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Do principals make a difference? An analysis of leadership behaviors of elementary principals in effective schools

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DO PRINCIPALS MAKE A DIFFERENCE? AN ANALYSIS OF LEADERSHIP BEHAVIORS OF ELEMENTARY PRINCIPALS IN EFFECTIVE SCHOOLS

A Dissertation

By

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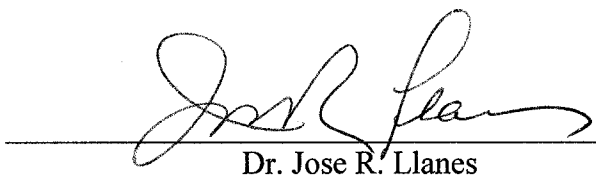

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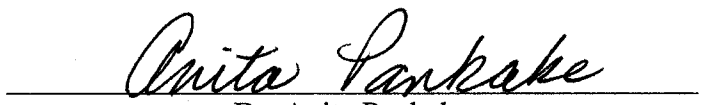

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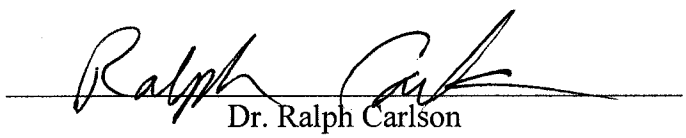

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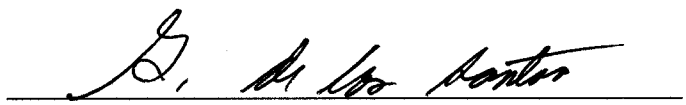

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ABSTRACT

Maciel, Rosemarie Gomez, Do Principals Make a Difference? An Analysis of Leadership Behaviors of Elementary Principals in Effective Schools. Doctor of Education (Ed. D), May 2005, pp. 187, 33 Tables, 1 Figure, 216 references.

Studies have shown principal instructional leadership behaviors to be a factor in student achievement. There has been little research on principal leadership instructional behavior in schools where the principal and student body are predominately Mexican-American.

This causal-comparative study examined the relationships among the school, the achievement scores of third grade students as measured by the reading portion of the Texas Assessment of Academic Skills (TAAS) and leadership behaviors of elementary school principals. A key variation in this study is that the sample is entirely comprised of Mexican-American leaders of schools that have undergone (within three years after the naming of a new school leader) a transformation from a low-performance rating to a high-performance rating on the Academic Excellence Indicator Rating (AEIS) of Texas. The conceptual model tested in the present study was developed by Hallinger and Murphy (1986).

Twenty elementary school principals and 100 teachers in deep South Texas agreed to participate in the study. Two questionnaires, the Principal Instructional Management Rating Scale (Hallinger, 1985) which defines the instructional leadership behaviors of principals and the School Effectiveness Questionnaire (Baldwin, Coney, Fardig, and Thomas, 1993) which identifies the strengths and weaknesses that have an impact on school effectiveness were used to collect the research data.

The research findings based on the results of regression analysis suggest that the principal's leadership has a significant correlation with school effectiveness as measured by students' academic achievement. Instructional leadership behaviors such as Instructional Support, Monitoring Instruction, Visibility and Time on Task provided the strongest correlation found in the study ($p<.05$). Conclusions of the present study are: (a) there is a relationship between school contextual variables and the principal leadership behavior constructs of Instructional Support, Monitoring Instruction, Visibility and Time on Task consistent with the literature, (b) the data supported a relationship between principal leadership behavior and school effectiveness as measured by student achievement, and (c) Mexican-American principal leadership behavior is consistent with the findings in the literature. Principals in this present study replaced the school's mainstream culture of individualism and competition with values of collectivism, cooperation, and strong relational ties those values that are often found in traditional Hispanic communities.

DEDICATION

This work is dedicated to my husband, Manuel, whose unconditional support made the success of this dissertation possible. I express my love and heartfelt thanks for never complaining too much. Spouser, your enduring patience, understanding and many sacrifices have made the completion of this project conceivable.

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Finally, I wish to thank my parents, Jose L. and Rose Marie Flores, who always believed in me and knew that some day they would refer to their eldest daughter as a doctor.

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CHAPTER I

INTRODUCTION

During the time that I was a teacher, counselor and assistant principal, I was fortunate enough to work under some good and some great principals. I learned from them what to do and what not to do and it all seemed to work. When I became an elementary principal eleven years ago, I took those experiences and within four years led our campus to "exemplary" status on the Texas Assessment of Academic Skills (TAAS). The following year, our school was split due to growth and I was reassigned to a newly built campus. The students, the faculty and I looked forward to a bright new school year in a brand new building. Much to my dismay, this new school year brought many challenges. By the end of the first year, our school had dropped to a "recognized" rating and by the end of the second year, our school dropped again to an "acceptable" rating.[1] I couldn't understand where I had gone wrong. We were using the same materials, the same curriculum and the same instructional strategies. But after much reflection, I realized that this new student population and new school community required a new way of leading. Many of my instructional leadership practices were no longer effective. This

[1] An acceptable rating is given when TAAS passing rates for all students and student groups range from 50 to 79.9 percent and the student dropout rate is 5.5 percent or less for total students and each student group. To receive a recognized rating, a school must have a TAAS passing rate of 80 percent or better on each section of the test for the total student population and each student group. It must have a dropout rate of less than 3 percent for all students and each student group.

humbling experience caused me to reflect and reinvent my leadership behaviors. I believe these changes led to higher test scores the following school year. This experience caused me to question what effect I have on my students' academic performance and the transformational nature of leadership both personally and institutionally.

Principals are the chief executive officers of their schools. Today's principal deals with issues and challenges that are more complex than those addressed by their predecessors (Leithwood & Riehl, 2003). A vast number of competencies are needed by the principal to direct the education of hundreds of children. The "effective schools movement" which was initiated in the late 1970s provided educators with a body of research that identified characteristics in high achieving schools and attributed their success to those common attributes. One of the most often cited correlates to a school's success was strong instructional leadership by the building principal (Coleman & LaRoque, 1990; Cuban, 1988; Griffen, 1994; Hord, 1990; Keller, 1998; Pavan & Reid, 1994). There is no role within the scope of the school principalship that is more significant than that of providing instructional leadership and guidance.

Providing appropriate leadership is an idea as old as civilization itself. Socrates, Aristotle, Sun Tzu all tried to de-mystify the qualities of leaders and the very meaning and methods of leadership. Biographers, historians, social scientists, and educational leaders have discussed the concept of leadership for decades. Bennis (1984) notes that there are more than 350 definitions of leadership recorded in the literature. Those definitions include Bennis and Nanus' (1985) suggestion that strong leaders are able to involve everyone in pursuing a shared mission. Schmuck (1985), using the work of

McGregor, defines leadership as "inducing followers to act toward goals that represent the values of both the leaders and the followers."

Leaders are thought to be essential for high quality education. In a report published by the Task Force on Developing Research in Educational Leadership a Division of the American Educational Research Association, Leithwood and Riehl (2003) documented five broadly agreed to conclusions about successful leadership. To be a competent educational leader, one must: (a) realize the effects of leadership on student learning, (b) seek potential sources of leadership within the school setting, (c) identify core leadership practices, (d) respond to the challenges of accountability, and (e) respond to the opportunities of working with diverse groups of students.

Leaders influence student learning by helping to promote a vision and define goals, and by ensuring that resources and processes are in place to enable teachers to teach well (Smylie & Hart, 1999). Case studies of exceptional schools found that school leaders influence learning by stimulating efforts around ambitious goals and establishing conditions that support teachers so that in turn, students succeed (Hallinger, Bickman & Davis, 1996).

Major findings from their research on school leadership claimed that principals exert leadership through a myriad of actions that come together around different models of leadership, including transformational, instructional, moral and participative (Leithwood & Riehl, 2003). More attention is being paid to the study of leadership styles that can be distributed across many roles and functions within the school (Gronn, 2000).

Three categories of practices were identified as important for leadership success. According to Leithwood and Riehl (2003), effective educational leaders help their

schools to develop and promote a vision that exemplifies the finest teaching practices. Since people base their actions on how they understand things, educational leaders help to create shared meanings and understanding to support the school's vision. Secondly, effective leaders influence the development of human resources in their schools by encouraging and challenging their staff to examine their teaching practices (Rowan, 1996). By setting an example for others to follow, school leaders enhance others' beliefs about their own capacities and their eagerness for change. Lastly, school leaders enable the school to function as a professional learning community. This sustains the performance of all key workers such as teachers and students. When leaders provide opportunities for staff to participate in decision-making, educational leaders are helping others to shape the school so that shared goals and individual goals are addressed. These positive interactions foster shared meanings and establish productive relationships (Epstein, 2001; Sanders & Harvey, 2002).

With the rise in policies designed to hold schools more accountable, leaders can help schools succeed by empowering others, providing instructional guidance and strategic planning (Darling-Hammond, 1997; DuFour, 2002; Marsh, 2000). Stakeholders who participate in the decision-making process share accountability. Leaders need to stay abreast of professional practices and create conditions for professional growth. They should also monitor school performance and develop tangible plans for improvement (Epstein, 2001).

School populations are becoming increasingly diverse (Jagers & Carroll, 2002; Riehl, 2000). Students who come from low-income families, different cultural and

linguistic backgrounds, or have physical handicaps are not experiencing success. To succeed with diverse students, leaders must provide resources, set high expectations and promote effective teaching strategies (Epstein, 2001; Sanders & Harvey, 2002; Scheerens & Bosker, 1997).

Various hypotheses have been offered to explain what leaders do, how they behave, what attributes they possess, and how varying situations affect styles of leadership (Andrews, 1985; Bossert, Dwyer, Rowan & Lee, 1982; Brookover, 1979; Dwyer, 1984; Edmonds, 1979; Hallinger & Murphy, 1987; Leithwood & Montgomery, 1982; Miller, 1985; Purkey & Smith, 1982). If the role of the principal is critical to the success of the school, then there is a need to continue to define and refine our understanding of what it is that principals do to move a school forward.

Scholars have only recently begun to refine their understanding of the shifting roles of principals as instructional leaders. Studies on the topic suggest that in the past, principals were able to succeed by simply carrying out the directives of central administration (Marzano, 2003). But implementing policy directives by principals is no longer enough to meet today's educational challenges—instead a greater leadership role is called for. Educational leaders must guide their schools through the challenges posed by an increasingly complex social and political environment (Leithwood & Riehl, 2003). Hallinger, Bickman and Davis (1996) confirmed the appropriateness of viewing the principal's role in school effectiveness through a conceptual framework that places the principal's leadership behavior *in the context of* the school organization and its environment in an effort to assess those leadership effects on student achievement *through mediating variables.*

In this study, the researcher replicated the study of Hallinger, Bickman and Davis (1996) which focused on the principal's instructional leadership behavior at the elementary school level and how it may affect student reading achievement outcomes. The researcher selected for this study a sample of leaders of schools that have undergone (within three years after the naming of a new school leader) a transformation from a low-performance rating to a high-performance rating on the Academic Excellence Indicator Rating (AEIS) of Texas. The conceptual model tested in the present study was minus the purposively selected sample developed by Hallinger and Murphy (1986).

This research seeks to contribute to a validation of our current understanding of the impact that principal leadership has in reversing failure being faced by the schools they join. In exploring this relationship, the researcher has examined a mediated-effects model (Hallinger & Murphy, 1986) of how principals exercise leadership in the context of a school and its environment.

Purpose of the Study

The need for this study comes from a continuing need to understand the significance of certain leadership action and behavior upon school improvement efforts. In the 1980s, "instructional leadership" became the dominant paradigm for school leaders after researchers pointed out that effective schools usually had principals whose focus was curriculum and instruction (Lashway, 2003). Since then, state-mandated testing has reshaped learning standards, which, added to substantial pressure to provide tangible evidence of success, have reaffirmed the importance of instructional leadership in producing the mandated outcome. Many recent policy documents continue to put principals front and center in the battle to meet these new standards (Leithwood & Riehl,

2003; Murphy & Datnow, 2002). Instruction has surged back to the top of the leadership agenda (Darling-Hammond, 1997; Du Four, 2002). Standards-based accountability challenges traditional assumptions about instructional leadership. Gene Bottoms and Kathy O'Neill (2001) characterize the principal as the "chief learning officer" who bears "ultimate responsibility for success or failure" of a school. The purpose of this study is to explore the relationships among the school, the achievement scores of third grade students as measured by the reading portion of the Texas Assessment of Academic Skills (TAAS) and leadership behaviors of elementary school principals. Secondly, this present study clarifies how context interacts with leadership behaviors to create a climate of high expectations. Finally, this study will determine if the research conducted by Hallinger, Bickman and Davis (1996) can be particularized to the population in the Rio Grande Valley of Texas. In this study of 20 schools and leaders, the researcher has measured and described the multi-variable nature of the instructional leadership challenge in such a way as to clarify how context interacts with leadership behaviors to create a climate of high expectations and achievement. Like the research conducted by Hallinger, Bickman and Davis in 1996, this research uses a multivariate approach similar to the Bossert (1982) theoretical model described in Figure 1 of Chapter 2.

Focus and Research Questions

Before the question can be framed, it is important to provide a brief explanation of the Bossert (1982) model and some of the terms that will be used in the questions. The Bossert (1982) model is linear and multivariate. The intervening variables of principal behaviors are placed in the middle of the model following the antecedent variables and before the dependent variable of student outcomes (see Figure 1 in Chapter 2). The

antecedent variables are items such as the gender of the principal, the socio-economic characteristics of the school, etc. which are variables that are not likely to be changed by the principal. Previous research suggests that each may have an effect on reading achievement (Heck, Larson & Marcoulides, 1990). The intervening variables of school governance, school climate and instructional organization are influenced by the leadership behaviors of the principal. With this in mind, the following two questions have guided this research:

1. What are the relationships among the principal leadership behavior constructs of school governance, school climate, and the instructional organization as measured by the Principal Instructional Management Rating Scale, and selected school context variables (student socio-economic characteristics, school level, district size, community type, homogeneity of ethnicity, and parent and community involvement)?

2. Which of these variables have a significant effect on the three-year average reading gain and the mean achievement scores of third graders on the Texas Assessment of Academic Skills (TAAS)?

Theoretical Framework

The basic model that has guided this study is consistent with the conceptual work of leading researchers in this field. As discussed earlier, the operational understanding of the variables in this study are based on the Bossert et al. (1982) model of the principal's instructional leadership role and Hallinger and Murphy's conceptualization of instructional leadership within the social context of schooling. It considers Pitner and Hocevar's (1987) analysis of the multidimensional nature of principal leadership behavior and incorporates Heck, Larsen and Marcoulides' (1990) causal model.

According to Hallinger and Heck (1996), this model is the most powerful approach to studying school leadership and its effects. Hallinger (2003) wrote, "It represents a significant advance over direct effect models in its ability to illuminate relationships" (p. 24). The model incorporates:

(a) Contextual and personal antecedents of principal leadership,

(b) A principal leadership construct,

(c) In-school factors related to teaching and learning, and

(d) Student achievement outcomes.

In this construct, the principal is both a dependent and independent variable. As a dependent variable, administrative behavior is subject to the influence of other variables within the school and its environment. As an independent variable, the administrator is an agent who influences the learning of pupils (Hallinger 2003).

Significance of Study

This study is significant for several reasons. It will add to the body of knowledge on the relationship between principal leadership behaviors and student achievement outcomes by replicating previous studies and varying the sample to produce new knowledge (Leithwood & Riehl, 2003).

This study expands student outcome measurement data to include both achievement and gain scores. Most previous research uses only achievement data. This study is significant because it combines both forms of student outcome data in sampling schools to be included in the study (Heck, 1993).

The findings of this study may assist in identifying the ways in which principals can promote student achievement. Scholars of school leadership have suggested situational

or transformational theory may provide a framework to explain the work of exceptional principals. However, we are cautioned that leadership studies must look at leaders and their context to understand what it is that leaders do (Carter & Cunningham, 1997; Lashway, 1997; Leithwood, 1995).

As schools are being held to a higher standard, it is important to help policy-makers formulate educational policy affecting principals that is grounded in research and not simply tied to current policy or popular trends.

Hallinger (2003) noted that additional research is needed to confirm the criteria used to evaluate principals. Formulating evaluation criteria for principals will enable principals to define meaningful improvement goals and ultimately improve student achievement.

Finally, the findings of this study may provide direction for principal preparation programs and assist in determining how future principals will be tested on state licensing examinations.

Definition of Terms

For the purpose of this study, the following terms are defined:

1. Principal Instructional Leadership—In his synthesis of the research on the principal as instructional leader, Leitner (1994) defined instructional leadership as "a more restricted type of activity that focuses on the interpersonal relations between principals and teachers with the purpose of increasing school effectiveness" (p. 220). Hallinger and Murphy (1986) described the instructional leadership role of the principal in three dimensions: defining the mission of one's school, managing the instructional program within the school and promoting an effective school climate. The three dimensions were divided

further into 11 job functions of an instructional leader. These 11 job functions were later reduced to 10 and now each of the job functions contain five specific behaviors (Hallinger & Murphy, 1986). They combine the direct actions and the indirect actions of the leader. Hallinger and Murphy's definition of instructional leadership will be utilized in this study.

2. Exemplary Schools—These are schools that have achieved 90% or higher of expected growth/gain standard set by the Texas Education Agency for that subject area. The Texas State Board of Education sets the expected growth/gain standard for each school based on the TAAS test scores of the campus in the previous school year.

3. Low Performing Schools—Low performing schools in Texas are those that fail to meet expected growth/gain standards set by the Texas State Board of Education and have significantly less than 50% of their students performing at or above the standard.

4. School Effectiveness—School effectiveness is "the extent to which any (educational) organization as a social system, given certain resources and means, fulfills its objectives without incapacitating its means and resources and without placing undue strain upon its members" (Bollen, 1996, p. 2). Mortimore (1991) defines an effective school as "one in which pupils progress further than might be expected from consideration of its intake" (p. 9). Each pupil should have the chance to learn as much as possible by enjoying the learning process itself.

5. TAAS-Texas Assessment of Academic Skills—TAAS is the name of Texas' 10 year old, state-mandated testing program that was in effect through the 2001-2002 school year. The Texas Assessment of Knowledge and Skills (TAKS) took effect in 2002-2003.

6. TEA-Texas Education Agency—The Texas Education Agency is the name of the Department of Education in Texas. The TEA implements all of the state's education policies, including testing and accountability.

7. TEKS-Texas Essential Knowledge and Skills—In 1998, the Texas Education Agency created the Texas Essential Knowledge and Skills to ensure a common learning standard in each grade across the state. At the end of most school years, students take a criterion-referenced test to find out if they are on track for their grade level.

8. SEC-Socio-economic Characteristics—Socio-economic characteristics include measures that have been shown to affect one's status, such as income, education, and employment, and the proportion of the population represented by various levels of these variables. School districts are rated based on a significant percentage of low (or high) socio-economic status (SES) students, including a significant number of students who received free or reduced-price lunch.

Assumptions

The following assumptions are integral to the present study: (a) the principal is responsible for providing the instructional leadership in elementary schools, (b) the Texas Assessment of Academic and Skills (TAAS) test data and the Academic Excellence Indicator System (AEIS) are reasonable measures of student gains and achievement, (c) principals who have been at a school three years will have had enough time to have an effect on the variables that are being measured.

Limitations

Some of the limitations for this study include:

1. There is the possibility that the definitions selected to avoid ambiguity and lend clarity of the study may themselves be ambiguous and so limiting as to negate generalizability.
2. This study examines principal leadership that continues to evolve as it responds to new environmental demands. Therefore, any characterization of the field that emerges is limited to that point in time (Hallinger & Heck, 1998).
3. This study looks at student achievement outcomes, which although broad, are often constrained to a conceptualization that focuses on some specific form of academic achievement.
4. This study is limited to elementary principals within schools identified by the state of Texas as non-exemplary status and exemplary status, according to the Texas Education Agency.
5. This study is subject to all limitations that are recognized in collecting data (e.g., response bias due to return).
6. The study utilizes self-reporting data provided by the principals and teachers of the selected campuses through questionnaires as well as data in the public domain. Self-reporting inventories can lead to problems of response sets where the individual gives socially acceptable responses; they share what they think the researcher wants to know.

Overview of Methods

This research replicates the study of Hallinger, Bickman and Davis (1996) and focuses on the principal's instructional leadership behavior at the elementary school level and how it affects student achievement outcomes. The conceptual model used in this study was developed by Hallinger and Murphy (1987). A mediated effects theory was used to clarify and inform the researcher's understanding of the avenues through which instructional leadership influences school outcomes such as achievement. The researcher has introduced a variation to the replicated model. A key variation in this study is that the sample is entirely comprised of Mexican-American leaders of schools that have undergone (within three years after the naming of a new school leader) a transformation from a low-performance rating to a high-performance rating on the Academic Excellence Indicator Rating (AEIS) of Texas. Data from the Principal Instructional Management Rating Scale (PIMRS) was used to categorize the instructional leadership behaviors of principals in twenty elementary schools. Data from the School Effectiveness Questionnaire (SEQ) was used to categorize the effectiveness of each elementary school. Data from the Academic Excellence Indicator System (AEIS) was used to identify school demographic data.

CHAPTER II

REVIEW OF THE LITERATURE

Texas was one of the first states to implement a comprehensive, statewide testing program to measure student learning. The Texas Assessment of Academic Skills (TAAS), in use since 1990, was designed to measure a common learning standard in each grade level across the state (TEA, 2004). In 1998, Texas schools implemented new more rigorous curriculum standards called the Texas Essential Knowledge and Skills (TEKS). The following year, the Texas Legislation passed Senate Bill 103, which mandated the creation of a new testing program for students in grades 3-11. That new assessment program, which is broader and deeper than the TAAS, is called the Texas Assessment of Knowledge and Skills or TAKS. In 1999, the Texas Legislature passed a bill ending social promotion and created a more rigorous testing program. This bill, the Student Success Initiative, requires students to pass certain sections of the TAKS before they can be promoted in certain grade levels (TEA, 2004).

With the demands of the No Child Left Behind Act of 2001, federal legislation demands broader measurement of student achievement by requiring all students to be making achievement progress, and provides sanctions for low-performing schools. No Child Left Behind (NCLB) has solidified one emerging trend: school leaders are change agents. Strong leadership is essential in order for school reform to be effective and

sustained. As change agents, principals must provide learning opportunities and school restructuring in the area of curriculum and school organization. These changes will enable students to develop the attributes for lifelong learning (Fullan, 2001). The NCLB Act will undoubtedly require schools across the nation to undertake dramatic improvement efforts to ensure the success of all students. Ultimately, these improvement efforts will rest on the shoulders of school principals.

