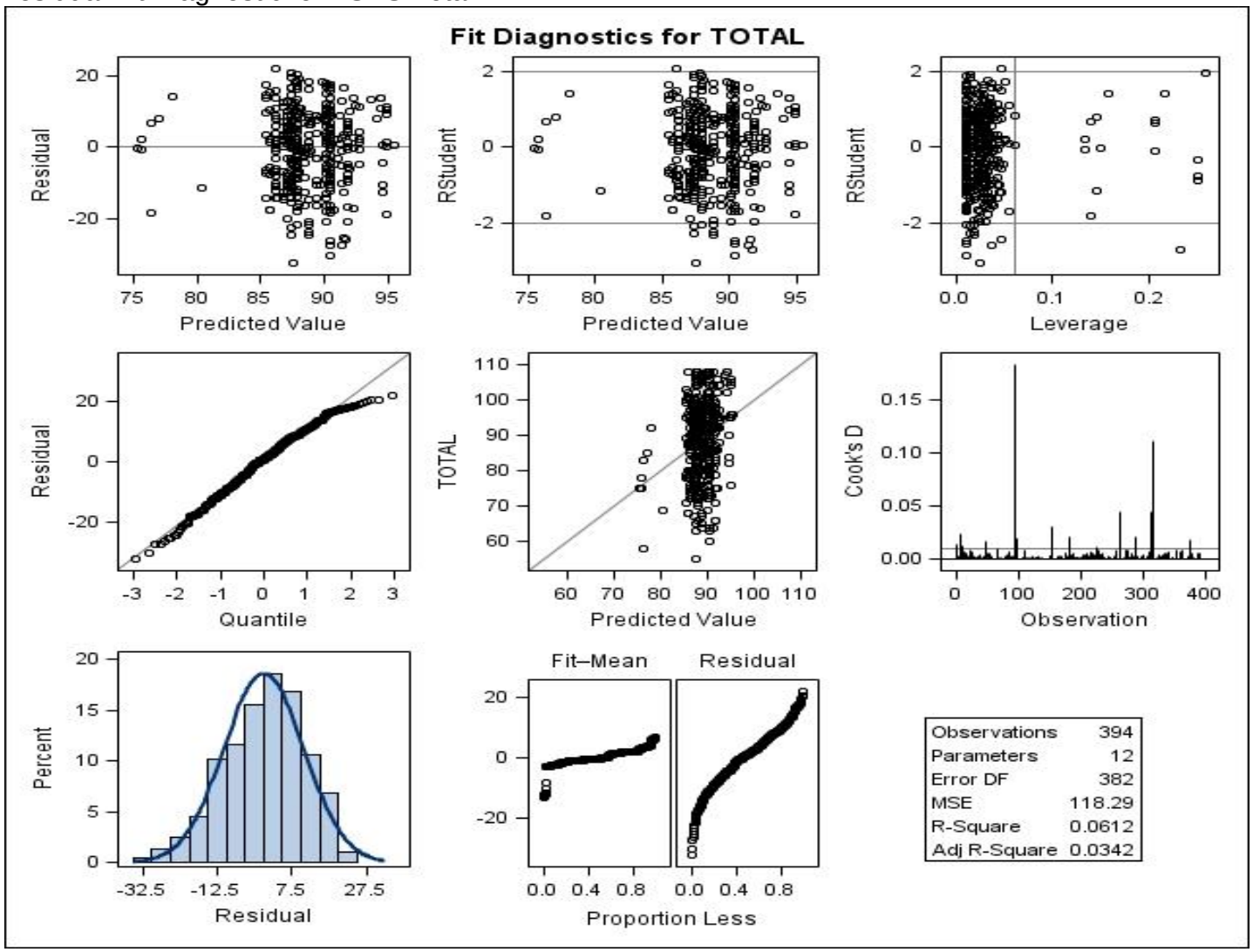
Normality of Population Distributions: TSES by Title 1 Site Eligibility

