EFFECTIVE LEADERSHIP CHARACTERISTICS FOR STUDENT

PERFORMANCE AS PERCEIVED BY HIGH-PERFORMING TEXAS HIGH

SCHOOL PRINCIPALS: A DELPHI STUDY

A Dissertation

by

DAVID EARLE YOUNG

Submitted to the Office of Graduate Studies of
Texas A&M University
in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

May 2007

Major Subject: Educational Administration

EFFECTIVE LEADERSHIP CHARACTERISTICS FOR STUDENT

PERFORMANCE AS PERCEIVED BY HIGH-PERFORMING TEXAS HIGH

SCHOOL PRINCIPALS: A DELPHI STUDY

A Dissertation

by

DAVID EARLE YOUNG

Submitted to the Office of Graduate Studies of
Texas A&M University
in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

Approved by:

Chair of Committee,	John Hoyle
Committee Members,	Charles Lamb
	Robert Slater
	Ben Welch
Head of Department,	James Scheurich

May 2007

Major Subject: Educational Administration

ABSTRACT

Effective Leadership Characteristics for Student Performance as Perceived by High-

Performing Texas High School Principals: A Delphi Study. (May 2007)

David Earle Young, B.A., Texas A&M University;

M.S., Texas A&M University – Commerce

Chair of Advisory Committee: Dr. John R. Hoyle

The purpose of this study was to identify leadership characteristics of high-performing Texas high school principals that positively affect student performance. A secondary purpose of the study was to determine the degree of agreement between conceptualizations of leadership presented in existing research and those of successful practitioners. A Delphi panel of sixteen high school principals participated in the study.

Over the course of three rounds, the members of the expert panel provided feedback to both the researcher and other members of the panel as to which leadership characteristics they felt were of critical importance to student success. The characteristics presented in the questionnaire were based upon a sound theoretical framework resulting from a thorough review of existing research. At the completion of Round Three, it was decided that consensus had been reached among the members of the panel and the data collection period was ended. Each of the questionnaires used in the study, as well as the relevant statistical analysis and frequency distributions, can be found in the appendices of this document.

The major findings of the study affirm the importance of leadership and its positive impact on student achievement. First, there seems to be agreement between the body of research on leadership and the viewpoint of successful practitioners as to which leadership characteristics are essential for student success. Second, vision for goal achievement, response to diversity, and ethical practice head the list of critical leadership attributes for high school principals. Third, leadership characteristics presented in the literature base are, at least in the opinion of the high-performing high school principals involved in this study, comprehensive and are not missing any major components for student success.

The conclusions and recommendations of this study could affect the performance of high school principals' leadership in school improvement. Its major significance can be found in its potential effect on the daily practice of individuals currently serving as school leaders, the professional growth plans of practicing administrators, and the components and focus of principal preparation programs.

DEDICATION

This achievement is dedicated to the glory of God and to the loving members of my family who supported me unconditionally throughout all of the twists and turns encountered along the way:

Amanda, without your love and support I would have never received my undergraduate degree much less one of this magnitude. The words on this page are unable to begin to approach the thanks I have for your countless hours of sacrifice throughout this process. You read every word, stuffed every envelope, and proofed every section. For that I will always be grateful, but, most of all, you had faith in me when even I did not. This is your degree.

Austin, Madison, and Jackson, being your Dad is the greatest job I will ever have. I know that you have sacrificed a great deal to help me complete this accomplishment. I have had to miss many wrestling matches and games of hide-and-go-seek (especially during these last weeks), but I promise to catch up in the very near future. Even though you didn't know (or care) what this study is all about, you believed that Daddy would get it done. Thank you for your faith. This is your degree.

Mom and Dad, you instilled in me from a young age the desire to achieve at a very high level. It is my sincere desire that the completion of this task brings honor and joy to you. Thank you for your constant support (in many different ways) throughout my entire education. You have made wonderful Aggie parents. This is your degree.

ACKNOWLEDGMENTS

The completion of this study would not have been possible without the assistance and support of countless individuals. There is no way to adequately thank each and every one, but I would like to express my heartfelt thanks to a very special few who contributed many hours consulting, reading, editing, and supporting throughout this process.

This achievement would never be more than a work in progress without the commitment and support of my committee chair, Dr. John Hoyle. He was the first individual I ever met as a graduate student at Texas A&M and has served as an inspiration to me from that day forward. Dr. Hoyle, you have been my teacher, my career counselor, my motivator, and my friend. I am forever in your debt, and I offer you thanks from the bottom of my heart.

Dr. Robert Slater, thank you for all of the time and effort that you have volunteered by agreeing to serve as a member of my committee. I will always remember the deep philosophical discussions we had in your Foundations course. It was you that first taught me that there truly can be agreement between theory and practice. How fitting it is that one of the major findings of this study was exactly that.

Dr. Ben Welch, you have been a wonderful friend throughout this process. What a tremendous example you have been to me of how it is possible to never compromise or sell short your faith in the professional process. It was you who encouraged me from the

beginning that this task was not insurmountable. Thank you for being my teacher (both at church and at school), my brother, and my friend.

Dr. Charlie Lamb, you have known me much longer than any member of my committee. Consequently, you have supported me longer in this process than anyone at Texas A&M. I still remember our conversation on the golf course when I was an undergraduate preparing for a career as a junior high mathematics teacher when you stated (not suggested) that I would be back at A&M in several years to work on a doctorate. You have supported (and harassed) me throughout this entire process. It has never been a question of "if" with you, but rather merely a question of "when", and for that I am grateful. Thanks for all of your "beginning of the semester" phone calls to check on my progress. I plan to stop letting you win at golf now.

To the members of my committee collectively I would like to say thank you once again. You have helped me more than you will ever know.

To the College of Education and faculty at Texas A&M University, thank you for the wonderful experience of going through your program. So many faculty members have been very supportive of me. Joyce Nelson, thank you for helping me get everything where it needed to be when it needed to be there. Bryan Cole, thank you for embedding in me the principles of continuous improvement and systemic change. Larry Butler, thank you for showing me what it means to be a successful school administrator without ever losing touch with the desire to connect with kids. All of you have had a hand in this achievement. You will never know the impact that you have had on my life, but it will be my goal to carry your expertise and support forward.

I am also grateful to the sixteen high school principals who agreed to participate in this study as members of the Delphi panel. Thank you for giving of your time to help me complete this process. I know that I will never again look at a survey I get in the mail quite the same way as I did before. Thanks for not throwing mine away. I certainly could not have done it without you.

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

CHAPTER I

INTRODUCTION

Today's public schools operate in an environment of ever-increasing accountability. Schools are being asked to continually do more with less. Now more than ever, schools are accountable for student learning at every level. School leaders are tasked with providing a safe and nurturing environment, staffing school facilities with highly qualified and caring individuals at every position, maintaining a truly symbiotic relationship between their organization and the community in which it operates, and flexibly adapting to an ever-changing and complex organizational environment. All of the aforementioned tasks for the school leader must, of course, be performed within the constant context of organizational instructional leadership.

Few would argue that public school leadership is not essential to student success in any school setting. However, the question of how effective leadership is characterized is much more difficult to answer. In a brief prepared for the Task Force on Developing Research in Educational Leadership, Kenneth Leithwood and Carolyn Riehl posit, "Some observers argue that this fascination with leadership merely reflects a general human desire to be in control of one's situation. Others say that while the impact of good leadership may be difficult to determine, the effects of poor leadership are easy to see. In any case, fascination with leadership abounds" (Leithwood & Riehl, 2003a, p.2).

_____

This dissertation follows the style and format of *The Journal of Educational Research*.

