THE RELATIONSHIP BETWEEN TEACHERS' SENSE OF EFFICACY AND PERCEPTIONS OF PRINCIPAL INSTRUCTIONAL LEADERSHIP BEHAVIORS IN HIGH POVERTY SCHOOLS

by

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> Commit your way to the Lord, Trust also in Him, and He shall bring it to pass.
>
> Psalms 37:5

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Abstract

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The purpose of this study was to examine the relationship between teacher perceived principal instructional leadership behaviors and teacher self-efficacy in high poverty schools. Data on these variables was gathered using the Teachers' Sense of Efficacy Scale (Tschannen-Moran, 2001) and the Principal Instructional Management Rating Scale (Hallinger, 2011). The study also explored the relationship between teacher self-efficacy and years of experience. Hierarchical multiple regression and correlation analysis was used to explore the relationship between the variables. The study found a significant relationship between teacher perceived principal instructional leadership behaviors and teacher self-efficacy. Of particular note was the repeated observation that the self-efficacy of teachers in high poverty schools can be supported through principal's framing and sharing the campus goals.

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Chapter 1

Introduction

The state of public education and student achievement has been a frequent topic of much debate (Conley, 2008; Darling-Hammond, 2003; Meier, Schmidt, Finn, Schlechty, 2010; U.S. Department of Education, 2009; Wolk, 2010). Demands have been placed upon public education to produce higher levels of student achievement (Conley, 2005; Darling-Hammond, 2003; Rotherham, Mikuta & Freeland, 2008). These demands have been framed in varying terms, ranging from equipping individuals with the knowledge and skills needed to be contributing members of society to ensuring the United States remains a competitive force in a global society (Darling-Hammond, 2010; Levin, Belfied, Muenning, & Rouse, 2007; McLaughlin, & Rhim, 2007).

Federal standards have been developed to address these demands and ensure accountability to high levels of achievement for all students. Currently, the most significant piece of federal legislation impacting public education is the No Child Left Behind Act (NCLB) of 2001 (NCLB, 2001). This legislation is noteworthy in that it touches almost every area of education. NCLB provides measures designed to increase student achievement, requires teachers to be highly qualified in the subjects they teach, and holds states and schools accountable for student progress in academic achievement (NCLB, 2001). Since the implementation of NCLB, discussions of accountability in public education have

been firmly entrenched in explicit standards for teacher quality, student achievement outcomes, and the measurement of these standards.

The demand to meet the accountability standards set by NCLB is particularly challenging in high poverty schools. High poverty schools have unique characteristics that impede the academic performance of students. Blanchett, Mumford, and Beachum (2005) noted that many high poverty schools contain high concentrations of minority students. In discussing the characteristics of students in high poverty, Orfield and Lee (2004) observed:

> Children in these schools tend to be less healthy, to have weaker preschool experiences, to have only one parent, to move frequently and have unstable educational experiences, to attend classes taught by less experienced or unqualified teachers…and to have higher teacher turnover. (pp. 21 – 22)

Students in high poverty schools generally underperform on assessment tests in comparison to students at low poverty schools (Rumberger & Palardy, 2005). Data from the 2011 National Assessment of Educational Progress (NAEP) support this conclusion. Student scores on NAEP tests in 2011 show that the average fourth grade reading score was 203 for students attending high poverty schools, while the average fourth grade reading score for students attending low poverty schools was 238 (US Department of Education, 2012).

The challenges associated with educating students in high poverty schools underscore the importance of identifying variables that support increased student achievement. Principal leadership (Hallinger & Heck, 1998; Supovitiz &

Poglinco, 2001; Supovitz, Sirinides, & May, 2010; Waters, Marzano, & McNulty, 2003) and its influence upon student achievement has been the focus of heightened attention. Various research studies have revealed direct effects and indirect effects of principal leadership upon student achievement (Hallinger & Heck, 1998; Waters, Marzano, & McNulty, 2003; Witziers, Bosker & Kruger, 2003). One area in which principals indirectly influence student achievement is their interactions with teachers. To positively influence teachers, principal leaders must create conditions for teachers to do their work well and effectively. Lieberman (1995, p. 9) maintained that leadership involves "principals acting as partners with teachers involved in a collaborative quest to examine school practices to see how they can improve what the school is doing for all students". Through the building of supportive and collaborative environments, principals are able to enhance teacher efficacy and student achievement.

Teacher self-efficacy has been described as "teachers' expectation about their ability to perform the actions required to bring about student learning" (Ross, 1994, p. 381). A research study into ways to improve teacher practices concluded that teachers with high self-efficacy:

> exhibit greater levels of planning and organization, are more open to new ideas and more willing to experiment with new methods, work longer with students who are struggling, intensify their efforts when their performance falls short of their goals, and persist longer. (Thoonen, Sleegers, Oort, Peetsma & Geijsel, 2011, p. 504)

Research has shown a link between teacher sense of fficacy and student achievement (Tschannen-Moran, Woolfok-Hoy, & Hoy, 1998; Ross, 1992, 1994; Palardy & Rumberger, 2008). In reporting on their analysis of different instruments used to measure the constructs of teacher self-efficacy, Tschannen-Moran et al. observed that "Teacher efficacy…was significantly related to student achievement" (1998, p. 215). Their study into the impact of teacher self-efficacy on student achievement revealed that students taught by teachers with higher levels of teacher efficacy were more successful in math than their peers (Tschannen-Moran et al., 1998). Identifying variables that improve teacher self-efficacy is an important strategy for increasing student achievement.

Statement of the Problem

The impact of teacher self-efficacy on student achievement drives the need to understand the characteristics that influence teacher efficacy. There is a limited amount of research into principal leadership behaviors influence upon teacher self-efficacy (Barnett & McCormick, 2004; Hoy & Woolfolk; 1993; Stipek, 2012; Walker & Slear, 2011). Research into principal leadership behaviors that influence teacher self-efficacy in high poverty schools is even scarcer. In discussing this phenomenon, Stipek posits that "extant research conducted on teachers' efficacy beliefs has not focused on schools in low-income communities" (2012, p. 595).

Due to the paucity of research into principal leadership behaviors that influence teacher self-efficacy in high poverty schools, researchers have identified this topic as an area for further research that will advance the ongoing conversation regarding variables influencing teacher self-efficacy. More evidence has been requested regarding the relationship between principal leadership and teacher self-efficacy in specific types of school settings (Charf, 2009; Eackert, 2011; Walker, 2009). According to Charf (2009, p. 90), "Investigators should continue to search for specific leadership behaviors as they pertain to different socioeconomic school statuses". Walker concurs by observing "Additional research on this area may provide some clarification of the impact of geographic location of schools on teacher efficacy and the principal behaviors that may be unique in each of those types of schools" (2009, p. 134). Eckert also recommends, "In future research on teacher efficacy, therefore, quantitative researchers need to control for and examine urbanicity and student demographics" (2011, p. 179).

There is a need for more empirical research into teacher self-efficacy in high poverty schools and specific principal leadership behaviors that influence teacher efficacy. This study contributed to filling in the gap in the literature by examining teacher perceived principal leadership behaviors that influence teacher self-efficacy in high poverty schools. Stipek (2012, p. 595) observed that "teacher efficacy beliefs, however, are particularly critical for low-income

students and students of color, as they are at the highest risk for school failure (Sirin, 2005; Stipek & Ryan, 1997; U.S. Department of Education (2009)". The current federal and state policy landscape that assigns high levels of accountability and sanctions to school districts, individual campuses, and principal leaders regarding the academic performance of students underscores the importance of this study. Identifying teacher perceived principal behaviors that influence teacher self-efficacy in high poverty schools enables researchers and practitioners to develop effective strategies to advance student achievement.

Purpose of the Study

The purpose of this study was to examine teachers' perceptions of principal instructional leadership behaviors that may influence teacher self-efficacy in high poverty schools. The influence of teacher's years of experience upon teacher self-efficacy was also studied.

Research Questions

The following research questions guided this study:

1. How well do the following teacher perceived principal instructional leadership behaviors predict teacher sense of efficacy: 1) frames the school's goals, 2) communicates the school's goals, 3) coordinates the curriculum, 4) supervises and evaluates instruction, 5) monitors student progress, 6) protects instructional time, 7) provides incentives for teachers,

8) promotes professional development, 9) maintains high visibility, and 10) provides incentives for learning?

2. How well do the following teacher perceived principal instructional leadership behaviors predict teacher sense of efficacy for instructional strategies: 1) frames the school's goals, 2) communicates the school's goals, 3) coordinates the curriculum, 4) supervises and evaluates instruction, 5) monitors student progress, 6) protects instructional time, 7) provides incentives for teachers, 8) promotes professional development, 9) maintains high visibility, and 10) provides incentives for learning?
3. How well do the following teacher perceived principal instructional leadership behaviors predict teacher sense of efficacy for classroom management: 1) frames the school's goals, 2) communicates the school's goals, 3) coordinates the curriculum, 4) supervises and evaluates instruction, 5) monitors student progress, 6) protects instructional time, 7) provides incentives for teachers, 8) promotes professional development, 9) maintains high visibility, and 10) provides incentives for learning?
4. How well do the following teacher perceived principal instructional leadership behaviors predict teacher sense of efficacy for student engagement: 1) frames the school's goals, 2) communicates the school's goals, 3) coordinates the curriculum, 4) supervises and evaluates instruction, 5) monitors student progress, 6) protects instructional time, 7)

provides incentives for teachers, 8) promotes professional development, 9) maintains high visibility, and 10) provides incentives for learning?

5. Is there a relationship between teacher's years of experience and teacher self-efficacy?

Theoretical Framework

The current landscape of increased accountability for student achievement outcomes within K – 12 public education systems (NCLB, 2001), has invoked a sense of urgency within these systems to perform at higher levels of excellence. The emerging consensus that the quality of education received by U.S. students' impacts the health of the U.S. economy (Alliance for Excellent Education, 2008; Conley, 2005; Levin, Belfied, Muenning & Rouse, 2007), has added to this sense of urgency within public education to achieve higher levels of student achievement. Schools are being called upon to provide students with quality learning opportunities that enable them to develop critical learning skills, meet high academic standards, and contribute to a global economy (Conley, 2005; NCLB, 2001; Wise, 2008). This study, an attempt to understand how principal leadership supports teacher efficacy in high poverty schools, was based upon the premise that effective principal leaders employ behaviors that support increased student achievement. Within this context, instructional leadership theory served as its conceptual framework.

The effective schools era placed a spotlight upon instructional leadership as efforts were undertaken to determine the role principal leadership plays in school improvement (Edmonds, 1979). Hallinger noted that in 1982, "Bossert, Dwyer, Rowan, and Lee (1982), signaled the emergence of instructional leadership as a research-based construct, highlighting its potential for contributing to our understanding of how leadership affects student learning" (2011, p. 272). Since this time, researchers have continued to focus on instructional leadership and its relationship to improving student outcomes (Blase & Blase, 1999; Blase & Blase, 2000; Coldren & Spillane, 2007; Hallinger, 2011; Hallinger & Heck, 1998; May & Supovitiz, 2011).

Three dimensions of instructional leadership regarding how principals influence instruction framed this research: 1) Defining the school's mission, 2) Managing the instructional program, and 3) Promoting a positive school learning climate. This study examined teacher perceptions of the ten functions of these principal instructional leadership behaviors and determined their relationship to teacher self-efficacy in high poverty schools.

Principal leadership has been identified as critical within the current era of high – stakes school accountability (Elmore, 2003; Marks & Nance, 2007). The need for effective leadership in high poverty schools is paramount to improving the academic performance of students attending these schools. In describing instructional leadership, Krug observed that "the effective instructional leader is

perceived as one who strategically applies knowledge to solve contextually specific problems and to achieve the purposes of schools through others" (1992, p. 434). The use of instructional leadership theory as the conceptual framework for this proposal should enrich and enhance the theoretical development of instructional leadership theory. It should also lead to the development of a clearer understanding of the principal behaviors that serve to meet the needs of the school organization by increasing teacher self-efficacy in high poverty schools and supporting the attainment of the rising academic goals for student achievement.

Significance of the Study

The outcomes of this research study should inform theory, practice, and research. The results of this study can be a catalyst for additional research into principal instructional leadership behaviors that may influence teacher self-efficacy in high poverty schools. This research can serve as springboards for changes in practitioner practices and expand the body of literature regarding instructional leadership theory in this field of study.

Implications for Practitioners

The beliefs and behaviors described by the teachers can serve as a foundation for improving principal training programs and principal professional development opportunities. In discussing research regarding principal leadership's impact upon school conditions and student learning, Leithwood and Jantzi (2006, p. 201) observed "This evidence has given rise to an avalanche of

recent interest in how best to develop effective leaders; governments, foundations, universities, and private sector organizations are all in the business of energetically evaluating existing programs and developing new ones (Hallinger, 2003)". An understanding of the principal instructional leadership behaviors shared by teachers as being critical to enhancing teacher self-efficacy in high poverty schools can be used to develop effective district training programs for current principal practitioners designed to shore up their skills in supporting classroom teachers.

University officials and practitioners are at ground zero of the discussion regarding the effectiveness of principal education programs in equipping principals with the tools needed to support teachers and increase student achievement. In this capacity, they are positioned to implement immediate change mechanisms into the system of principal education programs. Institutions of higher education can use the results of this research to strengthen their principal leadership programs. As observed by Ringler and Rouse, "Advanced leadership preparation programs, especially at the doctoral level, may need to constantly evaluate their program of study to ensure the needs of the students are being met due to an ever-changing educational environment" (2007, p. 9).

This research will also assist policy makers in making informed decisions regarding which education programs to fund. Though the accountability measures for educational outcomes continue to rise, the amount of funding into

public education is decreasing. The state of the national economy is causing the federal government, and many states and local school districts to slash funding of education (Rentner & Kober, 2012). Numerous school districts have slashed teacher positions, cut programs, and implemented other cost-saving measures in order to cope with the funding decreases. Supporting policy makers in their efforts to make critical financial decisions regarding the funding of programs that promote principals' ability to effectively support teachers in their efforts to educate students is critical in this era of financial uncertainty.

Implications for Theory

The results of this study should advance the development of the theory of instructional leadership and its influence within the educational setting. In analyzing the behavior of principal leaders and determining the fit of these behaviors to characteristics of instructional leadership, this research will serve in deepening the understanding of instructional leadership and the role it plays within the high poverty school context. Leithwood and Jantzi stated that "The potency of leadership for increasing student learning hinges on the specific classroom practices which leaders stimulate, encourage and promote" (2006, p. 223). The researcher's comparison of potential instructional leadership behaviors to teacher self-efficacy in high poverty schools will extend the current body of information within educational literature regarding the effects of this theory of leadership and the promises it holds on changing the practices of teachers.

Implications for Research

The insights shared by the teacher participants should lead to additional research into the highlighted behaviors in order to better understand how these principal behaviors support increased teacher self-efficacy and student achievement. Supovitz et al. (2010), conclude that:

> The consuming obsession with accountability in the first decade of the 21st century has led educators to seek connections between virtually any educational endeavor and student learning outcomes…In this context, school leadership has been scrutinized for its detectable contributions to student learning. (p. 47)

This research endeavored to pay greater attention to principal leadership behaviors that may influence teacher self-efficacy in high poverty schools in order to foster change within the school context. This research should answer the call from Leithwood and Jantzi for more "effort put into empirically unpacking the nature of successful leadership and describing the size and nature of its impacts on school organizations and students" (2006, p. 224).

This research will also provide insight into attaining national, state, and local goals for increasing the academic performance of students within public education. Research has consistently shown that teacher quality is the strongest variable impacting student achievement (Barber & Moorshed, 2007; Darling-Hammond, 1997; Gordon, Kane, & Staiger, 2006). Increasing teacher quality is vital to increasing the effectiveness of the public education system. Improving

teacher self-efficacy plays a significant role in improving the quality of teachers and thus the academic performance of students. This research into teacher perceived principal behaviors and their influence on teacher self-efficacy in high poverty schools can serve as the impetus for additional research into these variables in order to identify areas of intervention and strategies to prepare principals to more effectively support teachers and increase student achievement.