	Total			Student Engagement			Instructional Strategies			Classroom Management		
	Skewness	Kurtosis	Shapiro	Skewness	Kurtosis	Shapiro	Skewness	Kurtosis	Shapiro	Skewness	Kurtosis	Shapiro
Eligible 0 (*n*=117)	-0.369	-0.441	0.974*	-0.375	0.030	0.975*	-0.720	-0.206	0.906**	-0.731	0.272	0.930**
Eligible 1 (*n*=164)	-0.347	-0.202	0.983*	-0.280	-0.144	0.980*	-0.534	-0.121	0.943**	-0.537	-0.598	0.940**
Eligible 2 (*n*=113)	-0.243	-0.535	0.982	-0.193	-0.204	0.986	-0.064	-1.140	0.931**	-0.538	-0.264	0.95*

Note: * p< .05, ** p<001

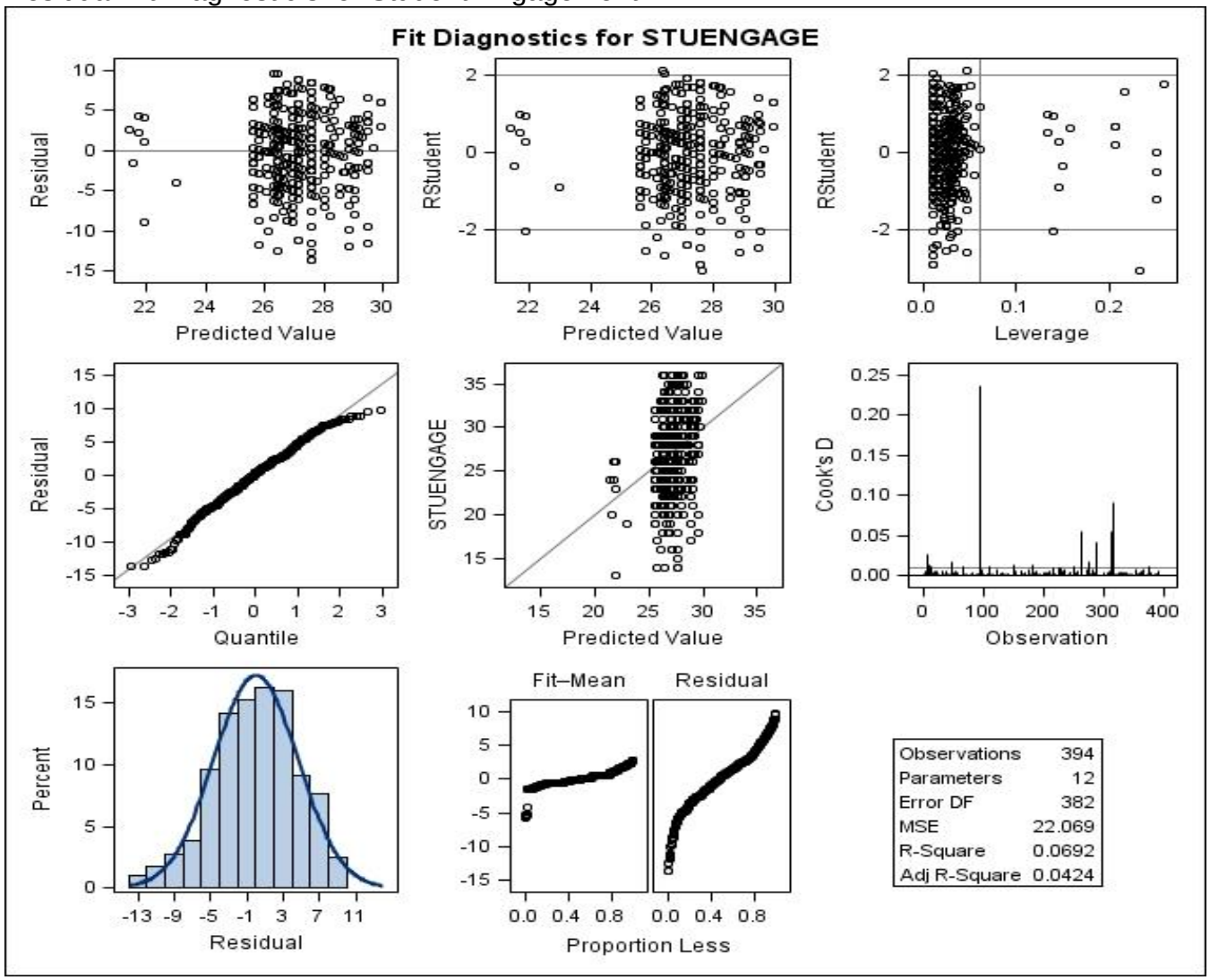
Appendix Y

Residual Fit Diagnostic for TSES Total



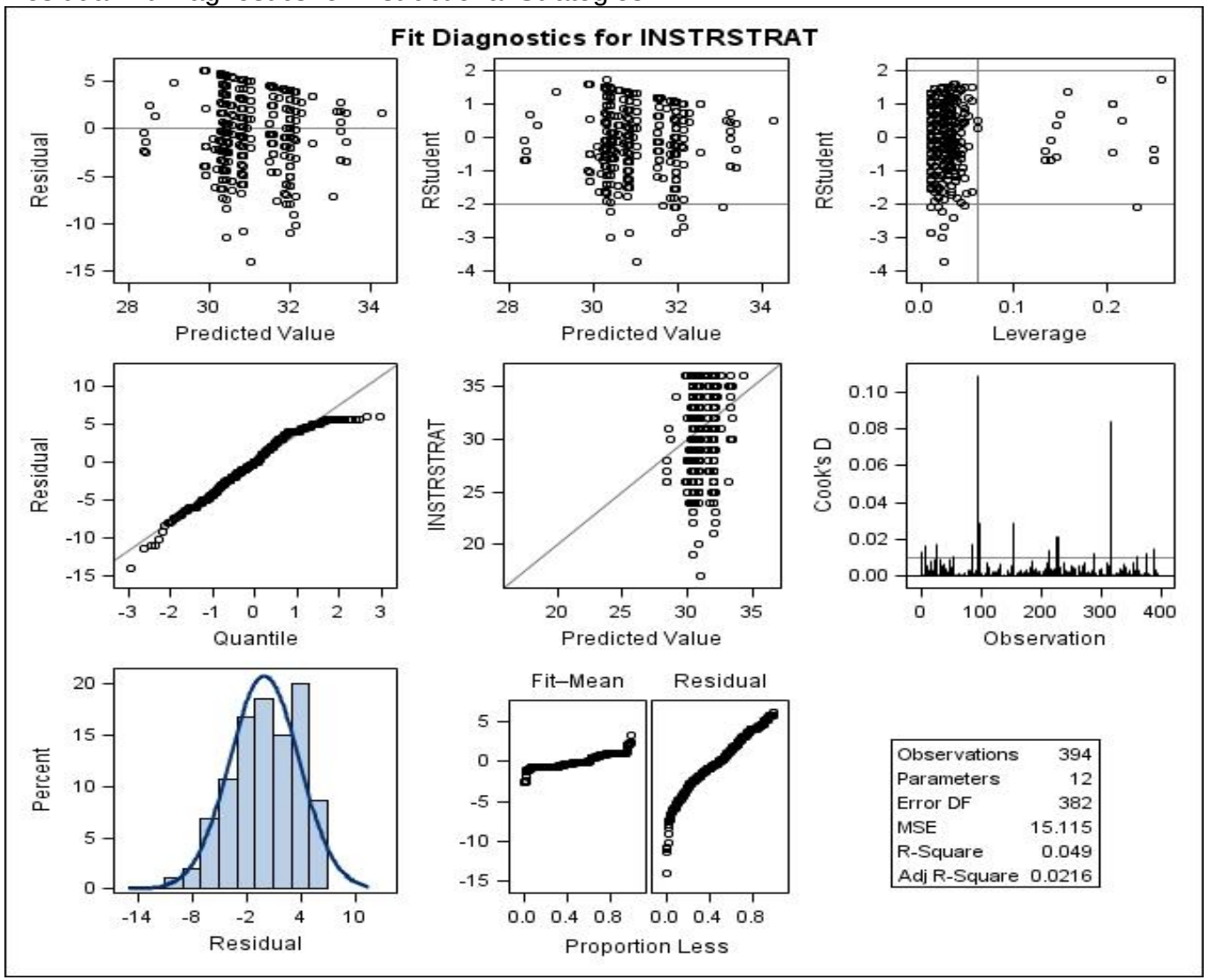
Appendix Z

Residual Fit Diagnostic s for Student Engagement



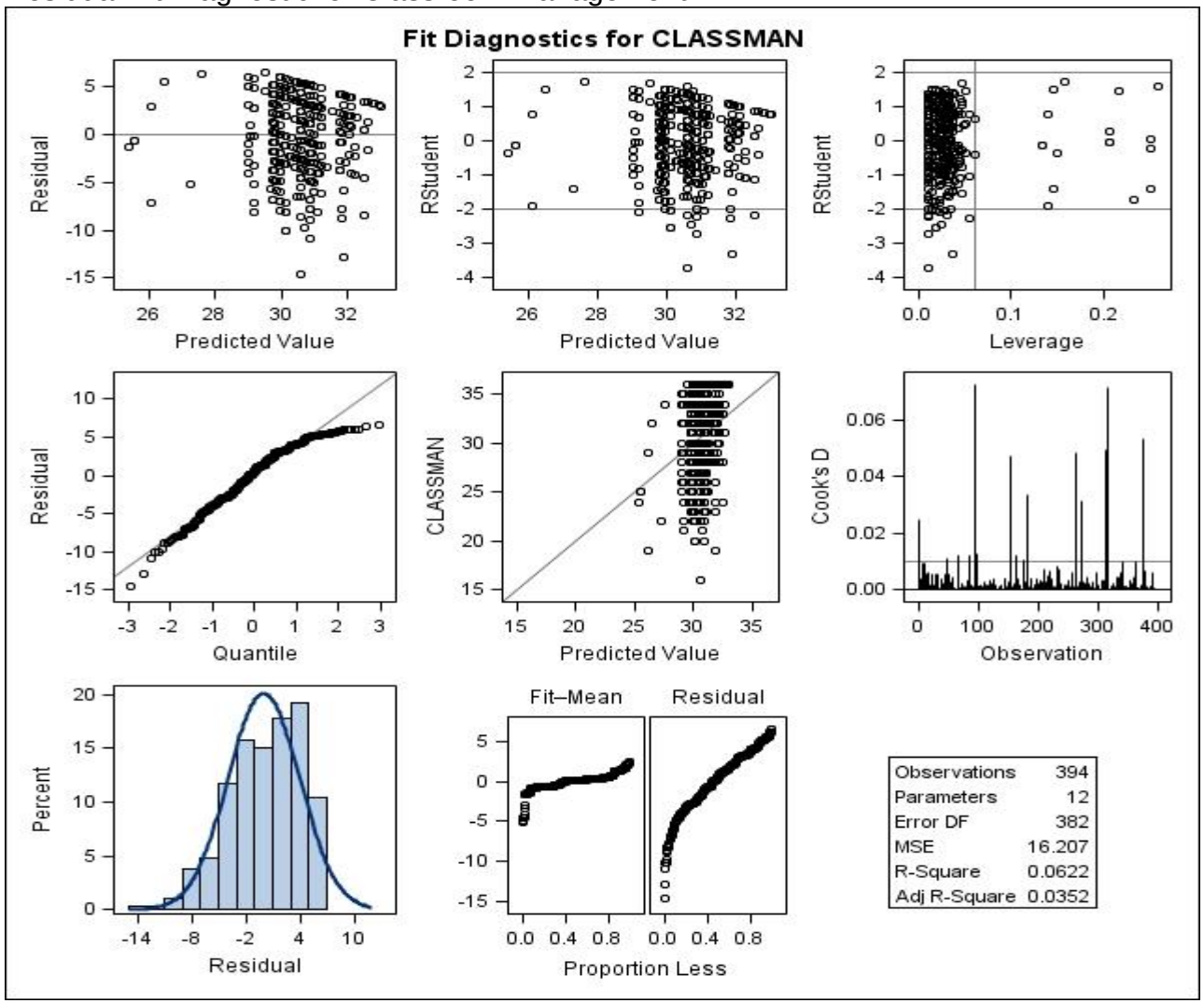
Appendix AA

Residual Fit Diagnostics for Instructional Strategies



Appendix AB

Residual Fit Diagnostic for Classroom Management



Appendix AC

Number of Responses by site and Free/Reduced Lunch Percentages

