Dynamics of Teacher Self-

work is for all the missed evenings on the couch with my beloved, who when I

Acknowledgements

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.

this guy is tolerant of non-

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

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teacher efficacy scores. Implicats] TJETBT1 0 0 1 238.02 7068196oipcae a Tm Tm 1 237achch

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
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 hers 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

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

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 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

2003). The 1994-

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 (Ingersoll, 2003). More currently, teacher attrition and migration statistics from the 2007-2008 school year re of the 3,380,300 public school teachers, 84.5 percent for the 2008-2009 school year. However, those who did not remain at their school site are considered by some

f 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

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

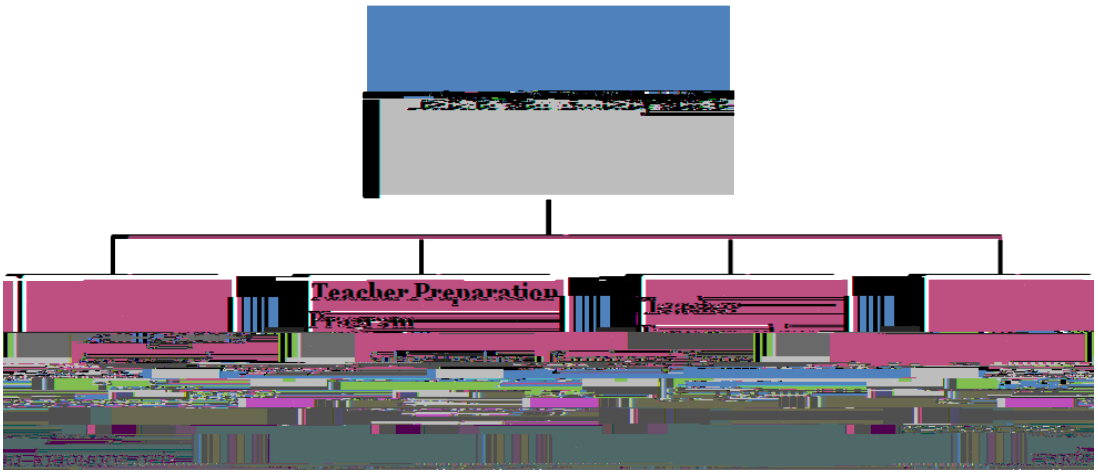

Figure 1 Conceptual Model of the Study

4. To what extent can differences in

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 social learning theory in general and locus of control as well as general social cognitive theories and self-efficacy, which are used to frame the

Bandura goes on to suggest

component cognitive, social, and behavioral skills must be organized into integrated courses of acti 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 in he 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- 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 has become an important construct in teacher education encouraging 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 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 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 (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 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 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 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 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

Assumptions of the Study

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

1 -Efficacy Scale (TSEFS) accurately captured the characteristics 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

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

Self-efficacy

T

organize and execute a course of action required producing

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

s sense of her/his own efficacy in the classroom and with students influences not just student achievement, but also a teacher 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,

the present study to the ongoing dialogue in the literature, and to provide a

Creswell,

1994, p. 37). Given that social cognitive and social learning theories are the psychological groundwork upon which self-

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

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,

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.

(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

arousal in stressful and taxing situations as an ominous sign of vulnerability and

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

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

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

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

Responsibility for Student Achievement (RSA) scale created by Guskey (198),

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

y expectation as social cognitive learning theory the Ashton and Webb (1986) scale revealed the factor centering on

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

Phase 1 analysis used the 30-item scale and was administered to 208 elementary (K-6) teachers. Factor analysis revealed that the two-factors

-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

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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

(Gibson & Dembo, 1984). Measures used were the teacher-use-of-time measure and a question-answer-feedback sequence measure

really try hard, I can get through to even the most difficult or unmotivated

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

envalues 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)

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

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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 teacher -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 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

A second performance study containing 70 preservice and 147 inservice teachers yielded eight factors with eigenvalues of greater tha

2, instruction, management, and engagement

Tschannen-Moran, Woolfolk-Hoy, and Hoy in 1998 was used. This instrument has been offered as another model for understanding the relationship between

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Teacher Experience

Research discussing a teacher s time-in-the-

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

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

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

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 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 perceived and subsequently report

Traditional Four Year Programs

Traditional four year preparation programs involve three primary components: liberal arts education, professional program of study, and practical experience

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 M Arts in Teaching (MAT), and (M. Ed) programs which some accredited institutions offer. In some cases, these programs are designed to

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

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

program offers candidates who complete the requirements a opportunity to take

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 ofptheho213(P)-66<009.45e (S)5(ta)-5(t)8<m5(eho2 i-5(e

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

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

Structured Reading Curriculum

The state, in which the participants lived, required each school district to submit a comprehensive research lan 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 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

SpringBoard teachers. However, in terms of teacher efficacy, Westat reported SB teachers agreed or strongly agreed to the

that places the characteristics of the teachers in context of their respective organizations. In doing so, he corroborated what others found that teachers tend

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

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

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-

Chapter Summary

This chapter provides a review of the literature regarding the concept of self-

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 -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 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

Research Hypotheses

-efficacy will be reported as significantly higher than Alternative Certification Pathway/Program teachers.

-efficacy will be reported as significantly higher than Language Arts teachers.

-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

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- (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

4. Power of the test (1-)

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

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.

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

versions of the TSES) exist

with 24- -

- 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 and the total scores for both forms

Therefore, both the Total score and Subscale scores were addressed in this analysis. Discussions with the supervisor from the school

Assessm

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

-item or short TSES in addition to the TDQ

Teacher Demographics Questionnaire

The Teacher Demographic Questionnaire (see Appendix A) was created

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 over study with Reading coaches and SALs respectively.
September	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 o first follow-up emails- blanket email sent to all potential participants Second week in December o second follow-up emails go out o email SALs and Reading coaches thanking them for their continued support Third week in December o 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

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 in

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

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 ther ory 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

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 (lynh0 2). Given that issues of non-

variables. Multiple regression analysis was used for

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

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

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-

efficacious compared to first and fourth-year teachers?

4. To what extent can differences in Teacher Self-Efficacy be associated

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

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).

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

Schools that reported a 40% student population eligible for free/reduced lunches

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 s . 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

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 E_{ij} *J* populations are independent
2. Have a normal distribution with a population mean (expectation) of 0
3. Have a ^{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

as part of each ANOVA analysis. Given that the design of the ANOVA was balanced and

3.