Background on the Effective Schools Research

Improving schools is now understood to mean changing the culture of schools. Nothing can have a greater impact on school culture than the leadership behavior of school principals. Effective schools research has concentrated on examining the relationship between the leadership behavior of school principals and the enhancement of organizational performance. School effectiveness research began about forty years ago when the late Ronald Edmonds, whose research focus and methods influenced a generation of researchers, argued that strong leadership from the principal is the single most important factor in schools that are effective.

Prior to that time, studies had been carried out on the effects of teaching and the influence of teaching methods on the performance of students (Marzano, 2003; Scheerens & Bosker, 1997). A great deal is known, for example, about the teaching strategies that are effective in promoting literacy development. This knowledge about effective teaching is the cumulative result of a number of research efforts in the latter part of the twentieth century and continues today (Scheerens & Bosker, 1997).

Successful attainment of learning goals is associated with effective schools (Brookover & Lezotte, 1979; Edmonds, 1978). Research on effective schools suggests

principals have considerable impact upon students' achievement through effective monitoring of the instructional process (Brookover & Lezotte, 1979; Edmonds, 1978).

Given the early findings, there has been a significant amount of research identifying the common characteristics of effective schools. Edmonds (1979), Brewer (1986), Harris (1985), Teddlie (1985) and Smith and Andrews (1989) all identified at least five characteristics of effective schools. These five factors are:

(a) strong leadership,

(b) high expectations of student achievement,

(c) an emphasis on basic skills,

(d) a safe and orderly climate, and

(e) frequent evaluation of pupil progress.

The principal methodology of the earlier effective school studies used case studies and correlational methods of analysis (Brookover et al., 1979; Edmonds, 1979; Mortimore et al., 1988; Reynolds et al., 1994).

While the number of studies on effective schools as such declined in the late 1980s and early 1990s, toward the late 1990s, a revival of effective schools research began to occur. McEwan (1998) noted, "Researchers have long been fascinated with the differences between effective and ineffective schools. The possibility of fixing 'broken' schools or improving mediocre ones by manipulating key variables in the school environment is a tantalizing prospect for educational reforms. While each researcher has generated a different set of descriptors that characterize effective or excellent schools, one variable always emerges as critically important: the leadership abilities of the building principal, particularly in the instructional arena" (p. 2). Since school principal

leadership skills seem to be the key to successful schooling, understanding the ways in which they deal with existing problems in their schools and their ability to address these problems, in light of current educational reforms, becomes crucial.

As McEwan (1998) pointed out, the numerous school variables that influence student achievement and whether or not schools can make a difference has been debated in the literature for over 40 years. Coleman(1966) began the discussion with the claim that "schools bring little influence to bear upon a child's achievement that is independent of his background and general social context" (p. 325). This hypothesis was categorically rejected by the education community as educational research began documenting the teaching processes in classrooms to identify processes associated with an important educational product—high achievement, often reading achievement. This approach came to be known as process-product approach. Some of the now well-known researchers contributing to this line of research were Brophy (1973), Dunkin and Biddle (1974), Flanders (1970), Soar and Soar (1979), and Stallings and Kaskowitz (1974). In addition to giving us operational definitions of "direct teaching", "time on task" and "academic learning time;" these researchers and many others, focused on the discrete classroom environment, with little or no attention paid to the climate outside. This began to change with the Edmonds and Brookover studies cited earlier.

From a synthesis of empirical research, Sammons (1995) concluded that certain factors such as:

(a) school effectiveness,

(b) professional leadership,

(c) shared views and goals,

(d) learning environment,

(e) teaching-learning as the main school activity,

(f) purposeful teaching,

(g) high expectations,

(h) positive reinforcement,

(i) monitoring student progress,

(j) pupils' rights and responsibilities, and

(k) school-home collaboration

are crucial to the school as a learning organization (Sammons et al., 1995). Effective schools studies reviewed by Smith and Andrews (1989), noted, "the direct responsibility for improving instruction and learning rests in the hands of the school principal" (p.1).

While effective schools by definition would produce better qualified students and yield higher achievement, this should not blind us to the fact that the socio-economic status of a school has a strong impact on student performance (Borman & Rachuba, 2001; Coleman, 1966; Leithwood & Musella, 1989; Woodson-Perzan & Lunenburg, 2001). School principal's leadership behavior effectiveness could be mediated by the socio-economic status of the school. This and other variables, such as school size, have yet to be explored as a factor in principal's leadership behaviors and outcomes effectiveness. Previous studies have suggested that there is some correlation between student achievement and school size (Heck, 1993; Schutz, 1997). Based on this finding, the principal's leadership behaviors, the student academic performance, the socio-economic status, and school size may be interrelated (Caldas & Bankson, 1997).

The measurement to determine whether a school is effective or ineffective is an

important issue. Traditional outcomes-based assessment focused on student academic performance has been widely practiced; however, as explained by Blase and Blase (2000), it has a few flaws. The parents, as stakeholders, look at student performance as the yardstick for evaluation of their schools (NCES, 1992).

Since the main strategic goal of schools is teaching and learning, then it would stand to reason that one of the most important roles the principal can play is that of instructional leader. In Lyon's (1999) research, "fostering good teaching and learning" was high on the list of those duties considered most important, second only to "providing a safe school environment."

The Effective Principal

With the emergence of the school restructuring in the late 1980s, a completely different set of assumptions about principal leadership behavior emerged in the school and classroom effectiveness literature. These assumptions called for a re-examination of the principal's role as instructional leader.

Research has repeatedly identified instructional leadership as a characteristic of effective schools (Bossert et al. 1982; Hallinger & Murphy 1985). The proven effects of educational leadership, primarily associated with the role of the school principal, have been confirmed over time (Durland & Teddlie, 1996). Nonetheless, it should be noted that despite being a prominent characteristic of research (Sammons, Hillman & Mortimore, 1998), some of its features are not of equal significance when measured against largely minority populations. Scheerens and Creemers (1996) analyzed leadership effectiveness studies carried out within this context and found that the effect of instructional leadership had a non-existent or negative effect on school climate, parental

involvement and student achievement.

Since Leithwood and Riehl (2003), studies have shown that the creation of an effective school culture and the academic success of students are positively correlated. Given that the principal can play a key role in shaping school culture, this line of research establishes principals as contributors to student achievement through the indirect course of cultural change. As Keller (1998) observed, "Some 20 years of research strongly suggests that principals make a big difference in shaping education and what goes on in schools. If a school is going to succeed academically, it needs someone whose potential can't be summed up on a scoreboard" (p. 25). Smith and Andrews (1989) agreed, "What principals and teachers do collectively on a day-to-day basis has a powerful influence over the behavior of individual teachers as they interact with children in their classrooms. The role that principals play, as they interact with teachers, has a profound impact on teacher behavior and student learning" (p.viii). Keller (1998), referring to an argument put forth by the late Ronald Edmonds, added, "Strong leadership from the principal is the single most important factor in schools that work" (p.25).

Educational leaders may influence the behavior of others by creating work environments that enhance student achievement. Personal characteristics, district influences and social environment shape the principal's leadership. Barth (2002) noted, "It is not enough for principals to have a repertoire of behaviors: they must know how and when to use them, and they must be careful to monitor their effects on learning" (p. 443).

Practitioners and researchers have long struggled to define what exactly effective principals do that makes them effective. Over 15 years ago, the effective schools

research (Purkey & Smith, 1983) documented that in schools where students performed better than expected based on poverty and other demographic characteristics, a "dynamic" principal was at the helm.

Some research suggests that particular tasks are characteristic of instructional leaders and are related to school performance, such as making regular classroom visits, communicating instructional goals, and promoting discussion of instructional issues (Heck, 1992). Effective principals also pay considerable attention to indicators of student achievement such as test results (Leithwood & Riehl, 2003). Good instructional leaders are committed to success for all students and place particular emphasis on improving instruction for poorly performing students.

Joseph and Jo Blase (2000) asked teachers to describe the behaviors of principals that had a positive influence on student learning. Two topics emerged: talking with teachers and promoting professional development. Consistent with the effective schools literature, good leaders must have a vision for their school, a plan for getting there, and an ability to communicate that vision effectively.

Effective principals frame decisions by asking, "How will this affect students?" Effective principals are politically skillful and able to satisfy the expectations of parents and the community, consistently making student-centered decisions. The job of a principal is demanding and stressful. This is due in part to the high expectations placed on schools and school leaders and the complexity of schooling. Principals work for a diverse and large number of stakeholders. The challenges of the position require principals to possess much more than cognitive abilities. Effective principals like other "effective leaders are alike in one crucial way: they all have a high degree of emotional

intelligence" (Goleman 1998, 94). Goleman (1998) has identified five components of emotional intelligence: self-awareness, self-regulation, motivation, empathy, and social skills. Yet, most administrators and policymakers agree there is no single style of leadership that fits all schools (Bossert et al., 1982).

Instructional Leadership

Wright (1991) states that instructional leadership is intended "to improve teaching and learning, and involves focused interaction between principal and teacher" (p. 114). This may be because instructional leadership becomes a multi-faceted concept when reviewed "in context". However, Gibb (1994) describes leadership more abstractly.

> Instructional leadership is not a single trait but a combination of behaviors and acquired skills. It cannot be dictator-like nor can it be non-assertive and it is best nourished by some level of respect rather than a sense of fellowship that has been imposed upon the staff. Effective leadership cannot be legislated or demanded, it is inherent in what a principal does and says (p. 7).

When the concept of instructional leadership first emerged in the late 1970s, principals were perceived as effective if they took charge of a school by setting clear expectations, maintaining firm discipline and implementing high standards. This view of leadership was hierarchical, dependent on administrators firmly exercising their authority to direct subordinates.

Influenced by developments in the private sector, researchers began searching for more sophisticated conceptions of leadership. The study of organizational productivity theory has a long history since Taylor first published *The Principles of Scientific Management* in 1911 (Taylor, 1911). His scientific and rational management theory required finding the "one best way to productivity". Burns (1978) gave us the concept of transformational leadership and then Bass (1985) elaborated on it to describe a leadership

that facilitates, motivates, coaches and mentors. Bass also believed that transformational leadership would lead to performance beyond expectations because followers who would become committed to the leader, would be intrinsically motivated, and would have a sense of purpose or mission. Literature on transformational leadership initially focused primarily on the business world (Bennis, 1989; Covey, 1991; Senge, 1990). School-based studies (Jantzi & Leithwood, 1995; Leithwood, 1994; Sergiovanni, 1992) gave focus to the principal as a transformational leader. According to Leithwood (1995), transformational leadership theory may provide a framework to understand the work of exceptional principals.

Other educational scholars also looked at the principal in the role of transformational leader (Avery, 1994; Berg, 1996; Carter & Cunningham, 1997; Johnson, 2002; Lashway, 1997; Leithwood, 1995; Musella, 1995). They contend that transformational leadership presents a more holistic approach to leadership when compared to other leadership theories.

Although the literature points to principals' central role in enhancing school effectiveness, the demonstration of a causal relationship between their instructional leadership and student achievement is difficult. Researchers still do not understand how instructional leadership affects student achievement.

Kenneth Leithwood and Daniel Duke (1998), examining all articles on educational leadership published in four major administration journals from 1985 to 1995, identified six distinct conceptions of leadership: (a) instructional (influencing the work of teachers in a way that will improve student achievement), (b) transformational (increasing the commitments and capacities of school staff), (c) moral (influencing others

by appealing to notions of right and wrong), (d) participative (involving other members of the school community), (e) managerial (operating the school efficiently), and (f) contingent (adapting their behavior to fit the situation). They suggested that each conception reflects a different emphasis that should be viewed in terms of the connections among leaders, followers, organizations, and the outside environment.

There is little evidence to support the idea that student achievement has increased as the result of principal's direct actions in instructional supervision. Current theory and research evidence points toward principals affecting student achievement indirectly, through how the culture of the school affects teachers and staff members. As with any manager or leader, principals influence performance through others, and the influence includes a broader spectrum of behaviors than just the supervision of teachers. Principal actions that provide structure to the school's organization and climate appear to have an impact on student achievement.

Despite great variability in monetary resources, parent and community involvement, and school and class sizes, the essential ingredients to high performance appear to be autonomy and strong leadership (Lashway, 2003). Four common factors among the principals interviewed—school climate, teamwork, resources and parent involvement—emerge from studies that found positive effects of principal leadership on student achievement (Bender, Sebring & Bryk, 2000).

Teamwork—whether the teachers collaborate, coordinate their efforts with one another, or learn new methods and ideas depends most on the principal. Without an effective principal the school stagnates (Bender, Sebring & Bryk, 2000).

School Climate—Principals provide clarity to the school's mission, which influences everyone's expectations. (Bender, Sebring & Bryk, 2000).

Resources—according to research studies, staff members must receive the necessary materials, equipment, and opportunities to learn in order to be successful. (Bender, Sebring & Bryk, 2000).

Parent and community involvement—principals make the biggest differences by involving families and working to create a learning community (Bender, Sebring & Bryk, 2000).

This evidence suggests that these principals make a difference in student achievement when they understand that their role is to work through teachers and staff members. These principals influence student achievement by giving shape to the school setting in which learning takes place. Culture influences the student and staff behavior and ultimately the achievement outcomes, as well.

In Mid-continent Research for Education and Learning's meta-analysis of leadership, more than 5,000 studies published since 1978 were reviewed to examine the effects of leadership on student achievement (Waters, Marzano, & McNulty, 2003). The data from this meta-analysis found that there is a substantial relationship between leadership and student achievement. They found that the average correlation between leadership and student achievement was .25.

Learning to become an instructional leader is a complex task. A leader must work collaboratively with teachers, students and parents to improve instruction. The leadership of the principal is pivotal in ensuring that the process improves student achievement.

Theoretical Models of Instructional Leadership

That school leadership is important to the success of a school has been well established. Strong leaders are key to turning around poorly performing schools. It is difficult to demonstrate a direct link between school leadership and student achievement at the present time, but a model of what makes an academically effective leader is emerging.

Hallinger and Wimpelberg (1989) write that the importance of instructional leadership remains a loosely constructed paradigm lacking a clearly articulated theoretical foundation. The earliest descriptions of instructional leadership seemed to highlight the direct effect of the principal's traits and actions (Pitner, 1982). Situational leadership theory suggests that aspects of the situation, such as the type of organization, influence leader's behaviors. Researchers investigating situational leadership seek to discover the extent to which leadership practices or behaviors are the same or unique across different types of organizations. This type of comparative research is not designed to identify what behaviors are effective in situations. It is relevant for organizational effectiveness because effectiveness depends on how well a leader resolves role conflicts, copes with demands, recognizes opportunities and overcomes constraints (Yukl, 1994).

Leithwood and Riehl (2003) indicated that virtually all leadership effects are indirect. Leadership practices influence or are mediated by aspects of the organization, which in turn affects the achievement of its central goals. The more removed the leadership position is from the direct delivery of services to clients, the longer is the chain of mediating variables linking leadership practices with the achievement of central organizational goals.

By 1996, more than 40 statistical studies in the United States and elsewhere had examined the effects of the principal's behavior on various aspects of schooling. About half the studies found that the principal made a significant difference, often indirectly (Hallinger & Heck, 1996a, 1996b).

Some research has focused increasingly on indirect influences. Philip Hallinger and Ronald Heck (1996), after reviewing a decade-and-a-half of research on instructional leadership, found evidence that principals' impact on student learning came mainly through influencing contextual factors such as policy formation, goal development, and teachers' practices.

The theoretical models used in the research refer to the frameworks used by the authors to select the variables for study and then to organize relationships among the variables. The studies are classified into five general models: Antecedent Effects Studies, Direct Leadership Effects Studies, Mediated Effects Studies, Reciprocal Effects Studies and Moderated Effects Studies (Hallinger, 2003).

Studies using an Antecedent Effects Model studied the effects of either principal demographics or school context factors on the instructional leadership of the sample of principals (Hallinger, 2003). Studies that explore the relation of principal demographics to instructional leadership typically examine variables such as the principal's age, experience, gender, self-efficacy, school size, school level, district size, teaching experience or knowledge of instruction.

Direct Leadership Effects model studies the relationship between instructional leadership and a second variable, usually an in-school variable (school climate, school mission) or school outcomes: teacher satisfaction, student achievement or school

effectiveness (Hallinger, 2003). This model also is used to examine the relationship between instructional leadership and another measure of leadership, such as transformational leadership.

The Mediated Effects Model seeks to understand the avenues through which instructional leadership influences school outcomes such as achievement (Hallinger, 2003). Hallinger and Heck (1996) concluded that this model is among the most powerful approaches to studying school leadership and its effects.

The Reciprocal Effects Model seeks to understand the interactive effects of variables without assuming the direction of effects in advance (Hallinger, 2003). Hallinger and Heck (1996) noted that this is a highly sophisticated approach to studying leadership effects, requiring longitudinal data that may be beyond the reach of most doctoral students. In this study, one doctoral student has solved this problem by collecting ex-post facto interval data to replace the longitudinal data that cannot be collected within the scope of a doctoral study.

The Moderated Effects Model seeks to understand the administrator's leadership effects that may occur under one set of conditions and not another (Hallinger, 2003). The presence of a third variable influences the nature of the relationship between the independent and dependent variables.

Studies on the relationship between instructional leadership and a variety of school outcomes have focused mostly on student achievement, though measured in different ways (Hallinger, 2003). Hallinger reviewed the first subset of leadership effects studies that examined student achievement by linking the PIMRS measurement of principals directly to student test scores. The results of this approach were generally

disappointing with researchers reporting infrequent positive results and generally inconsistent results across studies.

A second approach to studying "whether principals make a difference" was through studying the association between instructional leadership and school effectiveness (Hallinger, 2003). In most cases, Hallinger noted that the researchers using this approach linked measurements on the PIMRS of principals in two or more groups of schools that contrasted on achievement. Consistent with the school effectiveness design, most of these researchers sought to control for student background. While there were a few findings of positive effects of instructional leadership on school effectiveness, the general trend of results did not support this conclusion.

The third approach to studying the link between instructional leadership and school success was done through a comparative groups design (Hallinger, 2003). Measurements on the PIMRS of principals were linked to two or more groups of schools that contrasted on a common standard of success such as national or state recognition (Brown, R., 1991; Werner, 1991). These studies found small differences on certain subscales on the PIMRS in favor of the principals in the successful schools. However, the differences are not conclusive.

In 1982, Phillip Hallinger developed the Principal Instructional Management Rating Scale (Hallinger, 1982, 1983, 1990). The PIMRS was the first instrument developed to study instructional leadership explicitly (Hallinger, 1983; Hallinger & Murphy, 1985). The PIMRS was validated initially in 1982 and has been used in over 100 studies.

The PIMRS assesses three dimensions of instructional leadership: (a) Defining the School's Mission, (b) Managing the Instructional Program, and (c) Promoting a Positive School Learning Climate (Hallinger & Murphy, 1985).

Defining the School's Mission is concerned with the principal's role in working with staff to ensure that the school has a clear mission and that the mission is focused on academic progress of its students. This dimension assumes that the principal's responsibility is to ensure that the mission exists and is communicated widely to staff.

Managing the Instructional Program is the second dimension. This incorporates three leadership functions: supervising and evaluating instruction, coordinating the curriculum, and monitoring student progress. The principal holds the key leadership responsibility.

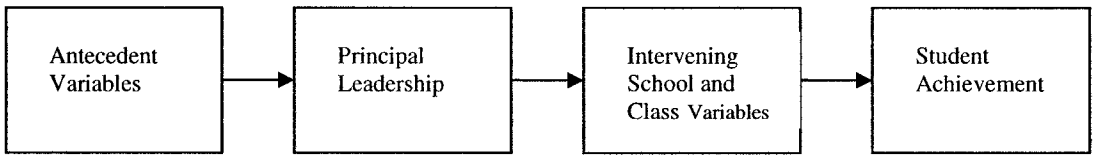
The third dimension, Promoting a Positive School Learning Climate is a dimension that is broader in scope and intent. It conforms to the notion that successful schools create an "academic press" through the development of high standards and expectations and a culture of continuous improvement.

The PIMRS contains 10 subscales and 50 "behaviorally anchored" items (Hallinger, 2003). The rater assesses the frequency with which the principal enacts a behavior or practice associated with that particular instructional leadership function. Each item is rated on a Likert-type scale ranging from (1) almost never to (5) almost always. The instrument is scored by calculating the mean for the items that comprise each subscale. This results in a profile that yields data on perceptions of principal performance on each of the 10 instructional leadership functions.

The theoretical framework used in this study is based on a mediated effects model

of effective schools as discussed by Hallinger and Heck (1998). This mediated effects model provides a more complex representation of administrator effects within schools than a simple direct effects or a moderated effects approach.

Figure 1. Theoretical framework guiding research on leadership, school environment and selected teacher outcomes (adapted from Hallinger and Heck, 1998, p. 732).



In this model, the variable of the principal's role is assumed to be both a dependent and an independent factor (Hallinger & Heck, 1998). As a dependent variable, the principal is subject to the influence of external antecedent factors such as socioeconomic status, or external environment conditions such as technological change. As an independent variable, the principal is considered to be the agent of change, influencing directly the actions of teachers, the learning conditions within the school, and the attainment of outcomes such as teacher job satisfaction and indirectly, student learning outcomes.

This model acknowledges that antecedent variables can have an important causal influence that effect desired outcomes such as student achievement. The focus of this study is to examine the relationship between the leadership behaviors of the principal and school variables, namely student achievement.

According to the researchers, the models and the statistical tests employed in most of these studies were inadequate to the task of explaining causal relationships such as the

relationship between instructional leadership and school effectiveness or school improvement (Hallinger, 2003).

Principal Instructional Leadership and Student Achievement

A consistent finding of effective leadership is the principal's ability to create a sense of community with a school and translate shared intentions into practice. Previous researchers simply measured leadership and student achievement. Their findings were inconsistent. Statistical models could not deliver positive direct effects on student learning from principals since they don't teach the students directly.

Second generation studies conducted by Hallinger (2003) ask: What do principals do to have an impact on achievement? His studies focus on how principals work in relationship to curriculum, goals, and the staff's capacity for change. These studies also consider how those factors carry over into student learning. These findings have yielded much more consistent results.