Site Number	Number of Responses	Free/Reduced Lunch % 09-10 school year
38	6	10.13
28	14	18.22
9	6	22.65
55	8	23.47
8	17	29.36
52	11	30.93
14	5	31.02
33	17	36.77
4	17	39.09
37	5	43.95
54	9	43.98
23	16	44.46
3	5	46.63
19	3	48.08
26	8	52.29
11	11	52.55
36	4	55.12
13	16	56.83
39	9	58.25
44	10	58.44
48	22	60.33
7	9	65.2
34	7	66.18
1	14	68
50	6	69.78
17	11	72.24
45	7	72.66
56	1	72.73
27	7	74.16
6*	6	75.65
31*	7	77.16

Site Number	Number of Responses	Free/Reduced Lunch % 09-10 school year
38	6	10.13
25*	6	78.56
29*	4	78.58
18*	9	79.7
40*	1	81.33
41*	14	82.02
53*	12	83.99
20*	6	84.34
12*	7	87.9
15*	2	87.99
30*	12	89.55
35*	7	90.47
43*	8	93.93
16*	6	95.03
51*	6	95.74

Note: * = Free/Reduced Lunch equivalent to qualify for Title I status.

Appendix AD

Multiple Regression Table for Total

Number of Observations Read 394
Number of Observations Used 394

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	2945.90184	267.80926	2.26	0.0111
Error	382	45185	18.28575		
Corrected Total	393	48131			

Root MSE	10.87593	R-Square	0.0612