An extensive body of research exists pertaining to educational leadership. For years, notable scholars have described successful leadership characteristics. The rationale behind the existing research seems to be threefold. Leadership studies are predominantly aimed to describe the behavior of individuals in leadership roles, help explain school outcomes and effects, and to guide in the preparation of both present and future school administrators (Leithwood & Duke, 1999). While no single definition of leadership exists, most discussions of the concept tend to center around the basic functions of providing direction or exercising influence (Leithwood & Riehl, 2003b). For example, Yukl claims that, "most definitions of leadership reflect the assumption that it involves a social influence process whereby intentional influence is exerted by one person (or group) over other people (or groups) to structure the activities and relationships in a group or organization" (1994, p 3). In the absence of an absolute definition, most scholars have been content to categorize existing models of leadership. In a research review spanning the decade from 1985-1995, Leithwood and Duke assert that six basic categories of leadership exist. These specific categories are instructional leadership (focusing on teaching activities directly affecting student growth), transformational leadership (dealing with the collective commitments of organizational members), moral leadership (pertaining to the values and ethics of the leader), participative leadership (stressing group decision-making processes), managerial leadership (relating to the specific functions, behaviors, and tasks of the leader), and contingent leadership (having to do with the responsiveness of the leader to unique circumstances or problems) (Leithwood & Duke, 1999). These categories of leadership

should not be considered to be mutually exclusive. In fact, the specific characteristics that may be dominant in one category can generally be found to be present at least in some form in each of the other categories as well.

Due to the accountability-oriented environment in which today's public school leader works, the campus principal is invariably linked with the performance of his or her students in many different areas, not the least of which tends to be student performance on standardized tests designed to measure student learning at each grade level. A possible reason for this growing emphasis on the performance of students under a particular principal's charge is that educational institutions have a much greater technological capacity to evaluate and report outcomes of student performance. Additionally, software for the simple disaggregation of student performance data is readily available (Marsh, 2000). Today's educational environment is one in which a well-defined link exists between student learning outcomes and principal performance.

Paying attention to the technical aspects of leadership is important, however some research suggests that principals may be neglecting other important aspects of leadership while focusing on measurable student outcomes such as test scores (Ladd and Zelli, 2002). Other critical aspects of schooling exist and demand the attention of any school leader. Principals are called to provide leadership to their organizations in the moral, political, and intellectual dimensions as well (Foster, 1989a; Fullan, 2003; Hoyle, 2002). These additional dimensions for leadership require the principal to be attentive to the total organizational context in which he or she works. This context is, however, always in a state of flux and is more complex today than ever before. Educational

stakeholders are currently operating in an environment characterized by new understandings of teaching and learning, amazing innovations in technology providing for greater access to information, constant shifts in the structural configurations of schools, a new paradigm for staff development and teacher professionalism, and ever-evolving governance structures (Murphy, 1994).

Having examined both the historical definitions of leadership and the context in which it occurs, it is also important to understand the general themes of how school leadership contributes to student learning that are substantiated by the existing body of research. In the 2003 report entitled *What Do We Already Know About Successful School Leadership* released by the Task Force on Developing Research in Educational Leadership, several strong claims are made regarding the impact of school leadership on student learning. These claims go a long way toward defining a set of essential leadership characteristics that translate into positive student outcomes.

The first claim is "Successful School Leadership Makes Important Contributions to the Improvement of Student Learning" (Leithwood & Riehl, 2003b, p 10). There are a multitude of factors that affect student learning, but only a small percentage of the variation in student learning can be accounted for by school level factors (Coleman et al., 1966; Jencks, 1973). Of the aforementioned school-level factors, quality curriculum and instruction seem to account for the greatest impact on student learning, but school leaders also have a significant impact on how students learn. While many positive effects on student learning can be directly attributed to quality curriculum and

instruction, leadership effects on student performance are of a more indirect nature (Hallinger & Heck 1996a).

A second claim made by the task force report is that a core set of "basic" leadership practices are valuable in almost all contexts (Leithwood & Riehl, 2003b, p 16). An analysis of existing literature yields three basic categories of leadership practice that are useful in almost all organizational circumstances. These practices, although not always presented with consistent vocabulary by every scholar, are setting directions, developing people, and redesigning the organization (Conger & Kanungo, 1998; Hallinger & Heck, 1999; Leithwood, 1994). The notion of setting directions has to do with developing clear ideas about what the defining characteristics of the organization are among all of its members (Hallinger & Heck, 2002). This is frequently accomplished through presenting a uniform organizational vision, developing group goals and building shared capacity for their achievement, and establishing non-negotiable performance expectations for the organization (Leithwood & Riehl, 2003b). The idea of developing people pertains to creating the capacity for organizational members to achieve the direction that has been set by the leader. Effective leadership must follow the articulation of a clear vision with the necessary support system for each and every member of the organization to be successful. In essence, leaders must be willing to "walk the walk" after they "talk the talk". The third component of these "basic" leadership practices is a capacity for redesigning the organization. One aspect of this component deals with the leader's effect on the school culture. Their ability to foster an attitude of shared commitment to school-wide goals by every member of the

organization is of critical importance (Leithwood & Jantzi, 1990). Another important

hallmark of redesigning the organization is the ability of a leader to change

organizational structures to better align them with conditions that positively affect

teaching and learning (Louis & Kruse (1995). Building collaborative processes

throughout the organization is also critical to a leader's being able to successfully

implement this leadership practice. Principals need to be able to create an attitude of

involvement on the part of all stakeholders in the educational process. This concept of

their own personal ability to help shape the educational context is extremely important

for each organizational member's personal sense of goal accomplishment (Sleegers,

Geijsel & van den Borg, 2002).

The aforementioned report produced by the AERA Division A Task Force on

Developing Research in Educational Leadership continues by also making the claim that

"in addition to engaging in a core set of leadership practices, successful leaders must act

in ways that acknowledge the accountability-oriented policy context in which almost all

work" (Leithwood & Riehl, 2003b, p 21). Today's school leader lives under the ever-

watchful microscope of the general public. Our educational system is one in which

school leadership continues to be more accountable in a variety of ways. Four views of

this accountability are identified in existing research as the market, decentralization,

professional and managerial approaches (Leithwood & Earl 2000). Each of these

approaches to accountability requires a specific skill set on the part of the school leader.

A potential stumbling block for accountability-oriented administrators is that each of

these approaches also carried with it specific side effects. Each of these approaches calls

for a certain environment to be developed by the school leader. The market approach

calls for a competitive environment whereas schools operating under the decentralization

approach tend to afford their stakeholders more opportunities for empowerment and

shared decision making. Standards-based instructional leadership is the order of the day

when the educational context is based on professional accountability, but leaders

answering to a more management-oriented accountability environment must spend their

time on strategic management activities (Leithwood & Riehl, 2003b).

A fourth leadership claim made through the existing research analysis done by

the task force is that "many successful leaders in schools serving highly diverse student

populations enact practices to promote school quality, equity, and social justice"

(Leithwood & Riehl, 2003b, p 24). This claim sheds light on the notion that not every

school environment is populated with students who have always been successful in

school. Due to student factors such as race, immigration status, financial standing,

physical limitation, and intellectual capacity, diversity is alive and well in today's public

schools. Diverse student populations seem to call for and respond more positively to

diverse leadership skills (Hallinger & Heck, 1996a).   These skills tend to connect with

students in ways that allow them to take ownership of their own educational processes.

Successful leaders in these situations place an extremely high value on the school's

commitment to teaching and learning when making decisions on issues such as class

size, how students will be grouped, which curriculum to use, teacher recruitment, and

exactly what will be expected of students (Leithwood & Riehl, 2003b). Another area of

focus for leaders of schools serving diverse populations is the development of strong

communities within the school. There are two important communities within the school: the community between adults and students and the professional community of teachers, administrators, and other professional staff. Creating strong bonds between students and the adults they encounter at school on a daily basis is critical to student motivation (Lee, Bryk, & Smith, 1993). Evidence also exists to show that student achievement is positively affected when there is a strong bond between members of the professional community on a campus (Bryk & Driscoll, 1988). It is also important that schools serving diverse populations nurture the existing educational cultures of its families and make efforts to expand the degree to which the social capital of its students is valued by the school (Leithwood & Riehl, 2003b).

There is certainly a strong base of research on educational leadership. While the terminology used to define or categorize leadership differs between all of the existing empirical analyses performed in this area to date, a common thread regarding the importance of solid leadership at the principal level winds prevalently throughout available literature. It is imperative that school leaders (both existing and aspiring) and leadership training programs embrace the learning that has previously occurred in order to positively impact student learning and performance outcomes for the future.

