

THE EFFECTIVENESS OF BUSINESS LEADERSHIP PRACTICES AMONG
PRINCIPALS ON STUDENT ACHIEVEMENT ON PUBLIC SCHOOL
CAMPUSES IN TEXAS

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The purpose of this descriptive study was to determine if business leadership practices by Texas public school principals have an impact on principals' campus student achievement in mathematics and reading, as measured by TAKS scores. The survey instrument was the Leadership Assessment Instrument (LAI), developed by Warren Bennis in 1989. The survey instrument was electronically distributed to a sample of 300 public school principals in Texas. Of the 300, 140 principals completed and returned the survey, for a response rate of 47%. The Statistical Package for the Social Sciences (SPSS), version 16.0, was used for the analysis of data, which included descriptive statistics, analysis of variance, and regression. In addition, reliability for the LAI was also calculated.

The LAI consists of the following five categories of effective business practices: focused drive, emotional intelligence, building trust, conceptual thinking, and systems thinking. No significant relationships were found between principals' use of LAI elements and student achievement in mathematics and reading. However, the lack of significant relationships between the business model as used in public schools and student achievement reveals that current models of principal preparation programs do not result in school leaders who are adequately prepared to increase student achievement. Further research is recommended as public school leaders continue to seek alternative strategies and innovative practices to improve student achievement.

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CHAPTER I

INTRODUCTION

Since the inception of the position of principal in American education, the educational community has struggled with a definitive role of the school leader. Numerous stakeholders consistently offer different perceptions and descriptions of the position of campus principal. Researchers and the business community can largely be credited with placing the spotlight on the school leader position, which, in turn, has brought ongoing scrutiny of the position itself (Beck & Murphy, 1992). As noted in a recent publication of the National Association of Secondary School Principals (NASSP, 2007), *Changing Role of the Middle Level and High School Leader*, the campus principal position is described in both the educational perspective and in a social context or business model. Over the years, school leaders have been molded into the type of leader deemed popular during that era, but current school leaders work in somewhat of a perfect storm in which the principal is challenged to create a learning environment for students, consisting of larger class sizes, and to respond to more state and federal mandates without any additional funding, in addition to being the instructional leader for teachers and staff while navigating the legal minefield that exists on school campuses (Stover, 2007). Regardless of the educational climate or reform, one constant has been, and most likely will continue to be, the ongoing pressure for school leaders to be compared to their peers in the private sector. For the past several years, the focus of researchers has evolved into the development and management of organizations. According to Richard Elmore, the job of administrative leaders is primarily about enhancing the skills and knowledge of the people in the organization, creating a common culture of high expectations around the use of these skills and knowledge, holding various pieces of the organization together in a productive relationship with each other, and holding individuals

accountable for their contributions to a collective result (as cited in Winter,1999-2000).

Successful leaders internally acknowledge that they are not capable of knowing everything about every area of their company or organization. What continues to strengthen their leadership is to surround themselves with people who excel in the areas where the leader has deficiencies. This engages others through performance, trust, and empowerment rather than what historically has been viewed as delegation (Goldring, Porter, Murphy, Elliott, & Cravens, 2009). This is not to imply that building principals or other leaders minimize the need to be aware of and have an operational understanding of their entire organization. According to research conducted by the Ontario Institute for Studies in Education, it remains important that the campus principal be a strategic thinker. Principals must possess a global awareness of the needs of their campuses and understand the correlation between those needs and the actions they will take as the building principal to meet those needs (Leithwood, 1987).

Leadership

Bennis (1989) defines leadership as a complex process where a person is able to influence others in the organization to accomplish a task, mission, or goal while enhancing the overall cohesiveness and collective strengths of the organization. The leadership attributes of belief, values, ethics, character, knowledge, and skills are relied upon by the leader to successfully carry out their intentions.

There is a major distinction between a manager and a leader. A manager is generally a person who has been given authority over others to accomplish certain goals and objectives for the organization. The authority given to managers does not make them a leader it makes them the boss (Bennis, 1989).

Bolman and Deal (2003) state that there are no universally agreed upon characteristics of leadership; however, there have been several characteristics or attributes of effective leadership that are consistently articulated in studies across the private and public sectors that would be considered essential to a leader. Clifford and Cavanaugh (1985) found that honesty, passion, commitment, and the ability to create trust in a relationship are traits of effective leadership. Boleman and Deal (2003) concluded that effective leaders properly communicate a shared vision and provide a focus for the organization that sets standards of performance and direction.

Historical Foundation of Leadership

Although the majority of research noted during the past 25 years involving emotional intelligence is linked to Howard Gardner (1993) or Daniel Goleman (1995), it was E.L. Thorndike that initially laid the foundation of emotional intelligence as a science. In the 1920's, emotional intelligence was referred to as *social intelligence*. Thorndike defined social intelligence as “the ability to understand and manage men and women, boys and girls, to act wisely in human relations” (Thorndike, 1920, p. 229). Gardner referred to emotional intelligence as interpersonal intelligence and defined it as “the ability to understand what motivates people to do work and how to work cooperatively with them” (Gardner, 2006, p. 28).

As the science of emotional intelligence has gained more interest and acceptance in the field of leadership, the literature has revealed that leaders who rise above others in their field have a respected amount of cognitive intelligence but also possess a high amount of emotional intelligence. As school leaders have prepared for their administrative roles by becoming versed in the areas of educational theory, law, school finance, human resources, and curriculum and instruction, the technical expertise in these areas would be of little use to the leader if the leader

has a low level of emotional intelligence (Tishman & Andrade, 1995). According to the literature, the critical components of self and social awareness are what distinguish great leaders and successful companies (Goleman, 1995). Goleman concluded that a certain amount of cognition is necessary to be successful in any field; however, with emotional intelligence, the person can thrive. Researching nearly 500 organizations, he went on to find that “intelligence (IQ), at best, contributes about 20 percent to the factors that determine life success. That leaves approximately 80 percent to everything else” (p. 34). Other studies conducted in recent years have established that the prosperity and economic success our society emphasizes are not necessarily a result of academic intellect.

Purpose of the Study

The purpose of the study was to determine if business leadership practices employed by Texas public school principals have an impact on the principals’ campus student achievement in mathematics and reading. This was a descriptive study however, the findings of this study may provide the educational leader with a better understanding of the potential for implementing effective business practices on his or her campus.

Research Question

What is the relationship between Texas public school principal scores on the Leadership Assessment Instrument and student achievement in mathematics and reading?

Significance

Since John Dewey (1944) proclaimed the importance of educating the whole child, there

has been a genuine effort to develop students mentally, socially, emotionally, and physically. It can be noted that efforts have varied over the years from being intensive, to moderate, to non-existent and then somewhere in the middle. However, the past ten years of high-stakes testing, federal mandates such as No Child Left Behind (NCLB), and other forms of the standards-based movement have primarily focused on the cognitive growth of students. Regardless of the focus or directional swing of the educational pendulum, academic excellence is the goal to which all teachers and educational leaders strive on behalf of their students. Recent research has shed more light on classroom factors other than curriculum and instruction that impact learning (Elmore, 1999). The classroom environment is a major factor and could be described as the actual physical and emotional setting in which students learn. Since students are exposed to learning in and out of the traditional classroom, current thinking would include all areas of a school campus that students would occupy on a typical school day. A shift now occurs from the classroom teacher to the one individual who is the catalyst for what is the climate, tone, and vision for a campus, the building principal. The building principal is the educational leader on a school campus who utilizes communication skills, problem-solving ideas, knowledge of human resource and legal issues, and other aspects of leadership necessary to lead, guide, and direct a school campus (Marzano, McNulty & Waters, 2005).

There is clear evidence that the role of the building principal is ever changing and requires a different skillset compared to the educational leaders who have previously occupied the principal's position (Hudson & Williamson, 1999). This study will provide additional information to the existing research base regarding emotional intelligence as it relates to effective business practices in educational leadership.

A growing amount of recent research assumes that school leadership is an important

influence on student learning, which leads to questions about how that influence occurs. The instructional focus of a principal is crucial in providing direction for a campus; however, there is new and growing evidence that demonstrates the value and impact of the building principal as he or she enhances faculty trust, collective efficacy, and sense of community (Leithwood, Louis, Anderson, & Wahlstrom, 2004). As cited in an article by Jeff Archer (2004, p. 2), Dr. Kenneth Leithwood states that, "Principals don't teach students, but they do affect student achievement." Leithwood states that the principal's characteristics are the second strongest predictor of a school's impact on student achievement. Only classroom factors such as teacher quality are stronger. The quality of a teacher is a critical component for student learning; a teacher that is not engaged or committed greatly diminishes that quality.

Traditional leadership practices very often fail to take the affective needs of teachers into consideration. Recent research by Leithwood and Beatty (2008) provides evidence that teachers' emotional well-being can affect their performance in the classroom. When educational leaders (building principals) create conditions that support teachers in their work, schools experience higher retention rates, improved climate and culture, and, most importantly, increased student achievement. This is the foundation upon which emotional intelligence and effective business leadership practices are being evaluated in regards to public school principals in Texas.

Assumptions

It is assumed by the researcher that the data regarding student achievement levels on the Texas Assessment of Knowledge and Skills (TAKS) are accurate, as obtained from the Texas Education Agency's (TEA) Academic Excellence Indicator System (AEIS).

Limitations

The study may be limited due to the fact that collection of data was limited to principals of public schools in Texas and that the scoring aspect of the survey instrument was based on participants' self-reported responses. The participants may think more highly, or lowly, of their abilities than what is accurate.

Delimitations

Participants in the study should be representative of the population of public school principals in Texas. The participating principals vary as defined by gender, race, years of experience as a principal, and years as principal at the current campus. Campus types in the study are representative of Texas public schools which are described as elementary, middle school, junior high and high school. Principal participants, at the time of the survey, were building principals at campuses representing various ranges of campus size, district size, socio-economic levels, and geographic settings such as urban, suburban, and rural/small town.

Definition of Terms

Conceptual thinking. The competency of conceiving and selecting innovative strategies and ideas for an organization that enables the ability to create/enhance ideas, products, and services leading to bottom-line success.

Emotional intelligence. The competency of understanding and mastering one's emotions (and those of others) in a way that instills confidence, motivates, inspires, and enhances group effectiveness.

Emotional maturity. The ability to master emotions and cope with stress in a way that

instills confidence, motivates, and enhances group effectiveness.

Focused drive. The ability to focus on a goal and to harness energy in order to meet the desired goal. This also includes the ability to identify an important goal or vision and to channel efforts at specific targets that support the goal or vision, in addition to having the ability to persevere, sacrifice (when necessary), and expend high degrees of energy to reach high levels of performance.

Leadership. A shared responsibility for achieving collective/organizational goals, regardless of positional or organizational authority, and acknowledging that increasing levels of positional authority yield greater impact on an organization. Leadership is accomplishing together what individuals cannot accomplish alone.

Principal. For the purposes of this study, a principal is the person in positional authority of a public school.

Systems thinking. The competency of rigorously and systematically connecting processes, events, and systems by utilizing mental discipline and process orientation.

Trusted influence. The competency of evoking trust from others and placing trust in others to enable them to succeed. The trust is strengthened by keeping commitments, by adhering to high ethical standards and principles, and by building shared goals, as well as by empowering others to reach higher levels of performance.

Organization of the Dissertation

This dissertation is organized into five chapters. Chapter I includes the introduction, purpose of study, research questions, significance of the study, and a definition of terms. Chapter II is a review of literature related to the research topic. Chapter III describes the method of

research and procedures used in completing this study. Chapter IV presents the analysis of the data. Chapter V contains the conclusions of the study and recommendations for future use.

CHAPTER II

REVIEW OF LITERATURE

The influences that impact the academic achievement of students are numerous and complex. There are unique individual needs of the student that must be met, as well as the professional needs of the teachers who are charged with addressing the needs of the students. It is the principal who is critical in establishing and maintaining an educational environment that is fair, consistent, and safe. The principal must have high expectations of staff, students, and the school community. This is the balancing act facing the educational leader on campuses today. As simply stated by Ronald Edmonds, in a conversation with Ron Brandt, “There are some bad schools with good principals, but there are no good schools with bad principals” (Brandt, 1982, p. 15).

Overview of the Principalship

In determining the principal leadership competencies that most positively impact student achievement on public school campuses in Texas, it is appropriate to reflect on the origination point of the principal position, as well as the current role and the future of the principalship. The role of principal was somewhat forced into existence in the early 1800s as schools began to educate the masses of school-age children who had no previous accessibility to schooling. A major obstacle during this era was the training and preparation of a limited supply of teachers. Andrew Bell and Joseph Lancaster crafted a solution referred to as the monitorial system, as cited in *The English Common Reader* (Altick, 1957, pp.144-149). This system was widely accepted and quickly implemented throughout cities across America. Bell and Lancaster’s monitorial system was based on a teacher imparting knowledge to student monitors who, in turn,

would pass their knowledge on to smaller groups of students at age-appropriate levels. Another version of the monitorial system was for multiple teachers who were young and inexperienced to be assigned under the guidance of a principal teacher who generally had more experience in life and teaching.

The principalship concept continued to evolve during the 1800s as common schools transitioned students to public high schools where there was a more direct focus on specific subject matter. This focus created the need for not simply a monitor but someone with management skills related to curriculum content, teachers, and students (Campbell, 1985). The principal was generally a member of the teaching ranks, who then balanced teaching with supervision of staff and who served as campus disciplinarian of students.

Compulsory attendance laws in the early 1900s introduced an even broader scope of roles for the school principal (Kaestle, 1983). Existing roles of manager, supervisor and coordinator would now coexist with budgeting, use of data, and instructional leadership. Over time, the principalship has rarely eliminated a role or responsibility in order to take on new roles; instead, the principal has continuously added roles and responsibilities as education has evolved into big business and high-stakes accountability. In a summary of 10 studies on effective schools, Shoemaker and Fraser (1981) show how campus principals who are assertive instructional leaders emerge time after time as the necessary catalyst for student achievement.

Principal Preparation

Education is big business, but, unlike the private sector, end-of-year closeouts or factory rebates on older model products do not exist. Students are the products of education, and stakeholders are questioning who is in charge of the process. They are not just asking who is in

charge but are also questioning the strengths and qualities of the campus leader to provide a good return on their tax-dollar investment (Farkas, Johnson & Duffet, 2003). Just as in most business settings, performance starts at the top, and a building principal fills that role.

Testing and accountability systems have changed the nature of school leadership, not only in roles and responsibilities of the campus leader but also in deep intense reviews of licensing or certification requirements currently in place for principals and school leaders. Licensing and certification play an important role in leadership development, but licensure alone cannot guarantee that leaders will arise (Adams & Copland, 2005). Very similar to the current 4-8 Generalist Texas Certification sought by many teaching candidates, principals are generalists as well, except that in lieu of a knowledge base in the core content subjects, principals must have a knowledge base in communication and public relations, instruction, supervision, management and facilitation, and legal issues. Licenses and certificates govern practice and should also represent the knowledge and skills needed to carry out the necessary tasks of a building principal. What is not available is an entity that licenses leadership (Adams & Copland, 2005). There are clear distinctions between certification and license and parties on both sides of the fence claim that one would benefit the educational profession more than the other. Obtaining certification is generally based on fulfilling a set of requirements while a person obtaining a license must demonstrate a set of competencies. Certification places emphasis on content knowledge in an academic setting, whereas licensure emphasizes actual clinical practice under supervisors who are respected in their fields. Regardless of the direction, governing bodies are being encouraged to redesign the training structure to be ongoing and continuous.

The pendulum has swung from what a school leader might do to impact student achievement to more of what the school leader should do. A major flaw, according to the

literature, is the gap between a principal knowing what he or she should do and actually doing it (Elmore, 2003). For instance, if the existing level of competency in emotional intelligence is limited, it is highly unlikely the campus principal will be able to lead the effort to positively impact student achievement on his or her campus.

Over the past three decades, campus administrators, specifically principals, haven't been leading schools; they have been managing schools. The past 30 years have seen dramatic changes to the landscape of education (Archer, 2004). There have been noticeable discussions, debates, special legislative sessions, and consistent lawsuits regarding educational funding and finance. Teacher certification and competency have also crossed the radar screen and received considerable attention. Vouchers and school choice can be added to the list of visible changes, but collectively, all of these are only a fraction of what can be referred to as the era of accountability (Stover, 2007). Student achievement is measured annually at the state and national level with a great deal of importance on the abilities of a campus to meet requirements of adequate yearly progress (AYP), as required by the federal No Child Left Behind (NCLB).