Summary

The purpose of this study was to examine teacher's perceptions of principal leadership behaviors that may influence teacher self-efficacy in high poverty schools. As the accountability for increased student achievement continues to rise, attention will continue to be placed upon the role teacher efficacy plays in supporting the attainment of student achievement goals. Focus upon principal leadership behaviors will continue to play a pivotal role in the discourse on teacher self-efficacy. A synthesis of quantitative and qualitative studies of factors influencing student achievement concluded that school leadership "is second only to teaching among school-related factors in its impact on student learning" (Leithwood, Seashore Louis, Anderson, & Wahlstrom, 2004, p. 5). This research, while seeking to gain a deeper understanding of teacher's perspectives of specific principal instructional leadership behaviors and their relationship to teacher self-efficacy in high poverty schools, adds richness to the ongoing discussion of these variables within educational literature.

Chapter 2

Literature Review

The need for students to obtain the knowledge and skills necessary for academic success is an issue that drives the continued focus on identifying principal leadership behaviors that influence student achievement. The importance of this issue continues to be imparted across the nation. In speaking to the National Education Association on two important beliefs regarding education, U.S. Secretary of Education, Arne Duncan, (U.S. Department of Education, 2009) declared that "It is a fundamental, unalterable belief that every child can learn, and a fundamental understanding of the tremendous urgency of our work. Simply put, we cannot wait because our children cannot wait" (p. 2). The state of public education is a pressing concern that has implications on both the national, state and local level (NCLB, 2001; TEA, 2011). In this literature review, a closer look will be taken at the evolution of accountability within public education, high-stakes testing in Texas, high-poverty schools, teacher self-efficacy, principal leadership and the influence of principal leadership upon teacher self-efficacy.

Accountability in Public Education

Accountability has become a national buzzword for the myriad changes being made in the realm of education. Accountability for curriculum standards, assessment and achievement permeate the landscape of public education (NCLB,

2001; TEA, 2011). Increasing accountability mechanisms and consequences have caused state and local governments, campus leaders and teachers to reinvent themselves and their institutions in order to meet the ever increasing demands placed upon them.

The last half century has brought about tremendous reform efforts in the public education system. According to Kress, Zechmann and Schmitten (2011), "Modern efforts to improve the quality of public education were prompted significantly by two major social and historical forces—the civil rights movement and a growing and widespread concern about the vital importance of education to our national security" (p. 188). These two areas of concern provided a foundation for the current era of accountability within public education.

Inequity and inequality have been observed in the educational system throughout the history of public education (Moses, 2002). Judicial and legislative efforts have attempted to correct the disparities cited in public education. The 1954 U.S. Supreme Court decision in Brown - Vs - Board of Topeka paved the way for the desegregation of public schools and provided African Americans and other minority students increased access to quality resources that had previously been denied to them (Alexander & Alexander, 2009). The Elementary and Secondary Education Act (ESEA) of 1965 provided additional academic supports to children from low - income families (Reese & Rury, 2008). This act supported compensatory education, instructional materials, supplementary services,

innovative programs, strengthening state departments, and libraries (ESEA, 1965). The passage of The Individuals with Disabilities Act (IDEA) of 1975 also corrected some of the systematic inequities within the public education system (United States Department of Education, 2000). The act insured the rights of students with disabilities. It provided these students with the right to a free and appropriate education, an individualized education plan, special education services, due process, and the right to the least restrictive learning environment. These three legislative and judicial initiatives were all aimed at reducing inequity in services to minority, poor, and disabled students.

It was the Soviet Union's launching of Sputnik in 1957 that opened the floodgate of condemnation regarding the quality of the public education system. Jolly noted:

> The United States' reaction to the launch of Sputnik, coupled with an already ongoing criticism of the American educational system, set the stage for an unprecedented infusion of funding from the federal government to reform public education at all levels. (2009, p. 50)

There was a demand for change in the quality of education that American students received. One immediate result was the passage of the National Defense Education Act (NDEA) of 1958. The NDEA was designed to strengthen science, mathematics and foreign language. NDEA introduced the era of excellence in academics with emphasis on enrichment, ability grouping, gifted education, and accelerated and enrichment programs (Jolly, 2009).

The accountability era in public education began with the 1983 publication of A Nation at Risk (National Commission on Excellence in Education, 1983). This publication showed that American students tested poorly in comparison with those of other industrialized nations. The report recommended input strategies that could be used in public education to better educate students. Kress et al. observed that:

> This landmark report described in the direst of terms the failings of the educational system, and, playing upon Cold War-era fears, analogized its potential detrimental effects to that of a foreign act of war. It argued that the nation's prosperity was imperiled and implied that other nations with better-educated populaces would overtake the U.S. economy if the education system were not reformed. (2011, p. 188)

Based upon the report's recommendations, states and school districts began to implement strategies that changed the way they supported campuses and held them accountable to educating students. These changes ranged from increasing school budgets and decreasing student/teacher ratios to increasing credit requirements for graduation (Kress, Schmitten, & Zechmann, 2011). All of the changes were designed to enhance student achievement.

During the 1990s another shift occurred within the national debate regarding how best to increase student achievement in public education. The reform focus became centered on the outputs of public education in terms of student learning (Kress et al., 2011). Based upon the shift in focus, states began

developing standards for defining what students should be expected to learn and accountability guidelines for ensuring the standards were met.

The No Child Left Behind Act (NCLB) of 2001 is currently the most widely recognized standards-driven accountability federal legislation (NCLB, 2001). This federal legislation, a reauthorization of the Elementary and Secondary Education Act, was signed into law on January 8, 2002 by President George W. Bush. The legislation requires states to develop curriculum standards for measuring students' academic performance in the areas of mathematics and English. States must also implement assessment measures that report students' progress in meeting the state standards. School districts and campuses are rated on students' performance on the assessments. They are required to meet Adequate Yearly Progress (AYP), which are proficiency measures required for student performance on the state assessment tests (NCLB, 2001). NCLB has prescribed sanctions for school districts and campuses that fail to meet AYP. AYP standards have increased annually since the implementation of NCLB in 2001. In 2013, students must demonstrate 93% mastery of reading standards and 92% mastery of math standards. AYP standards are currently on track to achieve proficiency standards of 100% in 2014. The effect of this federal legislation still reverberates across the nation and has drastically changed the way districts and schools operate.

High-Stakes Testing in Texas

Accountability for student achievement outcomes at the federal and state levels are carried out in the form of high-stakes testing. The roll-out of the Texas Assessment of Basic Skills Test (TABS) in the early 1980s was the first state-wide test administered in Texas (TEA, 2008). Beginning in 1986, Texas students were required to take the Texas Educational Assessment of Minimum Skills (TEAMS). The TEAMS test was significant in that it added the requirement that students must pass the test at the high school level as a requirement for graduation. Both the TABS and the TEAMS tests focused on students demonstrating proficiency in minimum competency skills (TEA, 2008).

In 1990, with the introduction of the Texas Assessment of Academic Skills (TAAS) test, state-wide testing in Texas shifted from a focus upon minimal skills attainment to the attainment of more rigorous academic skills (TEA, 2008). The TAAS test, which was administered until 2002, continued the requirement that high school students pass the test in order to meet the state graduation requirement. The passage of House Bill 4 by the Texas Legislature in 1999 set the stage for additional major implications of state-wide testing for students (TEA, 2004). This legislation contained requirements that students at specific grade levels pass the state assessment in order to be promoted to the next grade level. In 2003, students in Texas began taking the Texas Assessments of Knowledge and Skills (TAKS) test (TEA, 2008). The test was more rigorous than

the TAAS test and tied student performance to demonstrating proficiency through mastery of the state's learning standards - the Texas Essential Knowledge and Skills (TEKS). The implementation of the TAKS test continued the passing requirement at the high school level in order to graduate. Also, with the implementation of the new TAKS test, students in the 3rd were required to pass the reading test - while 5th and 8th grade were required to pass the reading and math tests - in order to be promoted to the next grade level. Students would take the TAKS test from 2003 until 2013.

The State of Texas Assessments of Academic Readiness (STAAR) test is the latest update to the Texas state-wide testing requirements. This test, the most rigorous of the assessments given in Texas, focuses on student's attainment of academic skills that prepare them for college and career success (TEA, 2011). Students in Texas began taking the STAAR test in the spring of 2012.

The high-stakes testing system in Texas has been viewed as the model for many of the accountability measures developed within NCLB (Heilig & Darling – Hammond, 2008; Texas Education Agency, 2004). It was noted that:

> Lessons learned in Texas were played out on a national stage when the message was carried to the federal level with the January 2002 signing of the No Child Left Behind Act (NCLB). This law, which was based on Texas' testing and accountability system, enacted the most sweeping reform in education since the original Elementary and Secondary Education Act of 1965. (TEA, 2004, p. 70)

For better or worse, high-stakes testing is ingrained in the accountability models for student achievement outcomes across the nation. As the results of these assessments are published each year, school districts, schools, communities, teachers and principals are judged on the academic performance of students taking these tests. The impact of high stakes testing and accountability has challenged schools across the nation and has placed significantly more pressure upon high-poverty schools.

High Poverty Schools

The percentage of students living in poverty in the United States continues to rise. The American Community Survey (ACS) conducted in 2010 reported that:

> More than 1 in 5 children in the United States (15.75 million) lived in poverty in 2010…The 2010 ACS poverty rate (21.6 percent) is the highest since the survey began in 2001…In the 2010 ACS, White and Asian children had poverty rates below the U.S. average. Other race groups had higher rates, including Black children (38.2 percent) and children identified with Two or More Races (22.7 percent). Poverty for Hispanic children was 32.3 percent. (U.S. Census Bureau, 2011, p. 1)

The number of high poverty schools within the U.S. has also increased. High poverty schools are defined as those in which at least 76 percent of their students qualify for free or reduced priced lunch (NCES, 2010). In 2010, 20 percent of elementary schools were classified as high poverty, while nine percent of secondary schools were classified as high poverty schools (NCES, 2010).

The increase in the number of children living in poverty and high poverty schools has important implications within public education. Low socio-economic status (SES) and high poverty schools are associated with low levels of student achievement (NCES, 2010). Sticher, Stormant, and Lewis (2009) concluded that "Specifically, as a group, children who live in poverty are at significant risk for experiencing academic and social failure (Belfiore, Auld, & Lee, 2005; Espinosa, 2005; Espinosa & Laffey, 2003)" (p. 173). Rumberger and Palardy observed that "the average SES of a school may have an effect on student achievement above and beyond the individual SES levels of students in that school" (2005, p. 2003). In discussing conclusions from a study that examined whether diversity and teacher quality impacts student achievement on state assessments, Clayton (2011) found that "higher-poverty and higher-minority schools displayed lower pass rates at both the standard and advanced pass levels" (p. 688).

The reasons high poverty schools experience more academic challenges than low poverty schools are complex and varied. Teacher quality and effectiveness has been cited as influencing the academic achievement of high poverty schools. Sticher et al. (2009) conducted a comparison of teacher instructional practices in Title-1 schools versus non-Title 1 schools. Title 1 schools are schools where at least 35 percent of the students qualify for free or reduced lunch plans (NCLB, 2001). Their research found that teachers at the Title-1 campuses spent a greater amount of time "engaged in non-instructional

talk, in transition, giving negative feedback" (Sticher et al., 2009, p. 179), than the teachers at the non-Title 1 campuses. Clayton (2011) described the finding of a significant correlation between teacher quality and ethnic groups by observing "that the higher teacher-quality-percentage schools were predominately schools with higher proportions of White students" (p. 688). A study that analyzed the impact of high stakes testing and accountability on high poverty schools found that many teachers narrowed or fragmented the curriculum in order to increase student success on the state assessment (Diamond, 2012). Diamond (2012) further observed that "This type of instruction has traditionally been associated with schools serving low-income students (Diamond, 2007)" (p. 163).

Teacher experience in the classroom also has an impact on students in high poverty schools. High poverty schools experience higher rates of teacher attrition than low poverty schools due to teachers leaving the teaching field entirely or migrating to a better teaching position at a different campus or in a different school district (Ingersoll, 2002). In studying the relationship between the distribution of teacher resources and student need within different school settings, De Luca, Takano, Hinshaw and Raisch (2009) determined that "the poorest and lowest achieving students are taught by…the teachers with the least experience and the least amount of higher education" (p. 666). A meta-analysis by Borman and Dowling (2008) determined that attrition from the teaching field is heavily influenced by teacher working conditions that include "the

characteristics of the schools' student body" (p. 398). In discussing their research, Borman and Dowling (2008) emphasized that "The research evidence has continued to suggest that poor and minority students have less access to qualified teachers than do more affluent and nonminority children (Borman & Kimball, 2005; Ferguson, 1998; Kain & Singleton, 1996)" (p. 398).

Teacher beliefs regarding high poverty students' ability to learn impacts the quality of student achievement at high poverty schools. According to Machtinger (2007), teachers' "Low expectations and a deficit model – in which high-poverty students are judged incapable of meeting the demands of a challenging curriculum – hinder efforts at improving achievement" (p. 4). In studying the challenges faced by urban districts – large schools districts with high populations of minority and high-poverty students - in implementing high stakes testing and accountability measures, Harris (2012) further concluded that changing the instructional practices of teachers would be a challenge due to the "deeply entrenched negative beliefs school personnel hold about students that result in contradictory classroom practices" (p. 205).

Principal leadership has also been associated with student achievement in high poverty schools. In an analysis of 40 years of research on principal leadership, Hallinger posits that "This research had identified "strong instructional leadership from the principal" as a hallmark of effective urban elementary schools in the USA" (2010, p. 125). Additional research has cited the importance of

effective principal leadership in urban schools in order to promote increased student achievement (Finnigan, 2011; Harris, 2012). Finnigan's study of behaviors exhibited by principals of urban schools in school improvement showed that effective principals displayed instructional leadership, built trusting relationships and supported teacher change initiatives (2011).

Teacher Self-Efficacy

Albert Bandura's research into self-efficacy laid the foundation for research into teacher self-efficacy (1977). Bandura defines self-efficacy as "beliefs in one's capacity to organize and execute the courses of action required to produce given attainments (1997, p. 3). He further observed that

> Among the mechanisms of agency, none is more central or pervasive than beliefs of personal efficacy. Unless people believe they can produce desired effects by their actions, they have little incentive to act. Efficacy belief therefore is a major basis of action. (Bandura, 1997, p. 3)

Ashton (1985) and Ashton, Crocker, McAuliffe and Olejnik (1982) extended Bandura's thoughts on self-efficacy to the educational setting. They proposed two dimensions of teacher efficacy: teaching efficacy and personal teaching efficacy. Teaching efficacy describes a teachers' belief about what outcomes will be observed as a result of teaching (Ashton, 1985). Personal teaching efficacy describes a teachers' judgment of his/her ability to execute actions that bring about desired goals. Researchers have observed the importance

of both forms of efficacy in measuring overall teacher efficacy (Tschannen-Moran, 1998; Ross, 1992, 1994). In discussing the rationale behind the development of their scale to measure teacher self-efficacy, Tschannen-Moran et al. observed the importance of both dimensions in analyzing teacher self-efficacy (1998). The researchers concluded that "Teacher efficacy is the teacher's belief in his or her capability to organize and execute courses of action required to successfully accomplish a specific teaching task in a particular context" (Tschannen- Moran et al., 1998, p. 233).

Tschannen-Moran (2009) noted that "Given the pivotal role of self-efficacy beliefs in understanding human behavior, it is important to understand how these beliefs form" (p. 229). Bandura (1997) identified four sources that influence teacher self-efficacy. The first influence is performance accomplishments, which are "based upon personal mastery experiences" (Bandura, 1977, p. 195). Performance accomplishments are highly influential sources of self-efficacy (Bandura, 1977). As a person achieves success in experiences their mastery expectations increase. Stronger self-efficacy minimizes the influence of occasional failures. Stronger self-efficacy gained through personal accomplishment can also increase a person's level of persistence and motivation in challenging situations.

The second influence is vicarious experiences. These experiences enable a person to observe the behaviors of others in particular situations. The behavior

modeled by others can serve to increase self-efficacy by persuading the person they are capable of achieving success in similar situations. Tschannen-Moran (2009) stated that "The greater the assumed similarity between the observer and the model, the more persuasive will be the belief that one possesses the capabilities to master comparable activities" (p. 230).

The third influence upon self-efficacy is verbal persuasion. Verbal persuasion involves communicating the belief that persons are able to successfully achieve an expected outcome. Bandura (1997) declared that "it is easier to sustain a sense of efficacy, especially in times of difficulty, if significant others express faith in one's capabilities than if they convey doubts" (p. 101). Verbal persuasion produces weaker self-efficacy beliefs because of the lack of personal experiences. The use of verbal persuasion creates stronger self-efficacy when used as a tool for corrective performance. When correcting the performance of individuals, providing the individuals with verbal persuasion along with tools to effectively master situations strengthens the development of their self-efficacy.