Principals are believed to have a very strong impact on student achievement. Yates (2000) sought to determine if there was a relationship between the instructional leadership behaviors of principals and the effects of a balanced beginning reading program in exemplary elementary schools. Ninety-three kinder, first, second and third grade teachers in eight exemplary schools participated in the study. The Principal Instructional Management Rating Scale was used to define the instructional leadership behaviors of principals. The results of this study indicate a strong relationship between the instructional leadership behaviors of principals and the effects of a balanced reading program in exemplary schools in northeast North Carolina.

Cantu (1994) attempted to discover how the principal instructional leadership behaviors differed in successful and non-successful urban elementary schools. Six principals and 95 teachers responded. The results of this study went against the grain of the current literature since high scores on the PIMRS did not ensure successful schools and provided mixed results rather than clarification. The principals in the paired schools showed few differences in job behavior patterns, yet one school in each pair was academically successful and the other was not.

Schoch (1992) sought to determine the instructional leadership behaviors of elementary school principals in South Carolina as perceived by the teachers. The findings of the study indicated that significant differences existed in effective schools versus non-effective schools. Significant differences in the PIMRS indicated that school size may be an important variable when studying the principal's instructional leadership behaviors.

Results from these studies have suggested that principals have the ability to indirectly effect student achievement by improving the tone or learning environment of a school. (Johnson, 2002).

Causal Models of Principal Instructional Leadership

Recent paradigm shifts in conceptualizing leadership have also encouraged educational researchers to consider these relationships from the perspective of new leadership models.

A prominent model is the transformational and transactional leadership model, which suggests that follower performance can be lifted to beyond what is normally considered to be acceptable. (Bass, 1985; Bass & Avolio, 1994; Burns, 1978; Leithwood & Jantzi, 1990).

Transformational leaders are able to manipulate and alter their environmental constraints in order to achieve their performance goals (Kirby, King & Paradise, 1992). Transformational leadership is hypothesized to occur when leaders and followers unite in pursuit of higher order common goals (Burns, 1978). This implies that the leader-follower relationship is one in which the purposes of both become united for a common reason (Barker, 1990). The leader motivates followers to "work for transcendental goals instead of immediate self interest, for achievement and self-actualization rather than safety and security" (Murray & Feitler, 1989, p. 3) and creates within followers a capacity to develop higher levels of commitment to organizational goals (Leithwood & Jantzi, 2000).

Transformational leadership models emphasize, "Transformational leaders are able to alter their environments to meet their desired outcomes" (Kirby, King & Paradise, 1992, p. 303). Transformational school leaders do this by promoting educational restructuring and innovation, focusing on building vision, encouraging collaborative participation and raising the role of followers to that of leader (Silins, 1994).

Transactional leadership is hypothesized to occur when there is a simple exchange of one thing for another. Burns (1978, p. 19) argued that transactional leadership occurs "when one person takes the initiative in making contact with others for the purpose of exchange of valued things." In this relationship, the leader and the led exchange needs and services in order to accomplish independent objectives (Kirby, King, & Paradise, 1992).

Bass et al. (1997) conceptualized a third type of leadership. Laissez-faire leadership occurs when there is an absence or avoidance of leadership. In this case, decisions are delayed and reward for involvement is absent. There is no attempt to motivate followers or to recognize and satisfy their needs (Bass & Avolio, 1997).

School Context in Effective Schools

There has been relatively little research on the leadership practices and their relationship to specific campus variables. To what extent do specific organizational variables relate to the way school principals practice leadership? Several authors (Carter & Cunningham, 1997; Hallinger, Bickman & Davis, 1990; Hannaway &Talbert, 1993; Johnson, 1996; Konnert & Augenstein, 1990; Leithwood, 1995; Louis, 1990) have criticized earlier school leadership studies that list leadership traits without attending to the context of the organization. Johnson (1996) asserted that context is of greatest importance in the study of leadership. School principals must be able to assess the demand and opportunities for leadership by looking at context variables associated with their schools. In her study of 12 superintendents, Johnson concluded that it is the successful interaction of a particular individual and a particular context that make leadership work.

School learning environment refers to that set of factors that can be regarded as influencing the feel or personality that a school exudes. School learning environment can also be defined as that set of internal characteristics that distinguishes one school from another and influences the behavior of students and staff (Hoy & Miskel, 1987). Fraser (1986) argued that school learning environment factors can operate at both classroom and at school levels.

Kenneth Leithwood, a professor at the University of Toronto's Ontario Institute for Studies in Education, explained that the influence of students' background is so strong it accounts for most of the variability of student achievement across schools. Leithwood estimates that as little as 10-20 percent of the variation is due to school effects, including the quality of the principal whereas, leadership accounts for only about three percent of the variability. Leithwood studied one large Canadian school district to explore the relative effects of principal and teacher leadership on student engagement with schools. Results demonstrated greater effects on student engagement from the principal as compared with teacher sources of leadership. The effects of principal leadership were weak but significant, whereas the effects of teacher leadership were not significant.

Differences in the socio-economic status in a community can affect the expectations for how principals are supposed to behave. Hallinger and Murphy (1985) found that principals in communities with a lower socio-economic status tended to be both controlling and coordinating in their administrative styles; whereas, principals in communities with a high socio-economic status relied on more coordination.

School characteristics, such as size and level, can affect the particular role that principals enact (Goldring 1990; Hallinger & Heck 1996). Schools with 2,000 students have different coordination concerns than schools with 300 students. Elementary and secondary schools have different needs and characteristic problems that require different styles of leadership. Differences in teachers' abilities, styles and experiences also affect a principal's work. While not all inclusive, studies seek to examine principal leader behaviors constructs identified by Fraser (1986) which positively impact student achievement.

A further study completed by Hannaway and Talbert (1993) looked at the effects of school context variables on principal leadership and found distinct patterns of leadership for schools in urban, suburban and rural settings. They noted that effective school's literature has paid little attention to factors in the external environment of schools that support or inhibit effective internal conditions such as leadership. The authors urge future researchers to develop more context-sensitive studies and provide strategies that recognize the organization context within which U.S. schools operate.

A study by Hallinger, Bickman and Davis (1990) of school administrators indicated that the impact of context on school administrators is as profound as it is for students and teachers. Variables such as district size, complexity, faculty experience and district support determined the principal's approach to leadership. Additionally, factors such as socio-economic status of the community, parent and community involvement and geographic location impacted the principal's ability to lead. The researchers concluded that principals who are aware of school context variables and their impact on school improvement efforts may take action to reduce or enhance the impact of those factors based on the needs of the school.

Hallinger and Heck (1996) demonstrated how community socio-economic status influenced the type of leadership a principal exercised when interacting with various school processes. Schools in the study were divided by socio-economic status and principal's leadership practices were identified. The results indicated that the school's socio-economic status moderates in-school processes, including the principal's exercise of instructional leadership.

Hallinger urges practitioners to consider the importance of the context of their

own schools when making school improvement and restructuring decisions. What successful principals do is juggle the interaction between the district and school context, resources available to them and their own leadership styles. Hallinger notes that close observation of the interaction between context, leadership and personality reveals that no single leadership style is effective across a wide range of scenarios.

Schools are nested organizations that have multiple connections with their environment rather than self-contained, isolated systems. In addition to the teachers, staff, and students inside the school building, schools include parents, community members, district personnel, and other external entities that affect education. The principal's role is unique in relation to many occupational roles in that it spans the boundary between internal and external environments (Goldring, 1990). Principals today also work in a context of multiple reform agendas. These reforms, coming from local, state, and national sources, increase the complexity of the principal's role by forcing the principal to focus on the demands that each source is making.

The term context or contextual factors is a broad term that relates to the idea of the interrelatedness and interdependence in all facets of the school. The weaving together and interdependence of all the facets of the school create its environment or context. (Corbett, Dawson & Firestone, 1984)

The context in which those seeking to improve schools find themselves creates a set of conditions that presents bridges or barriers to change. According to a study conducted by Corbett, Dawson and Firestone (1984), "the basic argument is that existing school contextual conditions yield substantially different results from school to school" (p. xiii).

The distinction between an effective and ineffective leader very often depends on the way he/she assesses the situation and takes action under a specific circumstance. In other words, the difference between an effective and ineffective leader could be reflected on his/her way of leading, that is, the leadership style.

In this study, the context of schools is viewed as a dynamic interplay of the principal's leadership behavior and student achievement. Specific elements of these dimensions are measured to determine the degree to which they act as facilitators or impediments to change.

CHAPTER III

METHODS AND PROCEDURES

This chapter presents the design of the study and the methodology used to investigate two research questions that were developed to answer the primary question: Do principals make a difference? The purpose of this study is to explore the relationships among the school, the achievement scores of third grade students as measured by the reading portion of the Texas Assessment of Academic Skills (TAAS) and leadership behaviors of elementary school principals. Secondly, this present study will clarify how context interacts with leadership behaviors to create a climate of high expectations. Finally, this present study determines if the research conducted by Hallinger, Bickman and Davis (1996) can be particularized to the population in the Rio Grande Valley of Texas. This study is a replication of research conducted by Phillip Hallinger, Leonard Bickman and Ken Davis (1996) as part of the Tennessee School Improvement Incentives Project.

In their study, they utilized the instructional leadership model developed by the researchers at the Far West Laboratory for Educational Research and Development. This conceptual model analyzes principal leadership in relation to features of the school environment, school-level organization, and student outcomes. The methods this researcher employed and the instruments used in obtaining and analyzing the data are

reviewed in this chapter. The data was gathered to address the dependent variable, student achievement and independent variables, antecedents, school environment, principal leadership behaviors, and school level organization. The procedures that were followed in selecting the sample and administering the questionnaire are explained. Finally, statistical procedures that are used to analyze the data are described.

Causal-Comparative Research Method

For this study, causal-comparative research was selected because this provides ex-post facto interval data, which is necessary for the analysis (Hallinger, 2003). The purpose of causal-comparative research is to examine causality (Gay, 1996). Causal-comparative research is also called *ex-post facto* (Latin for 'after the fact') research because "the groups being compared have already been formed and any treatment has already been applied" (Fraenkel & Wallen, 2003, page 368). This method lacks manipulation of an independent variable under the control of the experimentor and random assignment is not possible (Gay, 1996). However, the sample prescribes that a certain "manipulation" or treatment has been applied, i.e., the sample assumes both a transformation from low performing to performing at a recognized or exemplary level and the appointment of a new principal within the previous three years. The term causal-comparative originated in the early 20th century (Good, Barr & Scates, 1935). The early writers contend, "The method starts with observed effects and seeks to discover the antecedents of these effects" (p. 533). The remainder of this chapter is organized in the following sections: population and sample, instrumentation, research questions, data collection procedures and data analysis procedures.

Population and Sample

Sampling is the process of selecting members of a research sample from a defined population with the intent that the sample accurately represents that population (Gall, Borg, & Gall, 1996). According to Gall, Borg, and Gall (1996) the minimum number of cases needed for causal comparative research is 15 subjects. Elementary school principals and teachers in the state of Texas and in ESC Region 1 were selected as the subjects for this study. In 2002, there were 4,019 elementary schools in 1,040 school districts in the State of Texas. The researcher identified the population of campuses located in ESC Region 1 that earned a low performing or acceptable rating during 1997-1999 and earned a recognized or exemplary rating within three years after the naming of a new principal. The ESC Region 1 has 24 elementary campuses in nine school districts that met the requirements of this study. Two school districts did not respond to the researcher's request for participation in this study. Therefore, the study has a sample size (N=20), which represents 83% of the eligible schools in ESC Region 1. The total number of principals selected is 20 and the total number of teachers is 100. The selection of five teachers per campus was based on availability. The principal provided a roster of teachers who had been at the campus during the principal's tenure. This researcher selected the five teachers at random.

Criteria included in the selection of the research sample were: (a) the selected elementary school principals were assigned to the campus within 1997-1999 and remained in that assignment through the 2001-2002 school years, (b) the schools were considered acceptable or low performing when the principal was newly assigned, and (c) the schools earned recognized or exemplary status within three years after the principal's

appointment as measured by the Texas Assessment of Academic Skills. The AEIS ratings for participant campuses are found in Appendix F.

Instrumentation

The present study utilized two questionnaire instruments as the primary means to collect data. The data were self reported and were mailed back to the researcher by the campus principal. The questionnaires also included items that determined the principals' and teachers' years of service. The elementary school principals and teachers studied were asked to complete the Principal Instructional Management Rating Scale developed by Dr. Phillip Hallinger (1983). This instrument was selected because the items on the PIMRS were designed to assess the degree to which a principal is engaged in specific instructional leadership behaviors in the school, thereby providing a profile of that principals' instructional leadership. The instrument provides a characterization of principal performance on ten instructional leadership job functions associated with principal leadership in effective schools (Hallinger, 2003).

The original form of the PIMRS (Hallinger, 1982) contained 11 subscales and 72 "behaviorally anchored items" (Hallinger, 2003). Subsequent revision of the instrument reduced the instrument to 10 subscales and 50 items (Hallinger, 1983, 1990). For each item, the rater assesses the frequency with which the principal demonstrates a behavior or practice associated with that particular instructional leadership function. Each item is rated on a Likert-type scale ranging from (1) almost never to (5) almost always (Hallinger, 2003). The instrument is scored by calculating the mean for the items that comprise each subscale. These final results become a profile on perceptions of principal performance on each of the 10 instructional leadership functions (Hallinger, 2003).

The instrument is comprised of three forms: a self-assessment form to be completed by the principal, a teacher form and a supervisor form. The items on each form are identical; however, the stems are changed to reflect the differing perspectives of the role groups (Hallinger, 2003). Significant differences in perceptions across role groups have been found in other studies (Hallinger & Murphy, 1985; Krug, 1986). The instrument has been tested and validation studies in the United States indicate that the PIMRS form that solicits teachers' perceptions provides the most valid data (Hallinger, 2003).

A high score on a particular job function indicates active leadership in that area and does not necessarily indicate effective performance. A high rating on a given leadership function indicates the principal is perceived as engaging more frequently in instructional leadership behaviors and practices that are associated with their role in an effective school setting. (Hallinger, 2003).

The PIMRS ratings do not measure the quality of principal instructional leadership. The scale does not address the thinking that underlies the principals demonstrating specific leadership behaviors. Studies conducted by Leithwood indicated that the PIMRS provides information needed to understand how and why behaviors occur in a given context (Leithwood et al., 1990). Representations of instructional leadership behaviors of principals are elucidated by the data provided by the PIMRS.

Hallinger's (1983) original validation study found that the PIMRS met high standards of reliability. Cronbach's test of internal consistency indicates that all ten subscales exceed .80. Ebel's (1951) test for calculating inter-rating reliability was also used in place of Cronbach's formula. This test measures internal consistency and

validity. It is a more accurate gauge for reliability when ratings are aggregated from a set of schools where respondents within schools are measuring a feature of that school.

Another area of inquiry was associated with the factors of effective schools. The School Effectiveness Questionnaire (Baldwin, Coney, Fardig, & Thomas, 1993) served as the source for this measure. The School Effectiveness Questionnaire provides a profile of school effectiveness that emerges from the attitudes and opinions of the individuals surveyed. The 59 item survey identifies the strengths and weaknesses that have an impact on school effectiveness. The School Effectiveness Questionnaire consists of four survey forms: one for parents, one for teachers, one for students in Grades 5 though 8 and one for students in Grades 9 through 12. Each form contains a series of statements on school effectiveness to which persons respond using a Likert Scale. The characteristics include: effective instructional leadership, clear and focused school mission, positive school climate, learning opportunities and parent and community involvement. Internal consistency reliability indicates that all nine subscales exceed .95. Data concerning the relative independence of the nine characteristics as measured by the School Effectiveness Questionnaire indicates that the characteristics are related and can be considered facets of school effectiveness. However, these correlations were measured between .59 and .83 and are not as high as the coefficient alpha reliabilities for the groups of items measuring each individual characteristic.

The Academic Excellence Indicator System (AEIS) assembles a wide range of information on the performance of students in each school and district in Texas every year (TEA, 2004). This information is put into annual AEIS reports, which are available each year in the fall. The performance indicators include state-administered assessment

performance by grade level, by subject and by all grades tested. Performance on this indicator is disaggregated by ethnicity, gender, special education, and low-income status. The report also provides extensive information on school and district staff, finances, programs and demographics. These reports use a subset of the performance measures computed for AEIS to assign a rating to each public school and district (TEA, 2004).

Research Questions

This research seeks to assess both the direct and indirect effects of principal instructional leadership on student achievement while accounting for variations on the school context, intervening school and classroom variables and selected personal characteristics of elementary school principals under study. The following two questions guide this research:

Question 1. What are the relationships among the principal leadership behavior constructs of school governance, school climate, and the instructional organization as measured by the Principal's Instructional Management Rating Scale, and selected school context variables (student socio-economic characteristics, school level, district size, community type, homogeneity of ethnicity, parent and community involvement)?

$H_0$1: Principal leadership behavior construct of instructional support as measured by the Principal's Instructional Management Rating Scale is not a function of selected school context variables (student socio-economic characteristics, school level, district size, community type, homogeneity of ethnicity, parent and community involvement).

$H_0$2: Principal leadership behavior construct of visibility as measured by the Principal's Instructional Management Rating Scale is not a function of selected school context variables (student socio-economic characteristics, school level, district size, community type, homogeneity of ethnicity, parent and community involvement).

$H_0$3: Principal leadership behavior construct of monitoring instruction as measured by the Principal's Instructional Management Rating Scale is not a function of selected school context variables (student socio-economic characteristics, school level, district size, community type, homogeneity of ethnicity, parent and community involvement).

$H_0$4: Principal leadership behavior construct of time on task as measured by the Principal's Instructional Management Rating Scale is not a function of selected school context variables (student socio-economic characteristics, school level, district size, community type, homogeneity of ethnicity, parent and community involvement).

Question 2. Which of these variables have a significant effect on the three-year average reading gain and the mean achievement scores of third graders on the Texas Assessment of Academic Skills (TAAS)?

$H_0$5: Principal's leadership effectiveness score on the Principal Instructional Management Rating Scale (PIMRS) is not a function of school effectiveness as measured by the Academic Excellence Indicator System (AEIS) during the school years 1997-2001.

Table 1

Criterion and Predictor Variables Aligned to Phenomenon and Measures

Variables	Phenomenon to be Measured	Measures
Dependent/Criterion	Student Achievement Scores on 3rd Grade TAAS-Reading	Academic Excellence Indicator System
Independent/Predictor	Principal Leadership Behaviors	Principal Instructional Management Rating Scale
Independent/Predictor	School Effectiveness	School Effectiveness Survey
Independent/Predictor	School Context/Antecedent Variables socioeconomic characteristics, school level, school size, community type, homogeneity of ethnicity, parent and community involvement	Academic Excellence Indicator System

Data Collection Procedures

Data for this study was generated from a variety of sources: questionnaires, document review and achievement score data. The Institutional Review Board (IRB) at the University of Texas-Pan American and the district superintendents granted permission to conduct the study. The data collected for this study were primarily obtained through questionnaires and reading achievement scores. Superintendents, principals, and teachers signed an informed consent form prior to the data collection. Principals from each of the selected campuses were contacted.

According to Rea and Parker (1997) there are both advantages and disadvantages of the mail-out format. Among the advantages is the completion at the respondent's convenience, limited time constraints, anonymity, and reduced interviewer-induced bias. The authors caution however that there are also several disadvantages to this approach.

These include a lower than usual response rate, a comparatively long time period for returns, self-selection, and lack of interviewer involvement. The researcher was concerned about a poor return rate due to the nature and complexity of the school principal's position and the imposition of the time needed to complete the questionnaires and demographic survey.

To minimize the disadvantages, and maximize the return rate, the researcher met with each principal and the teacher participants at a time that was mutually convenient for the campus principal and the researcher. A date and time was agreed upon by the campus principal and researcher in order to discuss the purpose of the study and procedures to be handled at the campus. At the meeting, the principal and teachers were provided with a package containing return envelopes, a letter of request for participation, an explanation of the questionnaires, together with the PIMRS and SEQ forms. The individually addressed cover letter included a brief introduction to the study, comments on the use of the PIMRS, SEQ and the AEIS, an assurance of confidentiality in regard to individual respondents and their schools, a request for the principal and teachers to participate, a request for a response within two weeks, a comment that a stamped self-addressed envelope was included and an offer to provide the respondents with the results of the questionnaires. A code was established for each elementary school and its school principal and teachers to ensure confidentiality. This coding system was also kept for the purpose of following up with a subsequent request for a response, if needed. After two weeks, a follow-up letter was sent to those who had not responded. Response time for the second request was two weeks. A thank-you letter was sent to those who returned the questionnaires. Questionnaires were completed during the months of November and

December 2004.

Campus demographic data from the Academic Excellence Indicator System (AEIS) database of the Texas Education Agency was collected. The data is considered public information and is in the public domain. Student's academic achievement on the Third Grade Reading portion of the Texas Assessment of Academic Skills for the school years 1997-2002 was obtained from the Academic Excellence Indicatory System (AEIS) of the Texas Education Agency. The collected data was recorded according to the year and with a code corresponding to each individual school. The code system was destroyed after the study was completed. The demographic data for each participant campus are found in Appendix F.

The collected data and shown in Table 2 is recorded with a code corresponding to each individual school.

Table 2

Frequency and Percentage of Respondents to the PIMRS and SEQ

District	School	Number in Sample	Number Surveyed	Percentage Returned
1	#265	6	6	100%
1	#218	6	6	100%
1	#118	6	6	100%
2	#92	6	6	100%
2	#58	6	6	100%
3	#241	6	6	100%
3	#40	6	6	100%
3	#51	6	6	100%
3	#8	6	6	100%
3	#191	6	6	100%
4	#35	6	6	100%
4	#359	6	6	100%
5	#353	6	6	100%
5	#69	6	6	100%
6	#140	6	6	100%
6	#158	6	6	100%
7	#307	6	6	100%
7	#221	6	6	100%
7	#15	6	6	100%
7	#369	6	6	100%

Twenty elementary principals and 100 teachers were selected for this study based on the school's increased performance rating three year's after the appointment of the principal. The principal subjects consisted of 90% females and 10% males. The gender of the 100 elementary school teachers selected was 85% female and 15% male. The average year's

experience of principal experience was 9.2 years. The average years of teaching experience for teachers was 11.1 years.

Data Analysis Procedures

The data collected for this study were primarily obtained through questionnaires and reading achievement scores. The scoring of the questionnaires and the treatment of the data were performed in accordance with the directions included in the manuals for each of the instruments. The Statistical Package for Social Science (SPSS) 12.0 for Windows was used to analyze the data. The mean scores were calculated using statistical methods.