While education policies have changed, leadership programs, which train and prepare educators and educational leaders, have changed little to none. There is an obvious disconnect. The era of accountability has made the false assumption that district and campus level administrators have the skillsets to make informed decisions as to how to best use resources and assign responsibilities directly linked to student performance (Childress, Elmore, & Grossman, 2006). According to studies across various regions of the United States, most campus administrators have nothing in their backgrounds to prepare them for this charge (Elmore, 2005). The literature does not question the integrity, academic ability, or passion to help students achieve. However, it is quite clear in the literature that preparation programs are exceedingly

deficient in training prospective principals in relational leadership skills.

The 1980s brought the educational buzzword of “excellence.” As American schools strived for this excellence, numerous reports concluded that the most sought after solution to help remedy the lack of excellence was for principals to be effective instructional leaders. Ironically, there were claims being made during the same period that graduate programs in educational administration seemed to have little to no influence on whether schools were at any level of excellence. Since principals are thought to be the catalyst for student achievement and academic excellence, it is understandable why a strong interest exists regarding the preservice training that principals undergo as they meet certification requirements of the state (Brent, Haller, & McNamara, 1997).

The American Youth Policy Forum (AYPF) provides a perspective that student success is a result of students having the opportunity to participate in interesting classes, to attend college-based classes, and to have exposure to adult expectations. The question is therefore presented as to what has a more direct impact on student achievement, the principal as instructional leader or the elements of challenge, engagement, access to the adult world, and a support system (Brand & Lerner, 2006)

Art Levine, president of Teachers’ College at Columbia University, authored a report entitled *Educating School Leaders*. The report’s focus was on the preparation that educational leaders received at schools of education during their administrative preparation programs (Levine, 2005). This report recommends (1) high standards for schools of education and leadership programs, (2) consistent rigorous evaluation of those programs, (3) steps to eliminate the perception of leadership programs being used as cash cows by universities, (4) stronger field experiences, and (5) stronger relationships between universities and local districts who host the

practicum portions of administrative programs.

Several studies addressed the deficiencies in principal preparation programs. Eight hundred practicing principals in the state of New York responded, in a survey, that their principal preparation program did not fully prepare them for successful school leadership. Most of the responding principals received their administrative training at universities where the skills emphasized were from the National Policy Board for Educational Administration Standards (NPBEA). Respondents stated that although the NPBEA Standards do encompass the necessary skills that are critical to campus leadership, there is deficiency in the area of student achievement (Dyce-Faucette, 2005). Fifty school districts in Florida participated in a study regarding the major components of the Interstate School Leaders Licensure Consortium (ISLLC) standards and their practical relationship to the basis of the Aspiring Principal Preparation Program (APPP). The component requirements emphasized in the study were professional development, mentoring, and performance-based experience. Weaknesses mentioned by participants were in the areas of technology and assessment. Most noticeably absent was the total lack of attention or slightest mention of student performance and achievement. It can be reasonable to infer that student achievement is not a prominent focus of the ISLLC or the APPP (Juusela, 2004). Although the subject numbers would be considered quite small, a study conducted by Fordham University analyzed, through a series of interviews and observations, a group of first-year principals in order to gather input on how to improve principal preparation. The feedback indicated that regardless of the strength of the preparation program, principals are generally not able to focus on student achievement even through they may be capable. Unofficially deemed a campus administrator's right of passage, spending time, effort, and energy on matters other than student achievement is time needed to focus on student achievement (Coles, 2005). A study

conducted for the purpose of making recommendations for revisions in principal preparation programs that fall under the licensure of the Southern Regional Education Board (SREB) revealed that the focus of preparation programs is based more on leadership, in general, than specifically instructional leadership. It is possible that the end result of program recommendations will include more instructional-based leadership skills than is evident at this time (Copeland, 2004).

Further indication of a pressing deficiency in a principal's ability to enhance student achievement is the growth of private initiatives that are attempting to train principals, especially soon-to-be principals, as more effective instructional leaders. One such privately funded group is the New Leaders for New Schools. Since certain skills are not naturally developed through classroom teaching experience and are seldom taught in traditional education administration at the university, New Leaders builds its program to address these gaps. Courses in team building, leadership, management, and budgeting are taught, but the biggest boosts tend to be derived from a one-year residency as an assistant principal and from exposure to numerous high-performing schools with innovative theories in practice. Although no long-term studies have been conducted, achievement on test scores has noticeably increased on campuses where graduates of the New Leaders program have been hired (Hess & Kelly, 2005).

A directional change occurs at this juncture with regard to the preparation programs that are responsible for preparing school leaders, namely the principal (Andrews & Grogan, 2002). Not only are eyes upon building principals but the focus is also aimed at higher education and the supposed inability of many universities to provide adequate instruction relevant to today's leadership needs in education. The realization, or at least the recognition, is that a principal's duties and responsibilities in today's climate of high expectations and accountability are

overwhelming. The principal's primary responsibilities are arguably to improve teaching and learning; however, most of a principal's efforts are a complex web of constant decisions regarding assessment, discipline, community and public relations, budget matters, facility issues, special programs, district policies, and attempts to be a visionary in curriculum and instruction matters.

Critics of principal preparation programs readily admit that even well trained leaders placed in near-impossible job conditions aren't likely to succeed in improving student learning. The idea of better training for principals will not serve as the only answer but is very likely to be a large part of the solution. The era of accountability has made the false assumption that district and campus level administrators have the skillsets to make informed decisions as how to best use resources and to assign responsibilities that are directly linked to student performance (Childress, 2005). According to studies across various regions of the United States, most campus administrators have nothing in their background to prepare them for this charge (Elmore, 2005).

The literature consistently reveals that preparation programs, as they are generally structured today, must be reorganized. This reorganization should be a collective effort among the universities, licensing and certification agencies, and local districts, as these are the critical stakeholders in the principal preparation process. In response to the National Commission for the Advancement of Educational Leadership's focus on improving the preparation of school leaders, the Texas Principals' Leadership Initiative (TPLI) survey was launched. The purpose of the survey was to gather insight on principal preparation programs throughout the state of Texas. University supervisors and program completers provided insight that prompted the improvement effort known as the Texas Principal Preparation Network (TPPN) Project Lighthouse Initiative. Among the most noted variables discussed in the survey was the perception of program

completers on competencies emphasized in the preparation program versus the competencies that they feel should have been emphasized. Multiple examples of revised principal preparation programs are operating in Texas. These programs are university-based, regional service center-oriented, or local district-established (Hale & Moorman, 2003).

According to the literature, there are certain characteristics and skills that principals should master in order to be effective instructional leaders, which then would lead to an impact on increased student achievement. In order to focus on instruction, there are areas such as safety and student discipline, political implications and influences, educational structure, and functions of human resources that first should be mastered. The literature examined covers multiple regional umbrella organizations and shows that there is a major disconnect between the skills required to be a principal and what principals are actually trained to do. The Southern Regional Education Board (SREB), Interstate School Leaders Licensure Consortium (ISLLC), and the National Policy Board for Educational Administration Standards (NPBEA) are examples of the umbrella-type organizations. The literature also shows there is a missing link in current preparation programs that, in essence, is the lack of actual performance-based experience in the educational setting (Copeland, 2004).

Even though levels of achievement for student groups have improved in recent years, there are ongoing efforts and initiatives in place to continue to address graduation rates, statewide passing rates, advanced placement preparation, and college readiness. Texas has a track record for being a state with a proactive philosophy toward student outcome. Legislative sessions often see countless hours of debate, lobbying, and eventual action that deal directly with various aspects of public education in the state. Among the political actions of current Governor Rick Perry are executive orders that establish and support initiatives to deal with college

readiness indicators and end-of-course assessments and to make learning outcomes of high school students more measurable and effective for further use (“Gov. Perry: Texas Is Preparing,” 2009).

Texas was one of the first states to commit to and be a part of the American Diploma Project (ADP). The American Diploma Project is a joint effort of a network of states to foster innovative pathways, to refine standards, to improve accountability and, ultimately, to improve academic outcomes of students. (Texas Action Plan, 18 January, 2006). The bulk of effectiveness regarding the ADP is found within the state itself. Together, the Governor’s office and the Texas Education Agency will partner with representative members from the K-12 and postsecondary education communities, the legislature, the civic community, and the business community as the action plan is implemented.

As part of the Texas Action Plan (January 18, 2006) for the American Diploma Project, a public-private partnership was established to specifically focus on boosting graduation rates and to increase the number of high school graduates prepared for postsecondary success. The public-private partnership is formally known as the Texas High School Project (THSP). Members of this alliance are the Bill and Melinda Gates Foundation, the Wallace Foundation, National Instruments, and the Communities Foundation of Texas. The initiatives of the THSP are logistically divided and managed by members of the alliance. Although each of the initiatives is indirectly related to this study, two are directly connected and are managed by the Communities Foundation of Texas. One initiative deals with high school redesign. The purpose is for high schools to redesign their educational principles of rigor, relevance, and relationship. Emphasis is placed on the relevance aspect so that real-world connections are embedded throughout the curriculum. The initiative of the THSP directly linked to this study is regarding educational

leadership. By retooling university principal preparation programs and developing meaningful leadership training for principals, it is the intent to strengthen leadership and to establish a learning environment that is focused and that will, ultimately, increase student performance (Texas High School Project, 2009).

There are two general schools of thought regarding the move to reform the preparation of school administrators: those who wish to refine and enhance the existing system of licensure and certification and those who are proponents of a move completely away from licensure and the assumptions made in preparing school leaders (Hess & Kelly, 2005). According to a study by Farkas, Johnson, and Duffett (2003), only 4% of school principals included in the study cited their university training as the most valuable source of preparation for their position as school principal. Given that information, it should not be surprising to know that when principals, successful in leading their campus to noticeable gains in achievement, are asked to identify a link between their preparation to be a principal and the actual responsibilities of a principal, they struggle to make any connections (Hess & Kelly, 2005). Just as with any adjustment or reform to big business, the political impact is evident in educational arenas as well. Those who are steadfast in their efforts to highlight the need to rethink the methods of training and preparing principals base their argument on the thesis that accountability, technology, and changes in organizational management have changed the fundamental job of building principal.

Although current defenders of traditional preparation programs have demonstrated a sincere willingness to compromise and admit the need for program reform, the more radical proponents of change want to openly seek, for the principal position, non-educators who may possess the skills and experiences that would provide the change agent that school systems will require for reform.

Also discussed in this research is the active effort to attract non-traditional candidates to seek school leadership positions and to adjust the current system of principal preparation by reducing the gatekeeper role of state certification in order to allow opportunity to diverse new providers of principal preparation (Hess & Kelly, 2005). The business model would support the reduction of control by state certification authority, which would open doors for a level playing field among private sector or for-profit entities that tap into identified talent pools and offer training from a managerial, business-related model commonly found in public administration. Business model preparation programs tend to blend education and business together, with instruction provided by scholars from both education and business departments, and to focus on organizational change, management, negotiation, and conflict resolution

A host of factors contribute to what students learn and achieve in school. Immediately following classroom instruction as having the most direct impact on student achievement is the leadership of the building principal, followed by the superintendent (Center for Comprehensive School Reform, 2005).

The primary focus of research in previous years was to identify and define qualities of effective leadership. More recent studies maintain that the impact of leadership not only affects the operation of schools but also student achievement (Center for Comprehensive School Reform, 2005). Three sets of practices act together as catalysts for substance of leadership, not merely style of leadership.

- Setting direction (goals and communication)
- Developing people (stimulate them intellectually, provide support, model)
- Redesigning the organization (strengthen school culture, modify the structure)

Albeit slowly, campus leaders have shifted away from the “don’t ask, don’t tell” type of

interaction with teachers. Leadership is common on each and every campus; it is effective leadership that is still rare. Redefining leadership around professional learning communities and cooperative arrangements between instructors and administrators is this author's emphasis. Classroom observations, along with pre/post conferences, require a sizable amount of time and effort but generally have very little impact on achievement. Guidelines and pressures of high-stakes testing for accountability are not intended for flashy academic interventions but for instructional diligence. Schmoker (2005) emphasizes simple practices and diligent efforts in order to orchestrate and support the work of teacher teams. Consistently meeting with teams provides teachers the opportunity to demonstrate that they are sincerely teaching the agreed-upon standards and that progress is being made toward both short- and long-term goals. What is taught and how it is taught are, of course, critical, but to ignore supportive evidence for what is actually occurring in the classroom each day can be disastrous.

Hall (2005) describes the transition of a school principal from the role of manager and facilitator, maintaining order and overseeing the operation of the school facility, to the more current role of educational leader. As teachers are the principal's most valuable assets, today's principal should strive to provide strong relationships, individual attention, consistent support, fair treatment, and accurate feedback. Hall goes on to emphasize the importance and necessity of a principal's active, engaged presence. Being present provides awareness, visibility, and clarity and strengthens relationships with and among staff.

Hall (2005) raises two important questions regarding the licensing of principals: Does the license required of a principal encompass the knowledge and skills needed to promote student learning? If not, what is necessary for decision makers in rethinking the licensing framework? This position is based on the premise that current licenses do not reflect a learning focus and that

requirements are unbalanced across states. As accountability standards continue to rise, the principal license represents only entry-level knowledge and skills. Leadership for learning requires more than a license.

Accountability results are placed directly at the school level, and strong principal leadership is essential. Lashway (2004) points out that principals must have a positive impact on student achievement, but the role and expectations are somewhat new while principal preparation programs continue to be somewhat ineffective. Two separate citations state that research thus far has found no correlation between leadership programs and principal effectiveness. What was found is a lack of evidence that connects preparation practices to principals' performance or to student achievement. The Lashway article proposes some innovative licensing efforts, where advanced certification beyond licensure is required, or a possible multi-tiered certification system in which the second-level certificate requires evidence of successful on-the-job performance.

Principals prefer to be colleagues of the staff, but the reality is that the principal is the boss. That fact must be accepted. Although a wearer of many hats, there are vital roles only the principal can play. Among them are getting input from stakeholders, coming to professional consensus, and then moving forward in a proactive manner toward student success. Leading teachers who may have a very narrow focus often limited to their grade level, subject area, or department is not an easy task, but involving the staff through consistent and sincere collaboration will result in solutions (Murray, 1998).

Through no fault of their own, principals are obligated to be instructional appraisers following the adopted observation method utilized in their state or local district. The natural inclination, and a common mistake, is for principals to focus on teacher instruction rather than

student learning (Dinham, 2004). The shift from teacher practice to student performance during recent years has been a result of accountability and high-stakes testing. The shift has been for the principal to move from the instructional leader to a more practical learning leader. Teams of teachers clarified what essential outcomes were desired, and they developed assessments to measure progress during the semester. Narrowing the curriculum moved from a "mile wide, inch deep" mentality to a richer understanding of content. The assessments should be true benchmarks by which results can be analyzed and strategies developed to better assist students in meeting appropriate standards of learning. Teachers need guidance to work more in collaboration than in isolation. Time to collaborate has to be properly designed, along with appropriate parameters to guide the time. Not all students progress or learn at the same rate. A system of intervention needs to be developed for those students who struggle (Stover, 2007).

Similar to the positive effects of establishing clear expectations of behavior, positive rapport, and open lines of communication that will generally diminish problems in the classroom, there is nothing that guarantees the total absence of negative student behavior or parent issues for a teacher. In terms of educational leadership, there are no fail-safe solutions either. According to the McREL Research Group (Marzano, McNulty & Waters, 2005) their balanced leadership framework is the most comprehensive, rigorous, and useful format for educational leaders to use to implement research and theory, adding value to instructional practices and improving student achievement. McREL identified 21 key principal leadership responsibilities that are significantly associated with student achievement. Of the 21 responsibilities listed, being a change agent is one of the most important.

In conducting a study for the National Governors Association (NGA), Harvard professor Richard Elmore (2003) studied a principal's role in knowing the right thing to do for school

improvement and performance. In addition to identifying eight essential phases in the school improvement process, Elmore presented recommendations for modifications to accountability systems to order to improve underperforming schools. Elmore's recommendations included: modifying the curriculum and instruction to promote higher-order thinking skills for all students; decentralize the decision-making process that allows educational decisions to occur at the campus made by teachers, administrators, and parents, rather than at central office or the state capital; redefine staff roles at the campus in order to permit innovation and support; and to link incentives and rewards to student performance at the building level rather than district-wide.