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. *X*-axis and *Y* values on the vertical axis

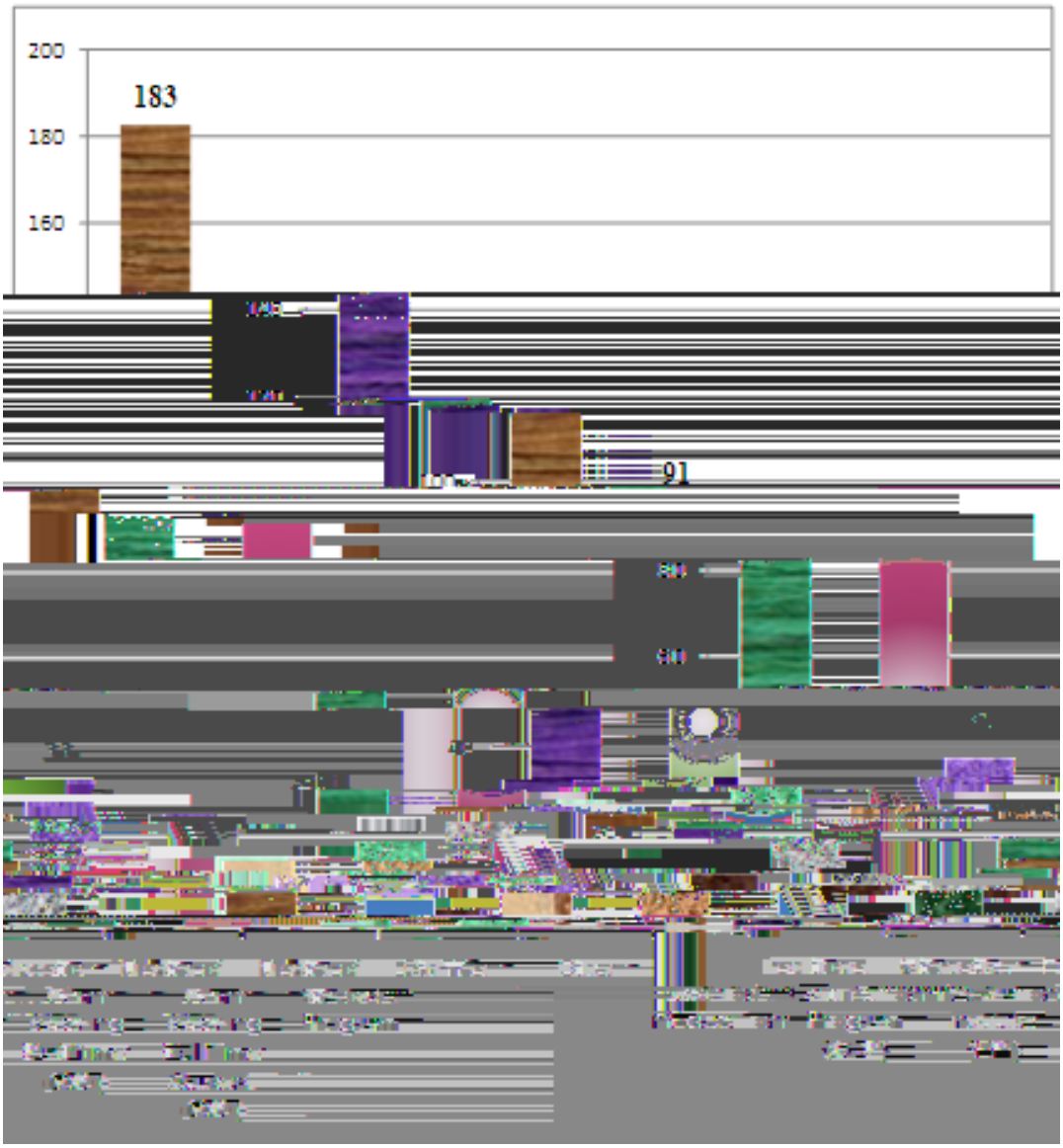

Figure 2 Percentages of Participants by Preparation Method

Illustrated in Table 5

pattern until the third subcategory, Classroom Management. In this last

means than participants from the 5th

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					

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

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

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

average 3.99 points higher than an EPI prepared participant. Finally, a traditionally prepared 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				

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 -Time Master of Art in teaching, Alternative Certification Program, or Educator Preparation Institute preparation.

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

Simple descriptive statistics of

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, either , Reading , Language Arts , and oth , the t-test was no longer the appropriate statistic to run (Glass & Hopkins, 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

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.

that, participants in the Over 10 years of Anywhere experience category scored

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

of variance, again

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 nSt/F66(n)-61 108.02 280.97 Tmegies (

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

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

Rourke, et al., 2005).

SD 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*

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

Table 12

ANOVA Results for Teaching Experience at Current Site

	Sum of Squares	***df***	***F Value***	***P-Value***

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).

As illustrated in Table 13, the three categories of Total, Instructional Strategies, and Classroom Management received the highest average scores *n*= 120, M= 90.58, 32. 0, 30.97 respectively) while

- ere the most efficacious in the

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)**								

Table 15

Mean TSES scores by Participant Ethnicity

	Total TSES Mean	SD	Student Engagement Mean	SD	Instructional Strategies Mean	SD	Classroom Management Mean

accounts and therefore, would not be aware of any invitation for participation. In total,

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

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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

dividual 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 (*p*= .0125), Multiracial participants (-10.03, *p=.0183*) and Black participants (*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-

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

Table 17

TSES Total

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 ethnicity42 Tm.pe0ificall

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

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

Regression analysis of the final TSES subscale, Classroom Management,

was not a good fit either (S >.e>> B1 4 BT/F1 12 T251.45 700.4208.02 62-3(r ()4(S >.e>> BDC

Table 20

TSES Classroom Management Multiple Regression Parameter Estimates

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

n

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

n= 16) while Eligible 1 male

n= 16) to have impacted teaching most

positi *)* as the most impactful category on their teaching. When sectioned out into Title 1 eligibility

eligibility 0, 1, or 2 status (*n*= 173, 41, 81 respectively).

The least frequently identified factor (*n*=148*)* for males and females was

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,

n= 8, 3, 5 respectively) as the least positively impacting

) 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

n = 178) while female participants from

impactful of the teaching (*n*= 22, 27)

Positive Factors	ELIGIBLE	Males	Females	Grand Total		%	Total %
	2	13	58				

influencing their teaching ability. Similarly, two participants (one as an extension of a parent comment and one as a separate respondent) originally grouped

undt nsion

participants (50.76%) identified Student Motivation as a primary factor that

participants from each of the Title

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 *n* *n*

n *n* *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;

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		

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

Table 25.

Summary of Significant Findings by Research Question

Research

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

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

n,

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-e

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

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

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 t 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-
efficacious compared to first and fourth-year teachers?

4. To what extent can differences in Teacher Self-Efficacy be associated
, 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

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).

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

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

increased efficacy toward their profession over those who did not (particularly EPI participants).

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-

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

their certification option providing a clarifier suggesting they were a current ACP participant.

Still too, Woolfolk-Hoy and Burke-Spero (2005) r 529.27 ren

programs (such as alternative certification summer institutes) were less satisfied

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

Costigan). This is to say, efficacy scores

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

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.

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 efficacy score. However, qualitative narratives provided by participants were helpful in shedding l 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 riculum being used and two participants specifically 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 first- ints regarding the rigidity of SB coupled with classroom walk-through observations by site administration and

efficacy levels than those with less than three years experience (Tschannen-Moran & Woolfolk-Hoy, 2007) and overall teaching experience (or for this study, teaching

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.

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 T

Still too, the notion o

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.

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

1 ineligible schools (*n*= 21). Schools that reported a student population of 40% to

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

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

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?