The methods of data analyses in this causal-comparative study were descriptive (Hinkle, Wiersma, & Jurs, 1998), exploratory (Tukey, 1977) and confirmatory (Tukey, 1977). Exploratory and confirmatory analyses are used side by side. The descriptive values included mean, median, standard deviation, variance, skewness, and kurtosis for each independent/predictor and dependent/criterion variable. Exploratory data analysis include box-and-whisker plot displays. Confirmatory analyses include correlational and regression analysis (backward and all possible regression). Null hypotheses for the present study are tested with *t* and F distributions at the .05 level of significance.

Psychometric/Observational Scales

Psychometric properties of measures included deriving underlying theoretical/construct validity, item analysis (item distribution and discrimination indices) and measurement error due to content sampling error.

Exploratory Factor Analysis/Construct Validity

Exploratory factor analysis is used to derive the underlying theoretical/construct validity in given scales. These analyses were conducted to identify outliers in the data

and to determine the characteristics of the distributions. In exploratory factor analysis, one seeks to describe and summarize data by grouping together variables that are correlated. This statistical technique is applied to a single set of variables when the researcher is interested in discovering which variables in the set form coherent subsets that are relatively independent of one another. The variables themselves may or may not have been chosen with potential underlying processes in mind. Variables that are correlated with one another but largely independent of other subsets of variables are combined into factors. Factors are thought to reflect underlying phenomena that have created the correlations among variables.

Box-and-whisker plot displays depict the distribution of scores for the purpose of identifying any outliers or unusual scores in the data that require special consideration (Hinkle, Wiersma, & Jurs, 1998). Tukey (1977) devised a simple but highly informative graphical method for displaying the spread of scores in a distribution. The box-and-whisker plot displays illustrate both the central tendency and the dispersion of scores.

Item Analysis

Quantitative analysis includes principally the measurement of item distribution and item discrimination (Anastasi & Urbina, 1997). Item discrimination refers to the degree to which an item differentiates correctly among test-takers in the behavior that the test is designed to measure. When considering item distribution, an average difficulty level of .50 will yield three important psychometric properties: (a) the scale will maximize the detection of individual differences, (b) the true variance will not be correlated with the measurement error of variance, and (c) the total score distribution will be normally distributed (Carlson, 2004). The items may themselves be evaluated and

selected on the basis of their relationship to the same external criterion (Anastasi & Urbina, 1997).

Reliability Coefficient Estimates

The reliability coefficient estimates used in this present study were conducted using Cronbach's Alpha. Thus, source of measurement error addressed in the present study was content sampling error. Reliability refers to the consistency of scores obtained by the same persons when they are re-examined with the same test at different times or with different sets of equivalent items or under other examining conditions. Test reliability indicates the extent to which individual differences in test scores are attributable to "true" differences in the characteristics under consideration and the extent to which they are attributable to measurement error (Anastasi & Urbina, 1997).

The questionnaires were administered to a large number of respondents and the data analyzed by means of factor analysis. Factor analysis is a procedure for arriving at the variance explained by a set of factors and established underlying dimensions.

There are several methods of factor analysis, but the one most commonly used in the literature is principal components factor analysis with varimax rotation. The important thing about this statistical procedure is that it produces clusters of items that are statistically independent of each other. The researcher is then able to examine the items within a cluster and determine whether they fit the construct the researcher has in mind. Those items that contribute to (or load on) a factor using the criterion level of .40 or higher are then retained and those that do not are discarded.

Exploratory and Descriptive Statistics

Two methods of descriptive statistics considered in this study were skewness and

kurtosis. According to Hinkle et al. (1998), skewness is the degree to which the majority of scores in a frequency distribution are located at one end of the scale of measurement with progressively fewer scores toward the opposite end of the scale. Kurtosis identifies the degree of peakedness in a symmetric distribution (Hinkle et al., 1998).

Regression Analysis

In regression analysis, one is concerned with accounting for or explaining variance in the criterion or dependent variable. Regression methods that are used when analyzing the data is the full model, backward elimination procedures (for amount of unique variance explained) and all-possible procedures (for model of "best" fit).

Backward elimination regression and all-possible procedures methods are conducted through manual entry on independent/predictor variables. Assumptions made when using regression analysis include random variables with a probability distribution that has a finite mean and variance, observations are statistically independent of one another, linearity, homoscedasticity, normality of dependent variables have a fixed correlation and the independent variable is normally distributed. The null hypothesis for the full model was tested with the F distribution at the .05 level of significance.

Correlation analyses were used to determine the relationship between and among the variables. Regression analysis was used to explain the amount of the variance accounted for in the criterion variable. A multivariate correlational matrix was used to determine the relationship between one dependent variable (student achievement) and three independent variables (antecedent variables, principal leadership and intervening school/classroom variables).

Summary

This chapter re-states the purpose of the study. The criteria used to identify the research sample are described. The subjects were selected by stratified random sampling for this quantitative study from the research sample. Research procedures and methods of data collection are described as questionnaires and document review. The instruments were selected based on a study completed by Hallinger, Bickman and Davis (1996). The reliability and validity of each instrument was reported. The procedures for data collection and data analyses and criteria for testing the null hypothesis are summarized. The use of descriptive statistics is justified. The side-by-side use of exploratory and confirmatory analyses is explained. The variance explaining the criterion variable is analyzed through the full model and ultimately all possible procedure. Chapter IV presents the results of data analysis.

CHAPTER IV

RESEARCH FINDINGS

The purpose of the present study was to examine the relationship among elementary principal leadership behaviors and student achievement. Antecedent variables including school context variables, school demographic variables, and intervening school and classroom variables were also explored and analyzed. The present quantitative study utilized two questionnaires, the Principal Instructional Management Rating Scale (PIMRS) and the School Effectiveness Questionnaire (SEQ).

Psychometric properties of measures included deriving underlying theoretical/construct validity, item analysis, that is, item distribution and discrimination indices, and measurement error due to content sampling error. In addition, analysis of the research variables included exploratory and confirmatory analysis. Exploratory and confirmatory analyses were utilized side by side in this study (Tukey, 1977). Descriptive statistics, mean, standard error of mean, variance, and skewness, standard error of skewness, kurtosis and standard error of kurtosis were obtained for each variable. Similarly, exploratory analysis included box-and whisker plot displays. Correlation and regression analyses were used to determine the relationship between and among the variables. Models used to analyze the data were the full model, manually derived

backward elimination procedures (for amount of unique variance explained) and all-possible procedure (for model of "best" fit). Assumptions made for regression analysis include random variables with a probability distribution that have a finite mean and variance. Observations are statistically independent of one another, linearity, homoscedasticity, normality of dependent variables have a fixed correlation and independent variable is normally distributed. The null hypotheses for the present study were tested with the *t* and F distributions at the .05 level of significance.

Exploratory Factor Analyses

Exploratory factor analysis was utilized to derive the underlying dimensions of scales for the present study. Table 3 and Table 4 provide the factors and questions that load onto those factors.

Table 3

Factors and Questions that Load onto the Factors to Identify Scales for PIMRS

Factor 1 Monitor Instruction		Factor 2 Instructional Support		Factor 3 Visibility		Factor 4 Time on Task	
Ques.#	Factors	Ques.#	Factors	Ques.#	Factors	Ques.#	Factors
1	.732	9	.487	21	.450	26	.727
2	.684	11	.538	24	.498	27	.604
3	.581	36	.512	25	.456	28	.440
4	.690	38	.614	31	.575	30	.663
6	.662	39	.644	32	.551	44	.503
7	.766	40	.514	33	.451		
8	.586	47	.427	34	.692		

Table 3

Factors and Questions that Load onto the Factors to Identify Scales for PIMRS continued

Factor 1 Monitor Instruction		Factor 2 Instructional Support		Factor 3 Visibility		Factor 4 Time on Task	
Ques.#	Factors	Ques.#	Factors	Ques.#	Factors	Ques.#	Factors
12	.504	48	.843	35	.622		
14	.552	49	.754				
15	.585	50	.803				
16	.468						
17	.683						
18	.678						
19	.531						
22	.553						
23	.619						
29	.533						
41	.616						
42	.556						
43	.569						

Table 4

Factors and Questions that Load onto the Factors to Identify Scales for SEQ

Factor 1 Monitor High Expectations		Factor 2 Instructional Focus		Factor 3 Climate	
Ques.#	Factors	Ques.#	Factors	Ques.#	Factors
2	.472	1	.538	3	.631
4	.458	9	.598	15	.485
5	.540	22	.557	17	.512
6	.577	32	.693	18	.410
7	.534	33	.754	19	.609
12	.583	37	.565	23	.537
13	.467	38	.597	24	.551
14	.664	40	.507	25	.547
16	.563	42	.650	26	.511
27	.501	45	.628	30	.503
28	.652	51	.617	48	.523
34	.475	52	.557	49	.626
35	.466			50	.517
36	.661			54	.436
39	.719			57	.518

Table 4

Factors and Questions that Load onto the Factors to Identify Scales for SEQ continued

Factor 1 Monitor High Expectations		Factor 2 Instructional Focus		Factor 3 Climate	
Ques.#	Factors	Ques.#	Factors	Ques.#	Factors
41	.529			58	.564
43	.551				
44	.493				
47	.572				
53	.539				
55	.528				
56	.704				
59	.684				

The factor structure for this present study obtained different underlying dimensions than those found by Hallinger (1983). One reason for this difference may have been due to a population consisting entirely of Mexican-American elementary principals. Additionally, the survey results of this small population loaded on factors that may not be stable.

Reliability of Subscales

Reliability estimates were derived for content sampling measurement error through Cronbach's alpha coefficient. It justifies the extent to which an instrument's scores are consistent in measuring what it is meant to measure. Internal consistency or

content sampling measurement error estimates are derived, with a Cronbach's alpha coefficient (Cronbach, 1951) for subscales of each of the questionnaires used in the study. Cronbach's alpha coefficient is derived through the correlation of every item with every other item in each questionnaire and deriving the amount of measurement error due to content sampling. The obtained Cronbach's alpha coefficients ranged from .77 to .94 for the *Principal Instructional Management Scale (PIMRS)* (Hallinger, 1982, 1983, 1990) as shown in Table 5, and .89 to .95 for the *School Effectiveness Questionnaire (SEQ)* (Baldwin, Coney, Fardig, & Thomas, 1993) subscales as displayed in Table 5.

Table 5

Reliability of Subscales for the Principal Instructional Management Scale (PIMRS) and School Effectiveness Survey (SEQ)

Subscales	Number of Items	Cronbach's Alpha
PIMRS		
Monitoring Instruction (MONITOR)	20	.94
Instructional Support (INSTSUPP)	10	.87
Visibility (VISIBILITY)	8	.81
Time on Task (TIME)	5	.77
SEQ		
High Expectations (HIGHEXP)	23	.95
Instructional Focus (FOCUS)	12	.89
Climate (CLIMATE)	16	.89
ANTECEDENTS		
Socioeconomic Status (SES)	1	---
School Size (SIZE)	6	---
Parent and Community Involvement (PARENT)	1	.80

Descriptive Statistics

Descriptive statistics were used to classify and summarize data. Table 6 provides information regarding the mean, 5% trimmed mean, standard error of mean, variance, standard deviation, skewness, standard error of skewness, kurtosis and standard error of kurtosis for the dependent and independent variables. Further analysis of the data identify that the variables were normally distributed. This was determined by evaluating the skewness and kurtosis which are close to zero, except for subscale Instructional Support. The kurtosis was leptokurtic which can be due to the restriction in variance which was .61. In addition, the researcher used the Kolmogorov One-Sample Test to test for normality of distribution.

Table 6

Descriptive Statistics for Variables

Variable	Mean	Std. Error	5% Trimmed Mean	Variance	Std. Dev.	Range	Skew-ness	Std. Error	Kurtosis	Std. Error
Independent										
MONITOR	83.10	.91	83.54	83.50	9.14	34	-.64	.241	-.58	.48
INSTSUPP	42.15	.61	42.62	37.19	6.09	30	-1.04	.241	1.23	.48
VISIBILITY	30.91	.50	31.12	24.97	4.99	24	.66	.241	.32	.48
TIMETASK	20.72	.29	20.94	8.51	2.91	14	-.77	.241	.63	.48
HIGHEXP	96.83	1.02	97.41	104.63	10.22	40	.85	.241	-.31	.48
FOCUS	46.35	.53	46.50	28.27	5.31	21	-.38	.241	-.66	.48
CLIMATE	100.96	1.18	101.13	139.68	11.82	54	-.31	.241	-.52	.48

Exploratory Analyses

Exploratory analyses were conducted on the data in the study (Tukey, 1977). Box-and-whisker plot displays were used to identify any atypical scores in the distribution. These atypical scores were identified as outliers, and they could call for special considerations in the data analysis. Hinkle, Wiersma and Jurs (1998) define outliers as unusual scores in the data that are often considered extreme and require special consideration. Outliers were found in Visibility, Time on Task, and Instructional Support; however, these outliers were not considered a threat to the fidelity of the data analysis. After further analysis of the data attributed to the outliers, the researcher found that they did not require special consideration. The box-and-whisker plot displays for each variable are found in Appendix G.

Confirmatory Analyses

The term confirmatory analysis describes part of a two-pronged approach to data analysis pioneered by John Tukey (1977). It incorporates a set of procedures that are aimed at confirming the patterns that one discovers during the exploratory phase. Confirmatory analysis was used to decide whether data confirmed the hypothesis the study was designed to test.

Data in Table 7 indicate that principal instructional leadership behavior constructs of Instructional Support, Monitoring Instruction, Visibility and Time on Task are a function of school effectiveness as measure by the Principals Instructional Leadership Management Rating Scale. The data indicate a relationship between Antecedent Variable of Parent and Community Involvement (PARENT) and Principal Leadership Behavior Construct of Monitoring Instruction ($r = .46$), Instructional Support ($r = .48$), Visibility

(r = .34), Time on Task (r = .42), High Expectations (r = .78), Instructional Focus (r = .52) and Positive School Climate (r = .87) at the .01 level of significance.

The data indicate that there were no relevant relationships between Antecedent Variables Principal Leadership Behavior constructs at the .05 level of significance.

Table 7

Correlation Coefficients Between Subscales for Antecedent Variables School Size (SIZE), Socio-Economic Status (SES), Parent and Community Involvement (PARENT), Principal Leadership Behavior Construct of Monitoring Instruction (MONITOR), Instructional Support (INSTSUPP), Visibility (VISIBILITY), and Time on Task (TIME), and School Effectiveness Variables of High Expectations (HIGHEXP), Instructional Focus (FOCUS) and Positive School Climate (CLIMATE) and Student Achievement

Sub-scales	MONITOR	INSTSUPP	VISIBILITY	TIME	HIGHEXP	FOCUS	CLIMATE	SIZE	SES	PARENT	TAAS
MONITOR	1.00	.46**	.59**	.57**	.65**	.69**	.57**	.17	.05	.46**	.08
INSTSUP		1.00	.54**	.43**	.54**	.24*	.55**	.14	-.17	.48**	-.28**
VISIBILITY			1.00	.53**	.35**	.27**	.38**	.11	-.10	.34**	.02
TIME				1.00	.40**	.42**	.55**	.10	-.01	.42**	.01
HIGHEXP					1.00	.70**	.81**	.08	.02	.78**	-.02
FOCUS						1.00	.61**	.01	.15	.52**	.15
CLIMATE							1.00	.08	-.01	.87**	-.06
SIZE								1.00	.51**	.06	-.13
SES									1.00	.02	.13
PARENT										1.00	-.11
TAAS											1.00

**$p < .01$
*$p < .05$

Regression Analyses

The overall research question that guides the present study is:

Do principals make a difference? There was no aggregate or full battery score for the subscales, so this omnibus question for the present study was addressed by the categorization of principal leadership behavior into the following four subscales: Instructional Support, Monitoring Instruction, Visibility, and Time on Task.

The research questions that guided the present study and the null hypotheses tested is as follows:

Question 1. What are the relationships among the principal leadership behavior constructs of school governance, school climate, and the instructional organization as measured by the Principal Instructional Management Rating Scale, and selected school context variables (student socioeconomic characteristics, school level, district size, community type, homogeneity of ethnicity, parent and community involvement)?

$H_0$1: Principal leadership behavior construct of Instructional Support as measured by the Principal Instructional Management Rating Scale is not a function of selected school context variables (student socioeconomic characteristics, school level, district size, community type, homogeneity of ethnicity, parent and community involvement).

The derived multiple regression coefficient for the full model (.52) was significant ($p< .000$) as shown in Table 8. These data reject the null hypothesis; therefore, suggesting that the principal leadership behavior construct of Instructional Support is a function of selected school context variables. Parent and Community Involvement, Socio-economic Status and School Size were removed from the independent/predictor variables; however, Parent and Community Involvement was significant within the

correlations of the full model. The R squared derived in the analysis suggests that 27% of the variance in the principal leadership behavior construct of Instructional Support is explained by the independent variables.

Table 8

Regression Analysis of Full Model for Principal Leadership Behaviors (INSTSUPP) and SEQ: Parent and Community Involvement, Socio-economic Status and School Size

Full Model	R	R^2	Adjusted R^2	F*
INSTRSUPP	.52	.27	.25	12.0

Predictors: Parent and Community Involvement, Socio-economic Status, School Size
Dependent Variable: Instructional Support
df: 3, 96; *$p < .05$

Table 9

Standardized or Beta Coefficients Between Principal Leadership Behaviors (INSTSUPP) and Predictor Variables

Predictor/Independent Variables	Standardized/Beta Coefficients	t	*p*
Parent and Community Involvement	.48	5.55	.000
Socio-economic Status	-.18	-1.78	.08
School Size	.04	.35	.72

Dependent Variable: Instructional Support

Table 9 provides the standardized regression coefficients between leadership behavior and predictor variables. The variable found to be significant was Parent and Community Involvement ($p< .000$).

For further analysis of the data, the researcher looked for the unique variance explained by each of the predictor variables. Table 10 presents analyses of backward regression.

Table 10

Backward Regression Analysis for Instructional Support

Steps	Predictor Removed	R	R^2	Adjusted R^2	F	*p*
I	Parent and Community Involvement	.18	.03	.02	2.03	.14
II	School Size	.52	.27	.26	18.24	.000
III	Socio-economic Status	.50	.25	.24	16.19	.000

Table 11 provides the unique data between the full model and the predictor variable removed. The data explains the unique variance.

Table 11

Backward Regression Analysis and Unique Variance Explained Between Full Model and Each Independent/Predictor Variable

Predictor Removed	R^2 Full Model	R^2	Unique Variance Explained
Parental Involvement	.27	.03	.24
School size	.27	.27	.00
Socio-economic Status	.27	.25	.02

In order to find the most parsimonious model of regression the researcher considered the model of best fit.

Table 12

All Possible Regression Analysis for Model of Best Fit Between Principal Leadership Behavior Construct of Instructional Support and Parent and Community Involvement

	R	R^2	Adjusted R^2	F*
Parent and Community Involvement	.48	.23	.23	29.89

Predictors: Parent and Community Involvement
Dependent Variable: Instructional Support
df: 1, 96; *$p < .05$

All possible regression analysis was utilized to derive the model of best fit between the dependent/criterion variable and the independent/predictor variables. The model of best fit and Parent and Community Involvement (R = .48) in Table 12 was found to be significant (df: 1, 96; $p < .05$). Parent and Community Involvement and Instructional Support explained the greatest amount of variance. Twenty-three percent of the variance was explained by Parent and Community Involvement compared to 27% in the full model. The other variables explained the following amounts of variance: School Size (0%) and Socio-economic Status (2%). In order to consider the true relationship between Instructional Support and Parent and Community Involvement, the researcher disattentuated the data from Table 12 assuming that the information is perfectly reliable. The model of best fit, when disattenuated for content sampling or measurement error in both the predictor and criterion variable, yield a regression coefficient of .58. Thus, 34% of Instructional Support is explained by Parent and Community Involvement. Content sampling measurement error is derived through Cronbach's coeffiecient alpha in both the predictor and criterion variables. (Lord & Novick, 1968; Spearman, 1904).

$H_0$2: Principal leadership behavior construct of Visibility as measured by the Principal Instructional Management Rating Scale is not a function of selected school context variables (student socioeconomic characteristics, school level, district size, community type, homogeneity of ethnicity, parent and community involvement).

The derived multiple regression coefficient for the full model (.38) was significant ($p < .002$) as shown in Table 13. These data reject the null hypothesis; therefore, suggesting that the principal leadership behavior construct of Visibility is a function of selected school context variables. Parent and Community Involvement, Socio-economic Status and School Size were removed from the independent/predictor variables; however, Parent and Community Involvement was significant within the correlations of the full model. The R squared derived in the analysis suggests that 14% of the variance is explained by the independent variables.

Table 13

Regression Analysis of Full Model for Principal Leadership Behaviors (VISIBILITY) and SEQ: Parent and Community Involvement, Socio-economic Status and School Size

Full Model	R	R^2	Adjusted R^2	F*
VISIBILITY	.38	.14	.12	5.40

Predictors: Parent and Community Involvement, Socio-economic Status, School Size
Dependent Variable: Visibility
df: 3, 96; *$p < .05$

Table 14

Standardized or Beta Coefficients Between Principal Leadership Behaviors (VISIBILITY) and Predictor Variables

Predictor/Independent Variables	Standardized/Beta Coefficients	t	*p*
Parent and Community Involvement	.34	3.57	.001
Socio-Economic Status	-.18	-1.65	.10
School Size	.01	-.05	.96

Dependent variable: Visibility

Table 14 provides the standardized regression coefficients between leadership behavior and predictor variables. The variable found to be significant was Parent and Community Involvement ($p< .001$).

For further analysis of the data, the researcher looked for the unique variance explained by each of the other predictor variables. Table 15 presents analyses of backward regression.

Table 15

Backward Regression Analysis for Visibility

Steps	Predictor Removed	R	R^2	Adjusted R^2	F	*p*
I	Parent and Community Involvement	.12	.02	.00	.86	.43
II	School Size	.38	.14	.13	8.18	.001
III	Socio-economic Status	.35	.12	.10	6.62	.002

Table 16 provides the unique data between the full model and the predictor variable removed. The data explains the unique variance.