In most instances, there is a gap in the time from when individuals complete principal preparation programs to when they actually assume the role of a building principal. According to Morrison (2005), new principals and campus administrators consistently commented that preparatory programs should provide more practice as in real-life situations. Few of the classes in an educational administration program truly prepare prospective administrators for the constant issues of running a school. Practicing the hard realities of being an effective principal can assist in bridging the gap, but preparatory programs tend to focus most of the attention on strategies to raise test scores, observation practices to improve classroom instruction, and innovative ideas that have the potential to foster a positive school climate. Huge differences exist between assisting a beginning English teacher with classroom management techniques and dealing with a news crew arriving at the steps of the campus for coverage on cheerleading suspensions, or finding discrepancies in the campus activity account and handling a reported inappropriate teacher-student relationship (Morrison, 2005).

Preparation programs should not just teach principals how to evaluate teachers but should also specifically teach them how to evaluate teachers that despise the principal. There are

teachers who don't want to change and could not care less about any strategies or ideas that the principal has to share as the campus instructional leader (Morrison, 2005). According to a report by the Southern Regional Education Board (SREB), entitled "*The Quality of Field Experiences in Educational Leadership Programs*," there is an apparent disconnect between the work of today's principals and the university preparation they receive. The report further states that many internship programs offered by universities fail to provide authentic leadership opportunities (SREB, 2005).

Alternative Routes to Principalship

A recent movement toward a decertification process is gaining momentum. Consistent responses of current principals to various surveys and studies conducted by Art Levine and others are increasing this momentum. Principals themselves admittedly offer that they might be more effective had their preparation been based more on what they would actually do as a building principal and not on what they might do. According to Art Levine, many universities are not only not getting the job done in better preparing principals, but, to further complicate the issue, universities are in no particular rush to redesign their programs to help ensure that aspiring principals are thoroughly prepared for their role in improving curriculum, instruction, and student achievement (Levine, 2005). Levine adds that while university principal preparation programs conduct business as usual, they also are in competition for students as they lower admission standards, water down course work, and offer degrees that are less demanding and that require less time to complete the program.

Although some states seem to be moving to greater flexibility and somewhat of a gradual decertification process, there appears to be four common factors that are expediting a renewed

analysis of certification and licensure of principals. The four factors are as follow: (1) a perceived shortage of principals due to the near-retirement age of current administrators, (2) high-stakes accountability and the changing role of principals, (3) a growing influence of the state over school administration, and (4) a new conceptualization of good public management (ERIC, 2005).

Since the establishment of alternative routes to teacher certification in the late 1980's, the impact has been quite visible regarding people from careers other than education coming into public-school teaching posts. The initial sentiment from the education community toward alternative certification programs was less than positive and slow to accept. Nontraditional candidates brought into public-school leadership positions have experienced that same sentiment (Feistritzter, 2003). Widening the movement of alternative routes to principal certification is intended to enlarge the talent pool and to welcome top candidates that can be found, from the private sector, by offering attractive yet reasonable terms of employment. From a practical perspective, nontraditional candidates may bring innovative approaches that will address students who are ill equipped for the community in which they choose to work and live (Feistritzter, 2003). Although many in traditional preparation programs, including some professors that oversee those programs, would possibly argue otherwise, the National Center for Education Information (NCEI) found no correlation between the credentials required of school leaders and the achievement results produced by their schools (NCEI, 2003). High-stakes testing and measures of accountability have afforded the traditional academia an opportunity to be innovative and to allow a new type of campus leader. Sub-standard performances under the leadership of traditionally trained personnel substantiate the question from alternative preparation practitioners in asking, why continue to credential individuals in the same manner as

individuals who are considered ineffective (NCEI, 2003). In response, most traditional administrative programs state that they are in the business of training instructional leaders, not CEO's.

According to a study conducted by the Center on Reinventing Public Education (CRPE), a variety of leaders and leadership models can work within schools (DeArmond, Gundlach, Portin, & Schneider, 2003). This study examined what school leaders actually do and what is necessary for them to do in regards to policy and leadership development. The findings indicate that although principals are responsible for ensuring that leadership happens, they do not necessarily have to provide it themselves. A second major conclusion from the study is that however formally trained, most principals involved in the study stated that the skills they needed in order to be more effective were learned on the job, not in a preparatory program.

Current educational leadership positions at both campus and district levels are entrenched in accountability regarding student achievement and teacher quality, in maximizing the use of available data, and in the political minefield of vouchers and school choice. According to a recent study conducted by Frederick Hess, educational background, prior classroom experience, and even total immersion in schooling does little to equip teachers for these duties of a principal (Hess, 2006). Hess places the responsibility of school leader development at the doorstep of licensing and certification programs in that products of current programs are not able to adequately address the challenges of the 21st century in education. If traditional preparation programs will not progress in these areas, then the endorsement of nontraditional candidates with the appropriate management skills seems a better option.

Not only is there a debate regarding the content of principal preparation, there is also a vast difference in the culture of education and the culture of business. The nature of

educators is built on being optimistic, as well as socially caring and supportive, which is the opposite end of the spectrum from most business practices where low performers are routinely dismissed, as described in the 2003 Thinkers Fifty survey (Hess & Kelly, 2005). Companies with visionary leadership are intentionally not comfortable environments. The philosophy of multiple high-performing CEO-level individuals is that contentment leads to complacency, which eventually leads to decline. If this type of philosophy would lead to greater effectiveness in education, then educational leaders must be exposed to the ideas and texts of individuals who are considered the most influential in management and business (Hess, 2006). According to Hess, Michelle Rhee, president of the New Teacher Project, is very deliberate in her description of the culture of schools as she states, “They have done things the same way forever. They have no incentive to change” (p. 12). A term used by Hess to describe what he feels is necessary to education reform is entrepreneurship. With so much at stake in schools today, entrepreneurs and innovators must be more involved in education (Hess, 2006).

“Grow Your Own” Programs

One rapidly increasing trend in education has come from the belief that principal-preparation practices are less than adequate in preparing candidates to lead schools to high performance. This trend is being described as “growing your own.” Regardless of whether a district is rural, urban, suburban, large or small, each district has a vested interest in the importance of highly committed and strong-performing school leaders. Each individual principal candidate is expected to successfully harness the necessary knowledge, skills, resources, and energy to challenge and overcome institutional barriers to student achievement and to generate conditions in which all students achieve successful outcomes (U.S. Department of Education,

2005). The Kentucky Principal Excellence Program (PEP) designed its “grow-your-own” program around the findings of extensive research, targeted toward rural schools and conducted over the last two decades. The most significant finding was that leadership matters and matters a lot. An effective principal generally translates to a successful school. The instructional leader of a campus will possess certain values and beliefs about learning and about students’ ability to achieve. The campus which he or she leads will follow suit by identifying, setting, and, hopefully, achieving lofty goals for student learning. Great principals lead great schools. According to the New Leaders for New Schools program, a great principal is someone who coaches and inspires teachers to teach and reach every child, as well as one who networks with students’ parents, families, and communities, using them as support systems to make schools work (U.S. Department of Education, 2005).

Likely to look different from the rural settings of Kentucky, the Boston Principal Fellowship Program (BPF) is an initiative where participants are exposed to the daily work of effective principals. Boston’s version of the “grow-your-own” preparation program was designed with two guiding principles: enhancement of the skills of the district’s current principals and preparation of future principals to assume the campus role of an instructional leader who effectively improves the teaching and learning process of their schools (U.S. Department of Education, 2005).

Additional large urban districts that have recently established “grow-your-own” preparation programs are New Jersey, Cleveland, and Chicago. New Jersey’s Expedited Certification for Educational Leadership (EXCEL) prepares its candidates to be effective agents of change and instructional leaders who are advocates and guides for students as they achieve in the environment of high academic standards (U.S.D.E., 2005). Cleveland’s First Ring Leadership

Academy and Chicago's LAUNCH program are very similar in their component features; both strive to prepare future principals to be ready to lead schools to high achievement by consistently improving teaching and learning (U.S.D.E., 2005). Each of these grow-your-own preparation programs offers accelerated pathways to becoming a principal. There are subtle differences among them; however, each program features field-based projects with emphasis on instructional programs. Ironically, the program leaders collectively agree that success thus far is as much the result of the specific instruction and focus as it is the selection and enrollment of the right candidates (U.S. Department of Education, 2005).

While most "grow-your-own" preparation programs have not developmentally been in place long enough to provide feedback in the form of reliable data, some forms of program assessment have occurred. Internal and external findings show that products of the programs perform more like veteran principals when compared to their counterparts. Understanding the many unique facets of the principalship from the outset allows the principal to guide instructional improvement and student achievement much sooner. It appears that districts are in a better position to recruit and place principals from their underrepresented groups. Still pending are data about the performance of program graduates and the level of student performance on state assessments from the campuses where the program graduates have assumed the principal role (U.S.D.E., 2005).

Other Trends toward Revision

Due to a growing shortage of school administrators, principal preparation programs are responding by streamlining their program structure and making recommendations that school districts should streamline the principal's role by stripping away the tedious responsibilities that

impede the principal's real work and purpose: improving teaching and increasing student learning. Since preparation programs have little to no impact on district decisions, their efforts are best served by focusing on former and current students regarding the perceptions of the preparation itself (Copeland, 2004). Feedback on program value and usefulness and a description of the experiences gained in the program should be examined. Programs can then adjust the balance between theoretical issues of school leadership and the practical learning necessary for success as a school leader. Numerous studies argue that future principals should be exposed to outcome-based standards that incorporate a stronger focus on student achievement rather than the occasional mention. Based on a broad review of studies on leadership development programs and initiatives by Bush and Glover (2003), these revisions have resulted in implementation.

As the role of the campus principal has changed, many leadership programs are using models of effective leadership more consistently in order to assist the candidate in a more effective transition into a principal role (Hackman, 2006). Candidates are also taking on a more active role as programs implement case studies and problem-based learning. Preparation programs have realized the significance of field-based experience over time rather than a condensed window of shadowing or practicum hours and are actually encouraging local districts to establish a process where the district develops principal candidates from within. Over time, districts can identify candidates and begin placing them in work-based situations, providing experiences with strong practicing campus leaders and time for reflection. If principal preparation programs are undergoing revisions and are being redesigned across the country, there is optimum opportunity for certification agencies, university-based programs, and local school districts to bridge the gap that can exist as a learning curve for beginning principals (Hale & Moorman, 2003).

One reason that proper preparation of principals is critical at this time is that many current campus principals are at or very near retirement age and will be leaving their positions en masse. Districts must be in a proactive mode in order to fill these “soon to be vacant” campus principal positions, and universities should be keenly aware of the supply and demand coming soon. Another important reason the preparation issue is critical is that the accountability era is not going away. Education is under the microscope of results and expectations in a global economy. Preparation program leaders should be concerned about properly preparing potential candidates to fill vacated or new positions (Juusela, 2004). The preparation of school leaders in the practice of instructional leadership should be examined by all stakeholders in both traditional and restructured educational administration leadership programs. Discrepancies between the importance of instructional leadership and the actual level of attention it receives should be addressed, as well. This would most likely occur between the department chair and the various professors actually teaching the educational administration courses (Hudson & Williamson, 1999).

Implementing a Business Model

The audience may vary, as well as the customer, the product, and the potential market share, but regardless of the difference between education and the private sector, leadership itself is a constant. It is for this reason that the characteristics and traits proven to be successful in a business model would most likely transfer to a campus setting, as well. Incorporating effective business practices into school leadership is necessary for today’s instructional leaders. For example, principals should be highly competent in group process skills and problem-solving strategies (Murphy & Hallinger, 1992). According to Schmuck (1993), it is imperative that

campus leaders develop their emotional awareness, conflict resolution skills, and face-to-face communication abilities. Effective leaders are able to assess and respond effectively to what Schmuck describes as human situations. 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 the effects on student learning.

Acclaimed organizational consultant Warren Bennis gained notoriety in the 1960's when he outlined what would become the framework for less hierarchical, more democratic and adaptive management or leadership styles in private and public institutions. Bennis's premise was built on the theory that humanistic, democratic-style leaders are better suited to dealing with the complexity and change that characterize the leadership environment as cited in (O'Toole, 2005). Over the years, one characteristic that research has identified in successful businesses and schools alike is a leader with competency in relational and personal aspects of the organization. Strong relationships among the co-workers or, for the purpose of this study, educational leaders, result in strong correlations in attendance, staff morale, professional growth and, most notably, the rapport built between staff and students, generally resulting in increased academic efforts to satisfy those who have invested in a relationship and rapport (Bennis, 1992).

Leadership Styles and Leadership Characteristics

Leadership style and leadership qualities are often misused and mistaken for each other. Educational leaders and business leaders alike demonstrate the characteristics that would identify them with a particular style of leadership, such as transactional, participative, situational, or transformational (Bass, 1985). Transactional leadership operates under the assumption that people are motivated by reward and punishment, that they agree to a specific task or job, and that

they work in a clearly defined structure established by the manager. An obvious leadership style embedded in the contingency theory, transactional is more in the management end of the spectrum than the leadership end. Transformational leadership occurs when the leader develops a vision and sells the vision to his or her followers. When a charismatic and energetic leader inspires employees, the culture of the organization can be transformed (Burns, 1978).

Participative leaders seek to involve other people in the process, including peers, subordinates, and other stakeholders, rather than making autocratic decisions commonly found in top-down organizations (Tannenbaum & Schmitt, 1958). In participative leadership, people are more committed to action and are more collaborative and less competitive, enhancing the performance of the organization. Another style of leadership, according to the literature, is situational leadership. Yukl (1989) describes this leadership style as when the leader does not fall into a single style but depends, instead, on a wide range of situational factors. Situational factors may include needed motivation, availability of materials or people, structure of the work, or roles necessary to accomplish the task (Maier, 1963).

Compared to leadership styles, leadership qualities are on a more personal level from which the leader is able to cultivate relationships. Warren Bennis (1989) identified six personal qualities of leadership in which leaders can actually “do” rather than just learn. Among the qualities identified by Bennis are integrity, dedication, magnanimity, humility, openness, and creativity. These leadership qualities fall under the umbrella of emotional intelligence.

Emotional Intelligence

Similar to the teachings of John Dewey, who strongly advocated for schools and society to educate the whole child, this study will examine the components of emotional intelligence and

the effects on student achievement when these components are in place. Emotional intelligence is defined as the competency of understanding and mastering of personal emotions, as well as those of others, in a way that instills confidence, motivates, inspires, and enhances group effectiveness. The result is a balance between the components of *perception*, the ability to read emotions and thoughts of others through the use of insight and analytic skills, and *emotional maturity*, the ability to master emotions and to cope with stress (Gardner, 2006). The study of the five traits of the Leadership Assessment Instrument, participant characteristics and the impact on student achievement is directly tied to the framework of Bandura's Social Cognitive theory (Bandura, 1986), which is based on interactions among persons, behaviors, environments and self-efficacy.

Contrary to popular belief, experience alone does not ensure that principals will be more effective as they lead campuses and attempt to increase student achievement (March, 1978). Experience presents opportunities to encounter an enormous range of managerial problems that are present in educational organizations, which eventually may benefit the leader when a problem similar in nature to a previous one arises again. However, there does not appear to be a correlation between experience levels and emotional intelligence. According to Whitehead, principals are trained in the areas of research, theory, and practice, but when required to spontaneously apply their training, they often lack the ability to separate the emotional components of the situation, resulting in a less than ideal decision (Whitehead, 1989).

The personal characteristic of emotional intelligence is an intrinsic trait that successful leaders possess. The trait is not obtained by the completion of a preparation program or attendance at a workshop; however, it can be learned, which may prompt individuals to reflect upon their current leadership tendencies and practices. Covey, Maxwell, Tichy, and Yukl found

that major contributors to the success of a leader are the components of emotional reactions, emotional well being, passion, and managing emotions. Their findings state that successful leaders should not only be aware of their own emotional status, but also have an acute awareness of others within the organization. A leader with emotional connectedness asks employees how they feel, asks for help, demonstrates empathy, and sincerely talks to people (Covey, 1989; Maxwell, 1999; Tichy, 1997; Yukl, 1994). Successful leaders place a high priority on relationships and recognize the importance of the emotional reactions from their followers.