Table 26

	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

A

emphasis on Mastery Experiences and Enrichment Coursework. The section

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

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,

(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

reported here of participants based on current site experience was highest

Self-perceived learning efficacy affects how much

eff

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

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

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 of Arts teachers and 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

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 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

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 tra

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 teache

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

. 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

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

r 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

and

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 -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 do you believe should have been offered during your preparation to bette 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

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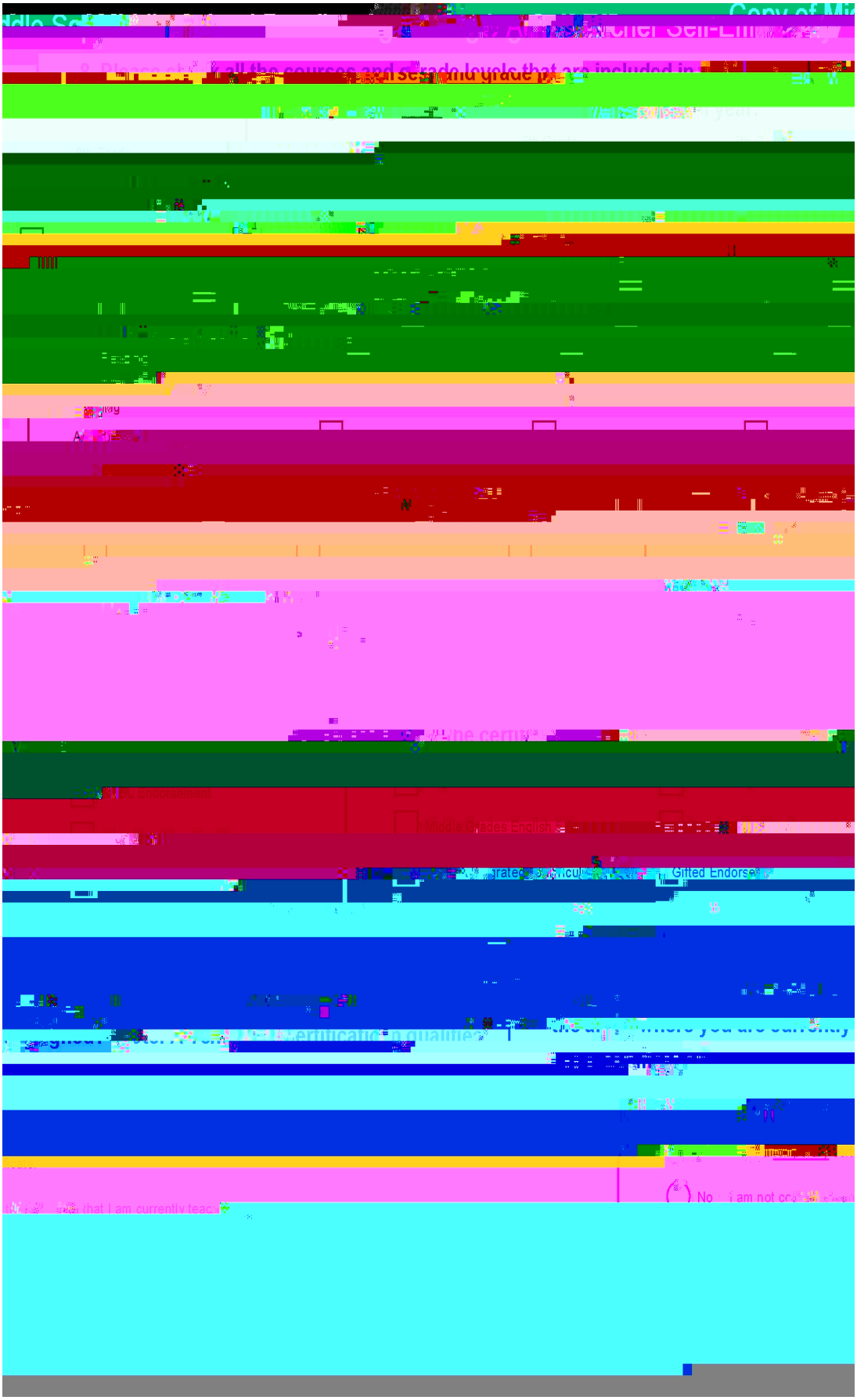
sense of self-efficacy, commitment teaching, and preparedness to teach.

Appendices

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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

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

Appendix D

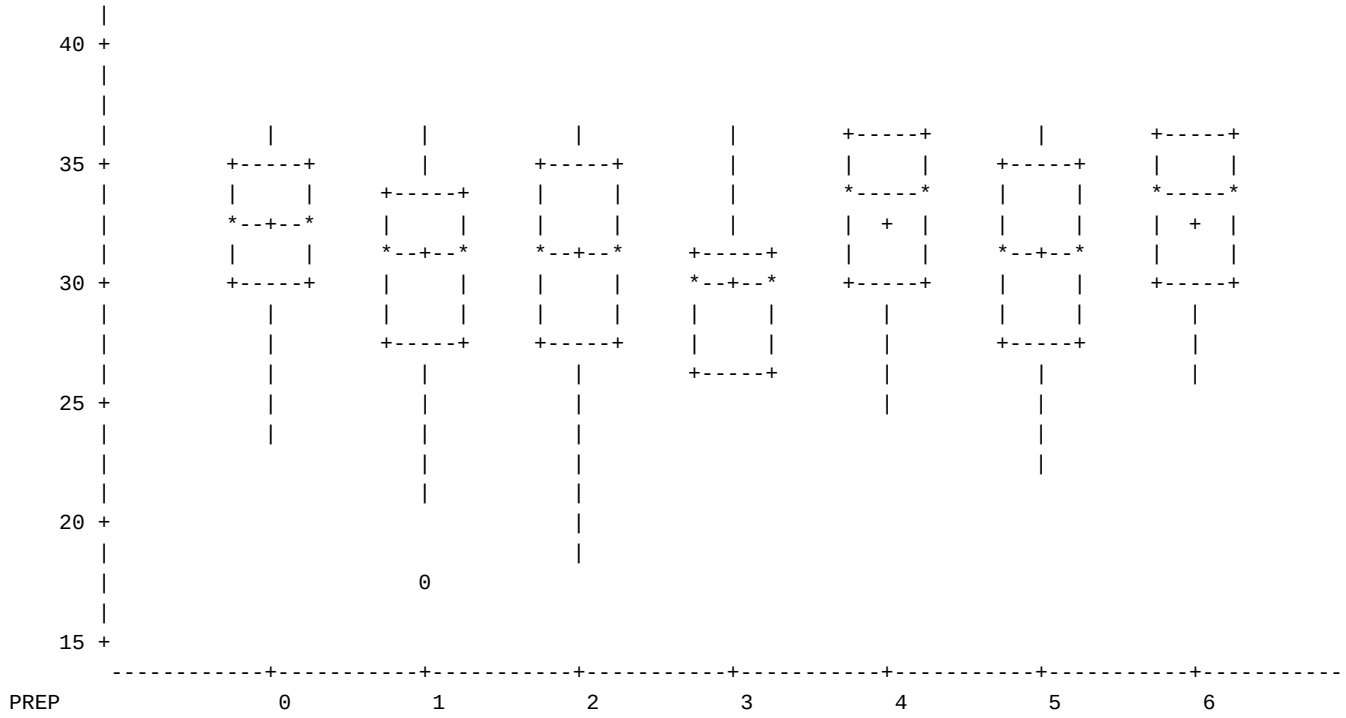
Timeline for Survey Distribution:

Appendix E

Normality of Population Distributions: TSES by Preparation Method

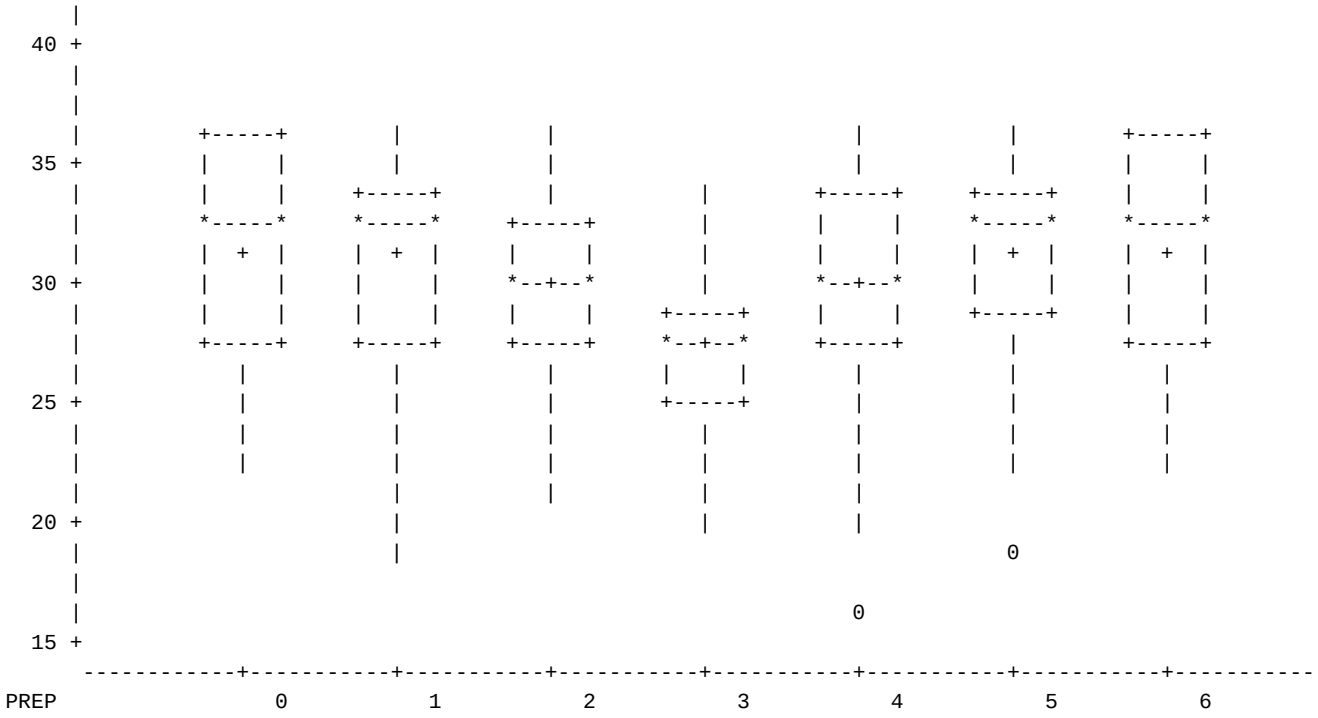
ID #	Total			Student Engagement			Instructional Strategies			Classroom Management		
	Skewness	Kurtosis	Shapiro	Skewness	Kurtosis	Shapiro	Skewness	Kurtosis	Shapiro	Skewness	Kurtosis	Shapiro

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

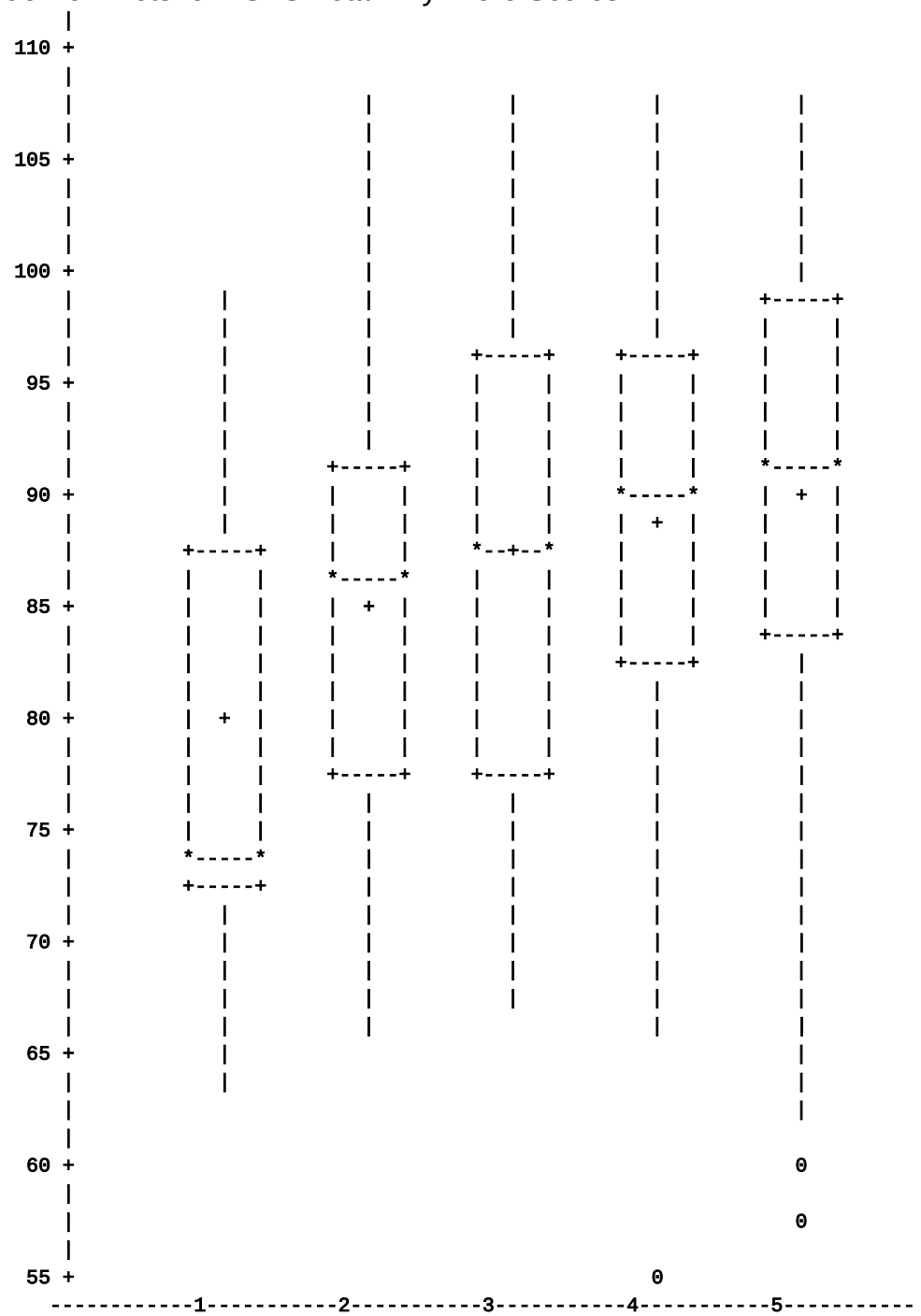
Normality of Population Distributions: TSES by Content Area