The fourth influence upon self-efficacy is emotional arousal. The perceived nature of a situation elicits emotional responses that impact behaviors and actions. In discussing the influence of emotional arousal upon teacher self-efficacy, Tschannen-Moran (2009) observed that "A person's level of arousal, whether perceived positively as anticipation or negatively as anxiety, can influence his or her self-efficacy beliefs" (pp 230 – 231). By judging their

physiological arousal, people make decisions regarding their self-efficacy and ability to cope successfully with situations.

Teacher Self-Efficacy and Student Achievement

Research into the influence of teacher self-efficacy has been promising. Teacher self-efficacy has been found to have an influence upon a wide range of school and student outcomes. Teacher self-efficacy has been associated with how teachers interact with struggling students (Gibson & Dembo, 1984), teacher classroom management (Guskey, 1988), and teacher planning and organization (Allinder, 1994). In studying the role teacher self-efficacy plays in teacher learning and teaching practices, Thoonen et. al (2011) determined that "Teachers' sense of self-efficacy appears to be the most important motivational factor for explaining teacher learning and teaching practices" (p. 517).

Particularly noteworthy is the research into the relationship between teacher self-efficacy and student achievement. Ross (1992) studied the relationship between teacher self-efficacy and coaching on student achievement. A sample of 18 middle school teachers of 7th and 8th grade History courses in a rural school district in Ontario was used to measure the relationship. Teachers were tasked with implementing a new history curriculum. Student achievement and teacher self-efficacy were measured at the conclusion of the implemented curriculum. Efficacy beliefs were evaluated using Gibson & Dembo's (1984) scale. Student achievement was measured using pre-test and post-test scores from

the Ontario Assessment Instrument Pool. The resulting analysis found that teacher self-efficacy correlated with student achievement. The researchers observed that student achievement was higher in the classroom of teachers that reported higher efficacy scores.

Additional research has shown the role teacher self-efficacy plays in student achievement. In 2006, Caprara, Barbaranelli, Steca and Malone studied the relationship between teacher self-efficacy, job satisfaction and student achievement. The study participants included 2,184 teachers from 75 junior high schools. Teachers completed a survey containing 12 items that assessed their efficacy beliefs (Tschannen – Moran, 1998). Student achievement was determined by the use of final examination grades at the end of students' third year in junior high. Structural equation modeling analyses was used to analyze the relationship between the examined variables. The results of the study determined a significant relationship existed between teacher self-efficacy and student achievement. Caprara et al. observed that their finding attests "to the positive influence of a teacher's self-efficacy beliefs over a student's academic achievement" (2006, p. 486). The researchers concluded that their research also evidenced a reciprocal effect between teacher self-efficacy and student achievement that supported Bandura's (1997) work on mastery experiences influence upon self-efficacy.

Further research corroborates the influence of teacher self-efficacy upon student achievement. The 2008 study by Palardy and Rumberger examined the influence of various teacher characteristics and instructional practices upon reading and math achievement. Data from the Early Childhood Longitudinal Study (NCES, 2002) was used to examine this relationship. A sampling of 3,496 first-grade students from 887 classrooms and 253 schools were included in the study. Three-level hierarchical linear modeling (HLM) was used to analyze the data. The results of the study showed that teacher self-efficacy was significantly related to math achievement gains.

Additionally, Tschannen-Moran, Wookfolk-Hoy, & Hoy (1998) also observed the connection between teacher self-efficacy and student achievement in their report on the correlates of self-efficacy found through the use of various instruments. In reporting on the results obtained by the RAND instrument to measure teacher self-efficacy, Tschannen et al. (1998) observed that teacher self-efficacy was found to be associated with reading achievement among minority students and student mathematics achievement. They further observed that studies involving the Gibson and Dembo (1984) instrument also concluded that teacher self-efficacy was associated with student math scores and reading scores.

Strengthening teacher self-efficacy is crucial given the importance of overall teacher quality to student achievement. Quality teachers are the essential link between the nation's vision for highly effective schools and student

achievement. Improving teacher quality has become a top priority of institutions of public education. This priority is a result of consistent research showing that teacher effectiveness within the classroom is the most important predictor of increased student achievement (Barber & Mourshed, 2007; Darling-Hammond, 1997, 2003; Fallon, 1999). A study in Los Angeles confirms this research into teacher quality and student achievement. The study showed that teachers rated in the top quartile of effectiveness produced higher student gains than teachers rated less effective (Gordon, Kane, & Staiger, 2006). Developing strategies to strengthen teacher self-efficacy support increased teacher quality and student achievement.

Teacher Self-Efficacy, Retention and Experience

Teacher experience and retention play a significant role in obtaining organizational goals for student achievement (Darling-Hammond, 2003; Ingersoll, 2001, 2002). It is estimated that for new teachers, the first five year's attrition rate is as much as 50% (Ingersoll, 2002). The Alliance for Excellent Education estimated that "157,000 men and women leave the field of teaching every year" (2008, p. 1).

The organizational and instructional costs associated with this high turnover are significant. The National Commission on Teaching and America's Future (NCTAF) estimated that each year, billions of dollars are spent in the U.S. on hiring new teachers (Barnes, Crowe & Schaefer, 2007). Barnes, Crowe and

Schaefer (2007) observed that "Low performing, high minority, and high poverty schools expend scarce resources on teacher turnover… turnover costs become a drain on already scarce resources that could otherwise be invested to improve teaching effectiveness and student growth" (p. 5).

High teacher turnover rates impede teacher's ability to gain the experience needed to increase their teaching capacity. Dillon observed that "With one-third of all novice teachers leaving the profession in three years and more than 40% leaving within five, some students rarely get the benefit of having an experienced teacher" (2009, p. 27). Teacher experience in the classroom influences the quality of education students receive. A study conducted by the Northwest Evaluation Association (NWEA) analyzed the teaching experiences of 2,380 teachers regarding their education and experiences in the classroom and compared this information to the academic achievement of a group of matched students (Levine, 2006). The analysis showed a very strong relationship between student achievement and the length of their teacher's classroom experience. This study underscores the important role that improving teacher retention rates plays in increasing teacher quality and student achievement.

Improving teacher retention rates is of particular importance to high poverty schools. A meta-analysis by Borman and Dowling (2008) into teacher attrition and retention concluded that "The greatest attrition rates are found in those schools serving low-achieving, poor, and minority students" (p. 398). Their

study confirms the conclusions previously made by Ingersoll (2001, 2002) regarding the relationship between student poverty and teacher retention. High turnover rates also take away from time that could be spent on building current teacher self-efficacy (Texas Center for Education Research, 2000).

There has been evidence of a relationship between teacher self-efficacy, experience and teacher retention. Coladarci (1992) studied the relationship between teacher self-efficacy and teacher commitment to teaching. The researcher commented that his study on the relationship between these variables augments research on teacher attrition by providing information that "Contributes to the current profile of teachers who are "at risk" of leaving the profession (e.g. Darling-Hammond, 1944)" (1992, p. 327). A random sample of 364 elementary Maine teachers participated in the study. The Gibson and Dembo (1984) instrument was used to measure teacher self-efficacy. A likert scale was developed to address teacher commitment. Regression analysis was used to measure the relationship between the variables. A significant relationship was found to exist between teacher self-efficacy and commitment to teaching. Coladarci observed that "Insofar as this outcome suggests a mechanism fostering teachers' commitment to teaching, this finding similarly is encouraging to those concerned with offsetting teacher attrition" (1992, p. 334).

In a more recent study, Ware and Kitsantas (2007) also examined the relationship between teacher self-efficacy and professional commitment to the

job. The researchers used the Public School Teacher questionnaire (TQ) and the Public School Principal questionnaire (PQ) of the SASS 1999-2000 to examine the relationship between the variables (U. S. Department of Education, 2005). The national surveys were completed by 26, 257 teachers and 6, 711 principals who participated in the study. Exploratory factor analysis was used to develop three teacher efficacy scales. Multiple regression analysis was used to examine the relationship between the three efficacy scales and teacher commitment. The researchers found a relationship between teacher self-efficacy and professional commitment. Three areas of efficacy were related to professional commitment: a) efficacy to enlist administrative support, b) efficacy to influence decision making in the school, and (c) efficacy for classroom management. Ware and Kitsantas observed that "Given the teacher turnover rate, the present findings are significant for retaining teachers in the profession" (2007, p. 303).

Teacher self-efficacy is a construct that has tremendous potential to change teacher behavior and support the attainment of campus goals for student achievement. Stipek (2012) observed that "An understanding of the causes of these beliefs could guide efforts to encourage high levels of efficacy and consequently improve student learning" (p. 590). Exploring the influence of teacher perceptions of principal instructional leadership behaviors on teacher self-efficacy provides information on encouraging high levels of efficacy.

Direct and Indirect Influences of Principal Leadership

During the effective schools era, attempts were made to identify common themes across schools exhibiting high student achievement (Brookover, Beady, Flood, Schweitzer, & Wisenbaker, 1979; Edmonds, 1979). Most research into principal leadership during this era attempted to identify principal leadership behaviors that directly influenced student achievement. In summarizing his effective schools study, Edmonds observed that these schools have "strong administrative leadership without which the disparate elements of good schools can neither be brought together nor kept together" (1979, p. 22).

In a published literature review of empirical studies focusing upon principal leadership and learning, Bossert, Dwyer, Rowan, and Lee (1982) challenged this approach to measuring principal leadership. Bossert et al. observed that "Unfortunately, current research and practice have not identified clear relationships between what a principal does and the concrete learning experiences children have in school" (1982, p. 54). They proposed a leadership framework that viewed the principal behaviors in terms of their "links between characteristics of school organization and instructional climate, which in their turn affect student achievement" (Witziers, Bosker, & Kruger, 2003, p. 401). After the publication of the Bossert et al. seminal research, during the 1980s and 1990s, researchers began to focus upon specific characteristics of principal leadership

and their indirect influence upon the school organization and student achievement (Blasé, 1987; Blasé & Blasé, 1999; Hallinger & Murphy, 1985; Leitner, 1994).

Hallinger and Heck (1996) reviewed research conducted from 1980 - 1995 that examined the relationship between principal leadership and student achievement. They identified three criteria for inclusion in the study: 1) The research identified principal leadership as an independent variable, 2) the research identified some measure of student outcomes as a dependent variable and 3) the research was conducted in the United States. Forty studies were included in their study. The included research studies were then placed into three categories. The categories were direct effects upon student outcomes, mediated effects upon outcomes, and reciprocal effects upon student outcomes. The direct effect category contained research that proposed principals directly impacted student achievement. The mediated effect category contained research that viewed principals as indirectly influencing student achievement through their interaction with elements of the school organization. The reciprocal effects category contained research that viewed the principal as adapting to their organization and changing their views over time.

Hallinger and Heck determined that principals have very little direct effect upon student outcomes. They further found scarce examples of reciprocal effects. They concluded that most of the evidence supported principals indirectly influencing student outcomes. In reporting on this conclusion, Hallinger and

Heck (1996) emphasized that "Studies based on a mediated-effects model frequently uncovered statistically significant indirect effects of principal leadership on student achievement" (p. 38). In discussing their research conclusion that principals' indirectly influence student achievement, Hallinger and Heck conclude that "achieving results through others is the essence of leadership…understanding the routes by which principals can improve school outcomes through working with others is itself a worthy goal for research" (1996, p. 39).

Research by Witziers, Bosker and Kruger (2003) examining the direct effects of principal leadership upon student achievement confirms the results of the Hallinger and Heck meta-analysis. The Witziers et al. study "used a quantitative meta-analysis to estimate the effect size of educational leadership on student achievement among multinational research reports" (2003, p. 399). The study examined research into direct effects of principal leadership conducted between 1986 and 1996.

The study found an extremely small effect size of .02 between principal and student achievement. This effect size is smaller than effect sizes found in other research into the relationship between principal leadership and student achievement (Leithwood, Seashore Louis, Anderson, & Wahlstrom, 2004; Marzano, Waters & McNulty, 2005; Robinson, Lloyd, & Rowe; 2008). In examining this result and its deviation from other studies on principal leadership

and student achievement, it has been observed that the Witziers et al. meta-analysis included international studies, while the other studies focused on schools in the United States (Marzano, Waters & McNulty, 2005; Robinson, Lloyd, & Rowe; 2008). The stronger emphasis on principal leadership within the United States in comparison to other nations is thought to explain the smaller effect size found in the Witzier et al. study (Marzano, Waters & McNulty, 2005). Though the Witzier et al. study found a smaller effect size than many other studies that examined the direct effect of principal leadership upon student achievement, the results further confirm the belief that principals do not directly influence student achievement.

Witziers et al. concluded their study by reporting on the findings of five studies that identified indirect principal leadership behaviors on student achievement. The analysis of principals' indirect influence upon student achievement yielded more positive results. The researchers observed this line of study held promise in determining the role principal leadership played in student achievement.

The prevailing belief that principals indirectly influence student achievement continues to be supported by ongoing research into principal leadership. A research study by Hallinger, Bickman & Davis examined the relationship between principal leadership and student reading achievement (1996). Path analysis was performed to assess for causality among the tested

variables at 87 sampled elementary campuses. The results of the analysis found indirect effects of principal leadership on student achievement through the principal's provision of instructional leadership and a clear school mission (1996). O'Donnell and White (2005) used correlational analysis models to examine the influence of principal leadership on eighth grade students' math and reading scores by analyzing feedback from middle school educators and scores on student achievement tests. The results of the study found strong indirect effects of principal leadership on student achievement in math and reading through the principal's promoting the school learning climate. A 2011 study examined the influence of principal leadership on student achievement using the results of standardized tests (Valentine & Prater). The study made use of Pearson product-moment correlations to examine data from 313 public high schools in Missouri, headed by principals who had served at the campus for more than three years. The study found statistically significant indirect relationships between five principal leadership behaviors and student achievement. The five significant principal leadership behaviors included focusing on instructional improvement, curricular improvement, providing a model, identifying a vision and fostering group goals. Additionally, in observing the significance of the indirect influence of principal leadership in high-poverty schools, Jacobson (2011) observed that "Indirect effects of high-quality leadership appear to be especially important in schools serving low socio-economic students who are at greater risk for academic

failure (Scheerens and Bosker, 1997)" (p. 35). These research studies confirm the importance of principal leadership by showcasing how their behaviors and interactions with teachers indirectly influence student achievement outcomes.

Principal Instructional Leadership vs. Transformational Leadership

The two most commonly studied principal leadership models over the past twenty-five years have been instructional leadership and transformational leadership (Heck & Hallinger, 1999; Mark & Printy, 2003; Robinson, Lloyd & Lowe, 2008). Research into effective schools during the 1980s placed emphasis on the concept of instructional leadership. Hallinger (2011) observed that "These bodies of research identified principal instructional leadership as a key factor in instructionally effective schools (Bossert et al., 1982; Leithwood & Montgomery, 1982)" (p. 274). In discussing the emergence of the term instructional leadership during the effective schools era, Hallinger concluded that "Principals who operate from this frame of reference rely more on expertise and influence than on formal authority and power to achieve a positive and lasting impact on staff motivation and behavior and student learning" (2011, pp 275 – 276). Leithwood, Jautzi, and Steinbach observed that instructional leadership "Assumes that the critical focus for attention by leaders is the behaviors of teachers as they engage in activities directly affecting the growth of students" (1999, p. 8). Instructional leadership includes defining the school's mission, managing the instructional program and promoting a positive school learning climate (Hallinger, 2011). Defining the

school mission involves the principal working in collaboration with staff members to develop and communicate a mission based upon student achievement. Managing the instructional program involves the principal working as a partner in the development and oversight of the instructional core of the school. Promoting a positive school learning climate involves the principal working with staff members to develop a culture that expects and rewards high levels of student achievement.

Though instructional leadership has been a mainstay in the discussion of principal leaderships' influence upon student achievement (Blasé & Blasé, 1999, 2000; Coldren & Spillane, 2007; Hallinger, 2011; Hallinger & Heck, 1996, 1998; Southworth, 2002), transformational leadership has also been the topic of research regarding principal leadership (Leithwood, 1994; Leithwood & Jantzi, 2006; Marks and Printy, 2003). The idea of transformational leadership was first applied to noneducational settings (Burns, 1978). Bass (1985) extended the discussion of transformational leadership and its importance in developing followers. Transformational leadership includes individualized consideration, intellectual stimulation, and inspirational motivation (Bass, 1985, 2000). Individualized consideration involves supporting individual team members and encouraging their growth as individuals. Intellectual stimulation involves providing group members with opportunities to explore new and innovative ways

of performing tasks. Inspiration refers to the ability of leaders to create an inspiring vision and develop loyalty to the vision.