Research conducted by Goleman, Boyatzis and McKee (2002) found that there is a strong correlation in the degree that emotional intelligence exists in an organization and the effectiveness of its leader. Weaving climate, culture, processes, and procedures, the building principal creates the right conditions for teachers to teach and students to learn (Dinham, 2004).

The fundamental form of educational leadership is a focus on improving the quality of teaching, student learning, and the outcomes of that learning (Feistritz, 2003). In doing so, the educational leader should build and implement effective instructional practices and create a focus on learning, including the teachers as professional learning communities. Professional learning communities provide a network in which leadership can be distributed and shared among stakeholders. These communities also allow the principal to instill the component of trusted influence by evoking trust from others and placing trust in others to enable them to succeed. The trust is built by balancing the components of commitment and empowerment. Commitment is defined as the ability to evoke trust from others by keeping commitments, by adhering to high ethical standards and principles, and by building shared goals or values (Bennis, 1989). Empowerment refers to the ability to help others reach higher levels of performance through trust, delegation, participation, and coaching.

Theorist Daniel Goleman has conducted much research in the area of emotional intelligence. Goleman and his team examined the relationship between emotional intelligence and effective performance, specifically in the leaders of an organization (1998). His research was constructed to properly determine which personal capabilities specifically enhanced performance and effectiveness. Goleman created three categories of skills: technical skills, cognitive skills, and competencies demonstrating emotional intelligence. He described the results of his research as dramatic. “My analysis showed that emotional intelligence played an increasingly important role at the highest levels of the company” (1998, p. 37). Continued research conducted by Goleman, Boyatzis, and McKee (2002) further categorized emotional intelligence into four areas: self-awareness, self-management, social awareness, and relationship management. Self-awareness is the understanding of one’s emotions and being clear about one’s purpose, leading to self-management, the focused drive that all leaders need to achieve their goals. The third area of emotional intelligence is social awareness, often described as empathy. Empathy is demonstrated when a leader takes the feelings of employees into sincere consideration and then makes wise decisions. The decision or outcomes of the decision will contain evidence of the feelings. The final category of emotional intelligence researched by Goleman is relationship management. Being friendly with a purpose, sincerely agreeing with a decision of someone, or exuding enthusiasm about a new idea are examples of relationship management.

The Hay Group defines emotional intelligence as the capacity for recognizing our own feelings and the feelings of others, for motivating ourselves, and for managing emotions effectively in both ourselves and in others. An emotional competence is a learned capacity based on emotional intelligence that contributes to the effective performance at work (2002). Characteristics of emotional intelligence have been recognized as positive attributes in effective

leaders. Kouzes and Posner (2002), Maxwell (1999), and Sergiovanni (1992) indicated that a strong emotional trait is associated with the success of the effective leader.

To promote success for students, effective leaders must become closely aligned with the various areas of emotional intelligence and the related competencies in order to enhance the rate of success. The question continues to remain, as educational leaders strive to increase student achievement, How are current and especially future administrators going to be prepared to lead and transform school campuses? In the Standards for Advanced Programs in Educational Leadership (National Policy Board for Educational Administration, 2002), Standard 4.0 states, “Candidates who complete the program are educational leaders who have the knowledge and ability to promote the success of all students by collaborating with families and other community members, responding to diverse community interest and needs, and mobilizing community resources” (p. 9). The preparation programs for educational leaders may continue to be encouraged to provide a balanced training ground that not only includes traditional course content but also includes components of the emotional intelligence theory.

A study conducted in the United Kingdom found that in schools where the building principal used a more emotionally intelligent leadership style, academic achievement of the students was higher (Goleman, 1998). It was determined that with school leaders who use their emotional intelligence consistently, teachers are inspired to be more dedicated and motivated so that they teach better and, therefore, the students learn better. Another finding of this study was that many schools help students become more self-aware and make better decisions by teaching them emotional intelligence. Extensive research conducted by the Collaborative for the Advancement of Social Emotional Learning (2003) concluded that emotional intelligence training improves students’ relationships to school, which in turn improves their academic

performance. Additionally, the findings concluded that students who learn effective social and emotional skills also have less risk of violence, pregnancy, or suicide. Other benefits that have been reported by follow-up studies are increased cooperation, improved classroom relationships, and increased student focus/attention (Perkins, 1995).

Improving bottom-line performance with the ability to bring out the best in people is not limited to adults in corporate America but is intended for audiences of all ages in private and public organizations, school campuses, and businesses (Consortium for Research on Emotional Intelligence in Organizations, 1998). Throughout the literature, two descriptions of leadership are widely used and accepted, as well as successful and effective. Organizational leaders considered to be successful or effective by their peers are in occupational positions such as executives, directors, managers, business owners, or consultants. The titles listed are common in the private sector, public sector, and for-profit and non-profit agencies. In a study using the Myers-Briggs Type Indicator (MBTI), participants in a leadership survey strongly agreed on specific leadership attributes and emotional intelligence attributes as essential to successful leadership. Those participating in the 2004 study stated that the five most important leadership attributes are vision, strategic thinking, relationship building, execution, and people development. Notable is that three of the five attributes listed are considered to be linked to emotional intelligence. Vision, relationship building, and people development are emotional intelligence competencies, which the research participants indicated were more important than all the general leadership attributes, such as external/market orientation, financial acumen, and planning (Richmond, Rollin, & Brown, 2004). Although not the primary focus of the study, the five least frequently selected leadership attributes were planning, analytical capability, global perspective, functional/technical

expertise, and financial acumen. Ironically, individuals who excel in these attributes tend to be deficient in the area of emotional intelligence.

The Center for Creative Leadership (CCL) has identified four prime contributors as to why many promising executives and leaders fail to reach their potential as leaders, which often results in their management careers being cut short. Included in the four areas are problems with interpersonal relationships, failure to meet business objectives, failure to build and lead a team, and the inability to change or adapt during a transition. According to Goleman, each of these falls into the domain of relationship management (Goleman, 2002). The Myers-Briggs Type Indicator (MBTI) instrument contains extensive correlations between personality types and variation in leadership behavior; however, for the purpose of this study, the personality component will not be fully investigated.

The team concept is clearly embedded in the structure and logistics of a school campus. Whether academic teams, grade-level teams, subject-based departments, or professional learning communities, educational settings provide school leaders every opportunity to develop and demonstrate their competency level in emotional intelligence. As Crozier (1964) suggested that discretion is not completely suppressed by the rational and traditional authority of bureaucratic process, successful school leaders consistently take the appropriate course of action after filtering the issue through their emotional intelligence.

As the science of emotional intelligence has gained more interest and acceptance in the field of leadership, the literature has revealed that leaders who rise above others in their field have not only a respected amount of cognitive intelligence but also a high level of emotional intelligence. As school leaders have prepared for their administrative roles by becoming versed in the areas of educational theory, law, school finance, human resources, and curriculum and

instruction, the technical expertise in these areas would be of little use to a leader if that leader had a low level of emotional intelligence (Tishman & Andrade, 1995). According to the literature, the critical components of self- and social awareness are what distinguish great leaders and successful companies (Goleman, 1995). Goleman concluded that a certain amount of cognition is necessary to be successful in any field; however, with emotional intelligence, the person can thrive (1998). Recent studies conducted by Leithwood and Beatty (2008) validate this concept. Professional development opportunities often attempt to enhance cognition; however, they do not teach people how to do things they don't know how to do. Instructional leaders should be about the business of prompting teachers to improve upon the things that they already do. A principal with high levels of emotional intelligence is most likely to build a teacher's self-efficacy, resulting in confidence to learn new things and to improve current instructional habits.

Since educational leaders are consistently compared to their business counterparts in the corporate environment, recent studies have been conducted in attempts to draw some correlations. Romig (2001) studied the performance of businesses in terms of profitability and return on investment (ROI). Four areas emerged from the study as having consistent effects on the development of a collaborative environment. Teams exist in environments that include personal leadership, interpersonal leadership, team leadership, and organizational leadership. Romig cited that there is a correlation among corporate productivity related to ROI, stock performance, and profitability. Validating Romig's findings, Goleman and Salopek (1998) found that the competencies associated with emotional intelligence are more important in effective job performance than either cognitive ability or expertise. Their studies also found that the higher individuals rise in an organization, the more important their emotional competencies become toward their success as a leader.

Summary

Preparing school leaders has always been a challenge for preparation programs, but universities have begun to acknowledge that graduates who possess knowledge of the components of “school” cannot be guaranteed that their knowledge can be transferred into practice. Transferring knowledge into practice involves people. Regardless of whether leadership is understood or fully agreed upon by the private for-profit sector and the public not-for-profit fields such as education, is not of importance to this study. Effective leadership continues to be a concept that many individuals in positions of leadership fail to recognize or, at the very least, ignore. Campus principals serve a precious commodity, students. The impact of a school leader’s actions, decisions and influence on the staff can be dramatic. When the bell rings and the classroom doors close, those influences can then touch students and potentially impact their levels of achievement.

CHAPTER III

METHOD

Purpose of the Study

The purpose of this descriptive study was to determine if business leadership practices by Texas public school principals have an impact on principals' campus student achievement. A descriptive study was utilized based on the use of a survey instrument which ask a large number of people questions about their behaviors, attitudes, and opinions. Often, surveys merely describe what people say they think and do. The descriptive study then attempts to find relationships between the characteristics of the respondents and their reported behaviors and opinions, and between additional variables included in the study. The purpose of this chapter is to discuss the participants, variables, procedure, and analysis of data. The following research question guided the study:

What is the relationship between Texas public school principal scores on the Leadership Assessment Instrument and student achievement in reading and mathematics?

Participants

The participants included 104 Texas public school principals who are the instructional leaders on a general education campus. Principals who identified their campus as an alternative education program, such as a district alternative education program (DAEP) or juvenile justice alternative education program (JJAEP), or as a charter school were not included in the study due to the fact that characteristics of alternative campuses do not provide the generally reliable data that are obtained from regular campuses. High mobility rates, multi-grade classrooms, credit recovery, and various intervention programs aimed at academic and behavioral concerns are

examples of alternative settings and why data from those campuses were not appropriate for this study. There are approximately 7,500 principals of regular education campuses in Texas. A portion of those principals that would provide the researcher an adequate representation of Texas public school principals were randomly selected to receive the survey used in this study. Based on survey responses, an adequate representation of public school principals in Texas, including a variety of geographical settings, ethnic and economic diversity, district sizes, and campus levels, was obtained from survey responses. It is also noted that a wide range of experience levels was captured, as well as a proportional representation of gender and race or ethnicity of the principal. Of the 300 campus principals who received the electronic survey to their campus email address, 140 principals completed and returned the survey instrument, making the response rate almost 50%.

Participant Characteristics

Participants were asked to report their number of years as a building principal. The responses were then categorized into six groups based on five-year increments of experience (<1, 1-5 years, 6-10 years, 11-15 years, 16-20 years). The six groups assisted the study in providing a reasonably even distribution, due to these ranges of years are natural cutoffs for describing experience in a career.

The five-year increments were coded:

1 = < 1

2 = 1 – 5 years

3 = 6 – 10 years

4 = 11 – 15 years

5 = 16 – 20 years

Survey responders were asked to report the number of years they have served as principal of their current campus. The responses were then categorized into six groups based on five-year increments (<1, 1-5 years, 6-10 years, 11-15 years, 16-20 years). The six groups assisted the study in providing a reasonably even distribution and were coded as:

- 1 = <1
- 2 = 1 – 5 years
- 3 = 6 – 10 years
- 4 = 11 – 15 years
- 5 = 16 – 20 years

Table 1

Characteristics of Participating Principal

Characteristic		f	%
Gender	Female	60	59.4
	Male	41	40.6
	Missing	3	2.9
Race	African-American	6	5.8
	Anglo	83	80.6
	Hispanic	13	12.6
	Non-White	1	1.0
	Missing	1	1.0
Year(s) Experience as Principal	< 1	12	11.7
	1 – 5	71	68.9
	6 – 10	15	14.6
	11 – 15	3	2.9
	16 – 20	2	1.9
Years as Principal at Current Campus	Missing	1	1.0
	< 1	4	4
	1 – 5	48	47
	6 – 10	26	25
	11 – 15	15	16
	16 – 20	4	4

Responding principals were asked to self-report their gender as male or female. It was expected that the gender distribution is representative of the total principal population. Although not a personal characteristic of the principal, participants were also asked to identify their campus type. Response options best describing their campus were elementary school, middle school, junior high school, or high school. Table 1 represents personal characteristics of participating principals.

Variables Examined

Dependent Variable

The dependent variable in this study was the level of student achievement as measured by the percentage passing math and reading 2007 Texas Assessment of Knowledge and Skills (TAKS) tests. The TAKS is a comprehensive testing program for Texas public school students in Grades 3 – 11 and is designed to measure to what extent a student has learned, understood, and is able to apply the important concepts and skills expected at each grade level tested (Texas Education Agency, 2008). Reading and math scores were used in this study since they are common across all grade levels.

Students are tested during the spring semester of each school year in various subjects. The grades and subjects shown on the Academic Excellence Indicator System (AEIS) report (for the first administration of the test only) are as follows:

Grade 3 – Reading and mathematics

Grade 4 – Reading, math, and writing

Grade 5 – Reading, math, and science

Grade 6 – Reading and math

Grade 7 – Reading, math, and writing

Grade 8 – Reading, math, social studies, and science

Grade 9 – Reading and math

Grade 10 – English/language arts, math, science, and social studies

Grade 11 – English/language arts, math, science, and social studies

The TAKS tests in Grade 11 are also referred to as *exit tests* since students are required to pass in order to graduate and exit high school. It should be noted that legislative discussion is ongoing regarding exit-level TAKS and the movement toward End of Course (EOC) exams. TAKS tests are constructed from a state-wide curriculum for each grade level, generally referred to as TEKS (Texas Essential Knowledge and Skills, 2007).

Independent Variables

The independent variable in this study was the principal's level of implementation of effective business practices. The instrument used in this study was the Leadership Assessment Instrument originally developed by Bennis (1989). This instrument focuses on five personal characteristics, or competencies, that have been identified as essential to effective leadership.

The five characteristics assessed are:

- Focused drive
- Emotional intelligence
- Building trust/Enabling others
- Conceptual thinking
- Systems thinking

The Leadership Assessment Instrument is a 45-item measure containing nine questions in

each of the five categories. Participants were given the opportunity to rate themselves in the five categories identified and described by Bennis (1989). For each of the 45 items on the survey instrument, participating principals considered how much the stated behavior characterizes their own behaviors, thoughts, intentions, or skills in on-the-job situations. The marked responses were then assigned a numerical value of 4, 3, 2, or 1. Listed below is a description of the response options available for survey participants as they responded to each question and the coding that was assigned.

4 = I consistently demonstrate this behavior

3 = I often demonstrate this behavior

2 = I sometimes demonstrate this behavior

1 = I hardly ever demonstrate this behavior

Various personal characteristics were self-reported as was campus type in which the principal is the current instructional leader. The personal characteristics are years of experience as a principal, number of years as principal at the current campus, and principal's gender.

Leadership Assessment Instrument Reliability

An assessment of the reliability of data collected during this study using the LAI was conducted using Chronbach's alpha, a measure of internal consistency. Alpha coefficients range in value from 0 to 1 and describe the reliability of data underlying the LAI factors. The higher the values of alpha, the more reliable are the scores for the LAI. The coefficient alpha for all cases of the 45 items together (data from the entire instrument) was calculated to be .855. The coefficient alpha for each trait was calculated to be .710 (Focused drive), .746 (Emotional

intelligence), .749 (Building trust), .723 (Conceptual thinking), and .761 (Systems thinking).

Nunnally (1978) and Stevens (2002) indicated that 0.7 is an acceptable reliability in most cases.

Table 2

Cronbach's Alpha for the Leadership Assessment Instrument (LAI)

	Focused Drive	Emotional Intelligence	Building Trust	Conceptual Thinking	Systems Thinking
LAI	.710	.746	.749	.723	.761

Campus Characteristics

The variables related to the participating principal's campus characteristics were level, setting, and size. School levels are described as elementary school housing Grades K-5; middle school housing Grades 6-8; junior high school housing Grades 7-9; or high school, which could be Grades 9-12 or 10-12.

Table 3 reflects the frequency and percent of each of the campus types included in the study. Half of the schools were elementary campuses, while 9.8% were middle schools, another 9.8% were junior high campuses, and 28.4% were high schools. The distribution of school levels involved in this study is considered a representation of the total population of public schools in Texas.