Problem Statement

There are many factors that influence student achievement. The strongest effects on student performance are shown to be present due to individual student characteristics such as family background, intellectual ability, and motivation for learning (Coleman et

al,1966; Jencks 1977; van de Grift & Houtveen, 1999). Factors related to the school environment account for a smaller percentage of the effects on student achievement, but are certainly worthy of study. The greatest effect on student achievement attributable to the school environment is found at the classroom level. High-level instructional techniques, a robust and focused curriculum, formal teacher training and certification in the areas of both academic content and pedagogy, and the use of active teaching strategies provide the strongest effects on student achievement. The next highest effect on achievement is attributed to leadership. "Leadership has significant effects on student learning, second only to the effects of quality curriculum and teachers' instruction" (Leithwood & Riehl, 2003b).

The role of the principal continues to evolve each and every day. Successful school leadership is no longer confined to merely being able to effectively manage both the children and adults who arrive at the schoolhouse on a daily basis. The distinction between management and leadership is of critical importance to the success of any principal. It is this concept of leadership that it is at the heart of educational administration's knowledge base. Leadership takes many forms, but certainly depends greatly on the context of each individual school and community. This study seeks to clarify which leadership characteristics and skills are indispensable to secondary school leaders today.

Purpose of Study

The purpose of this study is to identify what leadership characteristics are most important to high school principals in improving school performance. These leadership characteristics, derived from the research literature, have been submitted to an expert panel of high school principals to evaluate their importance to successful practice.

Research Questions

The study will address the following questions:

1. Do the leadership characteristics presented in the available literature on educational administration represent the qualities viewed as critical to student success by successful practitioners?

2. What are the most essential leadership characteristics for success as a Texas High School principal?

3. What leadership characteristics are viewed as being critical to student success that have not already been identified by existing leadership literature?

Operational Definitions

Academic Excellence Indicator System (AEIS) – The AEIS reports pull together a wide range of information on the performance of students in each school and district in Texas every year (Texas Education Agency, 2006). Indicators tracked on these reports include student performance on standardized tests, completion and drop-out rates, school size, staff experience and certification, and campus budget distributions.

Delphi Study – a research methodology involving repeated rounds of isolated consultation with persons designated as experts in a particular field. The purpose of this type of study is to eliminate expert confrontation that sometimes occurs in group settings and to develop consensus based on increasingly relevant information (Cunningham, 1982).

Demographic Variables – Student performance data is broken down in AEIS by demographic variables such as sex, race, socioeconomic status, instructional program, and limited English proficiency status. Data for each of these groups will be examined while selecting participants for this study.

Inter-Quartile Range (IQR) – A statistical measure for the spread (dispersion) of a variable. The IQR is calculated by subtracting the First Quartile (Q1) from the Third Quartile (Q3). This value is used to measure the spread of the middle 50% of a variable's values.

Leadership -   The ability to mobilize and work with others to articulate and achieve shared intentions (Leithwood & Riehl, 2003b).

Principal – The instructional leader of a school who shall be provided with adequate personnel assistance and training to assume the instructional leader role in a public school (Texas Education Code, Subchapter E: Section 11.202).

Student Performance – Measurable outcomes in areas such as percentage of students meeting expectations on the Texas Assessment of Knowledge and Skills (TAKS), dropout and completion rates, graduation rates, attendance rates, and college entrance examinations scores.

Texas Assessment of Knowledge and Skills (TAKS) – A statewide annual assessment administered in Texas public schools annually in grades 3-11. The 11th grade assessment is also called the "Exit Level" test. A student must pass all four sections of the exit level test (English/ Language Arts, Mathematics, Science, and Social Studies) and meet academic credit requirements to graduate from high school.

Assumptions

1. The respondents surveyed will understand the scope of the study and the language of the instrument, will be competent in self-reporting, and will respond objectively and honestly.

2. Interpretation of the data collected accurately reflects the intent of the respondent.

3. The methodology proposed and described here offers a logical and appropriate design for this particular research project.

Limitations

1. The study is limited to a selected number of High School Principals from Texas public high schools with more than 900 enrolled students viewed as being highly successful under the Texas Academic Excellence Indicator System.

2. The study is limited to the information acquired from literature review, survey instruments, and interviews via telephone and/or email.

3. Findings can only be generalized to Texas public 4A or 5A high schools.

4. Due to a small number of respondents, the results of a Delphi study are not easily generalizable to the overall body of principals.

Methodology

Determining the degree to which successful leadership characteristics suggested by available educational literature coincide with the leadership characteristics deemed to be most necessary for student success in the eyes of successful Texas high school principals is the goal of this study. The research methodology used toward this aim will be the Delphi technique. The Delphi process employs a series of questionnaires to "systematically solicit, collect, evaluate, and tabulate independent expert opinion without group discussion" (Tersine & Riggs, 1976, p.51). In this case, the experts responding to the series of questionnaires will be successful principals of high schools in Texas. The principals participating in the study will be selected in partnership with the Texas Association of Secondary School Principals using the criteria of school size, the amount of time for which the principal has been in his or her position, and the accountability rating received by the school under Texas' Academic Excellence Indicator System. Specifically, the study will consist of principals of who have been in a leadership role for at least three years on a high school campus of at least 900 students (categorized as being either a 4A or 5A high school by the University Interscholastic League (UIL) for both athletic and academic purposes) that received an accountability rating of either Exemplary or Recognized on its school report card for the 2004-05 school year.

Round One of the Delphi process will present respondents with a questionnaire regarding research-based principal leadership practices. Using a Likert scale, principals will rate each leadership characteristic's importance to student success as being "not necessary, of moderate importance, of average importance, of above average performance, or of critical performance for student success". The initial survey will also give respondents the opportunity to propose any additional leadership characteristics which they feel are vitally important for student success that were not presented by the original questions.

The second and subsequent rounds of the Delphi will inform each individual respondent of their responses given in earlier rounds as well as the entire group's responses to the preceding survey. Respondents whose answers to particular questions fall outside the inter-quartile range (IQR) of the overall group, will be asked to consider their previous answer to the question. In these cases, the responding principal will be asked whether he or she would like to submit to the will of the entire group by changing their initial answer to the question or provide supporting reasoning and/or evidence of their initial answer for the entire group to consider. The final round of the Delphi will occur after a general consensus has been reached as to which leadership characteristics are seen by the expert panel as being of critical importance to student success. Respondents will be asked in the final round to prioritize the remaining list of leadership characteristics. At this point, a comparative analysis will be done to determine whether the theoretical knowledge base on leadership matches the viewpoints of successful educational practitioners.

Significance Statement

Every school principal is faced with the task of finding the best way to organize his or her school/staff so that it is most conducive to a high level of student success. School leaders choose to employ many different styles of influence in their respective organizations. In fact, every principal's leadership style and the set of leadership tools he or she has in their educational toolbox has a large effect on the overall school environment (and, by extension, a large effect on student success as well).

A substantial body of research exists in the area of educational leadership. Principals must make choices as to which leadership characteristics they feel are most important. This study is designed to determine how well the leadership characteristics identified as having the greatest impact on student success by the literature match up with those as being seen as important by successful school leaders. The significance of a study of this nature can be found in that its conclusions will be extremely useful for principals to improve their daily practice as building administrators. Individuals already serving as building-level principals will be able to take the findings of this study and use them to develop their own personalized plans for continuing professional development. This study also has implications for principal training programs as well. Designers of these programs will certainly want to be sure that they include successful elements from both the theoretical and practical frames of reference.

CHAPTER II

REVIEW OF LITERATURE

Introduction

The purpose of this chapter is to provide a summary of existing literature related to school leadership and student performance. There are four major parts incorporated into this literature review. The first section examines the leadership context in which campus principals operate and how that context has changed over time. Second, this review turns to presenting various definitions of leadership and the dimensions into which it has been categorized by various scholars. Next, this literature review discusses the thematic trends or claims regarding leadership born out of the existing body of research spanning the last twenty years. Finally, the Delphi model for futures research is examined in the fourth section of this review. It is the hope of the researcher that the leadership framework developed by examining the literature presented in this chapter will allow for effective planning, implementation, analysis, and evaluation of the leadership characteristics of high-performing Texas high school principals.