Transformational leadership was later expounded upon as a necessary leadership behavior within the educational setting (Leithwood, 1994). Marks and Printy (2003), observed that transformational leaders "motivate followers by raising their consciousness about the importance of organizational goals and by inspiring them to transcend their own self-interest for the sake of the organization" (p. 375). Transformational leadership was viewed as appropriate for changing the classroom practices of teachers in order to stimulate increased student achievement (Leithwood & Jantzi, 2006).

Robinson, Lloyd, and Rowe (2008) conducted a meta-analysis study to compare the effects of instructional leadership and transformational leadership on student outcomes. Robinson et al. (2008) noted that "These two leadership theories were chosen because they dominate empirical research on educational leadership and their research programs are mature enough to have yielded sufficient evidence for analysis" (p. 638). The meta-analysis included 22 studies that compared leadership behaviors to student academic outcomes. The results of the meta-analysis determined that instructional leadership had the largest effect size on student achievement (Robinson, Lloyd, & Rowe, 2008). More significantly, the study found the effect size of instructional leadership upon student achievement was three to four times larger than the effect size of

transformational leadership. In discussing this phenomenon, Robinson et al. (2008) observed that "Educational leadership … also involves focusing such relationships on some very specific pedagogical work, and the leadership practices involved are better captured by measures of instructional leadership" (p. 665). This seminal research supports the use of principal instructional leadership theory as this study's framework for examining the relationship between principal leadership and teacher self-efficacy.

Principal Instructional Leadership Behaviors

This study is built upon three specific principal instructional leadership behaviors that have been associated with student achievement: Defining the schools mission, managing the instructional program and promoting a positive school learning climate (Hallinger, 2011). Principal instructional leadership has been shown to be a powerful construct in the quest for quality schools (Blasé & Blasé, 1999, 2000; Coldren & Spillane, 2007; Hallinger, 2011; Southworth, 2002). An understanding of how instructional leadership promotes increased student achievement is critical to principals' ability to achieve campus organizational goals.

Defining the School's Mission

The campus principal must work to develop a shared vision regarding student achievement. Dufour and Eaker (1998), described vision as "A realistic credible, attractive future for the organization" (p. 62). Principal leaders must be

able to create an inspiring vision and develop loyalty to the vision. A shared vision motivates people and provides direction to the organization (Dufour & Eaker, 1998). Principals working to create a shared vision will create the intentionality and focus needed to create a collective sense of purpose among all stakeholders in order to support increased student achievement.

Purpose and goals have been shown to have an influence upon the outcome of schools (Hallinger & Heck, 1998). In a meta-analysis of research on principal leadership that examined the impact of 21 leadership behaviors upon student achievement, Waters et al. (2003) found that fostering shared beliefs and a sense of community and cooperation had the second largest effect size among the studied behaviors. In their 2008 meta-analysis on specific leadership behaviors that influence student achievement, Robinson et al. observed that vision and goal had the second largest effect size among the studied behaviors. Robinson et al. (2008) declared that "Goal setting is a powerful leadership tool in the quest for improving valued student outcomes because it signals to staff that even though everything is important, some activities and outcomes are more important than others" (p. 666).

Managing the Instructional Program

Principals must oversee the instructional program of their campus to ensure it is aligned to attaining the campus academic goals for increased student achievement. Managing the instructional program includes the coordination of

curriculum, supervising and evaluating instruction and monitoring student progress (Hallinger, 2011). Hallinger described principals focusing upon this dimension of leadership as "managing the technical core of the school" (2011, p. 277). The Robinson et al. meta-analysis determined that planning, coordinating and evaluating teaching and the curriculum tied with the establishing of vision and goals as having the second largest effect size upon student achievement (2008).

Managing the instructional programs includes focusing upon academic excellence in curriculum, instruction and assessment practices. According to Hoy, Tarter and Hoy, "Academic emphasis is the extent to which a school is driven by a quest for academic excellence - the press for academic achievement" (2006, p. 427). In order to increase the academic success of students, principals must ensure students are provided curriculum opportunities and the necessary support to develop the habits of mind to engage in rigorous course work.

Principals also manage the instructional program by monitoring teaching and learning. Southworth identified behaviors such as observing "Teachers' weekly plans, visiting classrooms, examining samples of pupil's work…and evaluating pupil, class, and school levels of performance and progress" (2002, p. 84) as integral strategies in monitoring teaching and learning. By monitoring instruction and observing the progress of student learning, principals are able to assess the quality and effectiveness of the instructional program. Principals are

also able to use their observations of classroom behaviors to work with campus leaders in developing needed student interventions and identifying teachers in need of targeted assistance. Monitoring of teaching and learning has been strongly associated with student achievement (Marzano et al., 2005, Robinson et al., 2008; Supovitz, Sirinides, & May, 2010). Elmore (2003) affirmed that successful schools "have consensus on norms for instructional practice, strong internal assessments of student learning, and sturdy processes for monitoring instructional practice and providing feedback" (p. 9).

Promoting a Positive School Learning Climate

Principal behaviors that support the promotion of a positive school learning climate include such behaviors as protecting instructional time, advocating professional development, being visible, and providing incentives for teaching and learning (Hallinger, 2011). Hallinger observed that this dimension of instructional leadership "conforms to the notion that successful schools create an "academic press" through the development of high standards and expectations and a culture that fosters and rewards continuous learning and improvement" (2011, p. 277). Principals are able to advocate teacher professional development by providing teachers with opportunities, during the school day, to participate in professional development, to work in collaboration, and build their knowledge base. Principals promoting and participating in teacher professional development was found to have the largest effect on student achievement in the Robinson et al.

meta-analysis (2008). In discussing the importance of principal participation in professional development, Robinson et al. (2008) concluded that "Leaders' involvement in teacher learning provides them with a deep understanding of the conditions required to enable staff to make and sustain the changes required for improved outcomes" (p.667).

Principals' creating collaborative environments for teachers is a critical component of promoting a positive school culture. Southworth observed that when a culture of teacher collaboration exist "formal and informal professional dialogue is the norm and which includes challenge, debate and a willingness among all staff to address their professional differences" (2002, p. 88). In describing the practices of the best educational systems in the world, Barber and Moorshed (2007) affirmed the importance of a collaborative culture by noting that "these systems create a culture in their schools in which collaborative planning, reflection on instruction, and peer coaching are the norm and constant features of school life" (p 28). During teacher collaboration and professional development, teachers are able to share what they know, engage in teacher reflection, experiment with new ideas and open their practice to inspection. Teacher collaboration has been found to increase teacher instructional capacity, their willingness to try new methods, and reflect on their practices (Thoonen et al., 2011). Teacher collaboration has also been found to support increased student

achievement (Supovitiz & Poglinco, 2001; Supovitz et. al, 2010; Waters et al, 2003).

Additional research gives further weight to the importance of teacher collaboration and the sharing of best practices. There has been documentation of teacher collaboration creating a positive spillover effect in which average teachers mirror the practices of expert teachers (Jackson & Bruegman, 2009). These findings further exemplify the importance of principals providing time for teachers to work in collaboration on methods to provide students with rigorous academic learning experiences.

Principals ensuring that instructional time is a high priority and protecting teachers from unnecessary classroom interruptions and enforcing campus policy regarding student discipline are actions that advance the development of a positive school learning climate. Environments that protect instructional time have been associated with student achievement (Marzano et. al, 2005; Robinson et al., 2008). Robinson et al. suggested that "Instructional leadership also includes creating an environment for both staff and students that makes it possible for important academic and social goals to be achieved" (2008, p. 664). Such environments allow teachers to focus on their highest priority – teaching and learning.

The development of a positive school climate is enhanced by the principal being visible throughout the school day and at school functions. Marzano et al.

described visibility as "the extent to which the school leader has contact and interacts with teachers, students, and parents" (2005, p. 61). By maintaining high visibility, principals not only display their support of the efforts of teachers and students to attain campus achievement goals, but they also show that they are engaged and committed to being a partner in attaining campus goals.

Providing incentives for teaching and learning communicates the priority that these two behaviors have within the school system and undergirds the importance of academic achievement. In their discussion of academic emphasis, Hoy et al. declared that principals promote increased student success by "celebrating the achievements of students and faculty, especially the academic ones" (2006, p. 441). Research by Dufour and Eaker (1998) further confirmed the importance of celebrating academic achievements in developing a campus culture. Marzano et al. described celebration in terms of affirmation, the "extent to which the leader recognizes and celebrates school accomplishments" (2005, p. 41). Marzano et al. determined that principals' use of affirmation had a statistically significant effect upon student achievement (2005).

Principal instructional leadership is important to improving student achievement outcomes. By working with teachers to improve teacher capacity and expertise, principals are able to support the attainment of campus achievement goals. In discussing the influence of principal instructional leadership upon student achievement, Supovitz et al. observed that the findings of

their study "Support many others in the commonsense notion that the main impact of principals is not directly on students but on teachers who interact with students directly on a daily basis" (2009, p. 47). Consistent research showing the capacity of principal instructional leadership to strengthen teacher quality and indirectly impact student achievement (Dufour and Eaker, 1998; Hallinger, 2011; Marzano et al., 2005; Robertson et al., 2008; Supovitz et al., 2009) underscores the importance of examining ways principal instructional leadership can increase teacher self-efficacy.

Principal Leadership and Teacher Self-Efficacy

The research into the role teacher self-efficacy plays on the attainment of academic and organizational goals supports the need for principal leadership to focus upon strengthening teacher self-efficacy (Ross, 1992; Thoonen et al., 2011; Tschannen-Moran et al., 1998). Understanding how to impact teacher self-efficacy is critical for principals' effort to support teachers. Research showing how principal leadership influences the development of teacher self-efficacy informs principal leadership practices on how best to support teachers.

Hoy & Woolfock (1993) examined the influence of various school climate factors upon teacher self-efficacy. Principal influence was one of the school factors examined in the study. The quantitative study included 179 elementary teachers from 37 elementary schools in New Jersey. The researchers observed that the sample participants were skewed towards higher-income districts. The

randomly sampled teachers completed the Teacher Efficacy Scale (Woolfock & Hoy, 1990) to assess their teacher self-efficacy. Principal influence was measured through the use of the Organizational Health Inventory for elementary schools (Hoy, Podgurski, & Tarter, 1991). Regression analysis was performed to examine the relationship between the studied variables. The study found that principal influence was significantly related to teacher self-efficacy. Woolfock and Hoy observed that principals who supported teachers by addressing difficulties with students and providing teachers with instructional support had the most impact on teacher self-efficacy (1993).

The 1995 dissertation study by Hipp explored the relationship between principal leadership and teacher self-efficacy in middle schools. The mixed – methods study sampled 10 principals and 280 teachers from middle schools in Wisconsin. The majority of the study participants came from schools located in middle-class areas of Wisconsin. Teachers assessed their self-efficacy through the completion of the Gibson and Dembo's Teacher Efficacy Scale (1994). Both teachers and principals completed the Nature of Leadership survey (Leithwood, 1993) to assess principal leadership behaviors. The surveys were analyzed using correlational analysis and analysis of variance methods.

Qualitative analysis was performed to develop a further understanding of the relationship between teacher self-efficacy and principal leadership. Interviews of 10 principals and teachers from schools reporting the highest and lowest

efficacy were conducted to deepen the researchers understanding of how principal behaviors influenced teacher self-efficacy. The interviews were examined for trends, differences and similarities within the data. The results from the quantitative analysis performed in the Hipp dissertation study revealed significant relationships between principal leadership and teacher self-efficacy. The behaviors significantly related to teacher self-efficacy included principals' modeling behavior, providing contingent rewards, and inspiring group purposes.

The 2009 dissertation study by Charf examined the relationship between teacher self-efficacy and principal leadership behaviors. The study made use of mixed-method analysis to explore the relationship between the two variables. A sampling of 278 middle-school teachers participated in the surveys designed for quantitative analysis. The teachers were chosen from low, middle, and high-income schools in two metropolitan Nebraska school districts. These teachers completed the Teacher Efficacy Scale (Gibson & Dembo, 1984) and Bandura's Instrument – Teacher Self-Efficacy Scale (Bandura, 2006) to measure their self-efficacy.

Qualitative analysis was performed after interviewing 10 teachers who volunteered to participate. Five of the teachers were from low-income schools and the remaining five where from high-income schools. The researcher choose not to include teachers from middle-income schools in the interviews.

The study identified three principal behavior that influenced teacher self-efficacy; specific feedback, trust and support with parents, and visibility around the school. Charf observed that teachers who believed that principals supported their work efforts and were visible in the classroom and school campus displayed increased teacher self-efficacy (2009).

A study by Walker and Slear (2011) examined the impact of principal leadership behaviors upon middle school teacher self-efficacy. The quantitative study analyzed the results of surveys from 366 urban, rural and suburban middle school teachers from six school districts in a mid-Atlantic state. Teachers completed the TSES (Tschannen-Moran & Woolfook Hoy, 2001) to assess their teacher self-efficacy. Walker & Slear developed a principal behavior rating survey to assess teacher perceptions of 11 principal leadership behaviors. Multiple linear regression analysis was conducted to determine the relationship between teacher self-efficacy and principal behaviors. The study found three principal leadership behaviors significantly affected teacher self-efficacy: 1) Modeling instructional expectations, 2) communication, and 3) providing contingent rewards. The researchers determined that a positive relationship existed between teacher self-efficacy and principals' modeling instructional expectations and communication. A negative association was observed between providing contingent rewards and teacher self-efficacy.

Additionally, Stipek (2012) conducted a quantitative study that analyzed the results of 473 surveys from third and fifth grade teachers in 196 rural and urban school districts across three states. Two of the states were in the northeast and one was in the west. The research study focused upon low-income schools within the districts. The researcher designed a teacher –efficacy survey for use in the study. A survey that assessed teacher's perception of administrator support was also developed for use in the study. Multiple regression analysis was used to analyze predictors of teacher self-efficacy. The study found that teacher perception of administrator support affected their self-efficacy. Stipek observed that "these findings suggest that teachers beliefs about their ability to promote student learning are in part based upon the support they believe they receive" (2012, p. 601).

Summary of Literature Review

The exploration of the evolution of accountability within public education, high-stakes testing in Texas, high-poverty schools, teacher self-efficacy, principal leadership and the influence of principal leadership upon teacher self-efficacy clearly showed the important role that principal leadership and teacher self-efficacy play in attaining student and school organizational goals. National focus upon teaching and learning continues to bring principal instructional leadership to the forefront of strategies designed to improve school organizations (Hallinger, 2005). Hallinger concludes that principals are "at the nexus of accountability and

school improvement with an increasingly explicit expectation that they will function as instructional leaders" (2005, p. 222). He posits that "This makes understanding the boundaries of our knowledge base about instructional leadership especially salient" (Hallinger, 2005, p. 230). In discussing their research on teacher self-efficacy, Tschannen – Moran et al. (1998, p. 234) noted that "Given the importance of a strong sense of efficacy for optimal motivation in teaching, we would do well to examine how efficacy is developed, when it is most malleable, and what factors may lead to its improvement". This study's focus upon teacher perceived principal instructional leadership behaviors that influence teacher self-efficacy in high poverty schools provides valuable insights into behaviors principals can enact to strengthen teacher self-efficacy in order to support the attainment of student achievement goals.

Chapter 3

Methodology

The purpose of this quantitative study was to examine teachers' perceptions of principal instructional leadership behaviors that may influence teacher self-efficacy in high poverty schools. The influence of teacher's years of experience upon teacher self-efficacy was also studied.

Three areas of principal instructional leadership guided the surveying of teachers: 1) Defining the school's mission, 2) Managing the instructional program, and 3) Promoting a positive school learning climate. Teachers shared their perception of the ten functions of these principal instructional leadership areas. The principal behaviors explored in this paper are all correlated to instructional leadership theory – the belief that principals can support increased student achievement.

This study's goals are in line with Creswell's definition of quantitative research. Creswell defines quantitative research as "A means for testing objective theories by examining the relationship among variables" (2009, p. 4). Quantitative research allows for the determination of relationships among tested variables. Quantitative research has been described as deductive, where "the data are specifically collected for the purposes of testing ideas and hypothesis" (Meadows, 2003, p. 520).