Table 3

Campus Type

	<i>n</i>	%
Elementary	53	51.0
Middle School	10	9.80
Junior High	10	9.90
High School	29	28.4
Missing	2	1.90

Procedure/Data Analysis

Initially, the Leadership Assessment Instrument (LAI) was distributed electronically to public school principals, using their email accounts obtained from the Texas Education Agency (TEA) website. Once the email addresses were accumulated, the researcher sent out the initial email to the selected principals. Due to various junk mail and spam filters employed by school district servers, the researcher anticipated a small percentage of initial emails to return as undeliverable. After two weeks elapsed, a second message was sent to the group with two purposes: to thank those who have completed the survey and to remind those who had not yet completed the survey of the window of time available for completion. A third email was sent one week later as a final message to thank the group for their participation and to garner any other involvement of those who might choose to participate in the final days. In total, a four-week window was available for survey participation, from initial receipt of the electronic cover letter to the close of the survey link. Once the deadline had passed and the window closed for survey responses, the responses were compiled and uploaded into the Statistical Package for the Social Sciences (SPSS) version 16.0. Data were entered into SPSS and outliers and erroneous entries were identified. Note that outliers provide essential information (Thompson, 1999) and, therefore, were examined to determine their contribution to the study (Stevens, 2002). Although the study was conducted with public school principals in regular instructional settings, as stated in the email cover letter sent to potential participants, responses from alternative educational settings were not included in the study. Responses from principals of alternative education programs were coded in order to prevent their inclusion in the data collection and study. The electronic cover letter via email (Appendix A) clearly stated the purpose of the study and respectfully requested the participation of the campus instructional leader (principal). The letter

also clearly noted that participation was completely voluntary and informed the participants that their responses would be confidential. A direct link to the survey instrument was provided for participant convenience.

The data were analyzed to aid in seeking answers to the research question posed earlier. Initially, univariate and bivariate descriptive analysis of the data occurred. Univariate analysis is generally the first step in the analysis of a body of data. It is undertaken to describe each variable in terms of measures of central tendency (mean, median, and mode), measures of distributional shape (skewness and kurtosis) and measures of variability (range, variance, or standard deviation). For all continuously scaled dependent and independent variables (focused drive, emotional intelligence, building trust, conceptual thinking, systems thinking, reading TAKS, math TAKS), univariate descriptive statistics were calculated. All remaining variables were nominally scaled (gender, race identification, campus type, years experience as principal, and years as principal on current campus). For nominally scaled variables, it is inappropriate to calculate measures of central tendency, measures of variability and measures of distributional shape. Therefore, for these variables, frequency counts were provided.

Following the univariate analysis, a bivariate analysis was conducted. In a bivariate analysis, two variables are examined simultaneously to discover whether they are related to each other or are independent of one another. Multivariate analysis was also conducted. Multivariate analysis allows the researcher the simultaneous analysis of data for three or more variables and tests the joint effects of two or more variables upon a dependent variable (Cohen, Cohen, West, & Aiken, 2003).

More specifically, the statistical method used in this study for data analysis included multiple regression which is based on the general linear model. The general linear model (GLM)

underlies most of the statistical analyses that are used in applied and social research. It is the foundation for the *t*-test, ANOVA, and regression analysis. The general linear model allows a researcher to summarize a wide variety of research outcomes. The GLM also provides a framework for understanding all classical analyses in terms of the simple Pearson *r* correlation coefficient. The multiple regression method is employed for understanding the relationship between two or more variables. Multiple regression is a flexible method of data analysis that may be appropriate when a quantitative variable (dependent) is to be examined in relationship to other factors (independent variables). Multiple regression typically uses a single dependent variable and several explanatory variables to assess the statistical data pertinent to these theories (Cohen, Cohen, West & Aiken, 2003). A multiple regression equation for predicting *Y* can be expressed as:

$$Y = B_0 + B_1X_1 + B_2X_2 + B_3X_3 + e.$$

The flexibility of this method allows the researcher to analyze linear relationships; independent variables may be quantitative or dichotomous qualitative and the researcher can examine the effects of a single variable or multiple variables with or without the effects of other variables taken into account (Berger, 2004).

Summary

Chapter III includes a review of the research question that guided this study, a description of the participants in including gender, race, years experience as building principal, and years as principal at current campus, and a description of the dependent and independent variables examined. The dependent variable in this study was student achievement as measured by the percentage passing on 2007 math and reading portions of the TAKS test. The independent

variables in the study were the five traits of the Leadership Assessment Instrument (LAI) as measured by the response levels of principal participants. The LAI was discussed as well as campus types that participated in the study. 51% of the principal participants were the campus instructional leader on an elementary campus, 10% of the participants were the building principal at a middle school campus, 10% of the participants were principals at a junior high, and 29% of the participating principals were on a high school campus. An overview of the procedure and data analysis used in the study was provided, including the instrumentation. This study determined whether principals, by using effective business leadership practices, could increase student achievement at Texas public school campuses.

CHAPTER IV

ANALYSIS OF DATA

This chapter presents the results of the data analysis for the research question that guided this descriptive study. Initially, principal responses to the Leadership Assessment Instrument were examined and responses were detailed in terms of various personal and campus characteristics. Analyses of variance were conducted for each of the participant characteristic variables (gender, race, campus type, years as building principal, and years as principal at current campus), to determine if the independent variable groups were responding statistically significantly different on each of the five traits (focused drive, emotional intelligence, building trust, conceptual thinking, and systems thinking) measured by the LAI. Out of the 20 analyses of variance (ANOVA), results indicated only 2 were of statistical significance. ANOVA results are presented as appropriate in this chapter. All analyses were conducted using SPSS 16.0.

Research Question

What is the relationship between Texas public school principal scores on the Leadership Assessment Instrument and student achievement in reading and mathematics?

Gender

Table 4 reflects the mean scores, standard deviations, and minimum and maximum of the range for males and females in each of the five components of the Leadership Assessment Instrument. Females had a higher mean score in four of the five components than did males. The mean scores of females were higher for focused drive ($M = 3.2$, $SD = .2764$), building trust ($M = 3.5$, $SD = .3037$), conceptual thinking ($M = 3.3$, $SD = .3289$), and systems thinking ($M = 3.3$, SD

= .3129), while the only component of the Leadership Assessment Instrument higher for males was emotional intelligence ($M = 3.4$, $SD = .3428$). The range of scores for females and males is notably varied by comparison on the minimum end; however, they are quite similar on the maximum end of the range. A plausible explanation for the higher mean scores for females could be attributed to females possibly being more comfortable in their jobs from a relationship perspective or that they have a stronger connection and empathy from a classroom teacher's viewpoint. Conversely, since male mean scores were only slightly lower than female mean scores in four of the five LAI categories, a larger male population in the participant group may bring more balance or even shift the scores toward males.

Table 4

Mean, Standard Deviation Scores, Minimum and Maximum of Range by Gender

	Gender	<i>n</i>	Mean	<i>SD</i>	Minimum	Maximum
Focused Drive	Female	59	3.22	.2764	2.56	3.78
	Male	36	3.11	.3437	2.44	3.78
Emotional Intelligence	Female	58	3.32	.3177	2.33	3.78
	Male	39	3.40	.3428	2.56	3.89
Building Trust	Female	55	3.51	.3037	2.56	4.00
	Male	40	3.46	.2677	2.78	4.00
Conceptual Thinking	Female	58	3.29	.3289	2.56	4.00
	Male	39	3.27	.3611	2.33	3.89
Systems Thinking	Female	52	3.29	.3129	2.56	3.89
	Male	41	3.23	.2832	2.56	3.89

The one-way ANOVA was used to determine if differences among groups classified by gender were statistically significant. The results are summarized in Table 5. The analysis found no statistically significant difference in scores among groups defined by principals' gender.

Table 5

ANOVA for Principal Gender and the Five LAI Traits

		Sum of Squares	<i>df</i>	Mean Square	<i>F</i>	Sig.
Focused Drive	Between Groups	.229	1	.229	2.640	.107
	Within Groups	8.603	99	.087		
	Total	8.833	100			
Emotional Intelligence	Between Groups	.122	1	.122	1.185	.279
	Within Groups	10.233	99	.103		
	Total	10.355	100			
Building Trust	Between Groups	.058	1	.058	.744	.390
	Within Groups	7.777	99	.079		
	Total	7.835	100			
Conceptual Thinking	Between Groups	.014	1	.014	.124	.725
	Within Groups	11.123	99	.112		
	Total	11.137	100			
Systems Thinking	Between Groups	.095	1	.095	1.143	.288
	Within Groups	8.204	99	.083		
	Total	8.298	100			

Principal Race

Table 6 displays the mean scores, standard deviations, and minimum and maximum of the range for the four ethnicity groups in each of the five aspects of the survey instrument. All three specific ethnic groups indicate Building Trust as having the highest mean, whereas the ethnic group ‘other’ has their highest mean in the emotional intelligence category. For African-American ($M = 3.59$, $SD = .1346$), Anglo ($M = 3.47$, $SD = .2995$), and Hispanic ($M = 3.55$, $SD = .2604$) in building trust. Anglo’s not only had scores at the highest end of the range in all five areas of the LAI compared to other ethnicity groups, but the Anglo participants were also at the low end of the range in all five LAI areas, therefore having the broadest range of scores in each LAI area. Anglo responses ranged from 2.44 – 3.78 (focused drive), 2.33 – 3.89 (emotional

intelligence), 2.56 – 4.00 (building trust), 3.22 – 4.00 (conceptual thinking), and 2.56 – 3.89 (systems thinking). One reasonable explanation is that the number of Anglo participants was significantly larger than the African-American and Hispanic groups.

Table 6

Mean, Standard Deviation Scores, Minimum and Maximum of Range by Race

	Race	<i>n</i>	Mean	<i>SD</i>	Minimum	Maximum
Focused Drive	African American	6	3.19	.2464	2.89	3.44
	Anglo	83	3.17	.3206	2.44	3.78
	Hispanic	13	3.22	.2400	2.89	3.56
	Other	1	3.11	n/a	3.11	3.11
Emotional Intelligence	African American	6	3.31	.2410	2.89	3.44
	Anglo	83	3.34	.3206	2.33	3.89
	Hispanic	13	3.32	.3940	2.56	3.78
	Other	1	3.89	n/a	3.89	3.89
Building Trust	African American	6	3.59	.1346	3.44	3.78
	Anglo	83	3.47	.2995	2.56	4.00
	Hispanic	13	3.54	.2604	3.00	3.78
	Other	1	3.55	n/a	3.56	3.56
Conceptual Thinking	African American	6	3.40	.3629	2.89	3.78
	Anglo	83	3.25	.3483	2.33	4.00
	Hispanic	13	3.41	.2557	3.00	3.89
	Other	1	3.44	n/a	3.44	3.44
Systems Thinking	African American	6	3.28	.1925	3.00	3.44
	Anglo	83	3.24	.3089	2.56	3.89
	Hispanic	13	3.35	.2715	2.89	3.67
	Other	1	3.44	n/a	3.44	3.44

The one-way ANOVA was used to determine if differences among groups classified by race were statistically significant. The results are summarized in Table 7. The analysis found no

significantly significant difference in scores among groups defined by principals' race.

Table 7

ANOVA for Principal Race and the Five LAI Traits

		Sum of Squares	<i>df</i>	Mean Square	<i>F</i>	Sig.
Focused Drive	Between Groups	.000	1	.000	.001	.977
	Within Groups	9.011	102	.088		
	Total	9.011	103			
Emotional Intelligence	Between Groups	.015	1	.015	.146	.703
	Within Groups	10.572	102	.104		
	Total	10.588	103			
Building Trust	Between Groups	.074	1	.074	.956	.330
	Within Groups	7.856	102			
	Total	7.930	103			
Conceptual Thinking	Between Groups	.353	1	.353	3.245	.075
	Within Groups	11.088	102	.109		
	Total	11.441	103			
Systems Thinking	Between Groups	.071	1	.071	.864	.355
	Within Groups	8.402	102	.082		
	Total	8.473	103			

Campus Type

Table 8 indicates the mean scores, standard deviation, and minimum and maximum of the range for each of the four campus levels in the study (elementary, middle school, junior high and high school), according to the responses to the Leadership Assessment Instrument. Responses from junior high principals had the highest mean score in three of the five categories of the LAI: focused drive ($M = 3.28$), building trust ($M = 3.65$), and systems thinking ($M = 3.36$), as well as having the highest minimums of the range in four of the five areas. While elementary and secondary campus principals were very comparable in the mean factor scores in focused drive,

emotional intelligence and building trust, there is a noticeable difference between the elementary and secondary mean scores in both conceptual and systems thinking components, as listed in Table 8. With no intent to diminish the responsibilities of elementary campus principals, a reasonable explanation for their lower mean scores in conceptual thinking and systems thinking could be based on the differences of logistical components in their job responsibilities compared to a secondary principal. Areas such as a more simplified form of a master schedule, a smaller student population, generally fewer faculty/staff, and a smaller physical plant may be contributing factors since elementary principals often do not have the same scope of duties linked to conceptual or systems thinking as their secondary counterparts.

Table 8

Mean, Standard Deviation Scores, Minimum and Maximum of Range by Campus Type

	Campus Type	<i>n</i>	Mean	<i>SD</i>	Minimum	Maximum
Focused Drive	Elementary	53	3.16	.2678	2.56	3.78
	Middle School	10	3.19	.3990	2.44	3.56
	Junior High	10	3.28	.3239	2.78	3.78
	High School	26	3.16	.3403	2.44	3.67
Emotional Intelligence	Elementary	53	3.36	.2824	2.33	3.78
	Middle School	10	3.37	.3991	2.78	3.89
	Junior High	10	3.35	.2859	2.89	3.89
	High School	28	3.33	.3753	2.56	3.89
Building Trust	Elementary	53	3.45	.2956	2.56	4.00
	Middle School	9	3.43	.2857	2.78	3.67
	Junior High	9	3.65	.2802	3.11	4.00
	High School	27	3.50	.2639	3.00	4.00
Conceptual Thinking	Elementary	53	3.23	.3194	2.56	3.89
	Middle School	10	3.32	.4106	2.33	3.78
	Junior High	10	3.34	.4237	2.44	3.89
	High School	25	3.36	.3271	2.78	4.00

(table continues)

Table 8 (continued).

	Campus Type	<i>n</i>	Mean	<i>SD</i>	Minimum	Maximum
Systems Thinking	Elementary	53	3.21	.3089	2.56	3.89
	Middle School	8	3.35	.3823	2.56	3.78
	Junior High	10	3.36	.2954	2.89	3.89
	High School	24	3.31	.2473	2.78	3.67

Years Experience as Principal

Table 9 shows the mean scores, standard deviation, and minimum and maximum of the range for the categorical area defined as years of experience as a principal. With the exception of one instance, the mean score gradually increases in each area of the LAI as principal experience increased. Participants who had been principals less than 1 year had the lowest mean score in all five areas. Principals with 1-5 years experience had the second lowest in all areas, while the principals with 6-10 years experience had the third lowest mean score in four areas as well. The two traits of the LAI where this pattern did not continue was when the mean scores of the more experienced 16-20 year principal group which was lower than the lesser experienced 11-15 year group; 16-20 years as principal ($M = 3.33, SD = .2722$), compared to 6-10 years ($M = 3.40, SD = .3129$), and 11-15 years ($M = 3.34, SD = .3003$). The 1-5 year group had the lowest minimum score in all five categories of the LAI compared to the 16-20 year principals having the highest minimum score in all five categories. A plausible reason for the lesser experienced principals having lower mean scores in each of the LAI areas could simply be based on their lack of experience in the principal position. Limited experience in the principal position can result in being more critical or hesitant to self-ratings or responses than more experienced principals would likely do. Unlike any of the other LAI traits, building trust had four of the five participant

groups reach the maximum of the range (Maximum = 4.00); the only group not being at the maximum was the principal group with less than one year of experience.