Leadership Context

The leadership context in which today's high school principal operates is extremely complex. Principals have always been responsible for organizational and environmental elements. Specifically, principals must be mindful of issues such as human resource needs and availability, the dynamic market for school services in the

community in which their school is located, funding models and availability, accountability to governmental policies and regulations, and the broader cultural and social conditions that affect their school on a daily basis (Leithwood & Duke, 1999). The aforementioned items have always been part of the leadership context for principals. However, keeping all of these balls in the air at the same time is more difficult now than ever before due to the fact that each of them seems to be in a state of constant flux. Policy shifts and governmental mandates are causing principals to closely examine staffing patterns based on the available number and qualifications of teachers and other school staff members. The financial arrangement of schooling is moving toward a more centralized model at the state level. Principals are forced to reexamine their perception in the community because of new-found competition at the local level due to talk of educational vouchers and the increasing effects of charter schooling. A balance must be struck between state and federal accountability mandates and their effects on the processes of teaching and learning (Leithwood & Riehl, 2003b).

In addition to the environmental changes faced by principals, the educational context itself is changing. In his work on the restructuring of schools, Murphy discusses four noticeable trends within the educational arena. These trends are a new paradigm for teaching and learning based on the advent of technology and other communication practices, the altering of school configurations in terms of scheduling formats, calendar length, nested programs, new arrangements of teacher development and training, and changing school governance structures (1994).

Today's principals are called to rally in the face of the changes in our educational system using leadership practices and characteristics that are geared toward student success. After all, if the leadership context were perfectly stable, then there would be no need for human leadership at any level of the schooling system. All that would be required for a perfectly-run school system would be a well-defined set of written policies for teachers, students, and their parents to follow (Kerr & Jermier, 1978; Pitner, 1986). In fact, as posited by Firestone, instructional policy at the state level has begun to overtake some administrative practices in the area of instructional leadership (1996). This notion that leadership is less important in a stable setting is spoken to by Leithwood and Riehl in their report to the Task Force on Developing Research in Educational Administration:

> Settled organizational and institutional cultures are maintained in many
>
> ways, and leadership is just one of them. The current situation in
>
> education, however, takes on many characteristics of "frontier cultures":
>
> which often require strong leadership to provide coherence, guidance, and
>
> a sense of stability (2003, p. 6).

In spite of all the transition and change in the public school sector today, the need for quality individuals assuming leadership functions with the best interest of students at the forefront of their agenda has never been greater.

Concepts of Leadership

In a review of contemporary research found in four major educational leadership journals, Leithwood and Duke identify six frequently referenced concepts of leadership as being instructional leadership, transformational leadership, contingent leadership, moral leadership, managerial leadership, and participative leadership (Leithwood & Duke 1999). The descriptive terms attached to these terms certainly mean different things to different readers; therefore the intended attributes of each are detailed in the following paragraphs.

The concept of instructional leadership is one that has many different definitions depending on the exact context in which it is being discussed. In fact, the variation in how the term is defined has greatly complicated interpretation of the existing body of research (Foster 1986). Some researchers have attempted to frame their studies by applying a greater degree of specificity to instructional leadership. Geltner and Shelton, in their study of instructional benefits resulting from effective utilization of profession support personnel such as counselors, psychologists, and social workers, refer to this form of leadership as strategic instructional leadership (1991). Others, such as Stallhammar, use the term pedagogical leadership rather than merely instructional leadership (1994). For the purposes of this study, it is assumed that instructional leadership centers around the behavior of educational professionals as they participate in tasks and activities that affect the development, growth and performance of students (Leithwood & Duke 1999). Instructional leadership, regardless of specific definition, is

certainly considered by most scholars to be at the very core of educational administration.

There are many different people on a school campus that are charged with exercising some form of instructional leadership. While individuals such as teachers, counselors, and other professional support staff members provide a certain degree of instructional leadership, it is widely accepted that the largest single source of instructional leadership in an educational setting rests with those individuals occupying formal administrative roles (such as the principal). These individuals also exercise influence throughout the entire organization due to their expert instructional knowledge (Sheppard 1996). An important distinction must be made between direct and indirect forms of instructional leadership (Kleine-Kracht 1993). The fact that principals exercise instructional leadership through the influence process does lend itself to the conclusion that their effect on the actual process of student learning and performance is of a more indirect or distal nature (Hallinger and Heck 1996).

However, the principal is not the only individual in a school who exercises instructional leadership. It is impossible for one individual to meet an entire school's needs for instructional leadership. Other possible sources of instructional leadership are district-level personnel or classroom teachers. District instructional leadership consists of three major parts. First, it is the fundamental purpose of centralized instructional personnel to establish instructional goals. Second, these goals must be clearly communicated to the campus-level instructional staff (teachers in particular). The final function of school district instructional personnel should be to gain teachers' support for

these instructional goals, not by coercion, but through a process of persuasion and prescription (Floden *et al.* 1998). Instructional leadership from the school district level is also of critical importance to student success. However, district-level oversight is the subject an ever-raging debate between centralized control of instructional content and the classroom-level autonomy of the teacher who best knows the specific needs of his or her students. Some scholars feel that this debate is more perceived than actual and that very few school districts tend toward one extreme or the other in terms of either teacher autonomy or district control of academic content (Floden *et al.* 1998). This balance between district-level and classroom-level instructional leadership is certainly an important one. The principal is often the vehicle by which an effective balance must be obtained (Marzano, 2003).

Classroom teachers exercise a form of instructional leadership on a daily basis while planning, implementing, and evaluating activities for their students. The selection of educational goals and objectives by the teacher is a critical instructional leadership practice. Additionally, the teacher's matching of the aforementioned goals and objectives with appropriate instructional methodologies based on student needs and other classroom-level variables further enhances the teacher's role in the instructional leadership process (Davidson 1992). This concept of "teacher leaders" validates the longstanding belief that teachers hold a key position in the operations of schools and the critical functions of teaching and learning (York-Barr & Duke, 2004). Teacher leaders are continually focused on affecting meaningful change for the benefit of their students. In doing so, the actions that they take seem to be characterized by a strong belief system,

a commitment to learning, the use of inquiry, and a desire to collaborate with their

educational peers (Darias, 2002). Schwahn and Spady describe leaders as those whose

goals included a sustained process of change and continuous improvement. They

believe that change is most productive "when it involves more effective ways of

operating and leads to consistently improved outcomes" (1998, p.85). Teacher leaders

have a vision for what kind of achievements can take place in their classroom and they

commit themselves to converting those visions into classroom realities (Darias, 2002).

The relationship between teacher leaders and campus-level administration is a

critical one for student success. This "parallel leadership" activates and sustains the

knowledge-generating capacity of the entire school (Crowther et al., 2002). The teacher-

administrator relationship is enhanced when it is predicated on what Linda Lambert

describes as a culture of inquiry. This environment is one that fosters learning and

research from a desire to ascertain information regarding successful teaching practices

and how they can positively impact student performance (1998). A necessary

component for empowering teachers as leaders is the provision of time and resources for

meaningful dialogue, research, investigation, and collaboration between teachers and

administrators. A commitment to these items on the part of a building principal is a

commitment to student success (Darias, 2002).