Research Questions

The following research questions guided this study:

1. How well do the following teacher perceived principal instructional leadership behaviors predict teacher sense of efficacy: 1) frames the school's goals, 2) communicates the school's goals, 3) coordinates the curriculum, 4) supervises and evaluates instruction, 5) monitors student progress, 6) protects instructional time, 7) provides incentives for teachers, 8) promotes professional development, 9) maintains high visibility, and 10) provides incentives for learning?
2. How well do the following teacher perceived principal instructional leadership behaviors predict teacher sense of efficacy for instructional strategies: 1) frames the school's goals, 2) communicates the school's goals, 3) coordinates the curriculum, 4) supervises and evaluates instruction, 5) monitors student progress, 6) protects instructional time, 7) provides incentives for teachers, 8) promotes professional development, 9) maintains high visibility, and 10) provides incentives for learning?
3. How well do the following teacher perceived principal instructional leadership behaviors predict teacher sense of efficacy for classroom management: 1) frames the school's goals, 2) communicates the school's goals, 3) coordinates the curriculum, 4) supervises and evaluates instruction, 5) monitors student progress, 6) protects instructional time, 7)

provides incentives for teachers, 8) promotes professional development, 9) maintains high visibility, and 10) provides incentives for learning?

4. How well do the following teacher perceived principal instructional leadership behaviors predict teacher sense of efficacy for student engagement: 1) frames the school's goals, 2) communicates the school's goals, 3) coordinates the curriculum, 4) supervises and evaluates instruction, 5) monitors student progress, 6) protects instructional time, 7) provides incentives for teachers, 8) promotes professional development, 9) maintains high visibility, and 10) provides incentives for learning?
5. Is there a relationship between teacher's years of experience and teacher self-efficacy?

Sample

Data for the study was collected from classroom teachers employed in two metropolitan area school districts. A sampling frame of teachers was identified from high poverty elementary and middle schools located in the districts. From the sampling frame, a simple random sampling of teachers was taken to select teachers for participation in the study. Bluman observed that in random sampling "every member of the population must have an equal chance of being selected" (2009, p. 719). From each high poverty elementary and middle school campus a random sampling of teachers was undertaken to comprise the total simple random sampling of teachers.

The total number of teachers at high-poverty elementary and middle schools within the selected metropolitan suburban district was approximately 389 teachers. Simple random samples solicited 85 percent of teachers from the selected campuses. This resulted in a simple random sample of 331 teachers invited to participate.

The simple random sample of teachers was invited to complete an online survey. The online survey invite described the study, outlined expectations, ensured confidentiality and invited teachers to participate. The use of an online survey ensured participation was voluntary and protected the anonymity of the participants.

Instruments

Two instruments were used to collect data from teachers in this study. The Principal Instructional Management Rating Scale (PIMRS) and the Teachers Sense of Efficacy Scale (TSES) were employed to measure the variables of interest. The use of these two instruments enhanced the attainment of quality data regarding teacher perceived instructional principal leadership behaviors and their influence upon teacher self-efficacy in high poverty schools.

The first instrument, the PIMRS, contained survey questions related to instructional leadership behaviors. It was used to measure teacher's perception of the instructional leadership behaviors of principals. The PIMRS measured three components of instructional leadership behavior: Defining the school's mission,

managing the instructional program, and promoting a positive school learning climate (Hallinger, 2011). According to Hallinger, "These three dimensions of the role are delineated into 10 instructional leadership functions" (2011, p. 276). The framework of the PIMRS is described below (Hallinger, 2011, p. 276):

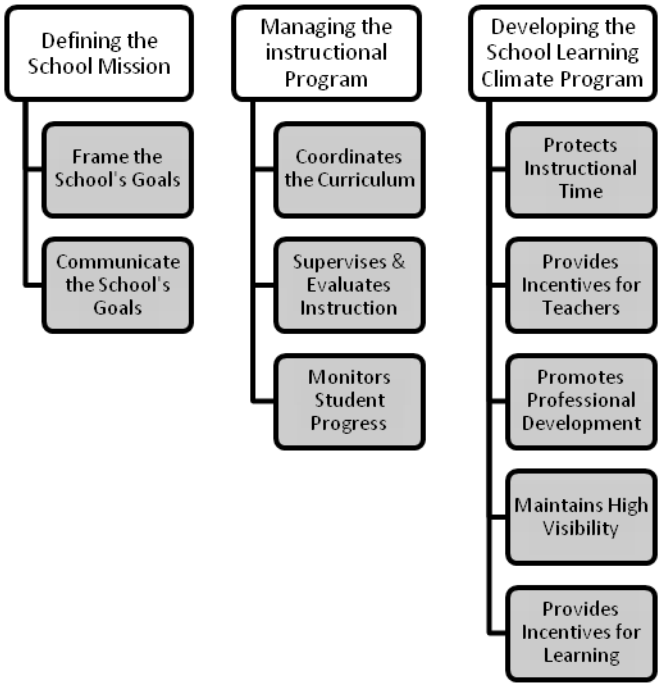


Figure 1. 10 Instructional Leadership Functions

The 50 items on the PIMRS are rated on a five-point, Likert scale. The ratings on the Likert scale ranged from one, which indicated the behavior almost never occurs, to five, which indicated the behavior almost always occurs. Higher scores indicated the principal was perceived as more actively displaying the instructional leadership behaviors.

The PIMRS was developed by Hallinger in 1982 and modified in 1990 to the current 10 subscales and 50 question form (Hallinger, 2011). Three forms of the PIMRS were available to assess the perceptions of teachers, principals and supervisors. The PIMRS has been used frequently in the study of instructional leadership (Hallinger, 2011). A validation study by Hallinger in 1983 found that all 10 subscales of the instrument had Cronbach alpha values exceeding .80 (Hallinger, 2011). Since that time, numerous additional validations of the instruments have occurred over the course of its use (Hallinger, 2012). According to Hallinger "Validation studies in the United States indicate that the PIMRS form that solicits teachers' perception provides the most valid data of the three forms" (2012, p. 10).

The second instrument used in the study was the TSES. Over the past 25 years, various instruments have been used to assess teacher self-efficacy. Researchers, including the Rand researchers, Gusky, Rose and Medway, Gibson and Dembo, Ashton, Buhr and Crocker, have developed instruments to assess teacher self-efficacy (Tschannen-Moran & Hoy, 2001). In 2001, the TSES was developed by Tschannen-Moran and Hoy to assess teacher self-efficacy. This scale was developed in response to cited deficiencies of previous instruments in assessing teacher self-efficacy and the need for "a more careful and fine-grained assessment of those factors that both facilitate and impede teaching in a particular context" (2001, p. 795).

The TSES contained items that teachers perceive as being important to teaching. The ratings on the Likert scale ranged from one to nine. Higher scores indicated stronger teacher self-efficacy beliefs. A score of one indicated teachers perceived themselves as having no influence on the behavior; whereas, a score of nine indicated the teacher perceived themselves as having a great deal of influence on the behavior.

Three separate studies have been undertaken to examine the TSES instrument (Tschannen-Moran & Hoy, 2001). The three studies resulted in two forms of the TSES being established; a long form with 24 items and a short form with 12 items. The TSES short form was used to conduct this study. The TSES short form was chosen for use in the study because, as shown below, it provided reliable and valid scores, while minimizing the amount of time needed for sample participants to complete the survey instruments.

The three studies analyzing the TSES identified three factors for the short and long form: 1) Efficacy for instructional strategies, 2) efficacy for classroom management and 3) efficacy for student engagement (2001, p. 797). In assessing the construct validity of the instruments, factor analysis of these three subscales reported the following factor loading and eigenvalues for the short form (Tschannen-Moran & Hoy, 2001, p. 800):

Table 1.Construct validity scores

Short Form Scales	M	SD	Cronbach's α
OSTES	7.1	0.98	.90
Instruction	7.3	1.2	.86
Management	6.7	1.2	.86
Engagement	7.2	1.2	.81

The reliability of each form was also computed. Reliability refers to how accurately and consistently a test measures what it says it measures. Cronbach alpha values are commonly used to measure the internal consistency reliability of Likert-type scales (Gliem & Gliem, 2003). In reporting the measure of reliability for the scales of the survey, the following Cronbach's α values were identified for the short form (Tschannen-Moran & Hoy, 2001, p. 800):

Table 2.Reliability Scores

Short Form Scales	M	SD	Cronbach's α
OSTES	7.1	0.98	.90
Instruction	7.3	1.2	.86
Management	6.7	1.2	.86
Engagement	7.2	1.2	.81

These strong validity and reliability scores supported the use of the TSES form in conducting this study. Tschannen-Moran and Hoy observed that the TSES "is superior to previous measures of teacher efficacy in that it has a unified and stable factor structure and assesses a broad range of capabilities" (2001, p. 801) identified as important by teachers.

Teacher demographic information was also collected. Participants were asked to provide information regarding their gender, ethnicity and years of

experience. They also shared information regarding how many years they had worked with their current principal.

Collection of Data

This study was conducted in two metropolitan area school districts. Participants were teachers in high poverty elementary and middle schools within the school districts. The researcher first gained approval, from the University Institutional Review Board (IRB) at The University of Texas at Arlington. The researcher contacted selected school districts to gain approval for using their district to conduct the study and survey their teachers.

Upon receiving IRB approval, and approval from each school district, the researcher contacted principals of high poverty elementary and middle schools within the district to inform them of the upcoming study. The contact with principals was made via email and in person meetings. Principals were provided a description of the study, dates of the intended study, the benefits of participating in this study to the principal and its importance to the school. The in person meetings provided opportunities for the researcher to answer questions the campus principals may have had regarding the research study. Communication with campus principals was designed to inform the campus principals of the research study and the contact that was being made with their faculty members.

To send the online surveys to selected participants, email addresses of faculty members selected from high poverty elementary and middle school

campuses were gathered from the district websites. The emails were then uploaded into the survey monkey software. Once the data collection period began, the faculty members were sent an email invite to solicit their participation in the study. The email invitation contained the survey link to survey monkey, along with a link that allowed participants to opt out of the research study. The survey was conducted during the spring semester of the 2012 – 2013 academic school year. Follow-up emails were sent to teachers by the researcher after the original email survey request in order to further increase teacher participation in the study.

Analysis of the Data

Survey Monkey software (2013) was used by the participants to complete the surveys. The software allowed participants to complete the survey via individualized weblinks. The software gathered the inputted data into a database that integrated with statistical software used for analyzing the data.

Data collected from survey participants was analyzed using the IBM Statistical Package for the Social Sciences (SPSS), version 21 (2012). Prior to beginning the data analysis, scales and subscales for the TSES and PIMRS were calculated. These measures were determined by summing the reported scores for each question related to a specific scale. The average of the summed scores was calculated to determine the final scale scores. In discussing the appropriateness of using average scores in subscale formulation, DiStefano, Zhu and Mindrila

observed that "average scores could be computed to retain the scale metric, which may allow for easier interpretation" (2009, p. 2).

Various statistical procedures were conducted. The statistical procedures included the calculation of descriptive statistics to describe and summarize the collected demographic information and the performance of regression tests to analyze the research questions. Bivariate correlation coefficients (R) and coefficients of determination (R^2) were calculated and interpreted during the statistical analysis performed for each research question.

Bluman (2009, p. 4) described descriptive statistics as the "collection, organization, summarization and presentation of data". Descriptive statistics, including means, standard deviations and minimum and maximum values were computed to examine the teacher demographic information. Teacher demographic information included information on teacher's gender, ethnicity and years of experience. The data was also graphed in order to observe trends and patterns within the data.

The calculations of correlation coefficients allowed the researcher to examine the strength and direction of the relationships between the criterion (dependent) and predictor (independent) variables (Allison, 1999). The independent variable is "the one being manipulated by the researcher" (Bluman, 2009, p. 15). The dependent variable is "the variable that is studied to see if it has changed significantly due to the manipulation of the independent variable"

(Bluman, 2009, p. 15). The coefficient of determination values showed the amount of variation attributed to the relationship between the criterion variable and the predictor variables (IVs) in the calculated multiple regression models (Cohen, Cohen, West & Aiken, 2003).

The use of regression analysis allowed the researcher to describe the relationship between the studied variables of interest. Multiple regression procedures where used to examine the relationship between predictor and criterion variables. Bluman (2009) observed that "In a multiple relationship, called multiple regression, two or more independent variables are used to predict one dependent variable" (p. 535). In discussing the popularity of multiple regression, Meyers, Gamst, and Guarino concluded that "Many researchers believe that using more than one predictor can paint a more complete picture of how the world works than is permitted by simple linear regression" (2006, p. 147). The focus upon multiple variables that may influence teacher self-efficacy in high poverty schools, in research questions one through four, supported the use of multiple regression analysis.

The performance of hierarchical multiple regression analysis enabled the researcher to determine the influence of principal instructional behaviors on teacher self-efficacy in high poverty schools. Cohen, Cohen, West and Aiken observed that "Hierarchical regression adds a set of candidate variables to the regression equation to determine how much the set of candidate variables adds to

the prediction of Y over and above the contribution of the previously included variable" (2003, p. 144). Hierarchical multiple regression is significant in that "the choice of a particular cumulative sequence of IVs is made in advance, dictated by the purpose and logic of the research" (Cohen et al., 2003, p. 158).

Hierarchical multiple regression analysis was well suited to analyze research questions one through four of this study due to the research regarding principal instructional leadership behaviors. Research has shown that principal instructional leadership behaviors are encompassed within three dimensions that are "delineated into 10 instructional leadership functions" (Hallinger, 2011, p. 276). These three dimensions of principal leadership formed the three functional sets of predictor values to be analyzed through the use of hierarchical regression. The research into principal instructional leadership behaviors enabled the researcher to develop the three functional sets of predictor variables in advance to support the purpose of the current research study.

In analyzing research questions one through four, the predictor variables were the ten principal's instructional leadership behaviors, as measured by the PIMRS. The teacher self-efficacy score as measured by the TSES served as the criterion variable for research question one. In the analysis of research question number two, teacher self-efficacy for instructional strategies score served as the criterion variable. The criterion variable for research question number three was the teacher self-efficacy for classroom management score. The teacher self-

efficacy for student engagement score served as the criterion variable for research question four.

The relationship between the variables studied was analyzed for the presence of normality, linearity, homoscedasticity of residuals, and outliers. Tabachnick and Fidell (2001) observed that "Mutivariate normality is the assumption that each variable and all linear combinations of the variables are normally distributed. When the assumption is met, the residuals of analysis are also normally distributed and independent" (p. 72). Skewness and kurtosis statistics can be used to assess normality (Tabachnick & Fidell, 2001). Skewness values assess the symmetry of the distribution, while kurtosis values assess the peakedness of distributions. Skewness and kurtosis values between -1 and 1 point to normality of a distribution (George & Mallory, 2003). Tabachnick and Fidell (2001) further observed that "the assumption of linearity is that there is a straight-line relationship between two variables" and that this assumption can be assessed "by inspection of bivariate scatterplots" (p. 77). An oval-shaped scatterplot indicates the presence of a linear relationship between the variables (Tabachnick and Fidell, 2001). In discussing homoscedasticity, Meyers et al. (2006) concluded "the assumption of homoscedasticity suggests that quantitative dependent variables have equal levels of variability across a range of (either continuous or categorical) independent variables (Hair et al., 1998)" (p. 70). As stated earlier, the presence of normality among the variables indicates the

"relationship between variables are homoscedastic" (Tabachnick & Fidell, 2001, p. 79). Mahalanobis distance statistics were calculated for each case to check for outliers - values deviating from the overall pattern of the distributions (Meyers et al., 2006). This statistic "measures the multivariate "distance" between each case and the group multivariate mean (known as a centroid)" (Tabachnick & Fidell, 2001, p. 67).

The relationship among the predictor variables in research questions one through four was also analyzed for the presence of multicollinearity. Multicollinearity occurs when predictor variables are highly correlated with one another (Allison, 1999). Multicollinearity among predictor variables makes it difficult to interpret the results of the statistical analysis (Allison, 1999). The confounding between highly correlated predictor variables increases "the possibility of concluding the two variables have no effect when one or the other actually has strong effect" (Allison, 1999, p. 63). Measures for detecting multicollinearity include: 1) Analyzing the bivariate correlations for values exceeding .90 (Allison, 1999), 2) analyzing the variance inflation factor (VIF) for values of 10 or more (Allison, 1999; Cohen et al., 2003), and 3) analyzing the tolerance level for values below .10 (Cohen et al., 2003).