	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	

ement			Instructional Strategies			Classroom Management		
Shapiro	Skewness	Kurtosis	Shapiro	Skewness	Kurtosis	Shapiro	Skewness	Kurtosis

Appendix L

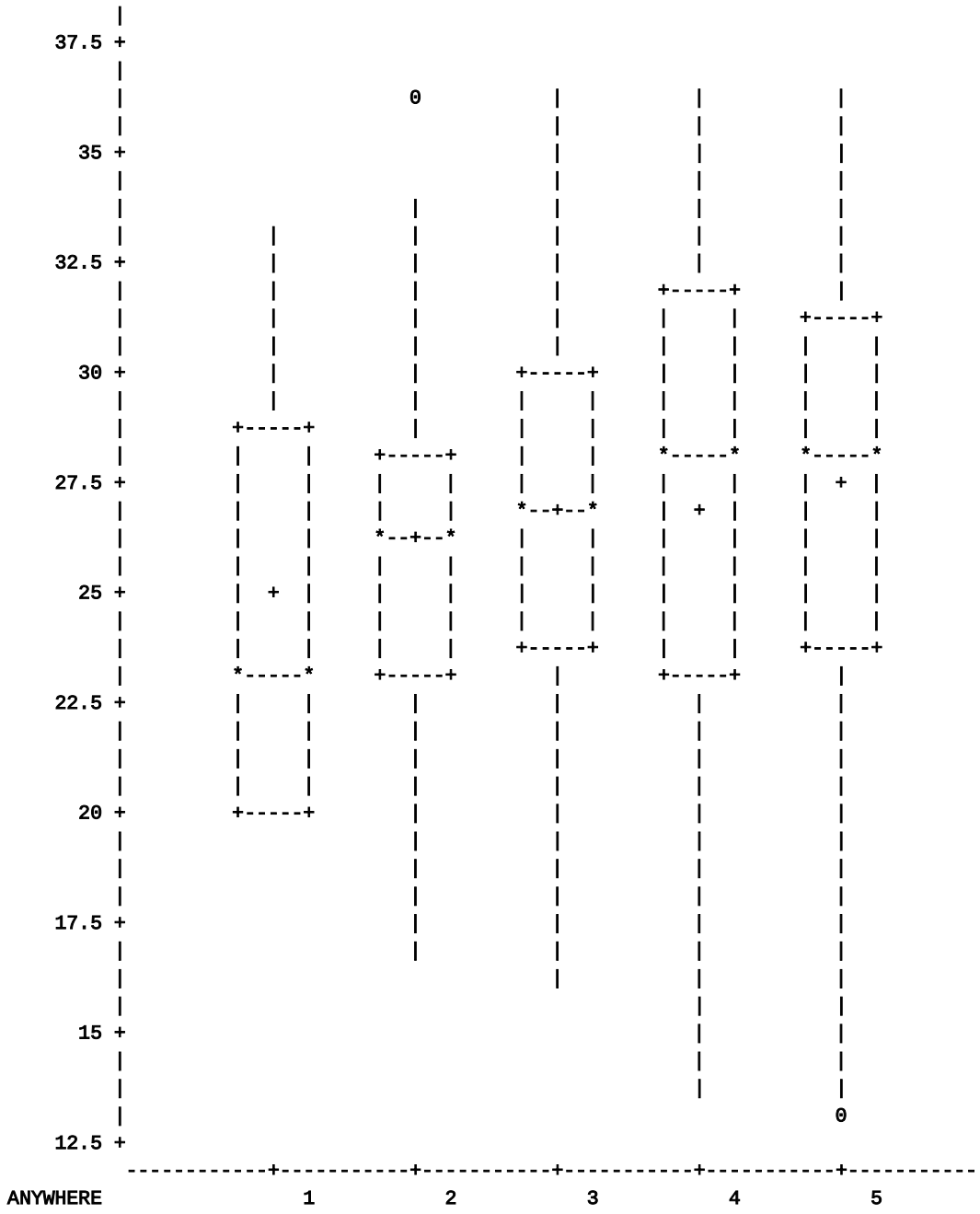
Side by Side Box Plots for TSES Total Anywhere Scores



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

Appendix M

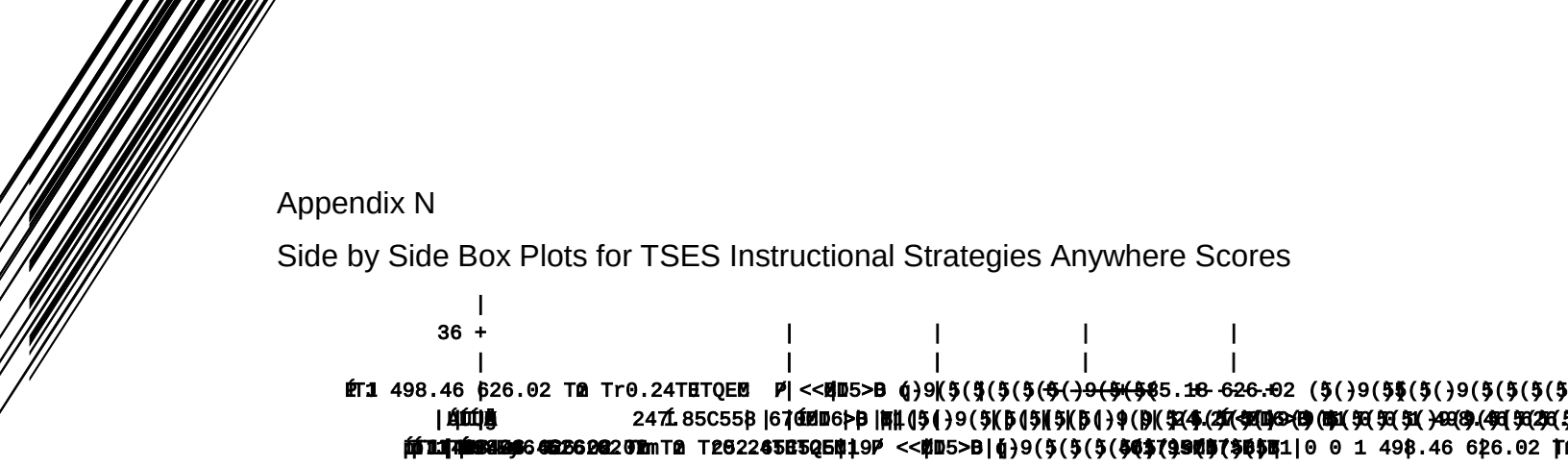
Side by Side Box Plots for TSES Student Engagement Anywhere Scores