The second concept of leadership included in these findings is that of

transformational leadership. Transformational leaders focus their efforts on the

objectives of the organization. They clearly communicate these objectives to members

of the organization and foster an environment in which all members of the organization

are clearly committed to achieving its goals. In this transformational leadership

scenario, employees feel that the leader has empowered them to achieve both their own

goals and those of the group (Yukl, 1998). This concept centers on the degree to which

organizational members are committed to the overall goals of the organization and their

capacity to achieve those goals (Leithwood and Duke 1999). In this leadership model,

power and authority do not necessarily reside with those occupying formal

administrative roles, but they are attached to those individual members of the

organization who can successfully foster the collective commitments and aspirations of

other members of the organization to achieve the aforementioned goals. One successful

model of transformational leadership suggests that it exists in seven separate dimensions:

building school vision, establishing school goals, providing intellectual stimulation,

offering individualized support, modeling best practices and important organizational

values, demonstrating high performance expectations, creating a productive school

culture, and developing structures to foster participation in school decisions (Leithwood,

1994). A practical example of the seven dimensions of transformational leadership can

be seen in a study of superintendent problem-solving practices. The subjects of this

study efficiently facilitated group problem-solving practices with their senior executive

teams by anticipating situational limitations, demanding participation and input from all

parties, and placing a premium on reflective practice throughout the process. Another

key element in the problem-solving arena indicative of transformational leadership is

that leaders monitored group progress closely and only intervened personally when it

was necessary to recharge or spur the overall group's progress (Leithwood, Steinbach, &

Raun 1993). Transformational leadership exemplifies a truly symbiotic relationship

between the leader and the led. It permanently changes the purposes and resources of

both halves of the leader-follower relationship by elevating each to a higher plain

resulting in greater achievement for all organizational stakeholders (Leithwood & Duke

1999). Burns argued that this form of leadership raised the levels of both commitment to

and capacity for organizational success. Pertaining to organizational motives and

purposes, he stated "transforming leadership ultimately becomes moral in that it raises

the level of human conduct and ethical aspiration of both leader and led, and thus has a

transforming effect on both" (Burns, 1978, p. 20). The following actions are often

indicative of transformational leadership:

- defining the need for change;

- creating new visions and mustering commitment to the visions;

- concentrating on long-term goals;

- inspiring followers to transcend their own interests to pursue higher order
  goals;

- changing the organization to accommodate their vision rather than working
  with an existing one; and

- mentoring followers to take greater responsibility for their own
  development and that of others. Followers become leaders and leaders
  become change agents, and ultimately transform the organization (Hoy &
  Miskel, 2001, p. 414).

In general, the leader's personal beliefs and values are the source of transformational leadership. They use these beliefs and values to unite their followers and transform the collective commitments of the organization to yield results that may not have even been dreamed of in the past (Kuhnert & Lewis, 1987).

Contingent leadership approaches the decision-making tasks of school principals from a more problem-solving standpoint. One of the key characteristics of contingent leadership is that the necessary skills for successful leadership cannot be generalized into any one context. The focus of this approach has to be on the way in which leaders respond to the unique characteristics of the environment in which they operate (Leithwood and Duke 1999). This point of view assumes that there is a great deal of variation from one school to the next and that any given school administrator must be able to employ a vast array of leadership practices and activities. Proponents of the contingent conceptualization of leadership tend to view it one of two ways. They either see problem-solving leadership from the reflective (or craft-oriented) point of view or from that of a more cognitive frame of reference. Reflective practice as an effective problem-solving tool has been advocated by many prominent researchers throughout the years. School administrators need to practice a "craft-like" science in order to be successful in an environment characterized by illogical problems and ever-changing situational demands. Successful leadership must be based on personal reflection (Sergiovanni 1989). It is the view of many researchers that these reflective episodes are absolutely critical to the success or failure of leaders. For example, Schon writes "It is the entire practice of reflection-in-action which is central to the "art" by which

practitioners sometimes deal with situations of uncertainty, instability, uniqueness, and value conflicts" (1983, p. 50). School leaders must understand that differences exist between professional and scientific or theoretical knowledge. It is the act of making professional decisions based on intuition informed by scientific knowledge that forms the crux of the reflective process (Sergiovanni 1989). Through the reflective process, principals and other school leaders may begin to develop an intuitive sense of the things that will be helpful to them in dealing with future problems, gain a better understanding of the resources that they have at their disposal and sharpen their personal evaluative senses for acceptable results in problematic situations (Blumberg 1989). Effective reflective practice is often the bridge between theory and experience. Battersby argues that "for theory to be developed in educational administration that 'fits' and 'works', it will be necessary for those who are now ascribed the status of 'developers' and 'consumers' to come together to think, to question, and to reflect on what they know, or on new areas of content, and then to test this against and within experience" (1987, p. 66). Another example of this contingent style of leadership is presented by Bredeson. He suggests the school leaders should use metaphors to stimulate their thinking during the problem-solving process (1988). Bredeson maintains that metaphors are extremely useful in understanding the behavior of schools and other organizations by attaching common understandings and shared beliefs to the various parts or characteristics of the organization (1985). Due to the fact that these shared understandings exist from the metaphor, the leader can facilitate discussion and problem-solving efforts between all of the stakeholders in the educational organization (Beck & Murphy, 1993).

Moral leadership focuses on the leader's values and ethics. This type of leadership incorporates normative, democratic, and symbolic conceptualizations of leadership ideals and characteristics (Leithwood and Duke 1994). Researchers writing about moral leadership all maintain that values are a key aspect of leadership. For example, Hodgkinson writes, "values constitute the essential problem of leadership…If there are no value conflicts then there is no need for leadership" (1991, p.11). A key component of the research on moral leadership is the nature of the values used by leaders in their decision making. Another important factor in this area is the manner in which these value conflicts are resolved. Quite a range of opinions exists with respect to this particular component of moral leadership in contemporary research (Leithwood & Duke 1994). Hodgkinson suggests that there are three categories of values to choose from when making administrative choices and that higher-order values should be chosen over lesser in each decision-making process. The categories that he suggests are subrational, rational, and transrational. Each represents a hierarchical degree of defensibility based on the values it contains (1978, 1991). Another view on the nature of the values related to moral leadership is that decisions should be made with the underlying value solely being that the growth of knowledge be promoted. This type of value set places a high degree of importance on organizational learning (Evers & Lakomski 1991). Yet another viewpoint broadens the application of moral leadership to a more symbolic or democratic level. School leaders should be committed to democratic ideals in their decision-making and they should strive to replicate these ideals in academic environments they lead by transferring them to the daily activities and experiences of

their students (Slater 1994). This focus on moral action and values is summarized by the statement, "It is our view…that educational administration is an ethical science concerned with good or better processes, good or better means, good or better ends and as such is thoroughly immersed in values, preferences, ideas, aspirations, hopes…" (Sergiovanni & Carver, 1973, p.5).

A fifth conceptual idea of leadership categorized by Leithwood and Duke's review of literature is managerial leadership. This type of leadership deals with the specific activities and actions of leaders as they relate to their purpose in the organization. A major assumption associated with this view of leadership is that if the leader performs their function efficiently, then the other members of the organization will be able to satisfactorily perform their work as well (Leithwood & Duke, 1994). The term managerial leadership is viewed by many to be somewhat dichotomous in nature. Many studies separate management and leadership into two distinct categories of leadership. For example, one study argues for a clear distinction between "visionary leadership" and managerial practices. Visionary leadership is characterized by things such as aligning school goals with the leader's own strong personal convictions regarding educational change, presenting a clear purpose and ideological commitment among all stakeholders, innovation and risk-taking, and the possession of a clear personal vision for what a successful school looks like (Lesourd, Tracz, & Grady 1992; Blumberg and Greenfield 1980). Managerial leadership, on the other hand, is an alternate conception of leadership highlighted by an intense drive to maintain daily order and effectively monitor daily operations (Lesourd, Tracz, & Grady 1992). Discussions of

leadership versus management and which is more important for school principals abound in the existing body of educational research. Most discussions of leadership and management portray the two concepts as being on opposite ends of a continuum and that individuals are either managers or leaders. In stark contrast to the aforementioned theories, Achilles argues that leadership and management are both essential dimensions of the overall concept of administration. He states that both good leadership and good management are essential for organizational productivity (1992). Another project developed a management profile that describes individuals' performance in the six management functions of planning, training, persuasion, influence, professional interaction, and administration and three leadership functions of motivation, direction, and evaluation (Erlandson, Atkinson & Allen 1990). Other authors have also found it necessary for the leadership and management to complement each other rather than compete. In his article on successful restructuring of schools, Leithwood argues that even school administrators who employ the most transformational leadership practices appear to be, at the most overt level, consumed with managerial functions (1994). Managerial functions typically include items such as facilities management, scheduling, resource acquisition, and resource allocation. These functions cannot be ignored at the expense of more visionary leadership ideals or functions. In fact, a principal's overall leadership capacity is often communicated to all of those invested in the educational community in a very symbolic way due to the manner in which he or she goes about undertaking tasks that are of a more managerial nature (Reitzug & Reeves, 1992). Whether managerial functions are considered to be officially divorced from leadership

functions or not, the research base is clear in the types of tasks or functions that can be found under the umbrella of management. Myers and Murphy studied the relationship between measures of control used by superintendents in their dealing with high school principals to define six managerial functions: supervision, control of inputs, control of behavior, output control, selection/socialization, and environmental controls (1995). These authors also bridge the gap between and education and the world of industrial management by attaching school-related items to each of the aforementioned control mechanisms. Other authors see the school principal's prime managerial responsibility to be the buffering of teachers and students (the technical core of the education process) from excessive distractions and interruptions (Rossmiller 1992). In a comprehensive review of five major research journals, Leithwood and Duke examined 40 studies to generate the following 10 key sets of managerial tasks or functions:

- Providing financial and material resources to adequately support the educational program;

- Placing the financial and material resources in the areas where they can best support the educational program;

- Anticipating, analyzing, and effectively responding to predictable problems that the organization encounters;

- Facilities management;

- Management of the student body;

- Effectively communicating with all stakeholders in the

  educational process (staff, students, parents, community members,

  and district officials);

- Aligning district initiatives and policies with campus

  improvement goals;

- Reducing disruptions to the instructional staff and students;

- Conflict mediation;

- Political management of the school.

(Leithwood & Duke 1994)

The existing body of research in educational administration speaks a great deal to the

subject of management. Regardless of whether it should be considered a distinct form of

leadership or not, the research seems to convey the idea that managerial skills are of

critical importance to school principals in the twenty first century.

The final category of leadership presented by Leithwood and Duke in their

review of contemporary literature is participative leadership. This style of leadership

focuses on the actions/needs/opinions of the entire group and is sometimes also referred

to as shared leadership or teacher leadership (Yukl, 1994). There is a divide in the

academic community with respect to the reasons supporting participative leadership. On

one hand, participative leadership increases the overall organizational effectiveness, and,

on the other hand, participative leadership is called for due to a basic set of democratic

principles such as those that are the overriding premise for the category of moral

leadership (Leithwood & Duke, 1999). Many scholars agree that as leadership

accountability and other demands on the principal increase, sharing the leadership load

may indeed be the best way to go (Johnston & Pickersgill, 1992; Vandenberghe, 1992).

The school context today is radically different than the days in which a building

principal could get away with merely being a good manager. This context is hallmarked

by uncertainty and ambiguity due to increased complexity, workload, and external

demands for innovation (Murphy & Hallinger, 1992; Hallinger, 1992). This

environment is one of the reasons for the rise of participative leadership. School leaders

today are called upon to be much more open and consultative of all members of the

educational community (parents, teachers, community members, and even students)

(Leithwood & Duke, 1999).

Site-based management, a phenomenon which has exploded in the educational

community over the course of the last two decades, is considered by many to be the

premier example of participatory leadership. Under this leadership model, authority and

influence are not merely maintained by those occupying formal administrative positions,

but they are wielded by any qualified individual based on his or her expert knowledge,

democratic rights, and their critical role in implementing decisions. The site-based

management process generally falls into one of three categories that yield insight into the

degree to which school leadership has "bought in" to the participator leadership process.

These categories, promoted by Murphy and Beck, are administrative-controlled site-

based management, professional-controlled site-based management, and community-

controlled site-based management (1995). The instance in which all three segments of

the site-based management process (administrators, teacher, and community members)

share power equally is worthy of consideration as a fourth category, but it is encountered on a much more infrequent basis.

The goal of the administrative-controlled site-based management scenario is to maintain accountability between the campus and the central district administration through the efficient expenditure of resources. The belief in this instance is that this efficient management by the principal in areas such as budget, personnel, and curriculum will ultimately result in a better school environment in which students can be more successful. The site-based decision-making committee is generally considered to be of an advisory nature only to the principal and has no real power in this scenario (Murphy & Beck, 1995).

One of the foundation premises of the entire site-based management process is that the professionals closest to the student have the greatest understanding of what is necessary to produce overall student success (Hess, 1991). This belief is at the heart of the professional-controlled site-based management process which is predicated on the notion that it is important to make better use of the professional knowledge of teaching and other non-administrative professionals in the areas of budget and curriculum. In this model, it is also believed that the overall commitment of these professionals will increase due to their involvement in decision-making practices of the school (Murphy & Beck, 1995). In scenarios such as this one where employees experience a higher degree of decision-making capability, it is believed that efficiency, effectiveness, and better student outcomes will result (David, 1989; Mojkowski & Fleming, 1988). When the site-based management process falls in the situation of being professionally-controlled,

the committee has real decision-making power. In wielding this power, teachers tend to have the most overall influence and make up the largest segment of the site-based committee (Murphy & Beck, 1995).

The goal of community-controlled site-based management is to increase the accountability and "customer satisfaction" of the school to community-based stakeholder groups. The largest stakeholder group represented in this process is usually parents (Lee et al., 1993; Wohlstetter, 1990; Wohlstetter & Mohrman, 1993). Community-based decision-making usually has at its core the idea that the decisions made in the school, as well as the overall appearance of the school itself, need to reflect the community in which it is located in terms of its guiding values and principles (Wohlstetter & Oden, 1992). This implementation of the site-based management process is one aimed at increasing the authority and influence of parents by placing them on management committees or councils that possess decision-making power in the fundamental processes associated with the operation of the school (Murphy & Beck, 1995).

The variation of the management process in which administrators, teachers, and community representatives such as parents have shared decision-making power is considered to be the optimal implementation of site-based management , but, unfortunately, it is only a rarely occurring phenomenon. The goal of this model accomplishes the overriding goals of the three models discussed in the preceding paragraphs. Teachers are more committed to the decisions made and initiatives created by this governing body because of their involvement in the process. Parents feel committed to the activities of the school for the same reason. In this model, the

professionals at the school feel that it is important to be responsive to the needs and

concerns of community members because they value their contribution to the decision-

making process, but do not feel threatened that the community is trying to make a power

play or shove them down their throat (Murphy & Beck, 1995). An assumption in this

model is that all participants have something valuable to offer in the key areas of

discussion (Leithwood & Duke, 1999).

Claims Regarding the Contribution of Leadership to Learning

Understanding both the changes occurring in the context within school leadership

occurs and a research-based categorization of leadership practices, it is also important to

gain insight into how the general themes regarding the contributions of school leadership

to student learning and performance are substantiated by the existing body of research.

In the 2003 report entitled *What Do We Already Know About Successful School

Leadership?* released by the Task Force on Developing Research in Educational

Leadership, several strong claims are made by authors Kenneth Leithwood and Carolyn

Riehl regarding the impact of school leadership on student learning. These claims go a

long way toward defining a set of essential leadership characteristics that translate into

positive student outcomes.

The first claim is that "Successful school leadership makes important

contributions to the improvement of student learning" (Leithwood & Riehl, 2003b, p

10). There are a multitude of factors that affect student learning, but only a small

percentage of the variation in student learning can be accounted for by school level

factors (Coleman et al., 1966; Jencks, 1973). Of the identified school-level factors, quality curriculum and instruction seem to account for the greatest impact on student learning, but school leaders also have a significant impact on how students learn. While many positive effects on student learning can be directly attributed to quality curriculum and instruction, leadership effects on student performance are of a more indirect nature (Hallinger & Heck, 1996).