In research question five, the significance of the correlation between the variables of interest was examined to determine whether or not a relationship existed. For research question five, teacher's years of experience served as the

predictor variable. The teacher self-efficacy score served as the criterion variable.

Summary

This chapter provided an in depth overview of the methodology for this research study. An explanation of the type of research to be conducted and the research questions were provided. The processes for sample and instrument selection were included. A review of the data collection and analysis methods was also conducted. In the following chapter, the results of the quantitative data analysis will be reported.

Chapter 4

Data Analysis

SPSS version 21 (2013) was used to perform various statistical analyses of the data. These analyses included frequency counts, graphical representations of the sample data, and multiple regression analysis procedures to assess the results of the studied research questions. The discussion of the findings regarding the relationship between teacher self-efficacy, principal instructional leadership behaviors and years of experience is described in three sections. The first section presents a review of data characteristics for both schools and participants in the study. Section two describes the analysis of the teacher sense of efficacy and principal instructional leadership behavior scales and subscales. The final section presents the results of inferential statistical analysis for research questions one through five.

Data Characteristics

Schools in the study were chosen from two metropolitan area school districts. High poverty elementary and middle school campuses within the districts were chosen to participate in the study. High poverty school was defined as schools having a student population where at least 76% of students qualified for free or reduced lunch services (NCES, 2010).

The student enrollment at the 10 sampled campuses ranged from 290 students to 953 students. The majority of students at the campuses were minority students. Black students made up the largest subgroup of students (M = 70%). Hispanic students where the second largest subgroup of students at the campuses (M = 23%). Since each of the chosen campuses where high poverty campuses, there was limited variation in the free and reduced lunch percentages. These percentages ranged from 76% to 92%.

Three-hundred and thirty-one randomly sampled teachers were invited to participate in the study. Of those teachers invited to participate, 94 chose to complete the online survey. Seven teachers partially completed the survey, while 87 teachers completed the entire survey. The seven partially completed surveys were deleted from the survey database. This resulted in a participation rate of 26%. Of the teachers participating in the study, 77 were from elementary campuses, while 10 were from middle school campuses. The teacher participants were mostly female (91%) and majority African American (68%); 25% where White and 7% where Hispanic.

Figure 1 shows the distribution of teacher's years of experience. There was considerable variation in teacher's years of experience (M = 11, SD = 7.8). Figure 1 shows the graph of the teacher's years of experience. The histogram is skewed right, with an outlier at 46 years of experience.

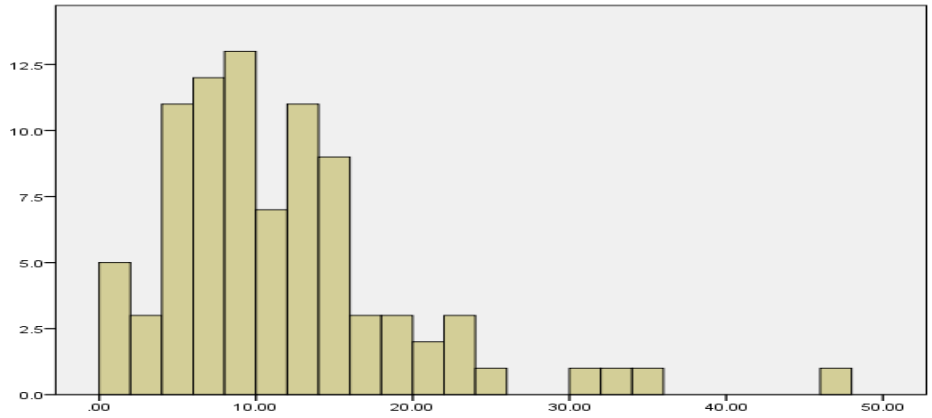


Figure 2. Teachers' years of experience

Instrument Analysis

The TSES and PIMRS were used in this study to assess the relationship between teacher self-efficacy and principal instructional leadership behaviors. The TSES had three subscales, while the PIMRS had 10 subscales. This section will review the calculated descriptive characteristics and validity measures for the TSES and PIMRS scales and subscales.

TSES

The TSES form, developed by Tschannen-Moran and Woolfolk –Hoy (2001) was used to record teacher perceptions of teacher self-efficacy. The TSES short form was used for this study. The TSES short form was chosen in order to expedite the gathering of valid sample data. Teacher self-efficacy scores ranged from 4.67 to 9 (M = 7.3, SD = 1.01).

A test of inter-rater reliability was conducted to analyze the validity of the TSES. A test of reliability allowed the researcher to assess the validity of the research instrument. A Cronbach's Alpha score was calculated to measure the reliability of the TSES short form. The 12 question TSES was found to be highly reliable ($\alpha = .92$).

TSES Subscales

Three subscales exist for the TSES. The subscales are: (1) teacher efficacy for student engagement, (2) teacher efficacy for instructional strategies and teacher efficacy for classroom management. Table 3 shows the TSES questions corresponding to each subscale.

Table 3.TSES subscale items

Factor	Item Numbers
Student Engagement	2, 3, 4, 11
Instructional Strategies	5, 9, 10, 12
Classroom Management	1, 6, 7, 8

Descriptive statistics were calculated for each of the TSES subscales. These statistics include the calculation of minimum and maximum values, along with the mean and standard deviation. Table 4 contains the results of the calculations.

Table 4.TSES Subscale Characteristics

TSES Subscale	Minimum	Maximum	*M*	*SD*
Student Engagement	4	9	7.1	1.2
Instructional Strategies	4	9	7.5	1.1
Classroom Management	4.5	9	7.2	1.2

Inter-rater reliability analysis was also conducted for the three subscales of the TSES. The analysis used the Cronbach's Alpha score to determine the reliability of the subscales. Table 5 displays the results of the analysis. Each of the three subscales was shown to have high reliability rates.

Table 5.TSES subscale reliability statistics

TSES Subscale	Cronbach's Alpha	Number Items
Student Engagement	.84	4
Instructional Strategies	.84	4
Classroom Management	.89	4

PIMRS

The PIMRS, developed by Hallinger (2011), was used to record teacher's perception of principal instructional leadership behavior. The PIMRS measures

three broad principal instructional leadership domains: (1) Defining the school's mission, (2) managing the instructional program, and (3) promoting a positive school climate. The domains are further expanded into 10 functions of instructional leadership. Table 6 displays PIMRS items related to each function.

Table 6.PIMRS subscale items

Function	Item Numbers
Frame Schools Goals	17, 18, 29, 20, 21
Communicate the Goals	22, 23, 24, 25, 26
Supervise & Evaluate Instruction	27, 28, 29, 30, 31
Coordinate the Curriculum	32, 33, 34, 35, 36
Monitor Student Progress	37, 38, 39, 40, 41
Protect Instructional Time	42, 43, 44, 45, 46
Maintain High Visibility	47, 48, 49, 50, 51
Provide Incentives for Teaching	52, 53, 54, 55, 56
Promote Professional Development	57, 58, 59, 60, 61
Provide Incentives for Learning	62, 63, 64, 65, 66

The 10 PIMRS functions formed subscales of the PIMRS. Descriptive statistics were calculated for each of the subscales. These statistics included calculation of means, standard deviations and minimum and maximum values. The statistics are shown in Table 7. Frames school goals and supervises and

evaluates instruction received the highest average score (*M* = 4.2, *SD* = 6.8). Maintains high visibility received the lowest average score (*M* = 3.3, *SD* = 9.3).

Table 7.PIMRS subscale characteristics

Subscale	Minimum	Maximum	*M*	*SD*
FG	2	5	4.2	.68
CG	1	5	4.1	.87
SI	1.8	5	4.2	.74
CC	1	5	4.1	.83
MSP	1.6	5	3.9	.78
PIT	1.8	5	3.8	.79
MHV	1.2	5	3.3	.93
PIFT	1.8	5	3.5	.94
PPD	1.4	5	4.0	.81
PIFL	1.0	5	3.7	1.0

Note. FG = Frame Goals, CG = Communicate Goals, SI = Supervise Instruction, CC = Coordinate Curriculum, MSP = Monitor Student Progress, PIT = Protect Instructional Time, MHV = Maintain High Visibility, PIFT = Provide Incentives for Teaching, PPD = Promote Professional Development, PIFL = Provide Incentives for Learning.

Inter-rater reliability analysis was also conducted for the 10 subscales of the PIMRS. The analysis used the Cronbach's Alpha score to determine the

reliability of the subscales. Table 8 displays the results of the analysis. Each of the calculated Cronbach's Alpha were at least .80, indicating high reliability for the PIMRS subscales.

Table 8.PIMRS subscale reliability ratings

PIMRS Subscale	Cronbach's Alpha	Number of Items
Frame Schools Goals	.88	5
Communicate the Goals	.90	5
Supervise & Evaluate Instruction	.86	5
Coordinate the Curriculum	.92	5
Monitor Student Progress	.86	5
Protect Instructional Time	.80	5
Maintain High Visibility	.83	5
Provide Incentives for Teaching	.92	5
Promote Professional Development	.89	5
Provide Incentives for Learning	.93	5

Analysis of Research Questions

This study examined the relation between teacher self-efficacy and principal instructional leadership in high poverty schools. The teacher perceptions gathered from the TSES and PIMRS scales and subscales provided

the data to examine the researched relationships. IBM SPSS version 21 (2012) was used to calculate Pearson correlations and perform regression analysis in order to determine if relationships existed between the tested variables in research questions one through five. For each statistical analysis conducted in research questions one through five, an a priori value of .05 was used to determine significance.

For questions one through four, a three step hierarchical multiple regression analysis was conducted to analyze the relationships between the studied variables. Step one entered predictor variables related to the principal's defining the school mission: 1) Frame the School's Goals and 2) communicate the school goal. The second step of the analysis entered variables related to the principal's managing the instructional program: 1) Coordinate the curriculum, 2) supervises and evaluates instruction and 3) monitors student progress. Step three of the analysis entered variables related to the developing the school learning climate program: 1) Protects instructional time, 2) provides incentives for teachers, 3) promotes professional development, 4) maintains high visibility and 5) provides incentives for learning.

For question five, correlational analysis was conducted to assess the relationship between teacher self-efficacy and teacher's years of experience. Teacher self-efficacy served as the criterion variable. Teacher's years of experience served as the predictor variable.

A pre-analysis data screening was undertaken to assess the assumptions of normality, linearity, homoscedasticity of residuals, multicollinearity, and check for outliers. The calculated skewness and kurtosis variables indicated no substantial deviations from normality and that the studied relationships were homoscedastic. A review of scatterplot matrices for each studied relationship revealed oval-shaped relationships which indicated the existence of linear relationships between the variables studied. The calculated Mahalanobis distances revealed that no outliers existed among the studied relationships. Results of the correlation analysis the tolerance levels and the VIF values indicated that multicollinearity did not exist among the independent variables. Correlations among the regression variables are shown in Table 9. The results of the hierarchical regression analysis for research questions one through four are shown in Table 10.

Research Question 1

How well do the following teacher perceived principal instructional leadership behaviors predict teacher sense of efficacy: 1) frames the school's goals, 2) communicates the school's goals, 3) coordinates the curriculum, 4) supervises and evaluates instruction, 5) monitors student progress, 6) protects instructional time, 7) provides incentives for teachers, 8) promotes professional development, 9) maintains high visibility, and 10) provides incentives for learning?

Hierarchical multiple regression analysis was conducted to assess the relationship between the variables studied in research question one. Step one for predicting teacher self-efficacy, which included the variables framing school goals and communicating school goals, resulted in a significant relationship, $F(2, 84) = 4.644$, $p = .012$. The multiple correlation was .09, indicating that nine percent of the variance could be accounted for by the two variables related to defining the school's mission. Both framing the school goals, $\beta = .434$, $t(84) = 3.043$, $p = .003$, and communicating school goals, $\beta = -.317$, $t(84) = -2.223$, $p = .029$ significantly predicted teacher self-efficacy. Step two added the variables coordinates the curriculum, supervises and evaluates instruction and monitors student program, which are all related to managing the instructional program. The addition of these variables did not result in a significant relation, $R^2 = .125$, $F(5, 81) = 2.132$, $p = .05$. Step three added the variables protect instructional time, provides incentive for teachers, promotes professional development, maintain high visibility, and provides incentives for learning-variables all related to developing the school learning climate program. Adding these additional variables did not result in a significant relationship, $R^2 = .144$, $F(10, 76) = 1.282$, $p = .256$.

Research Question 2

How well do the following teacher perceived principal instructional leadership behaviors predict teacher sense of efficacy for instructional strategies: 1) frames the school's goals, 2) communicates the school's goals, 3) coordinates the curriculum, 4) supervises and evaluates instruction, 5) monitors student progress, 6) protects instructional time, 7) provides incentives for teachers, 8) promotes professional development, 9) maintains high visibility, and 10) provides incentives for learning?

Step one entered the variables frame school goals and communicates school goals into the hierarchical multiple regression analysis. Results suggest a significant relationship between these variables and teacher self-efficacy for instructional strategies, $F(2, 84) = 5.716$, $p = .005$. $R^2 = .12$ indicated 12 percent of the variance was attributable to the linear combination of the variables. Both frame the school goals, $\beta = .477$, $t(84) = 3.381$, $p = .001$ and communicates the school goals, $\beta = -.334$, $t(81) = -2.369$, $p = .02$ were significant predictors. Addition of the variables supervises instruction, coordinates the curriculum and monitors student progress in Step 2 resulted in a significant increase in variation, $R^2 = .15$ over the step one model, $F(5, 81) = 2.753$, $p = .024$. Of the five variables examined in step two, frames the school goals, $\beta = .473$, $t(81) = 2.646$, $p = .01$ and communicate goals, $\beta = .-.392$, $t(81) = -2.266$, $p = .026$ were significant predictors. The addition of protect instructional time, maintain high visibility,

provide incentives for teaching, provide professional development and provide incentives for learning was not statistically significant, $R^2 = .194$, $F(10, 76) = 1.824$, $p = .070$.

Research Question 3

How well do the following teacher perceived principal instructional leadership behaviors predict teacher sense of efficacy for classroom management: 1) frames the school's goals, 2) communicates the school's goals, 3) coordinates the curriculum, 4) supervises and evaluates instruction, 5) monitors student progress, 6) protects instructional time, 7) provides incentives for teachers, 8) promotes professional development, 9) maintains high visibility, and 10) provides incentives for learning?

To test the research question that teacher efficacy for classroom management can be predicted by the 10 principal leadership behaviors, frames the school goals and communicates the school goals were entered in step one of the hierarchical multiple regression analysis, followed by supervises instruction, coordinates instruction and monitors student progress in step two. The final step of the hierarchical model added the variables, protect instructional time, maintain visibility, provide incentives for teaching, provide professional development and provide incentives for learning. Step one for predicting teacher efficacy for classroom management, indicated a significant relationship existed for the

Table 9.Intercorrelations among TSES and PIMRS Scales

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. FG	-													
2. CG	.70**	-												
3. SI	.66**	.71**	-											
4. CC	.76**	.69**	.66**	-										
5.MSP	.76**	.76**	.72**	.75**	-									
6. PIT	.47**	.51**	.44**	.53**	.52**	-								
7.MHV	.47**	.57**	.52**	.48**	.55**	.65**	-							
8. PIFT	.43**	.57**	.57**	.47**	.55**	.52**	.70**	-						
9. PPD	.58**	.69**	.59**	.67**	.66**	.68**	.71**	.65**	-					
10.PIFL	.46**	.47**	.48**	.50**	.50**	.58**	.75**	.74**	.71**	-				
11. TT	.22*	-.02	.168	.14	.09	.12	.10	.04	.07	.06	-			
12. TIS	.25*	-.00	.17	.12	.01	.15	.05	.07	.01	.02	.84**	-		
13. TC	.22*	.01	.20	.21	.10	.07	.07	.02	.08	.06	.89**	.62**	-	
14. TSE	.11	-.05	.05	.04	.03	.11	.13	.02	.08	.07	.89**	.62	.71**	

Note. FG = Frame Goals, CG = Communicate Goals, SI = Supervise Instruction, CC = Coordinate Curriculum, MSP = Monitor Student Progress, PIT = Protect Instructional Time, MHV = Maintain High Visibility, PIFT = Provide Incentives for Teaching, PPD = Promote Professional Development, PIFL = Provide Incentives for Learning.
** $p < .01$

Table 10.Results of Hierarchical Regression Analysis

	Teacher Self-Efficacy			Teacher Efficacy for Instructional Strategies			Teacher Efficacy for ClassroomManagement			Teacher Efficacy for Student Engagement		
	R^2	F	Sig.	R^2	F	Sig.	R^2	F	Sig.	R^2	F	Sig.
Step 1	.10*	4.644	.012	.12**	5.716	.005	.085*	3.903	.024	.042	1.854	.163
FG												
CG												
Step 2	.125	2.312	.051	.145*	2.753	.024	.137*	2.571	.033	.047	.805	.549
FG												
CG												
SI												
CC												
MS												
Step 3	.125	1.282	.256	.194	1.824	.070	.145	1.291	.251	.089	.744	.681
FG				.								
CG												
SI												
CC												
MS												
PT												
MV												
PIT												
PD												
PIL												

Note. FG = Frame Goals, CG = Communicate Goals, SI = Supervise Instruction, CC = Coordinate Curriculum, MSP = Monitor Student Progress, PIT = Protect Instructional Time, MV = Maintain High Visibility, PIFT = Provide Incentives for Teaching, PPD = Promote Professional Development, PIFL = Provide Incentives for Learning. ** $p < .01$, * $p < .05$

variables frames the school goals and communicates the school goals, $R^2 = .09$, $F(2, 84) = 3.903$, $p = .024$, with nine percent of the variance accounted for by the model. Framing school goals was the only significant predictor variable, $\beta = 2.791$, $t(84) = 2.791$, $p = .007$.