Table 9

Mean, Standard Deviation Scores, Minimum and Maximum of the Range by Years Experience as Principal

	Years Experience	<i>n</i>	Mean	<i>SD</i>	Minimum	Maximum
Focused Drive	< 1	4	2.92	.2778	2.78	3.33
	1 – 5	46	3.12	.3137	2.44	3.67
	6 – 10	25	3.24	.3088	2.67	3.78
	11 – 15	15	3.24	.2346	2.67	3.56
	16 – 20	3	3.55	.1111	3.44	3.67
Emotional Intelligence	< 1	4	3.17	.1925	3.00	3.44
	1 – 5	48	3.33	.2962	2.33	3.89
	6 – 10	26	3.29	.3939	2.56	3.78
	11 – 15	14	3.42	.3437	2.67	3.78
	16 – 20	3	3.55	.2939	3.22	3.78
Building Trust	< 1	4	3.25	.2463	3.00	3.56
	1 – 5	46	3.42	.2810	2.56	4.00
	6 – 10	24	3.51	.2981	3.00	4.00
	11 – 15	15	3.66	.2077	3.22	4.00
	16 – 20	4	3.66	.2869	3.33	4.00
Conceptual Thinking	< 1	4	3.00	.3849	2.44	3.33
	1 – 5	47	3.22	.3641	2.33	4.00
	6 – 10	26	3.39	.3129	2.78	3.89
	11 – 15	14	3.34	.3003	2.78	3.89
	16 – 20	4	3.33	.2722	3.11	3.67
Systems Thinking	< 1	4	3.08	.1398	2.89	3.22
	1 – 5	46	3.16	.3069	2.56	3.67
	6 – 10	22	3.32	.3233	2.78	3.89
	11 – 15	15	3.47	.1652	3.22	3.78
	16 – 20	4	3.36	.1667	3.22	3.56

The one-way ANOVA was used to determine if differences among groups classified by participants' years of experience as principal were statistically significant. The results are summarized in Table 10. The analysis found that the relationships among the groups were statistically significant in two traits. Building trust (sig. = .022), and systems thinking (sig. = .003). The analysis found no other scores among groups as defined by principals' years of experience as statistically significant.

Table 10

ANOVA for Principals' Years of Experience and the Five LAI Traits

		Sum of Squares	df	Mean Square	F	Sig.
Focused Drive	Between Groups	.746	4	.186	2.250	.069
	Within Groups	8.039	97	.083		
	Total	8.785	101			
Emotional Intelligence	Between Groups	.458	4	.114	1.123	.350
	Within Groups	9.887	97	.102		
	Total	10.344	101			
Building Trust	Between Groups	.864	4	.216	3.011	.022*
	Within Groups	6.957	97	.072		
	Total	7.821	101			
Conceptual Thinking	Between Groups	.873	4	.218	2.024	.097
	Within Groups	10.464	97	.108		
	Total	11.337	101			
Systems Thinking	Between Groups	1.281	4	.320	4.408	.003*
	Within Groups	7.049	97	.073		
	Total	8.330	101			

*Denotes statistical significance at the .05 level.

Years as Principal at Current Campus

Table 11 reflects the mean scores, standard deviation, and minimum and maximum of the range for the five categories of years as principal on their current campus.

Table 11

Mean, Standard Deviation Scores, Minimum and Maximum of the Range based on Years as Principal at Current Campus

	Years at Current Campus	<i>n</i>	Mean	<i>SD</i>	Minimum	Maximum
Focused Drive	< 1	12	3.16	.3920	2.56	3.67
	1 – 5	66	3.18	.2987	2.44	3.78
	6 – 10	15	3.23	.2737	2.67	3.67
	11 – 15	3	3.11	.4006	2.67	3.44
	16 – 20	1	3.11	n/a	3.11	3.11
Emotional Intelligence	< 1	12	3.39	.2823	3.00	3.78
	1 – 5	69	3.34	.3216	2.33	3.89
	6 – 10	14	3.31	.3975	2.56	3.78
	11 – 15	3	3.33	.4843	2.78	3.67
	16 – 20	1	3.56	n/a	3.56	3.56
Building Trust	< 1	11	3.54	.2803	3.00	3.89
	1 – 5	68	3.49	.2933	2.56	4.00
	6 – 10	13	3.45	.2956	3.00	4.00
	11 – 15	3	3.37	.1697	3.22	3.56
	16 – 20	2	3.22	.1571	3.11	3.33
Conceptual Thinking	< 1	12	3.30	.4112	2.44	4.00
	1 – 5	67	3.28	.3594	2.33	3.89
	6 – 10	15	3.30	.2536	2.78	3.67
	11 – 15	3	3.37	.1697	3.22	3.56
	16 – 20	2	3.28	.2357	3.11	3.44
Systems Thinking	< 1	10	3.20	.2147	2.89	3.67
	1 – 5	64	3.28	.3243	2.56	3.89
	6 – 10	15	3.29	.2842	2.78	3.78
	11 – 15	3	3.37	.1697	3.22	3.56
	16 – 20	2	3.27	.0785	3.22	3.33

While no consistent trends occurred within the mean score for any specific group or within the standard deviations, there were two areas of consistency with the principal group that had been on their current campus between 1 – 5 years. These principals had the lowest minimum range score in all five areas of the LAI but also had the highest maximum score in four of the five areas

with the maximum in conceptual thinking being the second highest. Collectively, all five participant groups had the lowest mean score in focused drive, compared to the other four trait areas: < 1 year ($M = 3.16$), 1 – 5 years ($M = 3.18$), 6 – 10 years ($M = 3.23$), 11 – 15 years ($M = 3.11$), and 16 – 20 years ($M = 3.11$). Focused drive is more geared toward targets, goals, and vision than relational or people aspects of the job, which is one possible explanation as to why the mean scores are lower in the focused drive area compared to the four other LAI traits.

The one-way ANOVA was used to determine if differences among groups classified by years as principal at current campus were statistically significant. The results are summarized in Table 12. The analysis found no statistically significant difference in scores among groups defined by the participants' years as principal at current campus.

Table 12

ANOVA of Years as Principal at Current Campus and the Five LAI Traits

		Sum of Squares	<i>df</i>	Mean Square	<i>F</i>	Sig.
Focused Drive	Between Groups	.059	4	.015	.162	.957
	Within Groups	8.868	98	.090		
	Total	8.927	102			
Emotional Intelligence	Between Groups	.073	4	.018	.170	.953
	Within Groups	10.460	98	.107		
	Total	10.533	102			
Building Trust	Between Groups	.222	4	.055	.708	.589
	Within Groups	7.685	98	.078		
	Total	7.907	102			
Conceptual Thinking	Between Groups	.009	4	.002	.019	.999
	Within Groups	11.402	98	.116		
	Total	11.410	102			
Systems Thinking	Between Groups	.070	4	.017	.207	.934
	Within Groups	8.262	98	.084		
	Total	8.331	102			

Singularity and Multicollinearity

Multicollinearity and singularity are problems with a correlation matrix that occurs when variables are too highly correlated. For multicollinearity, the variables are very highly correlated (>.90), and for singularity, the variables are redundant. The researcher has assessed these two conditions through examination of bivariate correlations, and multivariate correlations (collinearity diagnostics) (Tabachnick & Fidell, 2001). Table 13 shows the bivariate correlations.

Table 13

Pearson r Coefficient for the Five Predictor Variables and Two Dependent Variables

	FD	EI	BT	CT	ST	Rdg.	Math
Focused Drive (FD)							
Emotional Intelligence (EI)	.277						
Building Trust (BT)	.561	.494					
Conceptual Thinking (CT)	.594	.386	.532				
Systems Thinking (ST)	.553	.477	.599	.633			
Reading (Rdg)	-.042	.261	.123	.041	.050		
Math	-.056	.327	.039	-.063	-.030	.596	

Multiple Regression

As previously indicated, dependent variables included in a multiple regression must be continuously scaled, while independent variables may be continuous or dichotomous. The dependent variables included in this study were of a continuous scale (percent passing TAKS Reading and percent passing TAKS Math). All predictor variables were either nominal or continuous.

Prior to the analysis of data, it was necessary to ensure that the assumptions made about any potential relationships between the dependent and independent variables are accurate and that collected data conform to the assumptions of the analysis being conducted-multiple regression in this case.

Normality, Linearity, and Homoscedasticity

Conducting a visual check can provide a general idea of the relationship between each predictor variable and the dependent variable. For this purpose, scatter plots of each predictor variable (LAI traits) and dependent variables were assessed. There was no indication of a clear relationship on the scatter plots between the individual variables and the dependent variable.

An additional examination is in determining how closely the data correspond to a normal distribution. Fewer biases and distortions are likely to occur if the data are more normally distributed. The most common checks of normally distributed data are histograms, kurtosis, and skewness (Hair et al., 1998). Histograms offer a visual method of data inspection, allowing the researcher to view whether or not the data approximate the normal distribution. Kurtosis is a statistical assessment that measures the peaks or flatness of the distribution. Skewness is a statistical assessment that indicates to what extent data are symmetrical.

Tabachnik and Fidell (2001) recommend that the sample size for a regression analysis be greater than or equal to 104 plus the number of predictors. With 16 predictors, this study includes a total sample size of 120. Clearly, the sample size for this study fails to meet this recommendation by Tabachnick and Fidell. Further, Tabachnick and Fidell indicate that when predictors are not measured reliably, an even greater sample size may be preferred.

Outliers

The data were checked for outliers through examination of the range of the data, as well as with scatter plots. No outliers were detected.

Missing Data

All variables were examined for missing values. Since no more than 5% of the data were missing, and missing data patterns indicated that data were missing at random, missing data values were replaced with the mean of the scores from the appropriate variable (Tabachnick & Fidell, 2001).

Table 14 shows the results of the descriptive analysis of the dependent variable and the predictor variables. Kurtosis and skewness values of zero indicate a normal distribution of data. The farther away from zero, the data are likely to be farther away from normal distribution. Also indicated in Table 14, the kurtosis values are all near zero. Skewness values of the dependent variable are near zero as well, and indicate a negative skew since all are negative. A negative skew occurs when the variable data tend to be grouped toward the right, or positive side of the normal distribution. With these present values of kurtosis and skewness, no adjustments were necessary. According to Hair et al. (1998), multivariate analyses are generally robust and will normally withstand severe violations of assumptions.

For the purposes of this study, skewness and kurtosis values for each continuous variable were assessed. Skewness and kurtosis values within the range of -2 to +2 were considered acceptable (Huck, 2001). According to these standards, all continuous variables were determined to be normally distributed.

Table 14

Descriptive Statistics of Study Variables

Variable	Mean	SD	Kurtosis	Skewness
Focused Drive	3.18	.3047	-.396	-.302
Emotional Intelligence	3.34	.3268	.270	-.593
Building Trust	3.48	.2859	.383	-.457
Conceptual Thinking	3.28	.3399	-.079	-.318
Systems Thinking	3.26	.2999	-.208	-.297
Math	77.54	12.10	-.317	-.412
Reading	87.28	8.17	1.92	-1.33

Linearity was evaluated through examination of the bivariate scatter plots to ensure a linear relationship exists between pairs of variables. Homoscedasticity was evaluated through examination of residual scatter plots and, for each regression, indicated the data were homoscedastic.

Although the initial intention of this study was to include predictors other than the five traits indicated by the LAI, sample size and predictor score reliability recommendations provided by Tabachnick and Fidell (2001) precluded the inclusion in the analysis of all but the five traits as predictors.

Using linear regression to assess the impact of the five LAI traits on math TAKS achievement, the F value of 3.685 ($df = 5, 103$) resulted in a p value of .004, which yields a statistically significant result at $p < .05$. The analysis resulted in an R^2 value of .158 and the adjusted R^2 value of .115, indicating the predictor variables, the five traits measured by the LAI, combined to predict 11.5% of the variance in math TAKS scores. Therefore, the predictor variables, five traits of the LAI, do provide evidence, although limited, of the ability to predict math achievement levels on TAKS.

Table 15 indicates the summary regression analysis of the five predictor variables, collectively, on student achievement levels on math TAKS.

Table 15

Regression Summary of LAI Traits on Student Achievement Levels on Math TAKS

	SS	df	MS	F	p	R ²	Adj. R ²
Regression	2384.832	5	476.97	3.685	.004	.158	.115
Residual	12685.014	98	129.44				
Total	15069.846	103					

Table 16 provides the unstandardized *B* weights resulting from the regression analysis. *B* weights provide an indication of which predictor variables are getting credit for explaining the dependent variable variance (math TAKS scores). According to the *B* weights, emotional intelligence (16.818) was found to be the best predictor of math TAKS achievement, followed by conceptual thinking (-4.529), systems thinking (-5.591), focused drive (-1.327), and building trust (-.647). It is important to note however, *B* weights somewhat arbitrarily divide the dependent variable variance and may not accurately reflect the actual contribution to the Adjusted *R*² value made by each predictor (Courville and Thompson, 2001). For this reason, when interpreting multiple regression results, structure coefficients (*r*_s) should also be examined (Courville and Thompson, 2001). Structure coefficients are calculated by dividing the bivariate correlation coefficient between each predictor variable and dependent variable by the multiple *R* value produced in the multiple regression analysis. Consequently, the squared structure coefficient (*r*_s²) provided an indication of the percentage of the dependent variable variance that was explained by each predictor, keeping in mind the predictors may be explaining some of the same variance (e.g. the variance explained by all predictors may Σ > 100%). Examination of the

squared structure coefficients for this analysis revealed emotional intelligence explained 66.3% of the adjusted R^2 value of 11.5%, followed by conceptual thinking (2.5%), focused drive (2.1%), and both building trust and systems thinking (.8%).

Table 16

Regression Analysis for Math

Predictor	<i>B</i> weights	<i>p</i>	r_s	r_s^2
Building Trust	-.647	.907	.090	.008
Conceptual Thinking	-4.529	.326	-.158	.025
Emotional Intelligence	16.818	.000*	.814	.663
Focused Drive	-1.327	.789	-.146	.021
Systems Thinking	-5.591	.314	-.088	.008

*Indicates statistical significance ($p < .05$)

Table 17 reflects the summary regression analysis of the five predictor variables, collectively, on student achievement levels on reading TAKS. Using linear regression to assess the impact of the five LAI traits on reading scores, the *F* value of 1.653 ($df = 5, 103$) resulted in a *p* value of .153, which failed to yield a statistically significant result at $p < .05$.

Table 17

Regression Summary of LAI Traits on Student Achievement on Reading TAKS

	SS	<i>df</i>	MS	<i>F</i>	<i>p</i>	R^2	Adj. R^2
Regression	534.74	5	106.95	1.653	.153	.078	.031
Residual	6342.17	98	64.72				
Total	6876.91	103					

The analysis resulted in an R^2 value of .078 and an adjusted R^2 value of .031, indicating the predictor variables, the five traits measured by the LAI, combined to predict or explain 3.1% of

the variance of the dependent variable, TAKS reading scores. Therefore the predictor variables, five traits of the LAI, do not provide evidence of the ability to predict reading achievement levels on TAKS.

Table 18 provides the unstandardized *B* weights resulting from the regression analysis. *B* weights provide an indication of which predictor variables are getting credit for explaining the dependent variable variance (reading TAKS scores). According to the *B* weights, emotional intelligence (7.394) was found to be the best predictor of reading TAKS achievement, followed by systems thinking (-2.522), building trust (1.913), conceptual thinking (-1.274), and focused drive (-.029). Squared structure coefficients for each variable indicated emotional intelligence explained 87.4 % of the Adjusted R^2 value of 3.1%, followed by building trust (19.4%), systems thinking (2.7%), while conceptual thinking and focused drive explained 1.7%.

Table 18

Regression Analysis for Reading

Predictor	<i>B</i> weights	<i>p</i>	r_s	r_s^2
Building Trust	1.913	.626	.441	.194
Conceptual Thinking	-1.274	.696	.129	.017
Emotional Intelligence	7.394	.012*	.935	.874
Focused Drive	-.029	.993	.133	.017
Systems Thinking	-2.522	.520	.165	.027

* Indicates statistical significance ($p < .05$)

Summary

The purpose of this study was to determine if effective business leadership practices among Texas public school principals have an impact on principals' campus student

achievement. Analyses of variance were conducted for each of the participant characteristic variables. The one-way ANOVA analyses found no statistically significant difference in scores among groups as defined by principal gender, principals' race, or years as principal at current campus. However, the one-way ANOVA did find statistically significant scores in two traits of the LAI among the group as defined by principals' years of experience; building trust (sig. = .022), and systems thinking (sig. = .003). The predictor variables in this study, the five LAI traits, do not provide evidence of the ability to predict reading achievement levels on TAKS; however, the five LAI traits do provide limited evidence of the ability to predict achievement levels on TAKS math.