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

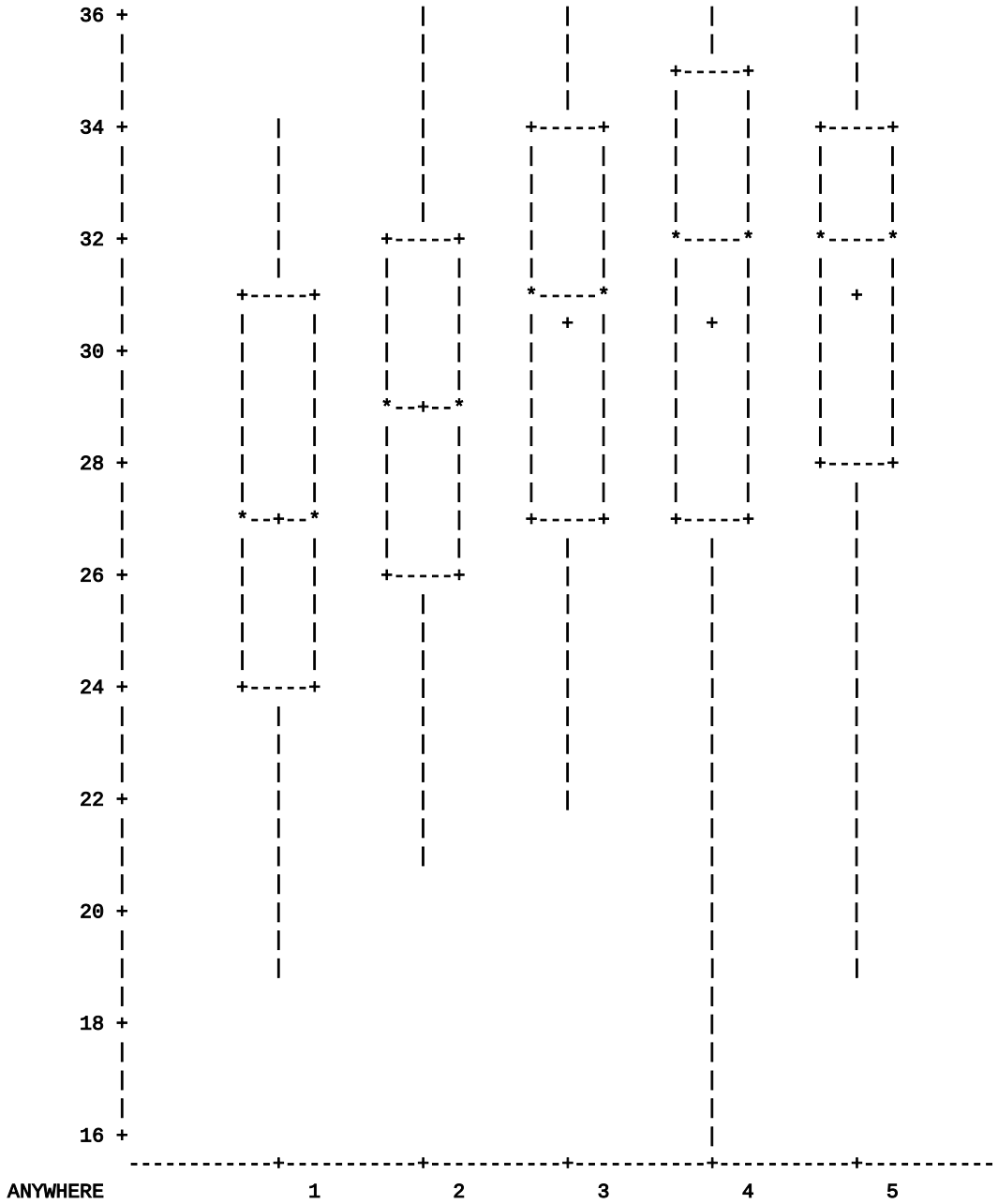
Appendix N

Side by Side Box Plots for TSES Instructional Strategies Anywhere Scores



Appendix O

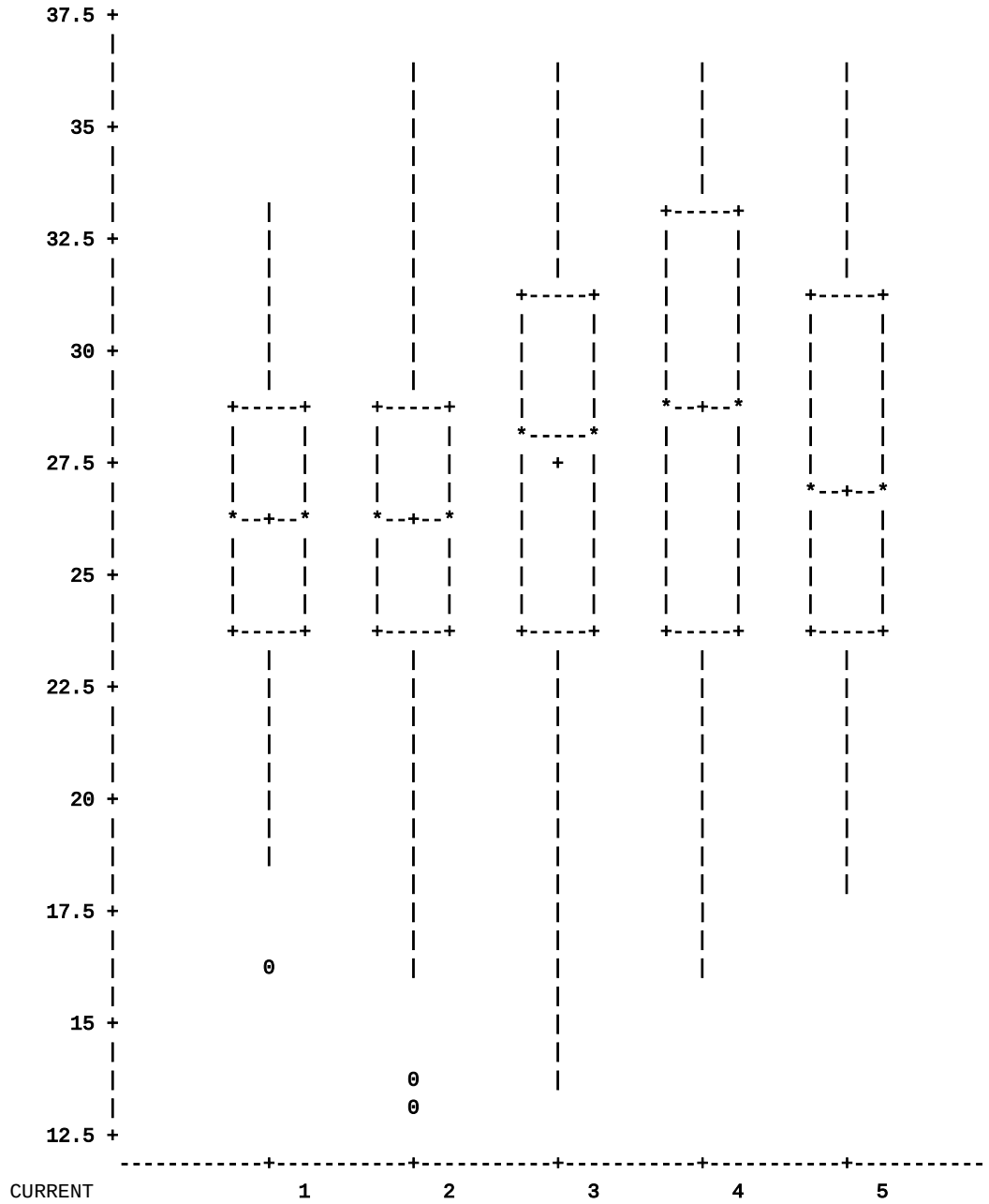
Side By Side Box Plots for TSES Classroom Management Anywhere Scores