The second step was also statistically significant, $R^2 = .14$, $F(5, 81) = 2.571$, $p = .033$, with an additional 14% of the variance being attributed to the addition of the three variables related to managing the instructional plan. Of the five variables examined in step two, communicates school goals was the only significant predictor, $\beta = -.382$, $t(81) = -2.198$, $p = .031$. Step three's addition of the five variables related to developing the school learning climate program was not statistically significant, $R^2 = .145$, $F(10, 76) = 1.291$, $p = .251$.

Research Question 4

How well do the following teacher perceived principal instructional leadership behaviors predict teacher sense of efficacy for student engagement: 1) frames the school's goals, 2) communicates the school's goals, 3) coordinates the curriculum, 4) supervises and evaluates instruction, 5) monitors student progress, 6) protects instructional time, 7) provides incentives for teachers, 8) promotes professional development, 9) maintains high visibility, and 10) provides incentives for learning?

The hierarchical multiple regression analysis revealed that at step one, frames the school goals and communicates the schools goal did not contribute

significantly to the regression model, R^2 = .042, F(2, 84) = 1.854, p = .163. The step two addition of supervise instruction, coordinate the curriculum, and monitor student progress to the regression model was also not significant, R^2 = .047, F(5, 81) = .805, p = .55. Step three's inclusion of protect instructional time, provide incentive for learning, maintain high visibility, and provide professional development did not result in a statistically significant model, R^2 = .089, F(10, 76) = .744, p = .68.

Research Question 5

Is there a relationship between teacher's years of experience and teacher self-efficacy?

The correlation between teacher's years of experience and teacher self-efficacy was examined to determine the significance of the relationship. The results of the analysis showed that teacher's years of experience did not significantly predict teacher efficacy, r(85) = -.09, p = .41.

Summary

This chapter presented the findings regarding the relationship between teacher self-efficacy and teacher perceived principal instructional leadership behaviors. Descriptive statistics for school and participant data were shared, along with the analysis of the TSES and PIMRS scale and subscales, and the

results of the regression analysis conducted to examine research questions one through five. Chapter five will provide insight into the results shared in this chapter.

Chapter 5

Summary, Implications, Recommendations for Future Research and Conclusions

Principal instructional leadership has been cited as an important factor in educating students (Hallinger & Heck, 1996; Hallinger, 2011; Leithwood, Seashore Louis, Anderson, & Wahlstrom, 2004; Marzano, Waters & McNulty, 2005; Robinson, Lloyd, & Rowe; 2008). Research into teacher self-efficacy has shown the influence it has on the educational achievement of students (Caprara et al., 2006; Palardy & Rumberger, 2008; Ross, 1992, Tschannen-Moran et al., 1998). This study found that principal instructional leadership behaviors do make a difference in teacher self-efficacy in high poverty schools. This finding is significant given the influence of teacher self-efficacy upon student achievement outcomes.

Summary of Results

This study sought to determine if a relationship existed between teacher self-efficacy and teacher perceived principal instructional leadership behaviors in high poverty schools. The relationship between teacher self-efficacy and teacher's years of experience was also explored. Phillip Hallinger's theory of principal instructional leadership served as the theoretical framework for the study.

Descriptive Statistics

The results of the descriptive statistics analysis of school and teacher participants in the study provided important observations related to characteristics of high poverty schools. The finding that an average of 93% of students at the high poverty campuses were minority students, with an average of 70% classified as black and 23% classified as Hispanic, was consistent with previous research into student demographics at high poverty schools (NCES, 2010, 2012; Rumber & Palardy, 2005). The finding that the majority of teachers in the study were female - 91% - was also consistent with research regarding the teaching profession in general (Ingersoll, 2001; NCES, 2012).

Additionally, the finding that 75% of the teachers were minority confirmed previous research into high poverty schools. While previous research into teacher demographics in education as a whole has shown that the majority of teachers are white females (Borman & Dowling, 2008; Ingersoll, 2001; NCES, 2007, 2012), research into high poverty schools has reported that the majority of teachers are minority (Kirby, Berends, & Neftel, 1999). One observation of particular interest was the finding that teachers in this study had an average of 11 years of experience. This finding was contradictory to previous research into high poverty schools which found these schools where generally staffed by teachers with minimal years of teaching experience (Ingersoll, 2001; NCES, 2000).

Research Questions

This study employed regression analysis methods to examine five research questions. Hierarchical multiple regression analysis was performed to examine the relationships in research questions one through four. Correlational analysis was performed to examine the relationship in research question five.

Research question one examined whether teacher sense of efficacy could be predicted by the following variables: frames the school's goals, communicates the school's goals, coordinates the curriculum, supervises and evaluates instruction, monitors student progress, protects instructional time, provides incentives for teachers, promotes professional development, maintains high visibility, and provides incentives for learning. The analysis for this research question indicated that teacher self-efficacy could be predicted by two of the predictor variables. The variables, frames the school goals and communicates the school goals, were found to be significant predictors of teacher self-efficacy, with frames the school goals being the more significant predictor.

Research question two examined whether teacher sense of efficacy for instructional strategies could be predicted by the following variables: frames the school's goals, communicates the school's goals, coordinates the curriculum, supervises and evaluates instruction, monitors student progress, protects instructional time, provides incentives for teachers, promotes professional development, maintains high visibility, and provides incentives for learning.

Analysis of the variables in research question two found both frames the school goals and communicates the school goals to be significant predicators of teacher efficacy for instructional strategies. Frame the school goals was the more significant of the two variables.

Research question three examined whether teacher sense of efficacy for classroom management could be predicted by the following variables: frames the school's goals, communicates the school's goals, coordinates the curriculum, supervises and evaluates instruction, monitors student progress, protects instructional time, provides incentives for teachers, promotes professional development, maintains high visibility, and provides incentives for learning. Step one the hierarchical analysis found frames the school goals to be a significant predictor of teacher efficacy for classroom management. Step two of the analysis found the variable, communicates the school goals, to be a significant predictor of teacher efficacy for classroom management.

Research question four examined whether teacher sense of efficacy for student engagement could be predicted by the following variables: frames the school's goals, communicates the school's goals, coordinates the curriculum, supervises and evaluates instruction, monitors student progress, protects instructional time, provides incentives for teachers, promotes professional development, maintains high visibility, and provides incentives for learning. Research question five examined whether a relationship existed between teacher

self-efficacy and teacher's years of experience. The analysis performed for both of these research questions found no evidence of a significant relationship between the tested variables.

It is noteworthy that two of the variables studied where significant predictors of teacher self-efficacy across three scales of teacher efficacy: teacher efficacy, teacher efficacy for instructional strategies and teacher efficacy for classroom management. The finding that principal's framing the school goals and communicating the school goals were significant predictors of teacher efficacy is consistent with prior research regarding the relationship between these two variables (Hipp & Bredson, 1995; Walker & Slear, 2011; Ware & Kitsantas, 2007). The more recent research by Walker and Slear determined that teacher self-efficacy is built by the principals displaying "clear lines of communication" (2011, p. 55). Ware and Kitsantas also observed the influence of principal's communicating their plans for the school and holding conversations regarding teacher expectations on building teacher self-efficacy (2007).

One wondering regarding the results of this study is why any of the other studied variables didn't have an influence upon teacher self-efficacy. One answer can be drawn from prior research regarding the relationship between teacher self-efficacy and teacher years of experience. Previous research into teacher self-efficacy has found that teacher self-efficacy is most malleable within the beginning years of teaching (Ross, 1994; Tschannen-Moran et al., 1998). After

this point, teacher self-efficacy beliefs are more stable and not as easily influenced (Ross, 1994). Experienced teachers have had more mastery experiences in instructional practices that enabled them to develop a stable sense of efficacy (Tschannen-Moren et al, 1998). With teacher's average years of experience for this study being 11 years, it seems feasible that the teachers in this study would not be as influenced by the principal's management of the instructional programs or promotion of a positive school climate, but would be more influenced by the direction and accountability provided by clearly communicated goals. Walker and Slear's research into the influence of principal leadership behaviors on the teacher self-efficacy of new and experienced teachers supports this supposition (2011). They observed that experienced teachers "Still need instructional support and benefit from the principal's emphasis on expectations, but communication takes on a much larger role in the enhancement of teachers' efficacy" (Walker & Slear, 2011, p. 55).

The study's finding that teacher self-efficacy was not related to teacher's years of experience also bears closer scrutiny. Previous research regarding the association between these two variables has been inconclusive (Tschannen-Moran, 1998). Though the researcher expected to find a significant relationship between these variables, it is possible that this study's examination of the relationship between these two variables, within the setting of high poverty

schools, may have captured insightful information into how the socio-economic status of schools affects the relationship between the two variables.

Implications for Theory and Practice

The challenges of high poverty schools underscore the need to understand how principal leadership influences teacher self-efficacy. High poverty schools are most in need of principal leaders who are able to display specific and intentional instructional leadership behaviors that support teacher self-efficacy and the attainment of student achievement goals. The findings of this study regarding principal instructional leadership behaviors and teacher self-efficacy have implications for theory and practice.

Theory

This study, an attempt to understand how principal leadership supports teacher self-efficacy in high poverty schools, was based upon the premise that effective principal leaders employ instructional behaviors that support increased student achievement. Within this context, Phillip Hallinger's theory of principal instructional leadership served as the theoretical framework for this study. Teacher's shared their perceptions of the ten principal instructional leadership behaviors that were tied to the three dimensions of principal instructional leadership. The results of this study supported the use of principal instructional leadership as a framework for observing the relationship between principal

leadership and teacher self-efficacy in high poverty schools in order to better understand how principal behavior supports increased student outcomes.

Practice

The results of this study also have important implications for practice. The results of the study should be particularly noteworthy to practitioners who are committed to using research-based strategies to support the enhancing of teacher self-efficacy in high poverty schools in order to attain goals for student achievement. The findings, that principal's working with teacher's to frame campus goals and using effective communication strategies to share the campus goals enhanced teacher self-efficacy, can be used to inform the practices of principals in high poverty schools. Principals are required to display different and varied skills in their everyday management of the school organization. The awareness that effective communication and collaboration in goal setting maximizes teacher self-efficacy, which in turn supports increased student achievement, will enable principals to be more intentional in their communication efforts.

The finding of this study can also be used by district central administration leaders to develop principal professional development opportunities that equip principals with knowledge and strategies to more powerfully leverage the effect communication has in strengthening teacher self-efficacy in high poverty schools. For example, principals can receive training on developing a personal webpage,

developing newsletters to distribute to teachers, and developing opportunities for teachers to share best practices that support student learning (Marzano et al., 2005). Principal professional development opportunities should also provide principals with strategies to monitor the effectives of their communication through the use of progress monitoring tools such as teacher climate surveys and the holding of teacher focus groups forums designed to gather teacher feedback.

Recommendations for Future Research

This study extended the body of research literature regarding the relationship between teacher self-efficacy and principal instructional leadership in high poverty schools. The insights gleaned from the study point to many opportunities for future research. The finding that the variables frames the school goals and communicates the school goals were significant predictors of teacher self-efficacy across three different scales of teacher efficacy raises many questions about the nature of these two variables. What is it about framing the school goals that leads to higher teacher self-efficacy? How does a principal work with teachers to frame the school goals? What are the best forms of communication? How does a principal make use of faculty members to help communicate the school goals?

Future research is needed to explore the nature of these two variables contribution to teacher self-efficacy. Framing the school goals and communicating the school goals are functions of the dimension, defining the

school's mission. These two variables focus upon the principal's displaying behaviors that allow for the collaborative formation of campus goals based upon student data and effectively communicating the goals to teachers, students and community stakeholders (Hallinger, 2011). The significance of this dimension of principal leadership cannot be understated. Not only does the principal's communication have an influence upon teacher self-efficacy, Hallinger and Murphy (2012) observed that "Articulating a learning-focused vision that is shared by others creates a platform for all other leadership strategies and actions" (p. 10).

Future researchers should make use of both quantitative and qualitative methods to focus upon the principal instructional leadership domain, defining the school mission, in order to further explore the relationship between the two variables, frame the school goals and communicate the school goals, and teacher self-efficacy. Given that limited research has been conducted to explore the relationship between these variables within the high poverty school setting, future researchers should continue to explore the relationship of the variables within the context of high poverty school in order to provide a more thorough understanding of the role student socio-economic status plays in the relationship between teacher self-efficacy and principal instructional leadership behaviors.

Future researches should also explore the relationship between defining the school's mission and teacher self-efficacy across three predominate school

settings; elementary school, middle school and high school. It is possible that teacher self-efficacy is different across these three settings. An understanding of how principal instructional leadership behaviors influences teacher self-efficacy within these school settings will provide valuable information that strengthens the body of literature regarding the influence of principal instructional leadership.

Future research should focus upon exploring all ten functions of principal instructional leadership and teacher self-efficacy for new teachers in high poverty schools. The research regarding the relationship between these variables within high poverty schools is scarce. Given that teacher self-efficacy has been found to be most easily influenced during the early years of teaching, it would behoove researchers to explore these variables as they relate to new teachers.

Further research should focus upon the three subscales of the TSES. Though the TSES scale has been extensively researched, few researchers have delved into an examination of three subscales of the TSES; 1) teacher efficacy for instructional strategies, 2) teacher efficacy for student engagement and 3) teacher efficacy for classroom management. Additional research into principal instructional leadership behaviors that influence teacher self-efficacy across the three subscales of the TSES could provide a wealth of information that could be used to inform principal practices.

There is also a need for further research into the relationship between teacher self-efficacy and teacher's years of experience. Though this study did not

find evidence of a significant relationship between the two variables, previous research has. There is a shortage of conclusive information regarding the relationship between these variables. More research into these two variables, particularly within the context of high poverty schools, is needed to truly understand the relationship between them.

Conclusions

There are increasingly strong demands being placed upon public education to transform schools into institutions where students are achieving at high levels, as measured by the ever increasing accountability measures meted down from the federal and state levels (Hallinger & Murphy, 2012; NCLB, 2001; TEA, 2011). As the leader of the campuses, principals are expected to oversee this transformation in school performance. A synthesis of quantitative and qualitative studies of factors influencing student achievement concluded that school leadership "is second only to teaching among school-related factors in its impact on student learning" (Leithwood, Seashore Louis, Anderson, & Wahlstrom, 2004, p. 5). The most important factor in attaining the student achievement goals for campuses is teacher quality (Barber & Mourshed, 2007; Darling-Hammond, 1997, 2003; Fallon, 1999).

For high poverty schools, attainment of the rising accountability standards for student achievement will be more challenging than campuses with higher socio-economic status students (Clayton, 2011; Rumber and Palardy, 2005). By

focusing upon behaviors that support teacher self-efficacy, principals are able to build teacher capacity in order to increase student achievement. The results of this study suggest that for principals to increase the self-efficacy of teachers in high poverty schools they must consider teachers' years of experience. The self-efficacy beliefs of new and experienced teachers are different (Ross, 1998; Tschannen-Moran et al.; Walker & Slear, 2011). Principals must display tailored instructional leadership behaviors, based upon teachers' years of experience, to meet the specific needs of these two categories of teachers. Walker and Slear (2011) observed that "Using teacher experience as part of an effective approach to supporting teachers would appear to be an important component of the supervisory process" (p. 58).