These claims regarding the effect of school leadership practices on student performance are supported by empirical evidence from two very different research bases. The first research base that has been used to assert that leadership practices have a positive effect on academic achievement and student learning is qualitative case study evidence. A characteristic of the collection of case study evidence obtained through qualitative methodology is that it is typically performed in an "exceptional" setting, i.e. settings that tend to be performing at levels on either of the extremes of the achievement spectrum. These "outlier" designs most often report very large leadership effects in the area of student achievement as well as many other organizational variables (Leithwood & Riehl, 2003b). In a review of outlier studies, Levine and Lezotte reported that outstanding, and sometimes courageous, school leadership on the part of the principal and other instructional leaders at the campus level was a significant factor in school success (1990). Leadership factors from these studies that were directly affected by the principal and attributed to the overall success were selection and replacement of teachers, a "maverick" orientation, protection of instructional activities from distraction, frequent inspection of school activities, a commitment to the school improvement

process on the part of all organizational members, support for teachers, and a high

degree of direct instructional leadership. Other factors working toward success upon

which the principal still had at least some indirect effect were parent involvement,

continual monitoring of student progress and disaggregation of achievement data,

student grouping, curriculum coordination, and equitable promotion policies and

practices (Scheerens & Bosker, 1997). Another important component born out in these

qualitative case studies was the commitment on the part of the principal to the

participatory leadership process. The relationship between the principal and other

instructional professionals (primarily teachers) at the campus level is important. Several

studies have shown that student achievement benefits from the principal striving to

create an environment in which teachers are provided both the tools and instruction that

they need to continuously hone their craft through the staff development process and the

time to reflect on them and engage in productive dialogue with their colleagues

regarding teaching and learning (Hamilton & Richardson, 1995; Coburn, 2001).

In addition to qualitative research evidence, claims regarding successful

leadership practices are also substantiated from a quantitative research base. Many

quantitative studies exist involving the variables of student performance, organizational

behavior, and leadership practices. However, one of the shortcomings of a large portion

of the existing quantitative research base is that it does not contain a link between all of

the relevant variables (Leithwood & Riehl, 2003b). For example, Leithwood and Riehl

cite numerous studies that provide linkage between organizational variables, such as

school mission and goals, culture, school size and nature of curriculum, teacher

qualification, campus decision-making, community perceptions, and student achievement, but these studies make no mention of leadership effects (2003). All of these organizational variables are potentially and indirectly affected by the principal (or campus leadership) on a daily basis, but they do not represent direct linkage between leadership and student performance (Heck & Marcoulides, 1996). Other studies attempt to show a link between leadership and productive school conditions, but leave out the variable of direct student performance (Louis & Kruse, 1995; Sanders & Harvey, 2002). Even in cases where the research design is made in such a way as to link leadership directly to the variable of student performance, the results presented are often sketchy and the effect size is difficult to determine (Leithwood & Riehl, 2003b).

The quantitative research base (1980-1995) does include approximately forty studies in which a clear design leads to reliable and valid links between school leadership practices and increased student achievement in academic areas (Hallinger & Heck, 1996). These studies examined principal effects on student achievement outcomes and determined that, while present at a statistically significant level, the effects were quite small. These leadership effects were found to be attributable to three to five percent of the variation in student performance across the studies (Leithwood & Riehl, 2003b). While three to five percent seems to be a relatively small effect size, it is important to note that this effect accounts for approximately a quarter of the variation in student achievement that can be associated with any school-related factor. Hallinger and Heck also found in their analysis that the largest mediating variable with respect to student performance seemed to be in the area of well-defined goals or vision for the

school. However, they note that a clear definition or construct for school vision is not

present across the research base (Hallinger & Heck, 1996). In addition to Hallinger and

Heck's meta-analysis, other researchers have come to similar conclusions regarding the

effect of leadership on student achievement. Scheerens and Bosker reported similar

findings and included educational leadership as one of thirteen "effectiveness enhancing

factors" for schools (1997). While Scheerens and Bosker's results were almost identical

to those of Halinger and Heck before them, one interesting difference does exist. In their

analysis, Scheerens and Bosker stated that leadership characteristics were more clearly

developed as positive factors in schools where strong contextual evidence was also taken

into account (Leithwood & Riehl, 2003b). An example of this relationship can be seen

with respect to "controlling" educational leadership. They reported that this type of

leadership had proven to be more effective in schools of lower socioeconomic status

(SES) than in high-SES schools and that suburban elementary schools required less

tightly controlled leadership styles than those in an urban setting (Scheerens & Bosker,

1997).

From the evidence presented above, it seems clear that there is definitely

demonstrable evidence of principal leadership on student achievement. The leadership

effect size varies greatly depending on whether the research methodology is of a

qualitative or quantitative nature. At first glance, it would seem that the assertions of

large effect sizes reported in qualitative cases and small ones found in quantitative

settings cannot be true at the same time. However, further inspection shows that the

qualitative scenarios, many of which tend to be outlier studies, are more contextual in

nature and, therefore, report larger leadership effects. The larger, more objective, quantitative studies report leadership effects that are averaged across many different settings which causes them to be smaller in the final analysis (Leithwood & Riehl, 2003b).

Whether examining more specialized qualitative case studies or large-scale quantitative designs, it is clear that a measurable relationship does exist between leadership and student performance. It is important to understand that leadership is, in fact, one of the largest contributors to student performance out of all the identified school-related factors that have any effect on student achievement whatsoever. Therefore Leithwood and Riehl's claim regarding the contribution of leadership to the improvement of student learning is validated by the existing body of research.

A second claim regarding leadership that is well-substantiated by the existing body of research is that a core set of "basic" leadership practices are valuable in almost all contexts (Leithwood & Riehl, 2003b, p.16). In his work on transformational leadership practices, Bernard Bass claimed that there were some leadership practices that would prove to be useful in almost any situation (1997). Bass's claim is substantiated by the work of other scholars who have arrived at this conclusion after studying many different types of schools in a variety of educational settings (Leithwood, Jantzi, & Steinbach, 1999; Southworth, 1998; Day et al., 2001). While the authors mentioned above agree that a core set of leadership practices does exist, one scholar claims that they are far from enough to guarantee success for any school leader. These practices should be considered, in the opinion of Vecchio, to be a minimum requirement, but are

in no way intended to be the only tools that a principal has in his or toolbox for providing instructional and managerial leadership to any educational organization (2002).

Defining a core set of basic leadership practices is a large undertaking. Three separate analyses of contemporary leadership in educational administration have led scholars to three very similar categorizations of mandatory leadership practices for principals. In 1999, Hallinger and Heck labeled the essential leadership categories as purposes, people, and structures and social systems. Another pair of scholars came up with the category labels of visioning strategies, efficacy-building strategies, and context changing strategies (Conger & Kanungo, 1998). Ken Leithwood's work in the same area preceded that of Hallinger and Heck as well as that of Conger and Kanungo by several years, and he described the core leadership categories as setting directions, redesigning the organization, and developing people (1996). Due to the fact that Leithwood created these three category distinctions before the others, his category labels will be used for the remainder of this literature review.

One of the most important aspects of a leader's job is to keep members of the entire organization focused on its goals. Having these goals as a foundation that is understood as common language throughout the entire organization gives everyone a sense of shared vision and purpose for the school (Hallinger & Heck, 2002). This collective commitment is a good source of motivation for everyone who is working toward organizational success either from the inside or as a source of external support. Principals must understand that setting an overall direction for the organization is of high

priority. This is true because goals are closely tied to organizational members'

motivation and often provides them with a sense of personal identity (Lock, Latham &

Eraz, 1988; Pittman, 1998). This motivation is often viewed as a challenge on the part

of the person working toward it and helps give them a sense of professional identity

(Weick, 1995).

Research identifies three major leadership practices associated with the core

leadership function of setting directions: identifying and articulating a vision, fostering

the acceptance of group goals, and creating high performance expectations for the

organization (Leithwood & Riehl, 2003b). The inspiration of others through a clearly

identified vision is an important function of any school leader. It is also necessary that

this articulated vision be intertwined with organizational values in order to foster a deep

sense of commitment on the part of employees (Hallinger & Heck, 2002). An

interesting conundrum in the area of vision setting exists in that leaders are often tasked

with developing commitment locally on the part of organizational members to an

expectation that is generated remotely by a person or body outside the organization

(Leithwood & Prestine, 2002).