Dependent Mean	88.69797	Adj R-Sq	0.0342
Coeff Var	12.26175		

Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|	Squared Semi-partial Corr Type II
Intercept	1	87.71679	2.30603	38.04	<.0001	
Eligible 1	1	0.34864	1.62502	0.21	0.8302	0.00011312
Eligible 2	1	1.64615	1.32063	1.25	0.2133	0.00382
Male	1	-0.62241	1.74395	0.36	0.7214	0.00031304
Between 30 and 39	1	0.75562	1.81528	0.42	0.6775	.00042583
Between 40 and 49	1	0.29372	1.92801	0.15	0.8790	0.00005704
Over 50	1	3.31481	1.83531	1.81	0.0717	0.00802
Indian	1	2.67458	5.58236	-0.48	0.6321	0.00056413
Black	1	3.93440	1.79686	2.19	0.0292	0.01178
Asian	1	3.17852	4.95992	0.64	0.5220	0.00101
Multiracial	1	10.02915	3.99739	-2.51	0.0125	0.01547
Hispanic	1	4.40134	1.85734	2.37	0.0183	0.01380

Note: Intercept or referent group included white females under the age of 30 from non-Title 1 schools.

Appendix AE

Multiple Regression Table for Student Engagement

Number of Observations Read	394
Number of Observations Used	394