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

Appendix Q

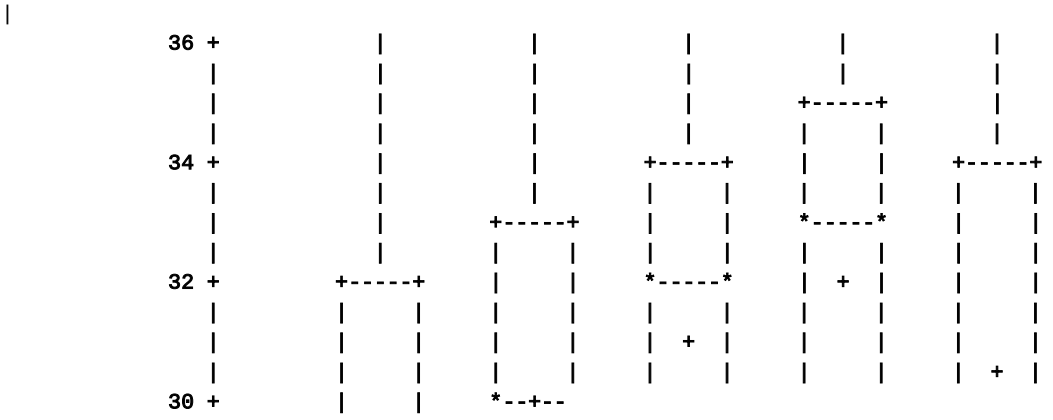
Side By Side Box Plots for TSES Student Engagement Current Site Scores



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

Appendix S

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



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						

Appendix V

Normality of Population Distributions: TSES by Sex

Sex ID #		Total			Student Engagement	Instructional Strategies	Classroom Management
		Skewness	Kurtosis	Shapir74.			