CHAPTER V

FINDINGS, DISCUSSION, RECOMMENDATIONS AND CONCLUSION

This descriptive study was designed to contribute to the existing knowledge base concerning effective business practices among principals. The research question that guided this study focused on the relationship between Texas public school principal scores on the Leadership Assessment Instrument (LAI) and student achievement on the reading and mathematics Texas Assessment of Knowledge and Skills (TAKS). All data were analyzed using SPSS 16.0. This chapter summarizes the findings and offers discussion, recommendations, and conclusions related to this study.

The LAI consists of five categories of effective business leadership practices, identified by Warren Bennis (1989). The categories are focused drive, emotional intelligence, building trust, conceptual thinking, and systems thinking. The five categories were analyzed according to personal variables of the public school principals that participated in the survey. The personal variables were gender, racial identification, years experience as a principal, and years experience at the current campus.

Each of the five traits of the LAI is about people, rather than about skills or knowledge. While Bennis' focused drive element of leadership addresses how leaders harness the energy of individuals and channels efforts toward an organizational target or goal, a building principal would harness the collective energy of the staff and channel student efforts toward achievement levels on TAKS. The study of the five traits of the LAI, of participant characteristics, and of the impact on student achievement is tied to the framework of Bandura's Social Cognitive theory (Bandura, 1986), which is based on interactions among persons, behaviors, environments and self-efficacy. Thorndike's words continue to resonate after so many years. His concept of social

intelligence as “the ability to understand and manage men, women, boys and girls, to act wisely in human relations” (Thorndike, 1920, p. 229) still relates to what is needed in today’s public schools. Howard Gardner’s more recent work in social intelligence is described as interpersonal intelligence, or “the ability to understand what motivates people to do work and how to work cooperatively with them” (Gardner, 2006, p. 13).

Terminology and theory have evolved over the past 100 years; however, whether termed as social intelligence, emotional intelligence, or interpersonal intelligence, these 100 years have produced growing evidence that success or achievement is not simply reliant on academic intellect. Similar to the Hawthorne Effect, where research concluded that the physical and emotional setting is critical to productivity, the environment in which students learn is just as major a contributor to student achievement as are curriculum and instruction (Elmore, 1999).

Summary of Findings

In answering the research question, the researcher analyzed relationships between the descriptive variables of personal and campus characteristics of principal participants and the survey responses to the Leadership Assessment Instrument (LAI). The mean, standard deviations, and range of scores were calculated for each descriptive characteristic of the principals, as well as the type of campus on which they currently work. Through analysis, the researcher found that female participants, who represented 59% of survey participants, had a slightly higher mean score in four of the five trait areas of the LAI (focused drive: $M = 3.22$, $SD = .2746$); (building trust: $M = 3.51$, $SD = .3037$); (conceptual thinking: $M = 3.29$, $SD = .3289$); (systems thinking: $M = 3.29$, $SD = .3129$), than did male participants (focused drive: $M = 3.11$, $SD = .3437$); (building trust: $M = 3.46$, $SD = .2677$); (conceptual thinking: $M = 3.27$, $SD =$

.3611); (systems thinking: $M = 3.23$, $SD = .2836$), who represented 41% of the survey participants. Emotional intelligence was the single LAI trait where male participants had the higher mean score ($M = 3.40$, $SD = .3428$), as compared with females, ($M = 3.32$, $SD = .3177$). Although the mean scores were slightly higher for females in four of the five trait areas of the instrument, the scores between females and males were very comparable. The one-way ANOVA found no statistically significant differences in scores among groups as defined by principals' gender.

The data defined by principal ethnicity were also analyzed. All three participant groups (Anglo, African-American, and Hispanic) shared building trust as the LAI trait where their highest mean existed (AA 3.59; Anglo 3.47; Hispanic 3.54). Anglo responders had the lowest mean in four of the five trait areas (focused drive: $M = 3.17$, $SD = .3206$); (emotional intelligence: $M = 3.34$, $SD = .3206$); (conceptual thinking: $M = 3.25$, $SD = .3483$); (systems thinking: $M = 3.24$, $SD = .3089$), compared to the other reporting ethnic groups, while the highest mean score was found in the building trust trait ($M = 3.47$, $SD = .2995$). It should be noted that while the mean scores were lower in nearly all traits, Anglo responses were at the highest of the range in all five trait areas (focused drive = 3.78, emotional intelligence = 3.89, building trust = 4.00, conceptual thinking = 4.00, systems thinking = 3.89). The one-way ANOVA found no statistically significant differences in scores among groups as defined by principals' race.

The principal participants' campus type was also analyzed to determine if relationships existed when compared to the LAI. Although no significant relationships were identified, a distinction was made between elementary and secondary principal participants based on their responses. The elementary principal participants were 51% of the study population and

possessed the lowest mean in three of the five LAI traits (focused drive: $M = 3.16$, $SD = .2678$); (conceptual thinking: $M = 3.23$, $SD = .3194$); (systems thinking: $M = 3.21$, $SD = .3089$), compared to their secondary counterparts, who made up 49% of the study population. Secondary includes middle school, junior high and high school. Junior High was the secondary campus type with the lower mean score in the trait emotional intelligence ($M = 3.43$, $SD = .2857$) compared to elementary, while Middle School was the secondary campus type with the lower mean score in the trait building trust ($M = 3.43$, $SD = .2857$), compared to elementary. The standard deviation scores and range of scores in each LAI trait area were quite comparable for each group.

From participant responses on the LAI, two additional sets of personal descriptive data were analyzed: a respondent's years of experience as a building principal and the number of years as principal at current campus. While no drastic differences between groups occurred, it was clearly evident that the mean gradually increased as the principals' years of experience increased (focused drive: < 1 year; $M = 2.92$, 1 – 5 years; $M = 3.12$, 6 – 10 years and 11 – 15 years; $M = 3.24$, 16 – 20 years; $M = 3.55$); (emotional intelligence: < 1 year; $M = 3.17$, 1 – 5 years; $M = 3.33$, 6 – 10 years; $M = 3.29$, 11 – 15 years; $M = 3.42$, 16 – 20 years; $M = 3.55$); (building trust: < 1 year; $M = 3.25$, 1 – 5 years; $M = 3.42$, 6 – 10 years; $M = 3.51$, 11 – 15 years and 16 – 20 years; $M = 3.66$); (conceptual thinking: < 1 year; $M = 3.00$, 1 – 5 years; $M = 3.22$, 6 – 10 years; $M = 3.39$, 11 – 15 years; $M = 3.34$, 16 – 20 years; $M = 3.33$); (systems thinking: < 1 year; $M = 3.08$, 1 – 5 years; $M = 3.16$, 6 – 10 years; $M = 3.32$, 11 – 15 years; $M = 3.47$, 16 – 20 years; $M = 3.36$). Additionally, the participant groups with < 1 and 1 – 5 years of experience, collectively, had the lowest minimum and maximum range score in all five LAI trait areas, when compared to the participants with 6 – 10 years, 11 – 15 years, and 16 – 20 years experience as a building principal. The one-way ANOVA did find statistically significant scores in two traits of

the LAI among groups as defined by principals' years of experience. LAI trait building trust (sig. = .022), and trait systems thinking (sig. = .003).

For the data on participant responses by years as principal at current campus in relation to the five traits of the LAI, there were no unusual trends or patterns identified by the researcher. However, it was noted that 65% of participants in the study were in the group "1 – 5 years as principal at current campus" a disproportionate percentage compared to the other principal characteristics. The one-way ANOVA found no statistically significant differences in scores among groups defined by the participants' years as principal at current campus.

In summary, linear regression was used to assess the impact of the five LAI traits on achievement levels on TAKS reading and TAKS mathematics combined to predict or explain 3.1% of the variance of the dependent variable TAKS reading and 11.5% of the variance in TAKS math. The predictor variables in this study, the five LAI traits, do not provide evidence of the ability to predict reading achievement levels on TAKS; however, the five LAI traits do provide limited evidence of the ability to predict achievement levels on TAKS mathematics.

Discussion

The past two decades of public schooling have seen dramatic increases in accountability for producing college-ready graduates or, at the absolute minimum, graduates who are capable of entering the workforce with the necessary skills to be productive employees (Beck & Murphy, 1992). As accountability stretches from local to state and national levels, the measuring stick or standards by which campuses are compared often include global competition. Long gone are the days where school leaders simply talk shop, swap stories, and steal a couple of good ideas currently called "best practices" from their professional peers (NASSP, 2007). Building

principals fully realize the high-stakes environment that now exists, as well as the untapped pool of resources they previously ignored that now can deliver solutions, insight, and hope to the ongoing challenges of leading the faculty of a public school (Stover, 2007). Traits of effective leadership are no longer confined to the corporate boardroom or a Fortune 500 company but can be fully implemented in public school settings to enhance the building leader in all aspects of the position as principal.

Regardless of the strategies, societal trends, and good intentions of principal preparation programs, the existing practices and habits of campus principals as administrative mentors should be modified as well (Juusela, 2004). The lack of attention given to student performance and achievement, which should be the primary focus, has long-term effects on aspiring building principals while still in the most impressionable stage of a young career. Unofficially deemed a campus administrator's right of passage, spending time, effort, and energy on matters other than student performance is time needed to focus on academic achievement (Coles, 2005).

Recommendations for Further Research

Further research may support or invalidate the value of public school principals' implementation of leadership practices previously thought to be confined to the private sector or business community. Having reliable research instruments, such as the Leadership Assessment Instrument, or other tools yet to be developed, will benefit ongoing research. Although student achievement is the main function of public education, future research may want to measure other variables that are indirectly related to student achievement. Is there a relationship between a building principal who actively implements effective business leadership practices and rates of teacher retention on his or her campus? Is the relationship of the campus PTA and parent

involvement on a campus linked to the leadership practices of the principal? Are there strategies that can be developed by mentors or professional development personnel to expedite the strengths of less experienced principals as compared to what normally occurs in later stages of a principal's career? Which of the effective leadership practices are easily transferrable to teacher or departmental positions? If future research in this area should occur, the findings could have far-reaching implications in numerous aspects of public schools. The candidate identification, interview process, and selection of building principals, team leaders or department head positions could be impacted if questioning includes components of business leadership. As some school districts have begun to better track individual student academic growth over time, including necessary interventions where needed, a longitudinal perspective of campus principals as they conduct the day-to-day responsibilities could occur. Research could then provide a career timeline in which certain components of leadership should have been obtained or provide professional development models as campus leaders continue to enhance their abilities.

Further research could also be focused on classroom teachers to gather information on which effective leadership practices are essential to a principal's role as the campus instructional leader. The various perspectives could then be compared to determine if any consistencies exist. Two additional sources for obtaining feedback data could be parents and members of the business community close in proximity to the school or district in which the campus resides. Data from these sources (classroom teachers, parents, and business community members) may also aid the development of a performance instrument for principals, potentially to be used as an applicant screening or interview tool for administrative candidates. Additional research may also include seeking potential relationships in student achievement levels and effective leadership practices by the building principal in various public educational settings: rural/small town,

urban, or suburban campuses, as well as districts of varying sizes based on University Interscholastic League (UIL) enrollment numbers for classification purposes. Research on campuses that include a diverse student population by ethnicity or from a socio-economic perspective could be of benefit, as well. Potentially, results from this research would be widely accepted due to the continuous emphasis on the academic achievement levels on state and federally mandated assessments of students in under-represented populations such as African-American, Hispanic, and low socio-economic (SES) status.

The lack of consistency with TAKS results from year to year, due to not using the same student group, may have had an impact on the findings. A researcher may look at fifth-grade scores in consecutive years, but it is not the same group of fifth-grade students. It could even be argued that the TAKS test itself is not the same instrument from year to year, as the TAKS test routinely becomes more difficult and undergoes revisions based on field test results and possible curricular changes at the state level. Another limitation of the study is the scoring aspect of the LAI since it is self-reported. Principals are held to a higher standard but are still human and could think more highly, or lowly, of their abilities than what is accurate. Surveying the direct reports or possibly the classroom teachers of each participating principal would validate, or negate, the principal's actual strengths or deficiencies.

Conclusion

Although the results found in this study show that there is little evidence of impact between the relationship of Texas public school principal scores on the Leadership Assessment Instrument and student achievement, attention and consideration should continue to be given to the overall impact, direct and indirect, that the building principal has on the campus, based on his

or her leadership style and the leadership practices that he or she implements. The results from this study will add to the existing base of information and current knowledge on the relationship between building principals and the leadership attributes and practices that impact student achievement. While principal preparation programs may not adequately prepare school leaders for the impacting variables that influence the principal's success, this study reveals that the business model currently utilized among many principal preparation programs is not meeting the intended purpose of public schools, which is to increase student achievement.

APPENDIX
SURVEY COVER LETTER

From: Kary Cooper
To: Cooper, Kary
Date: January 5, 2009
Subject: Educational Leadership Survey

Dear Educational Leader,

I am writing to request your participation in a study of educational leadership for improving student achievement, which is being conducted by doctoral student Kary Cooper (University of North Texas - Denton, Texas). You are being invited to participate because you have been identified as a campus principal who is responsible for instructional leadership at your campus. If you do not have any involvement with instructional leadership, please send me a return email (xxxxxxx@xxxx.xxx) so that I can remove your name from our list.

The survey is available online at the link listed below, and we request that you complete the survey by February 15, 2009:

http://www.surveymonkey.com/s.aspx?sm=ywCvOjmYHd1CvqfHhEloaA_3d_3d

If you would prefer a hard copy of the survey, please email Kary Cooper (xxxxxxx@xxxx.xxx) and one will be emailed to you.

While we encourage you to participate so that we can have a complete picture of how educational leadership impacts student achievement, your participation is voluntary and you may choose to end your participation at any time. In addition, your answers on the surveys will be confidential; the risks or discomforts to you will be minimal. The researcher will have access to the key that links participant information to their coded responses; that key will be destroyed once data collection is complete. No identifying information will be included in any dissemination of data. Data will be reported in the aggregate and not attributed directly to one person. The survey will take less than 20 minutes to complete.

If you have questions about this study, please contact Kary Cooper at (xxx) xxx-xxxx or email me at xxxxxxx@xxxx.xxx. Questions may also be directed to Dr. Jimmy Byrd, University of North Texas Department of Educational Administration, (940) 565-2940. As a survey participant, please know there are no foreseeable risks in this study.

This research project has been reviewed and approved by the UNT Institutional Review Board (940) 565-3940. Contact the UNT IRB with any questions regarding your rights as a research subject.

Thank you.