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	11	626.89605	56.99055	2.58	0.0036
Error	382	8430.16994	22.06851		
Corrected Total	393	9057.06599			

Root MSE	4.69771	R-Square	0.0692
Dependent Mean	27.08629	Adj R-Sq	0.0424
Coeff Var	17.34351		

Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|	Squared Semi-partial Corr Type II
Intercept	1	27.12605	0.99606	27.23	<.0001	.
Eligible 1	1	0.63801	0.70191	-0.91	0.3639	0.00201
Eligible 2	1	-0.81708	0.57043	-1.43	0.1528	0.00500
Male	1	-0.18264	0.75328	-0.24	0.8086	0.00014324
Between 30 and 39	1	-0.52395	0.78408	-0.67	0.5044	0.00109
Between 40 and 49	1	0.16167	0.83278	0.19	0.8462	0.00009183
Over 50	1	0.62062	0.79274	0.78	0.4342	0.00149
Indian	1	-0.70122	2.41123	-0.29	0.7714	0.00020607
Black	1	2.39985	0.77613	3.09	0.0021	0.02330
Asian	1	0.99397	2.14237	0.46	0.6429	0.00052450
Multiracial	1	-4.57985	1.72662	-2.65	0.0083	0.01714
Hispanic	1	1.91124	0.80225	2.38	0.0177	0.01383

Note: Intercept or referent group included white females under the age of 30 from non-Title 1 schools.