Table 16

Backward Regression Analysis and Explained Unique Variance Between Full Model and Each Independent/Predictor Variable

Predictor Removed	R^2 Full Model	R^2	Unique Variance Explained
Parent and Community Involvement	.14	.00	.14
School Size	.14	.13	.01
Socio-economic Status	.14	.10	.04

Table 17

All Possible Regression Analysis for Model of Best Fit Between Principal Leadership Behavior Construct of Visibility and Parent and Community Involvement

	R	R^2	Adjusted R^2	F*
Parent and Community Involvement	.34	.11	.103	12.4

Predictors: Parent and Community Involvement
Dependent Variable: Visibility
df: 3, 96; *$p < .05$

All possible regression analysis was utilized to derive the model of best fit between the dependent/criterion variable and the independent/predictor variables. The model of best fit and Parent and Community Involvement were found to be significant (df: 3, 96; $p < .05$). Parent and Community Involvement and Visibility explained the greatest amount of variance. Eleven percent of the variance was explained by Parent and

Community Involvement and 14% in the full model. The other variables explained the following amounts of variance: School Size (1%), Socio-economic Status (3%).

$H_0$3: Principal leadership behavior construct of Monitoring Instruction as measured by the Principal's Instructional Management Rating Scale is not a function of selected school context variables (student socioeconomic characteristics, school level, district size, community type, homogeneity of ethnicity, parent and community involvement).

The derived multiple regression value for the full model (.49) is significant ($p < .000$) as shown in Table 18. These data reject the null hypothesis; therefore, suggesting that the principal leadership behavior construct of Monitoring Instruction is a function of selected school context variables. Parent and Community Involvement, Socio-economic Status and School Size were removed from the independent/predictor variables; however, Parent and Community Involvement was significant within the correlations of the full model. The R squared derived in the analysis suggests that 25% of the variance was explained by the independent variables.

Table 18

Regression Analysis of Full Model for Principal Leadership Behaviors (MONITOR) and SEQ: Parent and Community Involvement, Socio-economic Status and School Size

Full Model	R	R^2	Adjusted R^2	F*
MONITOR	.49	.25	.22	10.5

Predictors: Parent and Community Involvement, Socio-economic Status, School Size
Dependent Variable: Monitoring Instruction
df: 3, 96; *$p < .05$

Table 19

Standardized or Beta Coefficients between Principal Leadership Behaviors (MONITOR) and Predictor Variables

Predictor/Independent Variables	Standardized/Beta Coefficients	t	*p*
Parent and Community Involvement	.44	4.97	.000
Socio-economic Status	.10	.98	.33
School Size	.23	2.19	.03

Dependent variable: Monitoring Instruction

Table 19 provides the standardized regression coefficients between leadership behavior and predictor variables. The variable found to be significant was Parent and Community Involvement ($p < .000$).

For further analysis of the data, the researcher looked for the unique variance explained by each of the other predictor variables. Table 20 presents analyses of backward regression.

Table 20

Backward Regression Analysis for Monitoring Instruction

Steps	Predictor Removed	R	R^2	Adjusted R^2	F	*p*
I	Parent and Community Involvement	.24	.06	.04	3.47	.034
II	School Size	.46	.21	.19	12.79	.000
III	Socio-economic Status	.49	.24	.22	15.22	.000

Table 21 provides the unique data between the full model and the predictor variable removed. The data explains the unique variance.

Table 21

Backward Regression Analysis and Unique Variance Explained Between Full Model and Each Independent/Predictor Variable

Predictor Removed	R^2 Full Model	R^2	Unique Variance Explained
Parental Involvement	.25	.06	.19
School Size	.25	.21	.04
Socio-economic Status	.25	.24	.01

In order to find the most parsimonious model of regression the researcher considered the model of best fit.

Table 22

All Possible Regression Analysis for Model of Best Fit Between Principal Leadership Behavior Construct of Monitoring and Parent and Community Involvement

Model	R	R^2	Adjusted R^2	F*
MONITOR	.46	.21	.20	25.81

Predictors: Parent and Community Involvement
Dependent Variable: Monitoring Instruction
df: 1, 96; *p< .05

All possible regression analysis was utilized to derive the model of best fit between the dependent/criterion variable and the independent/predictor variables. The model of best fit and Parent and Community Involvement (R=.46) in Table 22 is found to be significant (df: 1, 96; p< .05). Parent and Community Involvement and Monitoring

Instruction explained the greatest amount of variance. Twenty one percent of the variance was explained by Parent and Community Involvement compared to 25% in the full model. The other variables explained the following amounts of variance: School Size (4%) and Socio-economic Status (1%). In order to consider the true relationship between Monitoring Instruction and Parent and Community Involvement, the researcher disattenuated the data from Table 22 assuming that the information is perfectly reliable. The model of best fit, when disattenuated for content sampling or measurement error in both the predictor and criterion variable, yield regression coefficient of .53. Thus, 28% of Monitoring Instruction is explained by Parent and Community Involvement. Content sampling measurement error is derived through Cronbach's coeffiecient alpha in both the predictor and criterion variables (Lord & Novick, 1968; Spearman, 1904).

$H_0$4: Principal leadership behavior construct of Time on Task as measured by the Principal Instructional Management Rating Scale is not a function of selected school context variables (student socioeconomic characteristics, school level, district size, community type, homogeneity of ethnicity, parent and community involvement).

The derived multiple regression coefficient for the full model (.43) was significant ($p< .000$) as shown in Table 23. These data reject the null hypothesis; therefore, suggesting that the principal leadership behavior construct of time on task is a function of selected school context variables. Parent and Community Involvement, Socio-economic Status and School Size were removed from the independent/predictor variables; however, Parent and Community Involvement was significant within the correlations of the full model. The R squared derived in the analysis suggests that 19% of the variance is explained by the independent variables.

Table 23

Regression Analysis for Full Model Between Principal Leadership Behaviors (TIME) and SEQ: Parent and Community Involvement, Socio-economic Status and School Size

Full Model	R	R^2	Adjusted R^2	F*
TIME	.43	.19	.16	7.29

Predictors: Parent and Community Involvement, Socio-economic Status, School Size
Dependent Variable: Time on Task
df: 3, 96; *$p < .05$

Table 24 provides the standardized regression coefficients between leadership behavior and predictor variables. The variable found to be significant was Parent and Community Involvement ($p < .000$).

Table 24

Standardized or Beta Coefficients Between Principal Leadership Behaviors (TIME) and Predictor Variables

Predictor/Independent Variables	Standardized/Beta Coefficients	t	p
		2.06	.04
Parent and Community Involvement	.41	4.47	.000
Socio-Economic Status	.01	.07	.95
School Size	.10	.97	.34

Dependent Variable: Time on Task

For further analysis of the data, the researcher looked for the unique variance explained by each of the predictor variables. Table 25 presents analyses of backward regression.

Table 25

Backward Regression Analysis for Time on Task

Steps	Predictor Removed	R	R^2	Adjusted R^2	F	*p*
I	Parent and Community Involvement	.10	.01	-.01	.65	.03
II	School Size	.42	.18	.16	10.47	.000
III	Socio-economic Status	.43	.19	.17	11.03	.000

Table 26 provides the unique data between the full model and the predictor variable removed. The data explains the unique variance.

Table 26

Backward Regression Analysis and Explained Unique Variance Between Full Model and each Independent/Predictor Variable

Predictor Removed	R^2 Full Model	R^2	Unique Variance Explained
Parental Involvement	.19	.01	.18
School size	.19	.18	.01
Socio-economic Status	.19	.19	.00

In order to find the most parsimonious model of regression the researcher considered the model of best fit.

Table 27

All Possible Regression Analysis for Model of Best Fit Between Principal Leadership Behavior Construct of Time on Task and Parent and Community Involvement

Model	R	R^2	Adjusted R^2	F*
TIME	.42	.18	.17	20.84

Predictors: Parent and Community Involvement
Dependent Variable: Time on Task
df: 1, 96; *$p < .05$

All possible regression analysis was utilized to derive the model of best fit between the dependent/criterion variable and the independent/predictor variables. The model of best fit and Time on Task (R=.42) in Table 27 is found to be significant (df: 1, 96; $p < .05$). Parent and Community Involvement and Time on Task explain the greatest amount of variance. Eighteen percent of the variance was explained by Parent and Community Involvement compared to 19% in the full model. The other variables explained the following amounts of variance: School Size (1%) and Socio-economic Status (0%). In order to consider the true relationship between Time on Task and Parent and Community Involvement, the researcher disattenuated the data from Table 27 assuming that the information is perfectly reliable. The model of best fit, when disattenuated for content sampling or measurement error in both the predictor and criterion variable, yield regression coefficient of .55. Thus, 30% of Time on Task is explained by Parent and Community Involvement. Content sampling measurement error is derived through Cronbach's coeffiecient alpha in both the predictor and criterion variables. (Lord & Novick, 1968; Spearman, 1904).

Question 2. Which of these variables have a significant effect on the three-year average reading gain and the mean achievement scores of third graders on the Texas Assessment of Academic Skills (TAAS)?

$H_0$5: Principal's leadership effectiveness score on the Principal Instructional Management Rating Scale (PIMRS) is not a function of school effectiveness as measured by the Academic Excellence Indicator System (AEIS) during the school years 1997-2001.

The derived multiple regression coefficient for the full model (.38) is significant ($p < .001$) as shown in Table 28. These data reject the null hypothesis, therefore, suggesting that principal leadership behavior is a function of school effectiveness as measured by student achievement scores. Instructional Support, Monitoring Instruction, Visibility and Time on Task were removed from the independent/predictor variable; however, Instructional Support was significant within the correlations of the full model. The R squared derived in the analysis suggests that 14% of the variance is explained by the independent variables.

Table 28

Regression Analysis of Full Model for Student Achievement (TAAS) and PIMRS: Instructional Support (INSTSUPP), Monitoring Instruction (MONITOR), Visibility (VISIBILITY), and Time on Task (TIME)

Full Model	R	R^2	Adjusted R^2	F*
TAAS	.40	.16	.13	20.52

Predictors: Instructional Support, Monitoring Instruction, Visibility, Time on Task
Dependent Variable: Student Achievement (TAAS)
df: 4, 119; *$p < .05$

Table 29

Standardized or Beta Coefficients Between Student Achievement and Predictor Variables

Model	Standardized/Beta Coefficients	t	*p*
		4.18	.000
Instructional Support	-.461	-4.38	.000
Monitoring Instruction	.167	1.45	.15
Visibility	.180	1.53	.13
Time on Task	-.091	-.83	.41

Dependent variable: Student Achievement

Table 29 provides the standardized regression coefficients between student achievement and predictor variables. The variable found to be significant was Instructional Support ($p < .000$).

For further analysis of the data, the researcher looked for the unique variance explained by the other predictor variables. Table 30 presents analyses of backward regression.

Table 30

Backward Regression Analysis for Student Achievement

Steps	Predictor Removed	R	R^2	Adjusted R^2	F	*p*
I	Instructional Support	.28	.08	.07	10.04	.002
II	Monitoring Instruction	.08	.01	.00	.75	.39
III	Visibility	.02	.00	-.01	.03	.85
IV	Time on Task	.01	.00	-.01	.006	.94

Table 31 provides the unique data between the full model and the predictor variable removed. The data explains the unique variance.

Table 31

Backward Regression Analysis and Unique Variance Explained Between Full Model and Each Independent/Predictor Variable

Predictor Removed	R^2 Full Model	R^2	Unique Variance Explained
Instructional Support	.16	.08	.08
Monitoring Instruction	.16	.01	.15
Visibility	.16	.00	.16
Time on Task	.16	.00	.16

In order to find the most parsimonious model of regression the researcher considered the model of best fit.

Table 32

All Possible Regression Analysis for Model of Best Fit Between Principal Leadership Behavior Construct of Instructional Support, Monitoring Instruction and Student Achievement

	R	R^2	*Adjusted* R^2	F*
TAAS	.36	.13	.12	8.95

Predictors: Instructional Support and Monitoring Instruction
Dependent Variables: Student Achievement
df: 2,119; *$p < .05$

All possible regression analysis was utilized to derive the model of best fit between the dependent/criterion variable and the independent/predictor variables. The model of best fit and student achievement (R=.36) in Table 32 was found to be significant (df: 2, 119; $p < .001$). Student Achievement, Instructional Support and Monitoring Instruction explained the greatest amount of variance. Thirteen percent of the variance was explained by Instructional Support and Monitoring Instruction compared to 16% in the full model. The other variables explained the following amounts of variance: Visibility (16%) and Time on Task (16%).

Table 33

Summary of Analyses

Questions/Hypotheses	Decisions
Omnibus Question: Do principals make a difference?	
Question 1: What are the relationships between the principal leadership behavior constructs of school governance, school climate, and the instructional organization as measured by the Principal's Instructional Management Rating Scale and selected school context variables (student socioeconomic characteristics, school level, district size, community type, homogeneity of ethnicity, parent and community involvement)?	

Instructional Support as measured by the Principal's Instructional Management Rating Scale is not a function of selected school context variables (student socioeconomic characteristics, school level, district size, community type, homogeneity of ethnicity, parent and community involvement).	Reject H_01
H_02: Principal leadership behavior construct of Visibility as measured by the Principal's Instructional Management Rating Scale is not a function of selected school context variables (student socioeconomic characteristics, school level, district size, community type, homogeneity of ethnicity, parent and community involvement).	Reject H_02
H_03: Principal leadership behavior construct of Monitoring Instruction as measured by the Principal's Instructional Management Rating Scale is not a function of selected school context variables (student socioeconomic characteristics, school level, district size, community type, homogeneity of ethnicity, parent and community involvement).	Reject H_03
H_04: Principal leadership behavior construct of Time on Task as measured by the Principal's Instructional Management Rating Scale is not a function of selected school context variables (student socioeconomic characteristics, school level, district size, community type, homogeneity of ethnicity, parent and community involvement).	Reject H_04
Question 2: Do these variables have a significant effect on the three-year average reading gain and mean achievement scores of third graders on the Texas Assessment of Academic and Skills (TAAS)?	
H_05: Principal's leadership effectiveness score on the Principal Instructional Management Rating Scale (PIMRS) is not a function of school effectiveness as measured by the Academic Excellence Indicator System (AEIS) during the school years 1997-2001.	Reject H_05

Summary

Chapter four presents the research findings of the present study. The present study utilizes exploratory and confirmatory analysis side by side. Descriptive statistics such as mean, standard error of mean, variance, and skewness, standard error of skewness, kurtosis, and standard error of kurtosis are obtained for each variable. Similarly, exploratory data analyses and box-and-whisker plot displays are obtained. Multivariate correlation and multiple regression analyses are used to determine the relationship between and among variables. In the summary, the five null hypotheses for the model of best fit are rejected by the data. Chapter five provides a discussion of the finding and recommendation for further research.

CHAPTER V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

This chapter presents a brief summary of this study, a discussion of the findings of the study, conclusions and recommendations for future study.

The Principle Hypotheses

The purpose of this study was to explore the relationships among the school, the achievement scores of third grade students as measured by the reading portion of the Texas Assessment of Academic Skills (TAAS) and leadership behaviors of elementary school principals. Secondly, this present study clarifies how context interacts with leadership behaviors to create a climate of high expectations. Finally, this study determined if the research conducted by Hallinger, Bickman and Davis (1996) can be particularized to the population in the Rio Grande Valley of Texas. It was anticipated that the research findings would be congruent with the literature. The findings indicate that (a) principal leadership behavior construct of Instructional Support as measured by the Principal Instructional Management Rating Scale is not a function of selected school context variables (student socioeconomic characteristics, school size, and parent and community involvement), (b) principal leadership behavior construct of Visibility as measured by the Principal Instructional Management Rating Scale is not a function of selected school context variables (student socioeconomic characteristics, school size, and

parent and community involvement), (c) principal leadership behavior construct of Monitoring Instruction as measured by the Principal Instructional Management Rating Scale is not a function of selected school context variables (student socioeconomic characteristics, school size, and parent and community involvement), (d) principal leadership behavior construct of Time on Task as measured by the Principal Instructional Management Rating Scale is not a function of selected school context (student socioeconomic characteristics, school size, and parent and community involvement), and (e) principal's leadership effectiveness score on the Principal Instructional Management Rating Scale (PIMRS) is not a function of school effectiveness as measured by the Academic Excellence Indicator System (AEIS) during the school years 1997-2002.

Discussion

This research replicated the study of Hallinger, Bickman and Davis (1996) and focused on the principal's instructional leadership behavior at the elementary school level and how it affected student achievement outcomes. The conceptual model used in this study was developed by Hallinger and Murphy (1987). A key variation in this study is that the sample is entirely comprised of Mexican-American leaders of schools that have undergone (in three years after the naming of a new school leader) a transformation from a low-performance rating to a high-performance rating on the Academic Excellence Indicator Rating (AEIS) of Texas. Data from the Principal's Instructional Management Rating Scale (PIMRS) was used to categorize the instructional leadership behaviors of principals in twenty elementary schools. Data from the School Effectiveness Questionnaire (SEQ) was used to categorize the effectiveness of each elementary school.

Data from the Academic Excellence Indicator System (AEIS) was used to identify school demographic data and third grade reading achievement scores on TAAS.

To answer the question: Do principals make a difference? Two sub-questions emerged. They were:

1. What are the relationships between the principal leadership behavior constructs of school governance, school climate, and the instructional organization as measured by the Principal's Instructional Management Rating Scale and selected school context variables (student socioeconomic characteristics, school level, district size, community type, homogeneity of ethnicity, parental involvement)?

Generally, the data suggest that the leadership behavior constructs of Instructional Support, Monitoring Instruction, Time on Task and Visibility are attributes principal instructional leadership as measured by the Principal Instructional Management Rating Scale (PIMRS). The School Effectiveness Questionnaire (SEQ) identified High Expectations, Instructional Focus, and Climate as variables. The data indicate that School Size, Socio-economic Status and Parent and Community Involvement as antecedent variables are prevalent among the schools in this study. The study of Hallinger, Murphy and Bickman (1987) focused on the identification of instructional behaviors of principals and their relation to antecedent variables within the school's contexts. Early studies by Hallinger, (Hallinger, et al. 1983) showed how the authors used the five factors of the Edmonds research (1979) which described effective schools correlates to establish their framework for the PIMRS. Their task consisted of transforming the description of effective schools practices into actual job-related behaviors. They took the descriptions of behaviors of effective school principals which were available through the Effective

Schools studies and described behaviors for their instrument from that framework. Their research validates the hypothesis that effective leadership skills had an indirect positive effect on student achievement. They observed and studied effective schools and through questionnaires, interviews, and other means of collecting data, finally arrived at the Principal Instructional Management Rating Scale (Hallinger & Murphy, 1985).

As the twenty schools were studied by this researcher, a major issue was whether the successful schools might have had some distinct activities taking place during the first three years of the principal's appointment and that the effects of these activities may not help to improve achievement scores after that three year period. In this researcher's opinion, there was reason to believe that acceleration takes place within the first three years after the new principal's appointment.

Research Question One was tested using regression analysis. The results of this research study support the hypothesis that principal leadership behavior is an important factor in student achievement as proposed by the application of the Hallinger-Murphy Model (1987). Ratings for the Principal Management Rating Scale were analyzed for differences between and among antecedent variables based on four themes (Monitoring Instruction, Instructional Support, Time on Task and Visibility) and Student Achievement. The correlation between principal leadership behavior construct of Instructional Support and the antecedent variable of Parent and Community Involvement was statistically significant.

It appears that effective instructional leadership behavior includes Instructional Support. The data showed that this construct is significant among the schools in the study. The derived multiple regression value for the full model (.52) was significant

($p < .000$) suggesting that the principal leadership behavior construct of Instructional Support is a function of selected school context variables. Parent and Community Involvement, Socio-economic Status and School Size were removed from the independent/predictor variables; however, Parent and Community Involvement was significant within the correlations of the full model. Parent and Community Involvement and Instructional Support explain the greatest amount of variance. Twenty-three percent of the variance is explained by Parent and Community Involvement in the model of best fit compared to 27% in the full model.

The correlation between the principal leadership behavior construct of Instructional Support and Student Achievement weakens after the three-year period of the principal's appointment to the campus. Factors that have a direct influence on this pattern may have been a change in the school demographics over time or the fact that it becomes more difficult to achieve higher scores after they rise to a certain level.

Similar conclusions were reached by Scheerens and Bosker (1997). They concluded that classroom and instructional factors impact student achievement. The researchers found small statistical significance between contextual factors and leadership effects. They suggest that qualitative studies are better able to "capture the dynamic nature of leadership or the fine grains of its enactment" (Scheerens & Bosker, 1997).

2. Do these variables have a significant effect on the three-year average reading gain and mean achievement scores of third graders on the Texas Assessment of Academic and Skills (TAAS)?

The derived multiple regression value for the full model (.38) was significant ($p < .001$) suggesting that principal leadership behavior is a function of school

effectiveness as measured by student achievement scores. The analysis suggests that 13% of the variance is explained by Instruction Support and Monitoring Instruction compared to 16% in the full model. This finding, to some extent, supports the assertions of Hersey and Blanchard (1988) that leadership style depends on context and that there is no one best style for all situations. Effective principals adopt the leadership behaviors that are appropriate to the situation.

In Chapter II, some studies, (Brookover & Lezotte, 1979: Edmonds, 1979; Sammons, 1995; Leithwood, et al. 1998) showed that principals who were visible, monitored student progress and performed other instructional tasks were successful in terms of student achievement. In this study, principals of schools who were low performing and then became high performing consistently practiced instructional leadership behaviors consistent with effective schools research and attained successful outcomes. Most studies reported a non-significant relationship between principal leadership behaviors and student achievement (Scheerens & Bosker, 1997). However, as seen from the data in the present study, even those relationships that are non-significant are all positive. This may indicate the existence of a positive relationship between the strands of leadership behaviors of Instructional Support, Monitoring Instruction, Visibility and Time on Task.

Based on the findings and conclusions of the study, it appears that variations can be made for Principal Instructional Management Rating Scale. It would be important to obtain feedback on vocabulary, phrasing and item clarity. This feedback would be helpful because some items appeared to confuse principals and teachers over word

choice, misinterpretation of meaning or question stems. A comprehensive understanding of the behavior described in the PIMRS would yield consistent results from all participants.

Limitations of the Study

There are certain factors that may limit the generalizability of the study. First, it is limited to a stratified random sample derived from: (a) selected Mexican-American elementary school principals and teachers who were assigned to the campus in 1997-1999 and remained in that assignment through the 2001-2002 school years, (b) schools that were considered acceptable or low performing in 1997-1999, and (c) schools that earned recognized or exemplary status in 2001-2002 as measured by the Texas Assessment of Academic Skills (TAAS). Second, it is limited to the area of third grade reading achievement. Third, this academic area is measured by one instrument exclusively, the Texas Assessment of Academic Skills (TAAS). Moreover, the questionnaires used in the present study are self-reporting, which require an assumption that respondents were honest and did not provide socially desirable responses. Despite the limitations of this study, it has shown that principals do make a difference.