The results of this study further suggest that for principals to increase the self-efficacy of teachers in high poverty schools they must pay close attention to issues of communication. Principals must effectively communicate the schools goals and frame them in manners that allow teachers opportunities to internalize and buy-in to the goals. Robinson et al. observed that "Clear goals focus attention and effort and enable individuals, groups and organizations to use feedback to regulate their performance" (p. 661, 2008).

In today's transforming educational environment, both principals and teachers are expected to produce continuously improving student achievement results. Understanding how teacher perceived principal instructional leadership

behaviors influence teachers' sense of efficacy in high poverty schools supports the goal of improving student achievement. This research suggests that by aligning their instructional leadership behaviors with teachers' years of experience and exhibiting clear communication, principals will create the intentionality and accountability of action needed to enhance teacher self-efficacy and support increased student achievement in high poverty schools.

Appendix A

IRB Approval Form

Office of Research Administration
Regulatory Services
817-272-3723 regulatoryservices@uta.edu
http://www.uta.edu/research/administration

Institutional Review Board
Notification of Exemption

January 12, 2013
Tamela Horton
Dr. James Hardy
ELPS
Box 19575

Protocol Number: 2013-0269

Protocol Title: *The Influence of Principal Instructional Leadership Behavior upon Teacher Efficacy*

Type of Review: **Exemption Determination**

The UT Arlington Institutional Review Board (IRB) Chair, or designee, has reviewed the above referenced study and found that it qualified for exemption under the federal guidelines for the protection of human subjects as referenced at Title 45 Part 46.101(b)(2): Research involving the use of educational tests, (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior, unless: (i) information obtained is recorded in such a way that human subjects can be identified, directly or through identifiers linked to the subjects; and (ii) any disclosure of the human subjects' responses outside the research could be damaging to the subjects' financial standing, employability, or reputation. You are therefore authorized to begin the research as of January 10, 2013.

Pursuant to Title 45 CFR 46.103(b)(4)(iii), investigators are required to, "promptly report to the IRB ***any*** proposed changes in the research activity, and to ensure that such changes in approved research, during the period for which IRB approval has already been given, are **not initiated without prior IRB review and approval** except when necessary to eliminate apparent immediate hazards to the subject." Please be advised that as the principal investigator, you are required to report local adverse (unanticipated) events to the Office of Research Administration; Regulatory Services within 24 hours of the occurrence or upon acknowledgement of the occurrence.

All investigators and key personnel identified in the protocol must have documented Human Subject Protection (HSP) Training on file with this office. Completion certificates are valid for 2 years from completion date.

The UT Arlington Office of Research Administration; Regulatory Services appreciates your continuing commitment to the protection of human subjects in research. Should you have questions, or need to report completion of study procedures, please contact Robin Dickey at 817-272-9329 or robind@uta.edu. You may also contact Regulatory Services at 817-272-3723 or regulatoryservices@uta.edu.

Appendix B

Cedar Hill ISD Approval Letter

January 31, 2013

Ms. Tamela Horton
University of Texas at Arlington

RE: Request to Conduct Research in Cedar Hill ISD

Dear Ms. Horton:

Your request to survey Cedar Hill ISD teachers is approved. This letter serves as your required written consent to conduct research within the district. Upon completion of the research the district requests a copy of your study.

Sincerely,

L. Kim Lewis
Chief Operating Officer

Appendix C

Lancaster ISD Approval Letter

December 1, 2012

Tamela Horton
University of Texas at Arlington

RE: Request to Conduct Research in Lancaster ISD

Dear Ms. Tamela Horton:

Your request to conduct surveys with Lancaster ISD teachers is approved. This letter serves as your required written consent to conduct research within the district. I look forward to receiving the results of your study. I believe it will provide beneficial data that supports our district efforts in educating all students.

Sincerely,

Michael McFarland, Ed.D
Superintendent
Lancaster ISD

Appendix D

TSES Approval Letter

The College Of
WILLIAM&MARY

School of Education
Post Office Box 8795
Williamsburg, Virginia 23187-8795
Fax: (757) 221-2988

Megan Tschannen-Moran, Ph.D.
Professor
mxtsch@wm.edu
(757) 221-2187

December 3, 2012

Dear Tamela Horton:

You have permission to use the Teachers Sense of Efficacy Scale that I developed with Dr. Anita Woolfolk Hoy for your research. Please use the following citation when referencing the scale:

> Tschannen-Moran, M & Woolfolk Hoy, A. (2001). Teacher efficacy: Capturing an elusive construct. *Teaching and Teacher Education, 17,* 783-805.

Although the name of the measure has been changed since that article was published, the contents of the scale remain the same.
You may download a copy of the instrument and directions for scoring from my website at http://mxtsch.people.wm.edu. I would like to receive a brief summary of your results when you are finished.

Sincerely,

Megan Tschannen-Moran

Appendix E

PIMRS Approval Letter

Dr. Philip Hallinger
7250 Golf Pointe Way
Sarasota, FL 34243
hallinger@gmail.com

December 1, 2012

Tamela Horton

Dear Tamela:

As copyright holder and publisher, you have my permission as publisher to use the *Principal Instructional Management Rating Scale* (*PIMRS*) in your research study. In using the scale, you may make unlimited copies of any of the three forms of the PIMRS.

Please note the following conditions of use:

1. This authorization extends only to the use of the PIMRS for research purposes, not for general school district use of the instrument for evaluation or staff development purposes;

2. *The user must include a reliability analysis in the study if suitable quantitative data has been collected;*

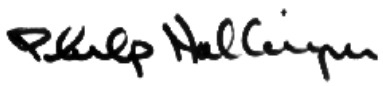
3. The user agrees to send a soft copy of the *completed study* to the publisher upon completion of the research.

4. The user agrees to send a soft copy of the *data set* and coding instructions to the publisher upon completion of the research in order to enable further instrument development.

5. The user has permission to adapt items as necessary for the research.

Please be advised that a separate *permission to publish* letter will be sent after the publisher receives a soft copy of the completed study and I have confirmed that you included a reliability analysis.

Sincerely,



Professor Philip Hallinger

Appendix F

Teacher Survey Invite

Dear Teacher,

You are invited to participate in a dissertation research study described below. Your participation is voluntary and you may choose not to participate or stop at any time without penalty. Please read the information below regarding the dissertation research study.

I. The purpose of this research: To discover teacher's perceptions of their teacher efficacy and key principal instructional leadership behaviors that may serve in enhancing teacher efficacy.

II. Procedures**:** You are being asked to complete two brief questionnaires. The first questionnaire has 12 questions and the second questionnaire has 50 questions. It should take no more than 15 minutes to complete. When you are satisfied with your responses, please submit the questionnaires via survey monkey.

III. The Benefits of this research: Your participation in this dissertation study will help in furthering the field of educational research by providing valuable information regarding enhancing teacher efficacy in order to support increased student achievement.

IV. Confidentiality**:** Any information obtained from this dissertation study will remain confidential. No identifiable data will be collected or used in any publications

V. Incentive. As a token of my appreciation, when you finish the survey, you will be entered into a drawing to win a $20 gift card. Twenty-five $20 gift cards will be given away.

If you have questions regarding the dissertation research study, please contact me at 972 – 765 – 5610 or my advisor Jim Hardy, Ph.D., at jimhardy@uta.edu. I hope you will participate in this dissertation research study. Your completion of the attached survey indicates your willingness to voluntarily participate in the study. I know your time is extremely valuable and I will look forward to hearing from you by _____.

Yours in Education,

Ms. Tamela Horton
Doctoral Student
K – 16 Educational Leadership and Policy Studies
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Appendix G

TSES Short Form

	Teacher Beliefs Directions: This questionnaire is designed to help us gain a better understanding of the kinds of things that create difficulties for teachers in their school activities. Please indicate your opinion about each of the statements below. Your answers are confidential.	**How much can you do?** Nothing		Very Little		Some Influence		Quite A Bit		A Great Deal
1	How much can you do to control disruptive behavior in the classroom?	1	2	3	4	5	6	7	8	9
2	How much can you do to motivate students who show low interest in school work?	1	2	3	4	5	6	7	8	9
3	How much can you do to get students to believe they can do well in school work?	1	2	3	4	5	6	7	8	9
4	How much can you do to help your students value learning?	1	2	3	4	5	6	7	8	9
5	To what extent can you craft good Questions for your students?	1	2	3	4	5	6	7	8	9
6	How much can you do to get children to follow classroom rules?	1	2	3	4	5	6	7	8	9
7	How much can you do to calm a student who is disruptive or noisy?	1	2	3	4	5	6	7	8	9
8	How well can you establish a classroom management system with each group of students?	1	2	3	4	5	6	7	8	9
9	How much can you use a variety of assessment strategies?	1	2	3	4	5	6	7	8	9
10	To what extent can you provide an alternative explanation or example when students are confused?	1	2	3	4	5	6	7	8	9
11	How much can you assist families in helping their children do well in school?	1	2	3	4	5	6	7	8	9
12	How well can you implement alternative strategies in your classroom?	1	2	3	4	5	6	7	8	9

Appendix H

PIMRS

This questionnaire is designed to provide a profile of principal leadership. It consists of 50 behavioral statements that describe principal job practices and behaviors. You are asked to consider each question in terms of your observations of the principal's leadership over the past school year.

Reach each statement carefully. Then circle the number that best fits the specific job behavior or practice of this principal during the school year. For the response to each statement:

5 represents *Almost Always*

4 represents *Frequently*

3 represents *Sometimes*

2 represents *Seldom*

1 represents *Almost Never*

In some cases, these responses may seem awkward; use your judgment in selecting the most appropriate response to such questions. Please circle only one number per question. Try to answer every question. Thank you.

To what extent does your principal…?

	ALMOST NEVER				ALMOST ALWAYS
I. FRAME THE SCHOOL GOALS					
1. Develop a focused set of annual school-wide goals	1	2	3	4	5
2. Frame the school's goals in terms of staff responsibilities for meeting them	1	2	3	4	5
3. Use needs assessment or other formal and informal methods to secure staff input on goal development	1	2	3	4	5
4. Use data on student performance when developing the school's academic goals	1	2	3	4	5
5. Develop goals that are easily understood and used by teachers in the school	1	2	3	4	5

II. COMMUNICATE THE SCHOOL GOALS

6. Communicate the school's mission effectively to members of the school community	1	2	3	4	5
7. Discuss the school's academic goals with teachers at faculty meetings	1	2	3	4	5
8. Refer to the school's academic goals when making curricular decisions with teachers	1	2	3	4	5
9. Ensure that the school's academic goals are reflected in highly visible displays in the school (e.g., poster or bulletin boards emphasizing academic progress)	1	2	3	4	5
10. Refer to the school's goals or missions in forums with students (e.g., in assemblies or discussions)	1	2	3	4	5

III. SUPERVISE & EVALUATE INSTRUCTION

11. Ensure that the classroom priorities of teachers are consistent with the goals and direction of the school	1	2	3	4	5
12. Review student work products when evaluating classroom instruction	1	2	3	4	5
13. Conduct informal observations in classrooms on a regular basis (informal observations are unscheduled, last at least 5 minutes, and may or may not involve written feedback or a formal conference)	1	2	3	4	5
14. Point out specific strengths in teacher's instructional practices in post-observations feedback (e.g., in conferences or written evaluations)	1	2	3	4	5
15. Point out specific weaknesses in teacher instructional practices in post-observations feedback (e.g., in conferences or written evaluations)	1	2	3	4	5

IV. COORDINATE THE CURRICULUM

16. Make clear who is responsible for coordinating the curriculum across grade levels (e.g., the Principal, vice principal, or teacher-leaders)	1	2	3	4	5

17.	Draw upon the results of school-wide testing when making curricular decisions	1	2	3	4	5
18.	Monitor the classroom curriculum to see that it covers the school's curricular objectives	1	2	3	4	5
19.	Assess the overlap between the school's curricular objectives and the school's achievement tests	1	2	3	4	5
20.	Participate actively in the review of curricular materials	1	2	3	4	5
V.	MONITOR STUDENT PROGRESS					
21.	Meet individually with teachers to discuss student progress	1	2	3	4	5
22.	Discuss academic performance results with the faculty to identify curricular strengths and weaknesses	1	2	3	4	5
23.	Use tests and other performance measures to assess progress toward school goals	1	2	3	4	5
24.	Inform teachers of the school's performance results in written form (e.g., in a memo or newsletter)	1	2	3	4	5
25.	Inform students of school's academic progress	1	2	3	4	5
VI.	PROTECT INSTRUCTIONAL TIME					
26.	Limit interruptions of instructional time by public address announcements	1	2	3	4	5
27.	Ensure that students are not called to the office during instructional time	1	2	3	4	5
28.	Ensure that tardy and truant students suffer specific consequences	1	2	3	4	5
29.	Encourage teachers to use instructional time for teaching and practicing new skills and concepts	1	2	3	4	5
30.	Limit the intrusion of extra- and co-curricular activities on instructional time	1	2	3	4	5

VII.	MAINTAIN HIGH VISIBILITY					
31.	Take time to talk informally to students and teachers during recess and breaks	1	2	3	4	5
32.	Visit classrooms to discuss school issues with teachers and students	1	2	3	4	5
33.	Attend/participate in extra- and co-curricular activities	1	2	3	4	5
34.	Cover classes for teachers until a late or substitute teacher arrives	1	2	3	4	5
35.	Tutor students or provide direct instruction to classes	1	2	3	4	5
VIII.	PROVIDE INCENTIVES FOR TEACHERS					
36.	Reinforce superior performance by teachers in staff meetings, newsletters, and/or memos	1	2	3	4	5
37.	Compliment teachers privately for their efforts or performance	1	2	3	4	5
38.	Acknowledge teachers' exceptional performance by writing memos for their personnel files	1	2	3	4	5
39.	Reward special efforts by teachers with opportunities for professional recognition	1	2	3	4	5
40.	Create professional growth opportunities for teachers as a reward for special contributions for the school	1	2	3	4	5
IX.	PROMOTE PROFESSIONAL DEVELOPMENT					
41.	Ensure that inservice activities attended by staff are consistent with the school's goals	1	2	3	4	5
42.	Actively support the use in the classroom of skills acquired during inservice training	1	2	3	4	5
43.	Obtain the participation of the whole staff in important inservice activities	1	2	3	4	5
44.	Lead or attend teacher inservice activities concerned with instruction	1	2	3	4	5

45.	Set aside time at faculty meetings for teachers to share ideas or information from inservice activities	1	2	3	4	5
X.	PROVIDE INCENTIVES FOR LEARNING					
46.	Recognize students who do superior work with formal rewards such as an honor roll or mention in the principal's newsletter	1	2	3	4	5
47.	Use assemblies to honor students for academic accomplishments or for behavior or citizenship	1	2	3	4	5
48.	Recognize the superior student achievement or improvement by seeing in the office the students with their work	1	2	3	4	5
49.	Contact parents to communicate improved or exemplary Student performance or contributions	1	2	3	4	5
50.	Support teachers actively in their recognition and/or reward of student contributions to and accomplishments in class	1	2	3	4	5

Appendix I

Demographic Information

Please provide the following information about yourself:

(A) What is you Gender? _____ Male _____ Female

(B) Years, at the end of this school year, that you have worked with the current principal: _____

(C) Years experience as a teacher at the end of this school year: _____

(D) What is your ethnicity?

African American _____ White _____ Hispanic _____ Other _____

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Biographical Information

Tamela Horton is an advocate of continuous self-improvement and purpose-filled life pursuits. She believes self-improvement and learning are indispensable to one another. Earning both her B.S of Mathematics and M. Ed from the University of Texas at Tyler, she continues to immerse herself in opportunities for self-improvement that build her capacity to live a purpose-filled life.

Ms. Horton began her professional career as a high-school mathematics teacher. She taught high-school mathematics for 12 years. She left the classroom to become an assistant principal - serving in this capacity for 4 years. She then proceeded to serve as a high school principal for five years. Ms. Horton's proudest moment as a high-school principal was the receipt of a National Blue Ribbon award by her campus in 2011. Ms. Horton currently serves in a central administration role where she provides service and support to campuses as they strive to achieve their student achievement goals.

Ms. Horton plans to continue serving within public education. Her future plans include working within higher education and pursuing opportunities to publish her research. She will continue to seek out opportunities for self-improvement, learning and purpose.