Appendix AF

Multiple Regression Table for Instructional Strategies

Number of Observations Read 394
Number of Observations Used 394

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	11	297.46222	27.04202	1.79	0.0541
Error	382	5773.95149	15.11506		
Corrected Total	393	6071.41371			

Root MSE	3.88781	R-Square	0.0490
Dependent Mean	31.06345	Adj R-Sq	0.0216
Coeff Var	12.51570		

Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|	Squared Semi-partial Corr Type II
Intercept	1	30.33732	0.82434	36.80	<.0001	.
Eligible 1	1	0.16288	0.58090	0.28	0.7793	0.00019573
Eligible 2	1	-0.06556	0.47208	-0.14	0.8896	0.00004801
Male	1	0.06315	0.62341	0.10	0.9194	0.00002555
Between 30 and 39	1	0.45168	0.64891	0.70	0.4868	0.00121
Between 40 and 49	1	-0.07465	0.68920	-0.11	0.9138	0.00002920
Over 50	1	1.57202	0.65607	2.40	0.0170	0.01429
Indian	1	-1.67332	1.99552	-0.84	0.4023	0.00175
Black	1	-0.40241	0.64232	-0.63	0.5314	0.00097713
Asian	1	2.29154	1.77302	1.29	0.197	0.00416
Multiracial	1	-1.83284	1.42894	-1.28	0.2004	0.00410
Hispanic	1	1.24846	0.66394	1.88	0.0608	0.00880

Note: Intercept or referent group included white females under the age of 30 from non-Title 1 schools.

Appendix AG

Multiple Regression Table for Classroom Management

Number of Observations Read 394
Number of Observations Used 394

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	11	410.47464	37.31588	2.30	0.0097
Error	382	6191.10912	16.20709		
Corrected Total	393	6601.58376			

Root MSE	4.02580	R-Square	0.0622
Dependent Mean	30.54822	Adj R-Sq	0.0352
Coeff Var	13.17852		

Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|	Squared Semi-partial Corr Type II
Intercept	1	30.25342	0.85359	35.44	<.0001	.
Eligible 1	1	0.12649	0.60151	0.21	0.8336	0.00010856
Eligible 2	1	-0.76351	0.48884	-1.56	0.1191	0.00599
Male	1	-0.50292	0.64554	-0.78	0.4364	0.00149
Between 30 and 39	1	0.82789	0.67194	1.23	0.2187	0.00373
Between 40 and 49	1	0.20669	0.71367	0.29	0.7723	0.00020592
Over 50	1	1.12218	0.67935	1.65	0.0994	0.00670
Indian	1	-0.30004	2.06635	-0.15	0.8846	0.00005176
Black	1	1.93696	0.66512	2.91	0.0038	0.02082
Asian	1	-0.10700	1.83595	-0.06	0.9536	0.00000834
Multiracial	1	-3.61646	1.47966	-2.44	0.0150	0.01467
Hispanic	1	1.24164	0.68751	1.81	0.0717	0.00801

Note. Intercept or referent group included white females under the age of 30 from non-Title 1 schools.

Appendix AH

Qualitative Comments for Positive Factors

The 'Other' Positive Factors that Influence Ability Legend

Color Coding of Grouped Theme	**Number of Comments**
Personal Characteristics	10 Comments
Personal Experiences	7 Comments
Knowing Students	3 Comments
Support Structures	3 Comments
Research	2 Comments
Pedagogical Freedom	2 Comments
Total	27 comments

- **Reading coach**
- **Research**
- **I felt an spiritual reason to teach - not for pay or for summer...but I was spiritually driven to be a teacher so I became one and strive to be outstanding.**
- **relationship with students**
- **Hands on learning opportunities outside of the classroom**
- Being a **parent**
- My own teachers as a high/middle schooler--**Experience**
- **Love of teaching**