Recommendations for Practitioners

This study has implications for theory and future research in educational leadership. Principal preparation programs should be innovative in this era of high stakes testing. Different types of schools call for different kinds of principal leadership. Principals should be prepared for working in the different types of schools and this requires an understanding of the type of leadership that is best suited to address the needs of the school.

Given that Parent and Community Involvement is an attribute of antecedent variables that impact principal leadership behavior, a form of preparation should be utilized for newly assigned principals. A training program should be implemented which will enable newly-assigned principals to recognize the context within which the school operates. Hallinger, Bickman and Davis (1990) concluded that principals who are aware of school context variables and their impact on school improvement efforts may take action to reduce or enhance the impact of those factors based on the needs of the school. School principals must be able to assess the demand and opportunities for leadership by looking at context variables associated with their schools.

Recommendations for Further Research

The following recommendations are based on the findings and analysis found in the current study. This study found a relationship between Mexican-American elementary principal leadership behaviors and student achievement in schools where the student population is predominately Mexican-American. Comparative studies of leadership behaviors should occur in many different contexts: other ethnic groups; urban, suburban and rural districts, and culturally and geographically distinct districts. Research should focus on the similarities and differences across contexts as well as leadership behaviors and reading achievement.

The data for this study was gathered in deep South Texas at a time when the state is undergoing a considerable amount of educational reform. The *No Child Left Behind Act*'s measure of Annual Yearly Progress (AYP) went into effect at the same time this study was conducted. A follow-up study should be conducted in three to five years to determine the differences in leadership behaviors of the principals who participated in this study. It would broaden the knowledge base of the role of the principal and it would

be important to note if a model of federally mandated standards influences the behaviors for principals of these schools.

The literature supports the use of transformational leadership practices as an effective model for the use of school principals. Research should continue to investigate the influence of transformational leadership practices of effective principals on student achievement. Studies of this nature should be done in varying context to ensure that they are context sensitive.

The notion of "no excuses—all children can learn" may be connected to the effectiveness of the school principals. These principals reject the idea of discrimination that dominates most public discussion of race or ethnicity and academic achievement. They prove that children of all races, ethnic groups and income levels can succeed by doing their job as they see fit. Principals in other districts with low student achievement might explore this concept with more compulsion to change. Therefore, this would be a point to explore in future research.

In the educational organization, the supporting staff (para-professionals, maintenance, cafeteria) should be included as part of the study when using the PIMRS and SEQ. A larger sample representing each group would be highly desirable for providing a more solid basis for statistical interpretations.

Future studies could use qualitative instead of quantitative methodology or combine both qualitative and quantitative designs on principal leadership behaviors by conducting interviews and observations.

Conclusions

The following conclusions are based on the review of the literature and on the tests of the null hypotheses of this study. Of the five null hypotheses included in this study, all were rejected.

One conclusion of the present study is that there is a relationship between school contextual variables and the principal leadership behavior construct of Instructional Support, Monitoring Instruction, Visibility and Time on Task consistent with the literature. School characteristics, such as size and level, can affect the particular role that principals enact (Goldring 1990; Hallinger & Heck 1996). Johnson (1996) asserted that context is of greatest importance in the study of leadership. School principals must be able to assess the demand and opportunities for leadership by looking at context variables associated with their schools.

A second conclusion is that the data supported a relationship between principal leadership behavior and school effectiveness as measured by student achievement. Scheerens and Creemers (1996) analyzed leadership effectiveness studies carried out within this context and found that the effect of instructional leadership had a non-existent or negative effect on school climate, parent and community involvement and student achievement.

The final conclusion drawn from the findings in this study is that Mexican-American principal leadership behavior is consistent with the findings in the literature. By recognizing that the Hispanic culture has a major impact on students' academic and social performance at school, administrators should implement a culturally congruent instructional program that would enhance student success both cognitively and affectively. Through the use of meaningful curriculum and cooperative learning,

principals can create a supportive environment that promotes a feeling of belonging, and connection, an environment in which students feel that they are a part of something "a family". Principals in this present study replaced the school's mainstream culture of individualism and competition with values of collectivism, cooperation, and strong relational ties those values that are often found in traditional Hispanic communities.

Traditional Hispanic values are sometimes viewed as impeding change. The principal's role may be in direct conflict to traditional Hispanic values. According to Gudyknunst and Ting-Toomey (1988), this view of how change occurs in traditional Hispanic communities is due to a difference in orientation between the white non-Hispanic and Hispanic cultures. Cultures that value traditions are classified as having past orientations (Gudyknunst & Ting-Toomey, 1988). Cultures with present orientations, such as the Hispanic culture, give less attention to traditions and to what might happen in the future (Gudyknunst & Ting-Toomey, 1988). For Hispanics, this orientation may be in part based on the fatalistic belief that humans are the victims of natural forces (Ramirez & Castaneda, 1974). Gudyknunst and Ting-Toomey (1988) report that a future orientation occurs mostly in cultures where change is valued highly (as in American culture). This difference may induce a stronger and longer-lasting resistance than in mainstream communities.

Achievement scores of these high performing schools are consistent with other high performing schools despite the ethnic composition of the school's staff and student population. This is significant because there is little research on Mexican American principals as compared to other ethnic groups. Given the geographical area where the present study was conducted, many Mexican-American principals navigate between

cultures and are at varying levels of acculturation, this finding suggests that a school's culture should not be a factor in predicting success or describing failure.

There is no role within the scope of the school principalship that is more significant than that of providing instructional leadership and guidance. Principals are the chief executive officers of their schools. A vast number of competencies are needed by the principal to direct the education of hundreds of children. Today's principal deals with issues and challenges that are more complex than those addressed by their predecessors (Leithwood & Riehl, 2003). If the role of the principal is critical to the success of the school, then there is a need to continue to define and refine our understanding of what it is that principals do to move a school forward.

Significance of the Study

This study will further practitioners' understanding of the relationship between leadership behaviors of elementary principals and student achievement in schools that are predominantly Mexican-American. Given that behavior constructs have been found to be determinants of student achievement, these behaviors can and do influence school performance. This evidence suggests that these principals make a difference in student achievement when they understand that their role is to work through teachers and staff members. These principals influence student achievement by giving shape to the school setting in which learning takes place.

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APPENDICES

APPENDIX A

LETTER TO SUPERINTENDENTS

2409 Thunderbird
McAllen, Texas 78504
956-648-5447
rmaciel@vview.net
September 19, *2004*

Mr. Jose L. Salinas
Superintendent of Schools
Edinburg Consolidated Independent School District
Edinburg, Texas 78540

Dear Mr. Salinas,

Four of your district's campuses are statewide recognized campuses and therefore have been selected through stratified random sampling to participate in a dissertation research study entitled, *Do Principals Make a Difference? An Analysis of Leadership Behavior of Elementary Principals in Effective Schools*. The purpose of this study is to describe the relationships between the school, the achievement scores of third grades students and leadership behaviors of these schools' principals. In this study, we are replicating a landmark study which examines the context of schools as variables of the principal's leadership behavior and links those to student achievement, something that previous studies have not been able to do.

Your school's participation will involve a 20 minutes interview and survey of the principals and since a small sample of elementary campuses will complete this survey, your participation is crucial. All responses to this survey will be strictly confidential. Completion of this survey is voluntary and should take no more than 40 minutes. There are no potential risks in regards to physical or psychological harm and a respondent may withdraw at anytime.

After the surveys have been analyzed, they will be destroyed. The consent forms signed by the respondents will be used for permission purposes only and will be separated from the surveys.

This study is being conducted as a requirement for partial fulfillment of a Doctor of Education degree in Educational Leadership from the University of Texas-Pan American. The Institutional Review Board of the University of Texas-Pan American has approved this study. Should you have any questions regarding this study and its protection of human subjects, you may contact the Chairperson of the Institutional Review Board of UTPA, Dr. Mark Granberry, at (956) 384-5004. For further questions, concerns or a copy of the results of this study, you may contact my dissertation chair or Rosemarie Maciel at rmaciel@vview.net.

I appreciate your time and respectfully ask for the return of the attached consent form granting me permission to contact the aforementioned campuses. I look forward to sharing the results of this project with you.

Respectfully,

Rosemarie G. Maciel
Doctoral Candidate, University of Texas Pan American
Elementary Principal, Valley View ISD

2409 Thunderbird
McAllen, Texas 78504
956-648-5447
rmaciel@vview.net
September 19, *2004*

Dr. Linda Wade
Superintendent of Schools
Harlingen Consolidated Independent School District
Harlingen, Texas 78550

Dear Dr. Wade,

Two of your district's campuses are statewide recognized campuses and therefore have been selected through stratified random sampling to participate in a dissertation research study entitled, *Do Principals Make a Difference? An Analysis of Leadership Behavior of Elementary Principals in Effective Schools.* The purpose of this study is to describe the relationships between the school, the achievement scores of third grades students and leadership behaviors of these schools' principals. In this study, we are replicating a landmark study which examines the context of schools as variables of the principal's leadership behavior and links those to student achievement, something that previous studies have not been able to do.

Your school's participation will involve a 20 minutes interview and survey of the principals and since a small sample of elementary campuses will complete this survey, your participation is crucial. All responses to this survey will be strictly confidential. Completion of this survey is voluntary and should take no more than 40 minutes. There are no potential risks in regards to physical or psychological harm and a respondent may withdraw at anytime.

After the surveys have been analyzed, they will be destroyed. The consent forms signed by the respondents will be used for permission purposes only and will be separated from the surveys.

This study is being conducted as a requirement for partial fulfillment of a Doctor of Education degree in Educational Leadership from the University of Texas-Pan American. The Institutional Review Board of the University of Texas-Pan American has approved this study. Should you have any questions regarding this study and its protection of human subjects, you may contact the Chairperson of the Institutional Review Board of UTPA, Dr. Mark Granberry, at (956) 384-5004. For further questions, concerns or a copy of the results of this study, you may contact my dissertation chair or Rosemarie Maciel at rmaciel@vview.net.

I appreciate your time and respectfully ask for the return of the attached consent form granting me permission to contact the aforementioned campuses. I look forward to sharing the results of this project with you.

Respectfully,

Rosemarie G. Maciel
Doctoral Candidate, University of Texas Pan American
Elementary Principal, Valley View ISD

2409 Thunderbird
McAllen, Texas 78504
956-648-5447
rmaciel@vview.net
September 19, *2004*

Ms. Sylvia Bruni
Superintendent of Schools
Laredo Independent School District
Laredo, Texas 78040

Dear Ms. Bruni,

Two of your district's campuses are statewide recognized campuses and therefore have been selected through stratified random sampling to participate in a dissertation research study entitled, *Do Principals Make a Difference? An Analysis of Leadership Behavior of Elementary Principals in Effective Schools*. The purpose of this study is to describe the relationships between the school, the achievement scores of third grades students and leadership behaviors of these schools' principals. In this study, we are replicating a landmark study which examines the context of schools as variables of the principal's leadership behavior and links those to student achievement, something that previous studies have not been able to do.

Your school's participation will involve a 20 minutes interview and survey of the principals and since a small sample of elementary campuses will complete this survey, your participation is crucial. All responses to this survey will be strictly confidential. Completion of this survey is voluntary and should take no more than 40 minutes. There are no potential risks in regards to physical or psychological harm and a respondent may withdraw at anytime.

After the surveys have been analyzed, they will be destroyed. The consent forms signed by the respondents will be used for permission purposes only and will be separated from the surveys.

This study is being conducted as a requirement for partial fulfillment of a Doctor of Education degree in Educational Leadership from the University of Texas-Pan American. The Institutional Review Board of the University of Texas-Pan American has approved this study. Should you have any questions regarding this study and its protection of human subjects, you may contact the Chairperson of the Institutional Review Board of UTPA, Dr. Mark Granberry, at (956) 384-5004. For further questions, concerns or a copy of the results of this study, you may contact my dissertation chair or Rosemarie Maciel at rmaciel@vview.net.

I appreciate your time and respectfully ask for the return of the attached consent form granting me permission to contact the aforementioned campuses. I look forward to sharing the results of this project with you.

Respectfully,

Rosemarie G. Maciel
Doctoral Candidate, University of Texas Pan American
Elementary Principal, Valley View ISD

2409 Thunderbird
McAllen, Texas 78504
956-648-5447
rmaciel@vview.net
September 19, *2004*

Mrs. Yolanda Chapa
Superintendent of Schools
McAllen Independent School District
McAllen, Texas 78501

Dear Mrs. Chapa,

Three of your district's campuses are statewide recognized and exemplary campuses and therefore have been selected through stratified random sampling to participate in a dissertation research study entitled, *Do Principals Make a Difference? An Analysis of Leadership Behavior of Elementary Principals in Effective Schools.* The purpose of this study is to describe the relationships between the school, the achievement scores of third grades students and leadership behaviors of these schools' principals. In this study, we are replicating a landmark study which examines the context of schools as variables of the principal's leadership behavior and links those to student achievement, something that previous studies have not been able to do.

Your school's participation will involve a 20 minutes interview and survey of the principals and since a small sample of elementary campuses will complete this survey, your participation is crucial. All responses to this survey will be strictly confidential. Completion of this survey is voluntary and should take no more than 40 minutes. There are no potential risks in regards to physical or psychological harm and a respondent may withdraw at anytime.

After the surveys have been analyzed, they will be destroyed. The consent forms signed by the respondents will be used for permission purposes only and will be separated from the surveys.

This study is being conducted as a requirement for partial fulfillment of a Doctor of Education degree in Educational Leadership from the University of Texas-Pan American. The Institutional Review Board of the University of Texas-Pan American has approved this study. Should you have any questions regarding this study and its protection of human subjects, you may contact the Chairperson of the Institutional Review Board of UTPA, Dr. Mark Granberry, at (956) 384-5004. For further questions, concerns or a copy of the results of this study, you may contact my dissertation chair or Rosemarie Maciel at *rmaciel@vview.net.*

I appreciate your time and respectfully ask for the return of the attached consent form granting me permission to contact the aforementioned campuses. I look forward to sharing the results of this project with you.

Respectfully,

Rosemarie G. Maciel
Doctoral Candidate, University of Texas Pan American
Elementary Principal, Valley View ISD

2409 Thunderbird
McAllen, Texas 78504
956-648-5447
rmaciel@vview.net
September 19, *2004*

Mr. Arturo Guajardo
Superintendent of Schools
Pharr San Juan Alamo Independent School District
Pharr, Texas 78577

Dear Mr. Guajardo,

Two of your district's campuses are statewide recognized campuses and therefore have been selected through stratified random sampling to participate in a dissertation research study entitled, *Do Principals Make a Difference? An Analysis of Leadership Behavior of Elementary Principals in Effective Schools*. The purpose of this study is to describe the relationships between the school, the achievement scores of third grades students and leadership behaviors of these schools' principals. In this study, we are replicating a landmark study which examines the context of schools as variables of the principal's leadership behavior and links those to student achievement, something that previous studies have not been able to do.

Your school's participation will involve a 20 minutes interview and survey of the principals and since a small sample of elementary campuses will complete this survey, your participation is crucial. All responses to this survey will be strictly confidential. Completion of this survey is voluntary and should take no more than 40 minutes. There are no potential risks in regards to physical or psychological harm and a respondent may withdraw at anytime.

After the surveys have been analyzed, they will be destroyed. The consent forms signed by the respondents will be used for permission purposes only and will be separated from the surveys.

This study is being conducted as a requirement for partial fulfillment of a Doctor of Education degree in Educational Leadership from the University of Texas-Pan American. The Institutional Review Board of the University of Texas-Pan American has approved this study. Should you have any questions regarding this study and its protection of human subjects, you may contact the Chairperson of the Institutional Review Board of UTPA, Dr. Mark Granberry, at (956) 384-5004. For further questions, concerns or a copy of the results of this study, you may contact my dissertation chair or Rosemarie Maciel at rmaciel@vview.net.

I appreciate your time and respectfully ask for the return of the attached consent form granting me permission to contact the aforementioned campuses. I look forward to sharing the results of this project with you.

Respectfully,

Rosemarie G. Maciel
Doctoral Candidate, University of Texas Pan American
Elementary Principal, Valley View ISD

2409 Thunderbird
McAllen, Texas 78504
956-648-5447
rmaciel@vview.net
September 19, *2004*

Mr. Antonio Limon
Superintendent of Schools
San Benito Consolidated Independent School District
San Benito, Texas 78586

Dear Mr. Limon,

Two of your district's campuses are statewide recognized campuses and therefore have been selected through stratified random sampling to participate in a dissertation research study entitled, *Do Principals Make a Difference? An Analysis of Leadership Behavior of Elementary Principals in Effective Schools*. The purpose of this study is to describe the relationships between the school, the achievement scores of third grades students and leadership behaviors of these schools' principals. In this study, we are replicating a landmark study which examines the context of schools as variables of the principal's leadership behavior and links those to student achievement, something that previous studies have not been able to do.

Your school's participation will involve a 20 minutes interview and survey of the principals and since a small sample of elementary campuses will complete this survey, your participation is crucial. All responses to this survey will be strictly confidential. Completion of this survey is voluntary and should take no more than 40 minutes. There are no potential risks in regards to physical or psychological harm and a respondent may withdraw at anytime.

After the surveys have been analyzed, they will be destroyed. The consent forms signed by the respondents will be used for permission purposes only and will be separated from the surveys.

This study is being conducted as a requirement for partial fulfillment of a Doctor of Education degree in Educational Leadership from the University of Texas-Pan American. The Institutional Review Board of the University of Texas-Pan American has approved this study. Should you have any questions regarding this study and its protection of human subjects, you may contact the Chairperson of the Institutional Review Board of UTPA, Dr. Mark Granberry, at (956) 384-5004. For further questions, concerns or a copy of the results of this study, you may contact my dissertation chair or Rosemarie Maciel at *rmaciel@vview.net.*

I appreciate your time and respectfully ask for the return of the attached consent form granting me permission to contact the aforementioned campuses. I look forward to sharing the results of this project with you.

Respectfully,

Rosemarie G. Maciel
Doctoral Candidate, University of Texas Pan American
Elementary Principal, Valley View ISD

2409 Thunderbird
McAllen, Texas 78504
956-648-5447
rmaciel@vview.net
September 19, *2004*

Mr. Oscar Rodriguez
Superintendent of Schools
United Independent School District
Laredo, Texas 78045

Dear Mr. Rodriguez,

Five of your district's campuses are statewide recognized and exemplary campuses and therefore have been selected through stratified random sampling to participate in a dissertation research study entitled, *Do Principals Make a Difference? An Analysis of Leadership Behavior of Elementary Principals in Effective Schools*. The purpose of this study is to describe the relationships between the school, the achievement scores of third grades students and leadership behaviors of these schools' principals. In this study, we are replicating a landmark study which examines the context of schools as variables of the principal's leadership behavior and links those to student achievement, something that previous studies have not been able to do.

Your school's participation will involve a 20 minutes interview and survey of the principals and since a small sample of elementary campuses will complete this survey, your participation is crucial. All responses to this survey will be strictly confidential. Completion of this survey is voluntary and should take no more than 40 minutes. There are no potential risks in regards to physical or psychological harm and a respondent may withdraw at anytime.

After the surveys have been analyzed, they will be destroyed. The consent forms signed by the respondents will be used for permission purposes only and will be separated from the surveys.

This study is being conducted as a requirement for partial fulfillment of a Doctor of Education degree in Educational Leadership from the University of Texas-Pan American. The Institutional Review Board of the University of Texas-Pan American has approved this study. Should you have any questions regarding this study and its protection of human subjects, you may contact the Chairperson of the Institutional Review Board of UTPA, Dr. Mark Granberry, at (956) 384-5004. For further questions, concerns or a copy of the results of this study, you may contact my dissertation chair or Rosemarie Maciel at rmaciel@vview.net.

I appreciate your time and respectfully ask for the return of the attached consent form granting me permission to contact the aforementioned campuses. I look forward to sharing the results of this project with you.

Respectfully,

Rosemarie G. Maciel
Doctoral Candidate, University of Texas Pan American
Elementary Principal, Valley View ISD

APPENDIX B

LETTER TO CAMPUS PRINCIPALS

2409 Thunderbird
McAllen, Texas 78504
956-648-5447
rmaciel@vview.net
November 15, *2004*

Dear Principal,

Your school is one of ____ campuses in the _____ISD that is a statewide recognized or exemplary campus. _____Elementary has been selected through stratified random sampling to participate in a dissertation research study entitled, *Do Principals Make a Difference? An Analysis of Leadership Behavior of Elementary Principals in Effective Schools*. The purpose of this study is to describe the relationships between the school, the achievement scores of third grades students and leadership behaviors of the school's principal. In this study, I am replicating a landmark study which examines the context of schools as variables of the principal's leadership behavior and links those to student achievement, something that previous studies have not been able to do.

Your school's participation will involve a survey of the principal and five teachers. Since a small sample of elementary campuses will complete this survey, your participation is crucial. All responses to this survey will be strictly confidential. Completion of this survey is voluntary and should take no more than 40 minutes. There are no potential risks in regards to physical or psychological harm and a respondent may withdraw at anytime.

After the surveys have been analyzed, they will be destroyed. The consent forms signed by the respondents will be used for permission purposes only and will be separated from the surveys.

This study is being conducted as a requirement for partial fulfillment of a Doctor of Education degree in Educational Leadership from the University of Texas-Pan American. The Institutional Review Board of the University of Texas-Pan American has approved this study. Should you have any questions regarding this study and its protection of human subjects, you may contact the Chairperson of the Institutional Review Board of UTPA, Dr. Mark Granberry, at (956) 384-5004. For further questions, concerns or a copy of the results of this study, you may contact my dissertation chair or Rosemarie Maciel at *rmaciel@vview.net.*

I appreciate your time and respectfully ask for the return of the attached consent form granting me permission to contact the aforementioned campuses. I look forward to sharing the results of this project with you.

Respectfully,

Rosemarie G. Maciel
Doctoral Candidate, University of Texas Pan American
Elementary Principal, Valley View ISD

APPENDIX C

CORRESPONDENCE WITH DR. HALLINGER

Rosemarie Maciel

03/31/2004 08:45 AM

To: philip.h@cmmu.net
cc:
Subject: information to replicate your research

My name is Rosemarie Maciel and I am a doctoral student at the University of Texas-Pan American.
My mentor and chair is Dr. Jose R. Llanes.

I have read an article you and your colleagues published entitled "School Context, Principal Leadership and Student Reading
Achievement." (The Elementary School Journal, Volume 96 Number 5, 1996) and am interested in replicating this study for my dissertation.