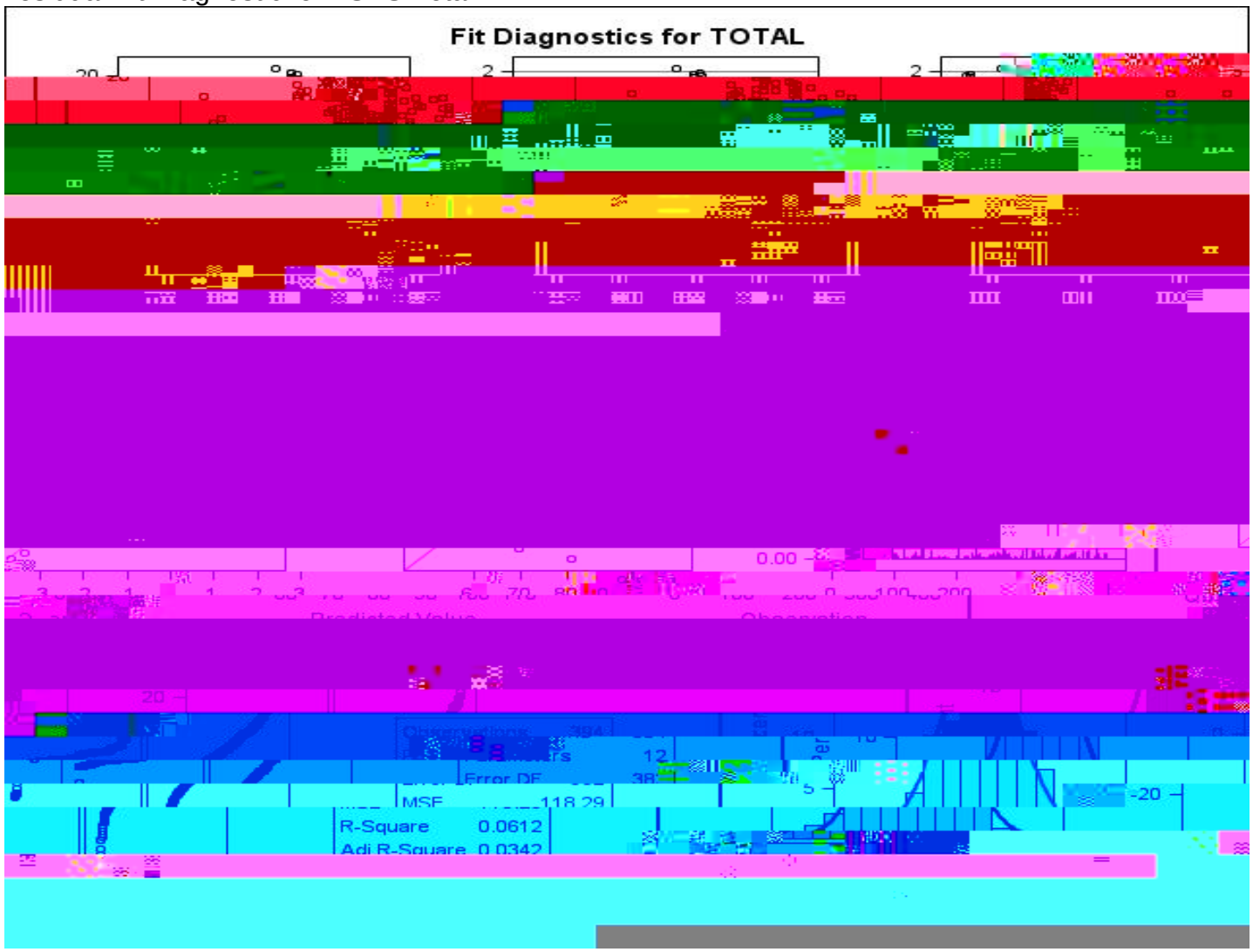
Appendix X

Normality of Population Distributions: TSES by Title 1 Site Eligibility

	Total	Student Engagement	Instructional Strategies	Classroom

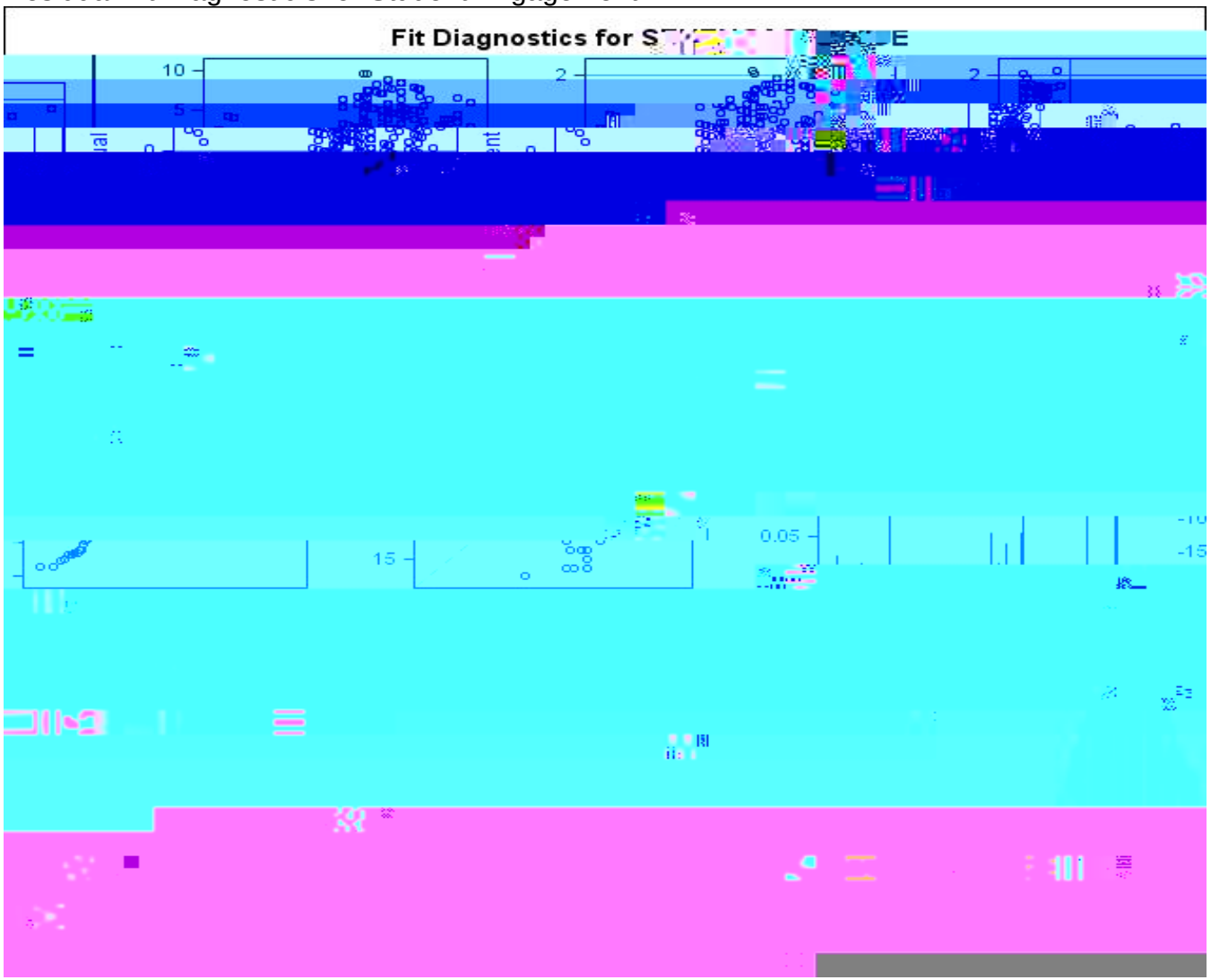
Appendix Y

Residual Fit Diagnostic for TSES Total



Appendix Z

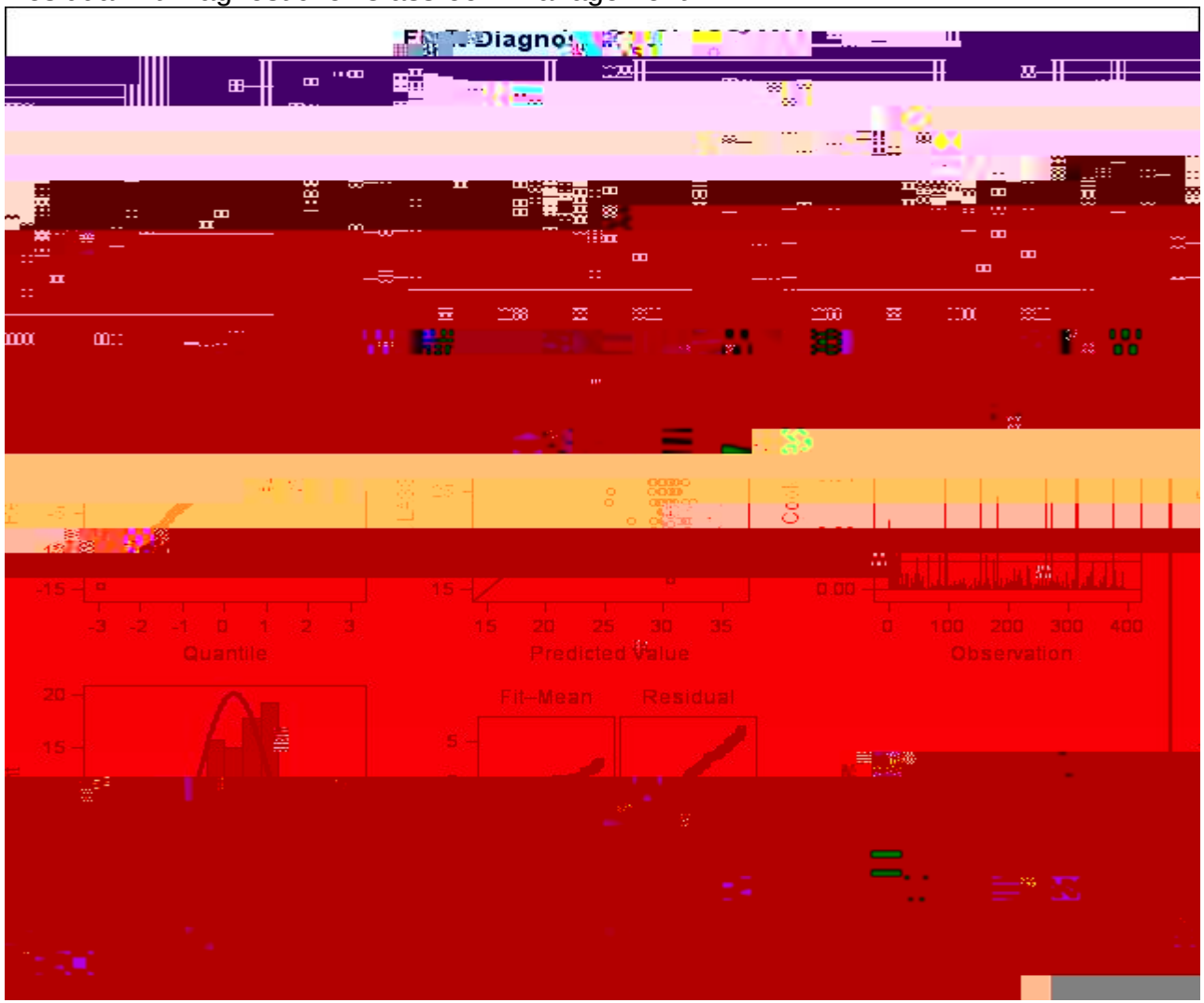
Residual Fit Diagnostic s for Student Engagement



Appendix AA

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	

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	2.28240	0 1 :

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	0.45[illegible]16910(3				

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

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

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 difference

Research

Knowing (STUDENTS) the kids and relating to them on their lev. 0 o.h4810.21 340.BT/P

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

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.

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Lack of **parent** involvement

Limited use of **technology** - the need to be **trained**

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

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**