Kary Cooper
Doctoral Student
University of North Texas - Denton, Texas

REFERENCE LIST

- Adams, J. E., & Copland, M. A. (2005). *When learning counts: Rethinking licenses for school leaders*. Retrieved September 2, 2006, from http://www.crpe.org/cs/crpe/view/csr_pubs/19 (Center on Reinventing Public Education).
- Altick, R.D. (1957). *The English common reader: A social history of the mass reading public, 1800-1900*. Chicago, IL: University of Chicago Press.
- Andrews, R., & Grogan, M. (2002). Defining preparation and professional development for the future. *Educational Administration Quarterly*, 38(2), 233-256.
- Anfara, V., Brown, K., & Hartman, K. (2004, April). *Middle level leadership for the 21st century: Principals' views on essential skills and knowledge; Implications for successful preparation*. Retrieved October 10, 2006, from <http://www.ed.gov/ERICWebPortal> (ERIC Document Reproduction Service No. ED442205).
- Archer, Jeff (2004, September 15). Taking an impossible job. *Education Week*, 24(3).
- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ: Prentice Hall.
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. Freeman, New York.
- Barnett, B., Basom, M., Yerkes, D., & Norris, C. (2000). Cohorts in educational leadership programs: Benefits, difficulties, and the potential for developing school leaders. *Educational Administrative Quarterly*, 36(2), 255-282.
- Bass, B. M. (1985). *Leadership and performance beyond expectation*. New York: Free Press.
- Beck, L. G., & Murphy, J. (1992, August). Searching for a robust understanding of the principalship. *Educational Administrative Quarterly*, 28(3), 387-396.
- Bennis, W. (1982, April). The artform of leadership. *Training and Development Journal*, 36, 44-46.
- Bennis, W. (1989). *Why leaders can't lead*. San Francisco, CA: Jossey-Bass Publishers.
- Bennis, W. (1989, April). Why leaders can't lead. *Training and Development Journal*, 43(4), 35-40.
- Bennis, W. (1989). *On becoming a leader*. Jackson, TN: Perseus Publishing.
- Bottoms, G., & O'Neill, K. (2001). *Preparing a new breed of school principals: It's time for action*. Retrieved from http://www.sreb.org/main/leadership/pubs/01V17_Time_for_Action.pdf

- Boyatzis, R. E., Goleman, D., & Rhee, K. (1999). *Clustering competence in emotional intelligence: Insights from the Emotional Competence Inventory (ECI)*. Retrieved March 18, 2008, from http://ei.haygroup.com/resources/Library_articles/Clustering%20Competence%20in%20EI.pdf
- Brandt, R. (1982, December). On school improvement: A conversation with Ronald Edmonds. *Educational Leadership*, 40(3), 12-15.
- Brent, B., Haller, E., & McNamara, J. (1997). Does graduate training in educational administration improve America's schools? *Phi Delta Kappan*, 78(3), 222-226.
- Bryne, J.C. (2003). *The role of emotional intelligence in predicting leadership and related work behavior*. Hoboken: Stevens Institute of Technology, Technology Management.
- Burns, J. (1978). *Leadership*. New York: Harper and Row.
- Bush, T., & Glover, D. (2003). *School leadership: Concepts and evidence*. Retrieved from <http://www.ncsl.org/literaturereviews>
- Calabrese, R., & Shoho, A. (2000). Recasting educational administration programs as learning organizations. *International Journal of Educational Management*, 14(5), 210-215.
- Campbell, R. F. (1985). *The organization and control of American schools* (p.9). Columbus, OH: Charles E. Merrill Publishing Company.
- Center for Comprehensive School Reform and Improvement, The. (2005, September). *The role of principal leadership in improving student achievement*. Washington, DC: Author.
- Childress, S., Elmore, R., & Grossman, A. (2006, July). *Promoting a management revolution in public education*. (HBS Working paper No. 06-004). Harvard Business School and Harvard Graduate School of Education.
- Coles, J. (2005). *Multiple perspectives in alternative school leadership development: A study of first-year urban principals*. Retrieved October 5, 2006, from <http://150.108.4.35/uhtbin/cgiirsi.exe/X/0/0/123/> (Doctoral dissertation, Fordham University, 2005).
- Cooper, B. S., Fusarelli, L. D., Jackson, B. L., & Poster, J. (2002). Is "superintendent preparation" an oxymoron? Analyzing changes in programs, certification, and control. *Leadership & Policy in Schools*, 1(3), 242-255.
- Copeland, S. (2004). *A study of field experiences and leadership opportunities in principal preparation programs in the 16 SREB member states*. Retrieved November 1, 2006, from <http://umem-mt.iii.com/iii/encore/search/C%7CSA%2BStudy> (Doctoral dissertation, University of Memphis, 2004)

- Creighton, T., Crow, G., Ogawa, R., Orr, M., & Young, M. (n.d.). *An educative look at educating school leaders*. Retrieved from <http://www.ucea.org/pdf/EducLeadersRespMarch18.pdf>
- Crozier, M. (1964). *The bureaucratic phenomenon*. Chicago: University of Chicago Press.
- Davis, S., Hammond, L., LaPointe, M., & Meyerson, D. (2005). *School leadership study: Developing successful principals*. (Review of Research). Stanford, CA: Stanford University, Stanford Educational Leadership Institute.
- DeArmond, M., Gundlach, L., Portin, B., & Schneider, P. (2003, September). *Making sense of leading schools: A study of the school principalship*. Retrieved from http://www.crpe.org/cs/crpe/view/csr_pubs/24 (Center on Reinventing Public Education).
- Dewey, J. (1944). *Democracy and education*. New York: The Free Press.
- Dinham, S. (2004). Principal leadership for outstanding educational outcomes. *Journal of Educational Administration*, 43(4), 338-356.
- Dufour, R. (2002, May). The learning-centered principal. *Educational Leadership*, 59(8), 12-15.
- DyceFaucette, K. (2005). *Perceptions of the efficacy of the national policy board for educational administration standards in guiding principal preparation: A summary of New York State principals*. Unpublished doctoral dissertation. University of Rochester, Warner School of Education.
- Elmore, R. (1999-2000, Winter). Building a new structure for school leadership. *American Educator*, 23(4), 6-13.
- Elmore, R. (2003). *Knowing the right thing to do: School improvement and performance-based accountability*. Washington, D.C.: NGA Center for Best Practices.
- Entrepreneurs transforming education. *AEI Newsletter*. Retrieved October 3, 2006 from https://www.aei.org/publications/pubID.24923,filter.all/pub_detail.asp (American Enterprise Institute).
- Farkas, S., Johnson, J., & Duffett, A. (2003). *Rolling up their sleeves: Superintendents and principals talk about what's needed to fix public schools*. New York: Public Agenda. (ERIC Document Reproduction Service No. 4822660).
- Feistritzer, E. (2003, May). *Better leaders for America's schools: A manifesto*. Washington, DC: Thomas B. Fordham Foundation.
- Foster, W. (2004). Decline of the local district: A challenge to educational leadership. *Education Administration Quarterly*, 40(2), 176-191.

- Fry, B., Bottoms, G., & O'Neill, K. (2005) The principal internship: How can we get it right? *Southern Regional Education Board*. Retrieved from <http://www.sreb.org/programs/hstw/publications/pubs/05V02PrincipalIntern.asp>
- Fry, B., O'Neill, K., & Bottoms, G. (2007). *Schools can't wait: Accelerating the redesign of university principal preparation programs*. Atlanta, GA: Southern Regional Education Board.
- Gardner, H. (1993). *Multiple intelligences*. New York: BasicBooks.
- Gardner, H. (2006). *Changing minds: The art and science of changing our own and other people's minds*. Boston, MA: Harvard Business Press.
- Goldring, E., Porter, A., Murphy, J., Elliott, S., & Cravens, X. (2009). Assessing learning-centered leadership: Connections to research, professional standards and current practices. *Leadership and Policy in Schools*, 8(1), 1-36.
- Goleman, D. (1995). *Emotional intelligence – Why it can matter more than IQ*. New York: Bantam Books.
- Goleman, D. (1998). *Working with emotional intelligence*. New York: Bantam Books.
- Goleman, D., Boyatzis, R., & McKee, A. (2002). *Primal leadership*. Harvard Business School Press.
- Goleman, D. & Salopek, J. (1998). Train your brain. *Training and Development*. 52, 293-298.
- Gonzalez, M., Glasman, N., Glasman, L. (2002). Daring to link principal preparation programs to student achievement in schools. *Leadership and Policy in Schools*. 1(3), 265-283.
- Gov. Perry: *Texas is preparing young Texans to compete in the global marketplace*. (2009, July 29). Retrieved August 8, 2009, from <http://www.governor.state.tx.us/news/press-release/13358>
- Hackman, D. (2006). A professional learning community at work: Developing a standards-based principal preparation program. *Educational Leadership*, 9(3), 39-53.
- Hale, E., & Moorman, H. (2003, September). *Preparing school principals: A national perspective on policy and program innovations*. Retrieved from <http://www.iel.org/pubs/preparingprincipals.pdf> (Institute for Educational Leadership).
- Hall, P. (2005, June). The principal's presence and supervision to improve teaching. Retrieved September 2, 2006, from http://www.sedl.org/pubs/sedl-letter/v17n02/SEDLLetter_v17n02.pdf (Southwest Educational Development Laboratory).
- Hallinger, P. (2003). Leading educational change: Reflections on the practice of instructional and transformational leadership. *Cambridge Journal of Education*, 33(3), 329-351.

- Harris, S., & Lowery, S. (2002, May). A view from the classroom. *Educational Leadership*, 59(8), 64-65.
- Hay Group. (2002). What is emotional intelligence. Retrieved October 10, 2006 from <http://www.ei.haygroup.com/>
- Haynes, V.D. (2005, July 11). D.C. finds gold mine of future principals. *Washington Post*. Retrieved October 13, 2006, from <http://www.washingtonpost.com/wp-dyn/content/article/2005/07/10/AR2005071000885.html>
- Herrington, C., & Wills, B. (2005). Decertifying the principalship: The politics of administrator preparation in Florida. *Educational Policy*, 19(1), 181-200.
- Hess, F. (2006). Looking beyond the schoolhouse door. *Phi Delta Kappan*, 87(7).
- Hess, F., & Kelly, A. (2005). An innovative look, a recalcitrant reality: The politics of principal preparation reform. *Educational Policy*, 19(1), 155-190.
- Hess, R., & Kelly, A. (2005). Learning to lead? What gets taught in principal preparation programs. Retrieved from http://www.hks.harvard.edu/pepg/PDF/papers/Hess_Kelly_Learning_to_Lead_PEPG05_02.pdf (American Enterprise Institute for Public Policy Research).
- Hess, F. & Kelly, A. (2005). Ready to lead? Retrieved from http://www.aei.org/publications/pubID.23051.filter.all/pub_detail.asp (American Enterprise Institute for Public Policy Research).
- Hess, F. & Kelly, A. (2005). The accidental principal. Retrieved from <http://www.hoover.org/buplications/ednext/3219521.html> (Hoover Institution)
- Hoerr, T. (2006, March). The principal connection: Reaching common ground. *Educational Leadership*, 63(6), 91-92.
- Hudson, M. & Williamson, R. (1999). Preparing tomorrow's principals: Meeting emerging challenges. Retrieved October 10, 2006, from <http://eric.ed.gov/ERICWebPortal> (ERIC Document Reproduction Service No. ED440458)
- Jackson, B., & Kelley, C. (2002). Exceptional and innovative programs in educational leadership. *Educational Administrative Quarterly*, 38(2), 192-212.
- Jacobson, A., O'Neill, K., Fry, B., Hill, D., & Bottoms, G. (n.d.). Are SREB states making progress? Tapping, Preparing and licensing school leaders who can influence student achievement. Retrieved from <http://www.sreb.org/main/Leadership/pubs/AreSREBStatesMakingProgress.asp> (Southern Regional Education Board).
- Juusela, D. (2004). *An analysis of the aspiring principal preparation programs provided by Florida school districts*. (Doctoral dissertation, University of Central Florida, 2004)

- Kaestle, C.F. *Pillars of the republic: Common schools and American societ., 1790-1860* (p. 124). New York: Hill and Wang.
- Lashway, L. (2004). Transforming principal preparation. Retrieved September 2, 2006, from <http://www.ericdigests.org/2003-4/principal.html>
- Lerner, J. B., & Brand, B. (2006). The college ladder: Linking secondary and post secondary education for success for all students. American Youth Policy Forum report. Retrieved from <http://www.ecs.org/00CN3190>
- Leithwood, K. (1987). *Improving classroom practice using innovation profiles*. Toronto, ON: OISE Press.
- Leithwood, K., Louis, K.S., Anderson, S., & Wahlstrom, K. (2004). *How leadership influences student learning*. University of Minnesota, Center for Applied Research and Education Improvement and University of Toronto, Ontario Institute for Studies in Education
- Leithwood, K., & Beatty, B. (2008). *Leading with teacher emotions in mind*. Thousand Oaks, CA: Corwin Press.
- Levine, A. (2005). *Educating school leaders*. Washington, D.C.: The Education Schools Project. (ERIC Document Reproduction Service No. ED504142).
- Maier, N.R.F. (1963). *Problem-solving discussions and conferences: Leadership methods and skills*. New York: McGraw-Hill.
- Manasse, L. (1985). Improving conditions for principal effectiveness: Policy implications of research. *Elementary School Journal*, 85(3), 7-13.
- Maryland Task Force on the Principalship. (2000). Recommendations for redefining the role of the principal; recruiting, retaining, & rewarding principals; and improving their preparation & development. Retrieved from <http://www.marylandpublicschools.org/MSDE/divisions/leadership/>
- Marzano, R., McNulty, B., & Waters, T. (n.d.). *Balanced leadership: What 30 years of research tells us about the effect of leadership on student achievement*. Denver, CO: Mid-continent Research for Education and Leadership. Retrieved September 10, 2006, from <http://www.mcrel.org/topics/products/144/>
- McClelland, D. (1973). Testing for competence rather than intelligence. *American Psychologist*, 28(1), 1-14.
- Morrison, E. (2005, May). Trial by fire. *Educational Leadership*, 62(8), 66-68.
- Murphy, J. & Hallinger, P. (1992) The principalship in an era of transformation. *Journal of Educational Administration*, 30(3), 77-88.

- Murray, B. (1998). Does 'emotional intelligence' matter in the workplace? *APA Monitor Online*, 29(7).
- NASSP (2007). *Changing role of the middle level and high school leader*. Reston, VA: NASSP.
- National Policy Board for Educational Administration. (January 2002). *Standards for advanced programs in educational leadership*. Retrieved September 2, 2006, from [www.npbea.org/ELCC/ELCCStandards%20 5-02.pdf](http://www.npbea.org/ELCC/ELCCStandards%205-02.pdf)
- O'Neil, J. (1996). On emotional intelligence: A conversation with Daniel Goleman. *Educational Leadership*, 54(1).
- Perkins, D. (1995). *Outsmarting I.Q: The emerging science of learnable intelligence*. New York: The Free Press.
- Redish, T., Webb, L., & Jiang, B. (2005-06). Design and implementation of a web-based portfolio for aspiring educational leaders: A comprehensive evidence-based model. *Journal of Educational Technology Systems*, 34(3).
- Richmond, S., Rollin, P., & Brown, S. (2004, January 16). What makes a successful leader? Retrieved October 3, 2006, from <http://www.ideashape.com/documents/what-makes-a-leader-report.pdf>
- Romig, D. (2001). *Side by side leadership*. New York: Bard Press.
- Schmoker, M. (2005, June). The new fundamentals of leadership. Retrieved September 2, 2006, from http://www.sedl.org/pubs/sedl-letter/v17n01/SEDLLetter_v17n01.pdf (Southwest Educational Development Laboratory).
- Schmuck, R. (Winter 1993). Beyond academics in the preparation of educational leaders: Four years of action research. OSSC Report (Winter 1993), 1-9.
- Scribner, J., & Donaldson, J. (2001). The dynamics of group learning in a cohort: From nonlearning to transformative learning. *Educational Administrative Quarterly*, 37(5), 605-636.
- Shoemaker, J. & Fraser, H. (1981). What principals can do: Some implications from studies of effective schooling. *Phi Delta Kappan*, 63(3), 178-182.
- Stover, D. (2007, March). The big fixes now needed for "No Child Left Behind." *Education Digest: Essential Readings Condensed for Quick Review*, 23(4), 4-11.
- Tannenbaum, R., & Schmitt, W.H. (1958). How to choose a leadership pattern. *Harvard Business Review*, 51(3), 162-164, 168, 170, 173, 175, 178-186.
- Texas action plan for the American Diploma Network (ADP)*. (2006, January 18). Retrieved July 8, 2009, from <http://achieve.org/files/TX-ADPplan.pdf>

- Texas High School Project. *High school redesign*. Retrieved March 9, 2009, from http://www.thsp.org/initiatives/high_school_redesign
- Thorndike, E. L. (1920). Intelligence and its uses. *Harper's Magazine*, 140: 227-235.
- Tishman, S., & Andrade, A. (1995). Thinking dispositions: A review of current theories, practices, and issues. Retrieved from <http://learnweb.harvard.edu/alps/thinking/docs/Dispositions.pdf>
- U.S. Department of Education. (2005). *Innovative pathways to school leadership*. Retrieved October 10, 2006 <http://www.ed.gov/admins/recruit/prep/alternative/report>
- Waters, T., Marzano, R., & McNulty, B. (2004). Leadership that sparks learning. *Educational Leadership*, 61(7), 48.
- Weindling, D. (2003). *Leadership development in practice: Trends and innovations*. Nottingham, UK: National College for School Leadership.
- Whitehead, A. (1929). *The aims of education and other essays*. New York: The Free Press.
- Wilmore, E. L. (2002) *Principal leadership: Applying the new Educational Leadership Constituent Council (ELCC) standards*. Thousand Oaks, CA: Corwin Press.
- Young, M. D., Petersen, G. J., Short, P.M. (2002). The complexity of substantive reform: A call for interdependence among key stakeholders. *Educational Administration Quarterly*, 38(2), 137-175.
- Yukl, G. A. (1989). *Leadership in organizations*. Englewood Cliffs, NJ: Prentice Hall.