I am interested in replicating this study with a mostly Hispanic leadership population in significantly
different contexts than those you studied. I believe your work has great implications for educational
leadership in the Rio Grande Valley of Texas.

I would like to know more about the methodology, procedures,
and sample instruments that were used in this study.

Any information is greatly appreciated.

Thank you for your assistance.

Rosemarie Maciel
rmaciel@vview.net

"Dr. Philip Hallinger"
<philip.h@cmmu.net>

04/03/2004 05:38 PM

To: Rosemarie.Maciel@vview.net
cc: Goldring Ellen B <ellen.b.goldring@vanderbilt.edu>
Subject:Re: information to replicate your research

Rosemarie:

Sorry to deliver bad news to you. Actually I conducted this study about 15
years ago and no longer have the instruments that we used. You could contact Prof. Ellen Goldring at Vanderbilt U. I believe that she may still
have the notebooks that contained the original scales.

I you need just the principal scale, I have attached a paper that describes
the PIMRS, which could be used to collect some of the key data.

best regards,

philip H.

Dr. Philip Hallinger
Professor and Executive Director
College of Management, Mahidol University
SCB Park Plaza, Tower II West
Bangkok, 10900 Thailand

PIMRS 2.1.pdf

www.cmmu.net (661) 881-1667

Rosemarie Maciel

06/06/2004 10:16 AM

To: "Dr. Philip Hallinger" <philip.h@cmmu.net>
cc:
Subject: information to replicate your research-PIMRS

Thank you for sending the document entitled "A Review of Two Decades of Research on the Principalship Using the PIMRS".

It has been very helpful in preparing chapters 1 & 2 for my dissertation. I am currently working on the methodology portion of the study.

As you suggested, I contacted Prof. Ellen Goldring; however, she no longer had the notebooks containing the original scales.

I have also tried to locate the the U.S. Department of Education to obtain a copy of the original report. Again, no luck.

Any suggestions or recommendations are greatly appreciated.

College of Management – Mahidol University
SCB Park Plaza, Tower II West
Rachadapisek Rd., Chatujak
Bangkok, 10900
66 (02) 937-5656

Office of the Executive Director
Prof. Philip Hallinger
Philip.h@cmmu.net

July 18, 2004

Romie Maciel
2409 Thunderbird
McAllen, Texas 78504

Dear Ms. Maciel:

As copyright holder and publisher, you have my permission as publisher to use the Principal Instructional Management Rating Scale (*PIMRS*) in your doctoral 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 agrees to send a soft copy of the completed study to the publisher upon completion of the research.

Please be advised that a separate *permission to publish* letter, needed by UMI for publication of the instrument in your dissertation, will be sent after the publisher receives a copy of the completed study.

Sincerely,

Professor Philip Hallinger
Executive Director
College of Management

Rosemarie Maciel

09/07/2004 05:33 PM

To:"Dr. Philip Hallinger" <philip.h@cmmu.net>
cc: "J. R. Llanes" <professorjrllanes@mac.com>
Subject: PIMRS survey

Dr. Hallinger,

Two months ago, you kindly sent a copy of the PIMRS for me to use for my doctoral research study.
After reviewing the data, I intend to sample 43 elementary schools in the Rio Grande Valley area. As you well know, school principals and teachers are very busy-- especially during the first few weeks of the school year.

I feel that conducting this survey online would ensure a better return rate because school staff can complete the survey
on their own time rather than in a scheduled meeting.

Would I have your permission to conduct this survey online?

Thank you,

Rosemarie Maciel

"Dr. Philip Hallinger"
<philip.h@cmmu.net>

09/08/2004 12:38 PM

To: Rosemarie.Maciel@vview.net
cc:
Subject: Re: PIMRS survey

Okay. However, I would ask your cooperation in sending me your webpage code so I could give that to others who might wish to do the same.

Thanks.

PH

Professor Philip Hallinger

Executive Director

M: +66(0) 1881-1667

COLLEGE OF MANAGEMENT

MAHIDOL UNIVERSITY
SCB Park Plaza, Tower II West, Bangkok 10900

APPENDIX D

PRINCIPAL INSTRUCTIONAL MANAGEMENT RATING SCALE

THE PRINCIPAL INSTRUCTIONAL MANAGEMENT RATING SCALE

Part I: Please provide the following information about yourself:

(A) School name:_____

(B) Years of experience as a principal at the end of this school year:

_____1 _____5-9 _____more than 15

_____2-4 _____10-15

(C) Years of experience as principal at this school at the end of this year:

_____1 _____2-4 _____5-9 _____10 or more

(D) School level:

_____Preschool _____Middle or Junior High _____Alternative School

_____Elementary _____High School _____District Office

(E) Years of experience as a teacher:

_____1 _____2-4 _____5-9 _____10-15 _____more than 15

(F) Grade level(s) taught:

_____K-6 _____7-9 _____9-12 _____Other

(G) School Size: _____students.

(H) Percentage of students on free or reduced lunch: _____of the students.

(I) Approximately what percentage of your4 student body do each of the following ethnic groups represent?

_____Black _____Hispanic _____Caucasian _____Asian American

Part II: This questionnaire is designed to provide a profile of principal instructional 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 instructional leadership over the past school year.

Read each statement carefully. Then select the number that indicates the extent to which you feel you have demonstrated the specific job behavior or practice during the past 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. Try to answer every question. Thank you.

To what extent do you....?

FRAME THE SCHOOL GOALS

	ALMOST NEVER				ALMOST ALWAYS
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

COMMUNICATE THE SCHOOL GOALS

	ALMOST NEVER				ALMOST ALWAYS
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. posters or bulletin boards emphasizing academic progress)	1	2	3	4	5
10. Refer to the school's goal or mission in forums with students (e.g., in assemblies or discussions)	1	2	3	4	5

SUPERVISE & EVALUATE INSTRUCTION

	ALMOST NEVER				ALMOST ALWAYS
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 observation feedback (e.g., in conferences or written evaluations)	1	2	3	4	5
15. Point out specific weaknesses in teacher instructional practices in post observation feedback (e.g., in conferences or written evaluations)	1	2	3	4	5

COORDINATE THE CURRICULUM

	ALMOST NEVER				ALMOST ALWAYS
16. Make clear who is responsible for coordinating the curriculum across grade levels (e.g., the principal, vice principal or teacher-leader)	1	2	3	4	5

17. Draw upon the results of school-wide testing when making curricular objectives	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

MONITOR STUDENT PROGRESS

	ALMOST NEVER			ALMOST ALWAYS	
21. Meet individually with teachers to discuss student progress	1	2	3	4	5
22. Discuss academic performance results with the faculty to identify strengths and weaknesses	1	2	3	4	5
23. Uses 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
Inform students of school's academic progress 25.	1	2	3	4	5

PROTECT INSTRUCTIONAL TIME

	ALMOST NEVER			ALMOST ALWAYS	
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 or truant students suffer specific consequences for missing instructional time	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

MAINTAIN HIGH VISIBILITY

	ALMOST NEVER				ALMOST ALWAYS
31. Take time to talk informally with 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

PROVIDE INCENTIVES FOR TEACHERS

	ALMOST NEVER				ALMOST ALWAYS
36. Reinforce superior performance by teacher 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 to the school	1	2	3	4	5

PROMOTE PROFESSIONAL DEVELOPMENT

	ALMOST NEVER				ALMOST ALWAYS
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 of skills acquired during inservice training in the classroom	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

PROVIDE INCENTIVES FOR LEARNING

	ALMOST NEVER				ALMOST ALWAYS
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 superior student achievement or improvement by seeing students in the office 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 student contributions to and accomplishments in class	1	2	3	4	5

THE PRINCIPAL INSTRUCTIONAL MANAGEMENT RATING SCALE

Part I: Please provide the following information about yourself:

(J) School name:_____

(K) Years with the current principal at the end of this school year:

_____1 _____5-9 _____more than 15

_____2-4 _____10-15

(L) Years of experience as a teacher at the end of this year:

_____1 _____2-4 _____5-9 _____10 or more

_____more than 15

Part II: This questionnaire is designed to provide a profile of principal instructional 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 instructional leadership over the past school year.

Read each statement carefully. Then select the number that indicates the extent to which you feel you have demonstrated the specific job behavior or practice during the past 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. Try to answer every question. Thank you.

To what extent does your principal....?

FRAME THE SCHOOL GOALS

	ALMOST NEVER				ALMOST ALWAYS
1. Develop a focused set of annual school-wide	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

COMMUNICATE THE SCHOOL GOALS

	ALMOST NEVER				ALMOST ALWAYS
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. posters or bulletin boards emphasizing academic progress)	1	2	3	4	5
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SUPERVISE & EVALUATE INSTRUCTION

	ALMOST NEVER				ALMOST ALWAYS
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
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COORDINATE THE CURRICULUM

	ALMOST NEVER				ALMOST ALWAYS
16. Make clear who is responsible for coordinating the curriculum across grade levels (e.g., the principal, vice principal or teacher-leader)	1	2	3	4	5
17. Draw upon the results of school-wide testing when making curricular objectives	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

MONITOR STUDENT PROGRESS

	ALMOST NEVER				ALMOST ALWAYS
21. Meet individually with teachers to discuss student progress	1	2	3	4	5
22. Discuss academic performance results with the faculty to identify strengths and weaknesses	1	2	3	4	5
23. Uses 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
Inform students of school's academic progress 25.	1	2	3	4	5

PROTECT INSTRUCTIONAL TIME

	ALMOST NEVER				ALMOST ALWAYS
26. Limit interruptions of instructional time by public address announcements	1	2	3	4	5
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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

MAINTAIN HIGH VISIBILITY

	ALMOST NEVER				ALMOST ALWAYS
31. Take time to talk informally with 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

PROVIDE INCENTIVES FOR TEACHERS

	ALMOST NEVER				ALMOST ALWAYS
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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 to the school	1	2	3	4	5

PROMOTE PROFESSIONAL DEVELOPMENT

	ALMOST NEVER				ALMOST ALWAYS
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 of skills acquired during inservice training in the classroom	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

PROVIDE INCENTIVES FOR LEARNING

	ALMOST NEVER				ALMOST ALWAYS
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 superior student achievement or improvement by seeing students in the office 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 student contributions to and accomplishments in class	1	2	3	4	5

APPENDIX E

SCHOOL EFFECTIVENESS QUESTIONNAIRE

The School Effectiveness Questionnaire is a survey of how you feel about various aspects of your school. It is important to get an honest and accurate assessment of your impressions of the school to better understand the conditions that have contributed to its success. By completing this questionnaire you are contributing to the improvement of educational leadership.

The information gained from this questionnaire is anonymous. Your responses will be combined with those of other teachers. No individual information will be reported. The information you supply is confidential. For this reason, you should not put your name or other personal identification on the questionnaire.

DIRECTIONS:

Each of the following statements describes a particular aspect of the school. Read each statement carefully and decide to what extent you agree or disagree with the statement as it applies to your school. Then mark the space that best represents how you feel about each statement.

Please respond to the following statements.

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

_____ 1. Administrators know the school and district curriculum.

_____ 2. Communication between the faculty and administration is frequent and effective.

_____ 3. Instructional decisions for the school are based on input from the community, teachers and administrators.

_____ 4. The principal is involved in the instructional process.

_____ 5. The principal and teachers make instructional effectiveness the highest priority in the school.

_____ 6. The principal provides leadership in the improvement of the instructional program.

_____ 7. Administrators complete fair and meaningful evaluations of each employee.

_____ 8. The principal encourages teachers to participate in leadership roles.

_____ 9. The school has a plan for the year that includes goals and objectives.

_____ 10. The school plan is developed with participation by teachers and community members.

_____ 11. Important social trends are considered in school planning.

_____ 12. Teachers and students know the school's purpose and goals.

_____ 13. The goals of teachers are consistent with school and district goals.

_____ 14. Teachers communicate instructional goals to students.

_____ 15. The school plan is revised, monitored and reviewed periodically.

_____ 16. School conduct rules and procedures are taught along with other skills.

_____ 17. Disciplinary procedures are implemented in a fair and consistent manner.

_____ 18. Parents are involved in and support the school's disciplinary procedures.

_____19. The physical plant is clean and well maintained.

_____20. Appropriate safety principles are taught and practiced.

_____21. An atmosphere of respect and trust exists in the school.

_____22. Social and cultural differences are respected in the school.

_____23. Teachers have a positive attitude toward their school.

_____24. Students have a positive attitude toward their school.

_____25. Teacher attendance is high.

_____26. Student attendance is high.

_____27. Teachers are recognized for their accomplishments.

_____28. Students are recognized for their accomplishments.

_____29. Teachers, students and administrators assume responsibility, as appropriate, for the physical appearance of the school.

_____30. The school physical facilities contribute to a positive school climate.

_____31. Classroom learning expectations are high, appropriate, and achievable.

_____32. Expectations are communicated to faculty, support staff, students and parents.

_____33. All students, regardless of social or cultural differences, are expected to work toward high standards.

_____34. Expectations for students are based on knowledge of students and their previous performance.

_____35. High academic expectations re consistently maintained over time.

_____36. Student performance is regularly evaluated.

_____37. Student performance is evaluated in a variety of ways.

_____38. Assessment data are used to improve the school's curriculum.
_____39. Student progress is regularly reported to parents.

_____40. Student assessment data are monitored, and instruction is modified to promote student learning.

_____41. Students are regularly informed of their progress.

_____42. Basic skills in this school include grade-appropriate skills within content areas, critical/higher order thinking skills, and problem-solving skills.

_____43. Students are taught to apply basic skills.

_____44. Students are tested for both basic knowledge and performance capabilities.

_____45. Elective subjects are integrated into the school curriculum.

_____46. The integration of basic skills development into instruction is consistently monitored.

_____47. Instruction time is used efficiently, so that students cover the expected curriculum content with satisfactory understanding and retention.

_____48. Classroom disruptions to instruction are kept to a minimum.

_____49. Teachers are freed from miscellaneous administrative tasks and duties so they can concentrate on instruction.

_____50. The administration supports teachers in matters concerning disruptive students.

_____51. The school offers extracurricular and supplemental activities that support instruction.

_____52. The curriculum is varied to accommodate needs, interests, and abilities of students.

_____53. Teachers provide students with opportunities for learning in small-group settings.

_____54. Parents actively participate in establishing school policies and procedures.

_____55. Parents actively participate in school activities.

_____56. Effective and frequent communication occurs with parents.

_____57. Community resources are used to support the instruction of students.

_____58. Social services from available outside agencies are used effectively.

_____59. Parents are encouraged to support the instructional activities of the school.

_____60. Professional development of teachers addresses the social and cultural differences in the school.

_____61. Professional development of teachers is tailored to the needs of the school.

_____62. Participation in professional development activities is encouraged.

_____63. The application of professional development activities is encouraged.

_____64. Teachers are involved in planning and evaluating professional development activities.

_____65. Teachers in this school strive to maintain and enhance their professional status.

_____66. Teachers are involved in school planning and budgeting.

_____67. Teachers are involved in developing and reviewing the school's mission and goals.

_____68. Teachers are involved in monitoring the implementation of school policies and procedures.

_____69. Teachers perceive that they can influence school decisions.

_____70. Teachers and administrators function as a team.

APPENDIX F

CAMPUS DEMOGRAPHICS AND

AEIS RATINGS FOR ELEMENTARY CAMPUSES

STUDENT DEMOGRAPHICS FOR SELECTED CAMPUSES

School	Percent Enrollment by Ethnicity					SES	School Size
	W	H	AA	API	AIA		
#265	.9	99.1				87.1	464
#218	.8	99.2				87.1	498
#118		100				93.0	355
#92	.2	99.8				98.1	586
#58	.1	99.8	.1			96.4	961
#241	5.9	92.9	.4	.9		58.9	562
#40	.7	99.3				91.0	984
#51	1.1	98.0	.3			76.1	715
#8	2.8	95.2	.5	1.4		83.8	567
#191	2.7	97.3				71.5	674
#35	.1	99.6	.3			97.8	695
#359		100				96.6	357
#353	1.7	97.9	.2			94.3	423
#69	2.4	97.4	.2			96.0	421
#140	.2	99.6			.2	91.5	565
#158	2.0	98.0				86.1	489
#307	.7	99.1	.2			93.8	579
#221	.8	98.9	.3			93.4	636
#15	.2	99.6		.2		95.2	522
#369	.9	99.1				89.5	465

W-White H-Hispanic AA-African American

API-Asian/Pacific Islander AIA-American Indian/Alaskan

AEIS RATINGS FOR ELEMENTARY CAMPUS PARTICIPANTS

District	Campus	1997-1998	1998-1999	1999-2000	2000-2001	2001-2002
	265	2	2*	4	4	4
1	218	2*	3	3	3	4
1	118	2*	4	4	3	3
2	92	2*	2	3	3	3
2	58	2	2*	2	3	3
3	241	3	2	2*	2	3
3	8	2*	2	3	4	4
3	191	3	2*	2	3	3
3	40	2	2	2*	2	3
3	51	2	2	2*	2	3
4	359	2	3	2*	3	3
4	35	---	---	2*	2	3
5	353	2*	3	3	3	3
5	69	2*	3	3	3	3
6	140	4	3	2*	3	4
6	158	---	3	2*	3	4
7	307	3	3	2*	4	4
7	369	2	2	3	2*	3
7	15	2	2*	2	2	3
7	221	---	---	2*	2	3