- **Natural Ability**
- **Personality**
- **Mentors**
- **Family**
- **Self Reflection**
- Having **children of my own**, being able to **remember what it was like to be their age**, getting to **know them and their circumstances** (and) **having empathy for their personal situations**
- I am a **Parent**
- **Parent** of school aged kids
- **Flexibility in the classroom to do whatever is effective**
- **I have a strong desire to teach**.
- Industrial **Experience**
- **Teacher enthusiasm,(and) professional attire, yes it makes a differen**ce
- **Research**
- **Knowing (STUDENTS)** the kids and relating to them on their level
- **Attitude is all.**
- **My own motivation and love of my profession**

Appendix AI

Qualitative Comments for Negative Factors

The 'Other' Negative Factors that Influence Ability Legend

Tiered Level	Theme	Frequency
District/State		
	District/State Policies	9
	Curriculum	7
	Assessments	3
School		
	Planning Time	12
	Paperwork	10
	Meetings	6
	School Culture	4
	Technology	3
	Professional Development	2
Class		
	Parent Involvement	7
	Students	4
Total		**67**

- OVER **testing** of students and **paperwork**
- So many extraneous things to do (**coverage**, **paperwork**, etc.)
- County **policies**, mandated teaching programs (Springboard) – **Curriculum**

- All can be negatives....
- Lack of **Time** for prep
- Springboard **Curriculum**
- None
- None
- None
- Bad press from county that somehow "rubs off" on all schools/teachers/admin. (**School Culture).**
- Excessive **meetings**
- Student behavior / continuous disruption (**Students**)
- Quarterly and monthly county level **assessments** and required from state
- **Meetings**; **paperwork**
- Lack of sufficient planning **Time** to actually plan.
- Lack of **parent** involvement
- Limited use of **technology** - the need to be **trained** (**Professional Development)** to use the technology.
- Planning **Time** runs short; and **parents** are busy with other home issues.
- I will do my absolute best regardless of the environment.
- lack access to **technology**
- Confusion and lack of communication **(School Culture)**
- District level administration **(policies)**
- I do not allow outside negative influences to affect my teaching.
- Spring Board—**Curriculum**

- Rigid mandated **Curriculum**
- planning **Time** is so short it is not effective
- too many **meetings** that add useless **paperwork** to the job
- Inexperienced ESE teachers in a FUSE situation **(Professional Development)**
- None
- Too much **Curriculum** and not enough **Time**
- lack of **parent involvement**
- District pressure to NOT discipline (no referrals allowed for excessive behavior) – **policies**
- Negative **student motivation** and lack of **parent involvement**. Also, not enough PLANNING **Time**!!!
- When **students** don't care
- Grades—**testing?**
- None
- Mandated **Curriculum**
- None
- Documentation and **paperwork** that are not directly student related
- The **paperwork** and bureaucracy—**policies**
- Not sure
- Lack of **Time** to prepare and to grade
- Planning **Time** seems to be consumed by many other obligations

- Some **students** should have an alternate school setting. To achieve success. students (*statement ends there)*
- Who's parents are not respectful or supportive **–(parent involvement)**
- Lack of parent support for what teachers are trying to accomplish in the classroom **(parent involvement)**
- Increased amount of **paperwork**, etc... required by state and district
- We need more **Time** to grade and plan
- Although we have some excellent classes available, I would love to have more training opportunities-- **Professional Development**
- N/A
- A negative **school culture**
- New trends for on-line instruction **(technology)**
- Too many clerical duties **(Paperwork)**
- Certain programs the school chooses to adapt (**Curriculum**)
- Conflicting information from downtown. – **policies**
- A plethora of **meetings** and **paperwork**
- District decision making; State decision making—**policies**
- One prep **Time** for six classes
- Too many **meetings,** too much **paperwork**, too many hoops, not enough planning **Time**
- Some parents make up excuses for their kids - so parents aren't always helpful
- **Student** attendance

- Inconsistency between the district's own guidelines, and their subsequent support of teachers/admin., once we try to implement discipline. -- **policies**
- Fewer **meetings** more planning **Time**