1 = Unacceptable Rating

2 = Acceptable Rating

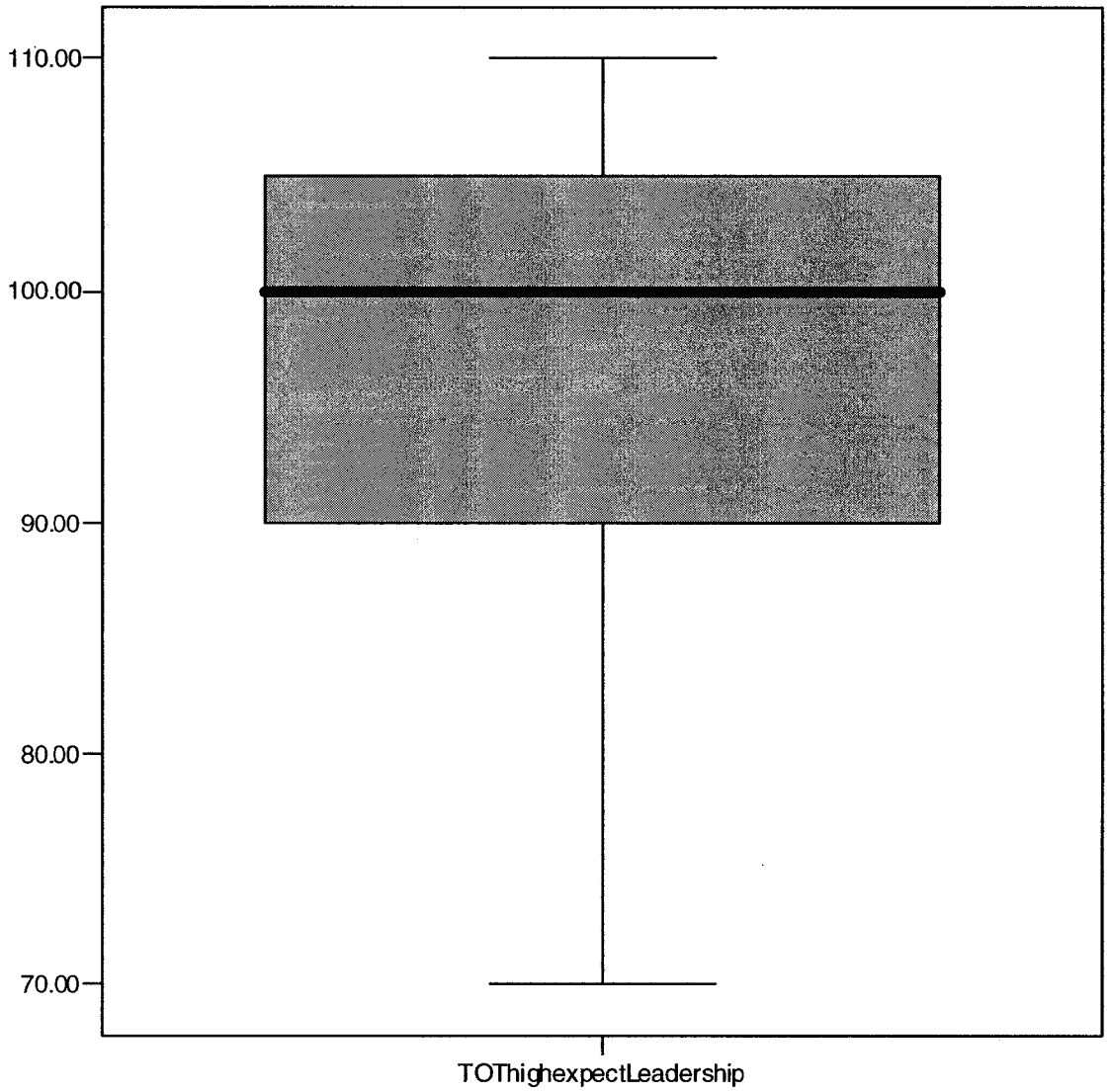
3 = Recognized Rating

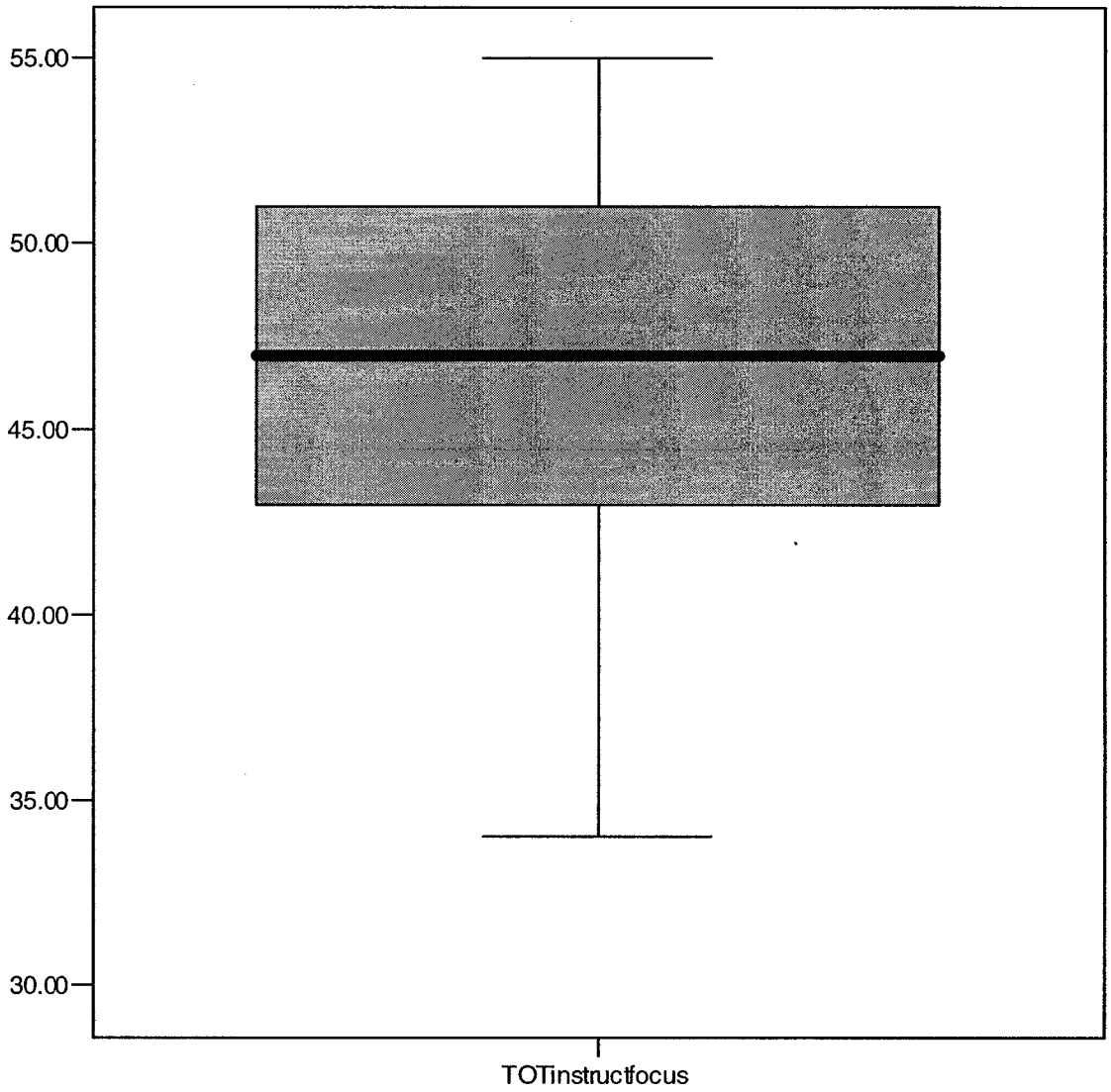
4 = Exemplary Rating

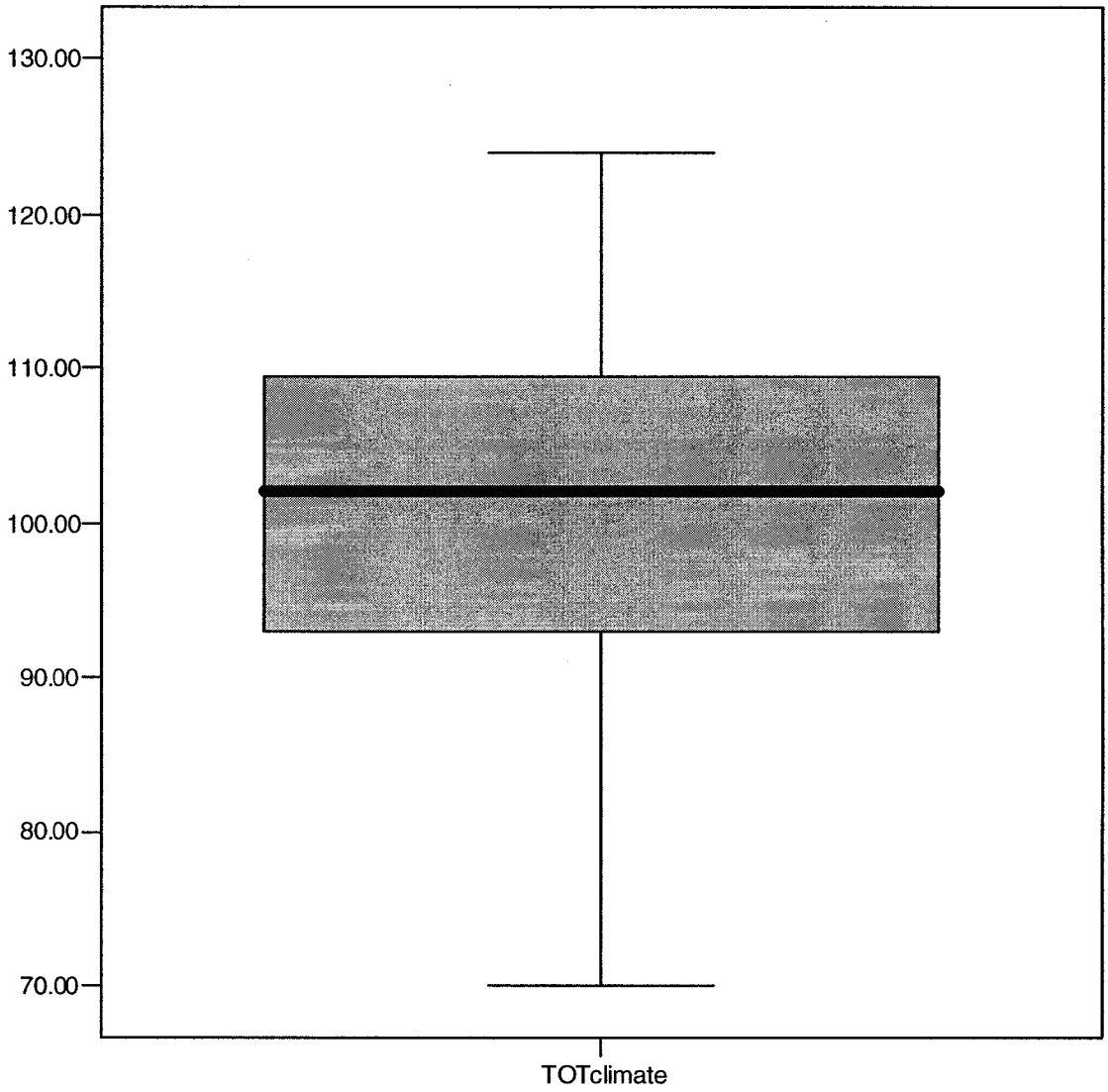
*Indicates Principal's First Year in Assignment

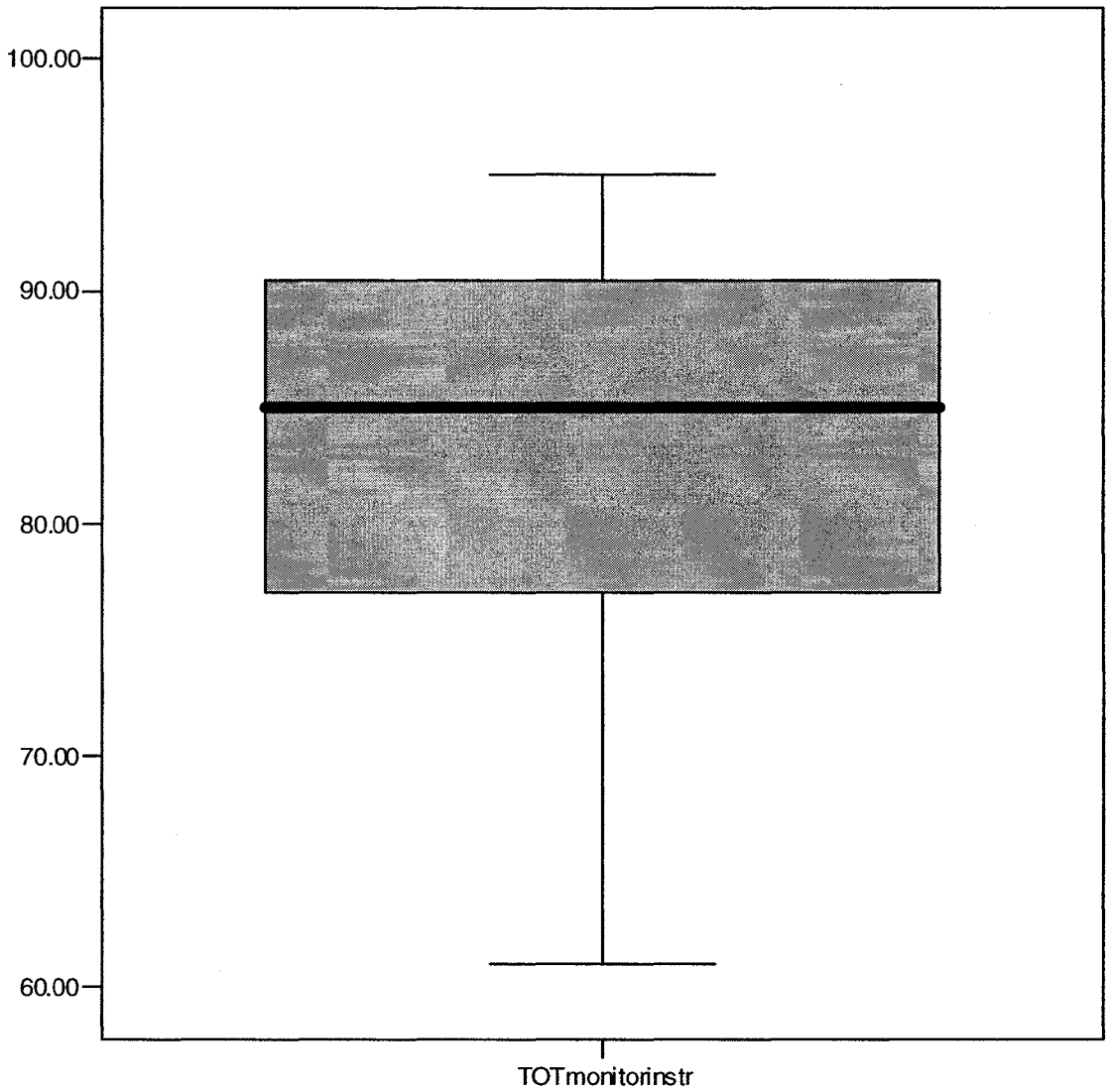
APPENDIX G

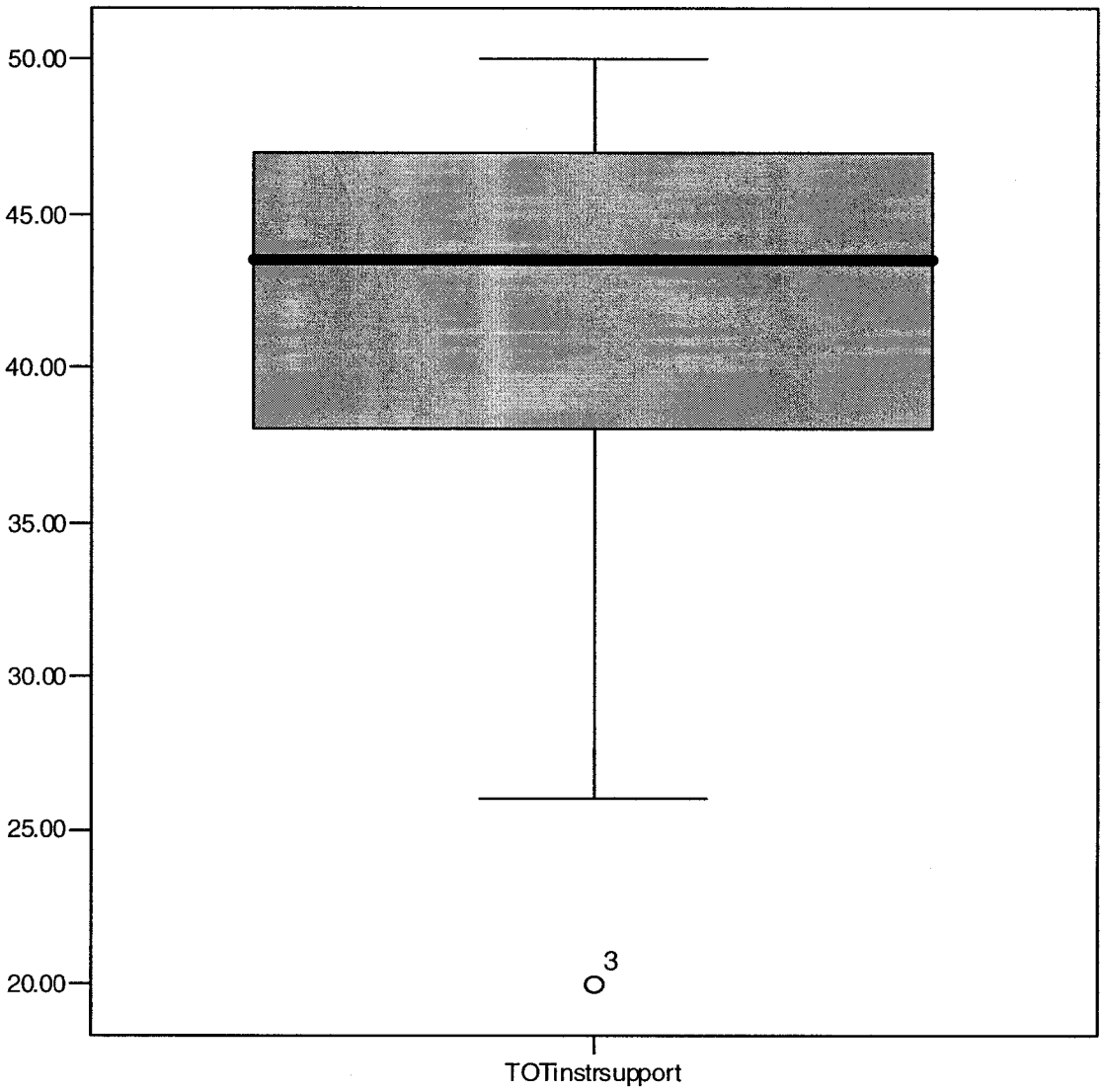
BOX-AND-WHISKER PLOT DISPLAYS

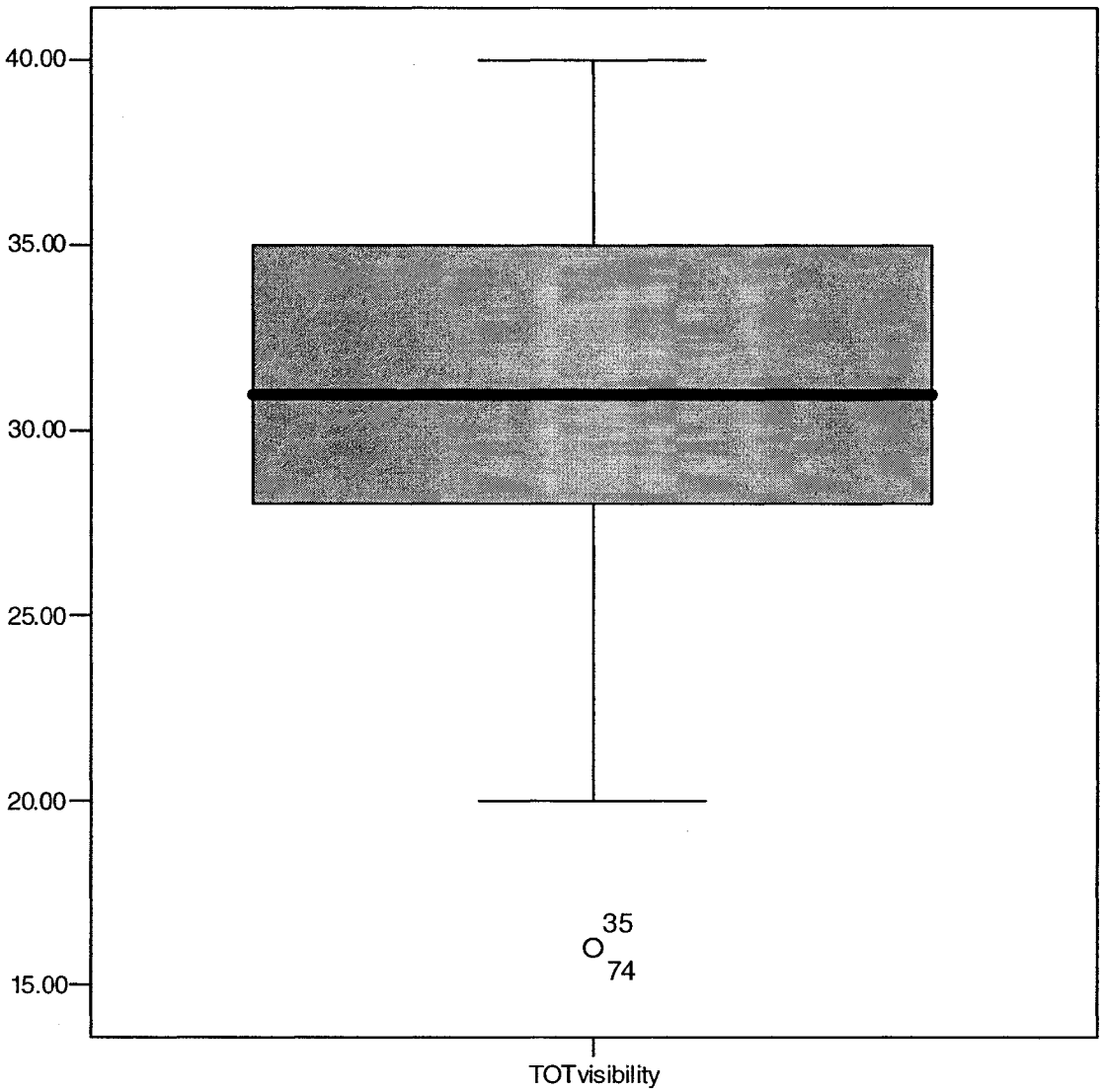


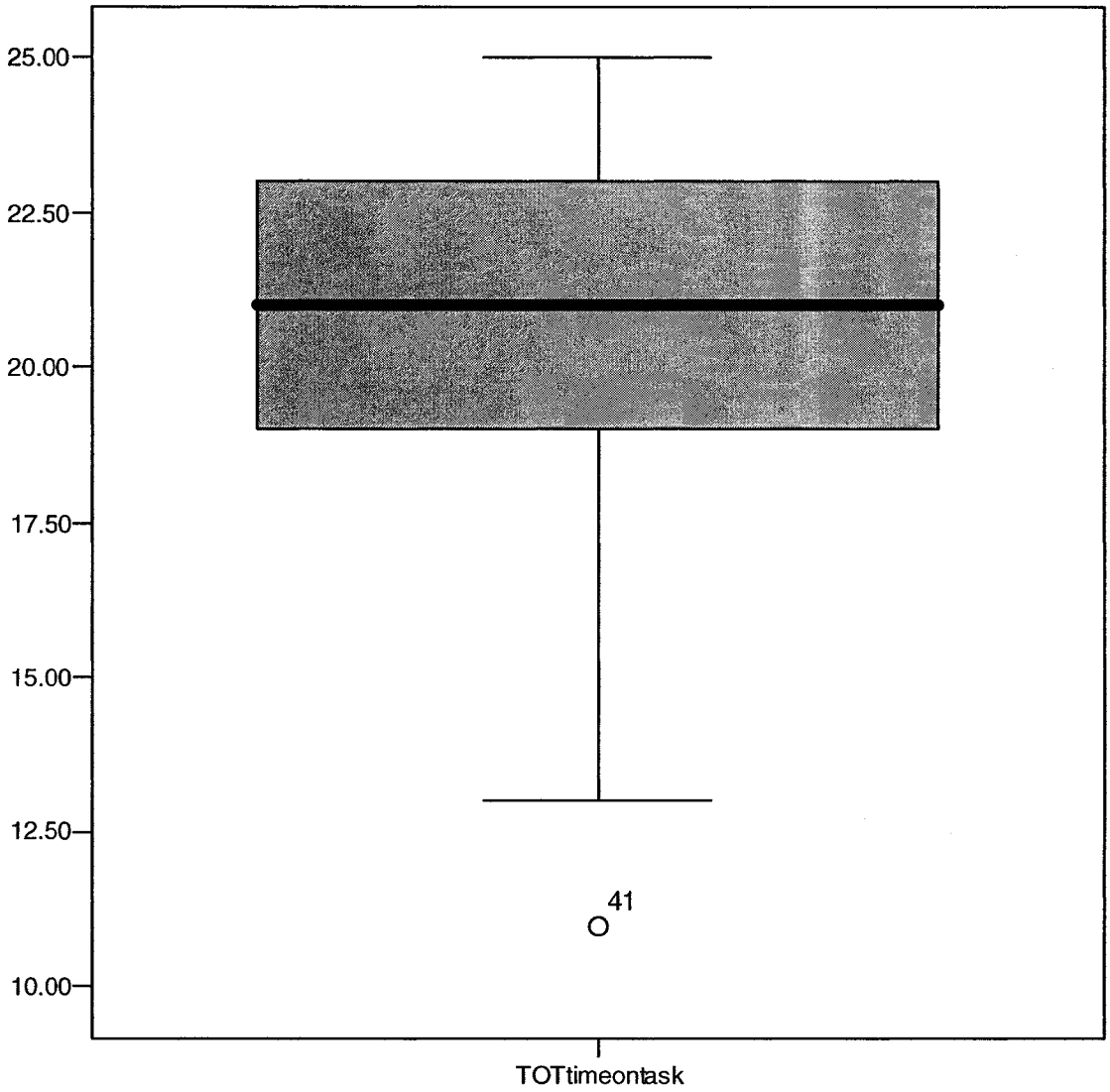












VITA

VITA

Rosemarie Gomez Maciel, nicknamed Romie, was born in El Campo, Texas on July 7, 1959. She is the daughter of Jose L. and Rose Marie Flores. After graduating from McAllen High School in McAllen, Texas, in 1976, she enrolled at Pan American University (now The University of Texas-Pan American) in Edinburg, Texas where she earned a Bachelor of Science degree in Elementary Education in 1979. While working as an elementary teacher for the McAllen Independent School District, Romie continued her studies and earned a Master of Education Degree in Guidance and Counseling in 1980. She worked as a counselor and instructional facilitator for eight years while earning certification in Supervision and Middle Management. In 1994, Romie became a language arts coordinator and later a principal at each of the three elementary schools in the Valley View Independent School District. She continues to work as an elementary principal at Wilbur E. Lucas Elementary in the Valley View Independent School District. She completed the requirements for the Doctor of Education degree at the University of Texas-Pan American in May of 2005.

Permanent address: 2409 Thunderbird, McAllen, Texas 78504