Another important leadership practice associated with setting directions is the

fostering of acceptance for group goals. Principals are given the job of bringing the

entire group together toward a common goal. This direction, when it is shared by each

member of the organization, helps give the group a sense of collective identity

(Leithwood & Riehl, 2003b). It is important that the leaders not just focus on numerical

or quantifiable improvement goals. Visioning is about much more than just the official

performance objectives handed down throughout the entire organization (Moore et al., 2002). This is not to say that measurable improvement goals are not important, but when the principal actively garners support for the overall goals of the organization that are of a more human or moral nature, the organization begins to experience a commitment on the part of its members that truly makes the whole more than the sum of its parts (Leithwood & Riehl, 2003b). This developing of commitment is certainly easier said than done. Several practices have been identified to aid the leader in the fostering of commitment of organizational members. Examples of these practices are knowing how to pursue consensus, discernment, and creative problem-solving through democratic processes in addition to being able to use conflict productively (Beck, 1994). The notion of common commitment toward organizational goals does fly in the face of traditional teaching practice norms that are based on individuality, but it is consistent with more contemporary models of schools as collegial learning communities (Lortie, 1975; Little, 1982).

Creating high performance expectations is the third leadership practice identified by research as an essential piece of the direction setting process. An important function of the principalship is to model a commitment to excellence, quality, and high performance to the staff. This activity allows employees to be constantly reminded of the overall goals of the organization (Leithwood & Riehl, 2003b). The principal's demonstration of a commitment to excellence also serves as a reminder to staff members of any existing disparity between current performance levels and where the organization as a whole desires to be. A wonderful byproduct of effective expectations for high

performance is that, not only do staff members understand the goals and aspirations of the organization, but they take to heart a sincere belief that they can be accomplished as well (Podsakoff, et al., 1990).

School leaders need to have a clear understanding of what the visioning and establishing purpose process look like in order to be successful. Additional leadership practices that can prove to be useful toward that end are monitoring organizational performance, using effective communication processes, and working effectively with representatives of the school organization's environment (Leithwood & Riehl, 2003b).

Another of the basic core leadership practices that is claimed to contribute to student performance is developing people. Setting directions for the entire organization is an important leadership practice for any leader, but it is not the only thing that positively motivate employees and the manner in which they perform their jobs. These two things (motivation and capacity for job performance) are two critical employee components for organizational success. Motivation and capacity, according to existing literature, are strongly impacted by direct experiences with those occupying formal leadership roles in the organization and organizational conditions in which they find themselves working (Lord & Mayer, 1993; Rowan, 1996). Research bears out three leadership practices affecting the development of people in the organization by their leaders: offering intellectual stimulation, providing individualized support, and providing an appropriate model (Leithwood & Reihl, 2003).

Intellectual stimulation is vital to the health and happiness of any human being. One way in which principals can nurture positive intellectual stimulation on the part of

their employees is to get them thinking about how the work that the organization is performing toward the achievement of its goals could be performed more efficiently. This provides a challenging opportunity for the employee to try to hone his or her craft. When reflective practice on the part of the employee becomes the norm rather than the exception, workers will constantly strive to understand the difference between "where we are" and "where we want to be" (Leithwood & Riehl, 2003b). This mental exercise, in the event that it creates a perception on the part of the employee that the job is dynamic and exciting, truly engages the mental resources of each member of the organization (Cohen & Hill, 2000). Administrators may also be able to offer intellectual stimulation by scheduling time and other resources for staff members to collaborate and engage in conversations about the technical core of teaching and learning (Leithwood, 1994).

Successful school leaders are able to strike a balance between continually challenging their staff to do more and supporting staff members based on their individual needs. Knowing that their principal cares about their personal needs and feelings causes a member of an organization to feel valued (Leithwood & Riehl, 2003b). An environment of individualized support also fosters an atmosphere of trust between the principal and the individuals under his or her supervision. When this is the case, staff members are able to feel confident that their administrator will listen to their concerns with an open mind and always be willing to help them through any issues that they might encounter (Louis, Toole & Hargreaves, 1999).

A final leadership practice for the basic tool of developing people is for the leader to provide an appropriate model to be observed by the people they supervise. When a principal personally embodies the organizational values that he or she is trying to keep the entire organization focused on, the staff has an example and will begin to believe in their own abilities for achieving the high expectations set forth by their leader (Ross, 1995). This modeling on the part of the principal also creates a connection between the worker and the vision of what "walking the walk" actually looks like (Ross, Cousins, & Gadalla, 1996).

The third and final core leadership practice that is substantially supported by the literature is the notion of redesigning the organization. Over the course of the last decade, schools that have made a conscious commitment to being flexible and adapting to the needs of their students, parents, and staff have proven to be successful. These "learning organizations" or "professional learning communities" make open commitments to designing and redesigning their organizational structure to meet the needs of those who come into contact with it on a daily basis (Leithwood, Leonard & Sharratt, 1998). The core leadership task of redesigning the organization has with it three basic practices that can accomplish this goal: strengthening school cultures, modifying organizational structures, and building collaborative processes (Leithwood & Riehl, 2003b).

The principal affects the school culture by shaping the things which the organization views as being important. These shared norms, values, and beliefs become common vocabulary between staff members and help to create an environment of caring

relationships based on integrity and trust. Knowing that the values and beliefs that they as individuals hold are shared by everyone throughout the organization, staff members have an even deeper commitment to attaining the goals that the organization has set forth (Leithwood & Jantzi, 1990).

Making sure that the organization is designed in a way that insures student success is an important leadership function of the principal. Components of this function touch veritably all of the different areas of daily school operation including teacher assignments, budget design, facility usage, curriculum development, and resource allocation. The principal must be able to examine and change, if necessary, any of these components that he or she feels are causing the organization to function at a level inconsistent with achieving its organizational mission and goals (Leithwood & Riehl, 2003b). Organizational structures in need of change may be things such as the physical conditions associated with instructional delivery (Louis & Kruse, 1995). Working with factors and persons that are external to the organization is an important part of this leadership practice. The larger community is an important source of resources and support for the school that the principal must be able to effectively navigate and communicate with.

The construction of a collaborative culture is the last leadership practice associated with redesigning the organization. Principals need to create cultures of collaboration. The best (and easiest) way to do this is by engaging staff members in the decision making process in areas where they have demonstrated expertise. Tapping the expert knowledge of teachers or other staff members increases the degree of

connectedness to the organization that is felt by the employee and helps to shape the organization in a manner that is predicated on working together to achieve the goals of the organization (Sleegers, Geijsel & van den Borg, 2002).

It is important to note that these three basic leadership categories are to be considered a minimum skill set for principals or other educational leaders, but that they do not encapsulate every single thing that a principal must do in order to be successful. As Leithwood and Riehl state, "While mastery provides no guarantee that a leader's work will be successful in a particular school context, lack of mastery guarantees failure" (2003, p. 21).

Leithwood and Riehl's report produced by the AERA Division A Task Force on Developing Research in Educational Leadership continues by also making the claim that "in addition to engaging in a core set of leadership practices, successful leaders must act in ways that acknowledge the accountability-oriented policy context in which almost all work" (2003, p 21). Today's school leader lives under the ever-watchful microscope of the general public. Our educational system is one in which school leadership continues to be more and more accountable in a variety of ways to a variety of agencies. Four views of this accountability are identified in existing research as the market, decentralization, professional and managerial approaches (Leithwood & Earl 2000). Each of these approaches to accountability requires a specific skill set on the part of the school leader.

The market approach to accountability draws parallels between how a leader reacts to certain conditions in an educational setting and how they react to similar

circumstances in the business setting. This type of accountability centers around the idea of potential competition for students. An increase in market accountability can be the result of several factors. One of these factors is allowing school choice through methods such as the opening of boundaries across systems, the privatization of schools, the creation of alternative methods of schooling such as charter schools, magnet programs, learning academies or other specialized educational facilities. Another possible tool for increasing competition is altering the way in which schools are funded. Potential ways of accomplishing funding changes are through the use of school vouchers or tuition tax credits. A final method of achieving increased competition is the public ranking of schools based on achievement scores. (Leithwood & Riehl, 2003b). It is important to note that these tools for increasing competition are not mutually exclusive and may be used in combination. It is imperative for principals to understand these strategies even though they have little to no control on their implementation.

How does the principal respond to his or her accountability in the market environment? Continuing with the business parallel, Kerchner labels the building principal as the chief salesperson (1988). He continues to claim that the first and foremost task of any exceptional salesperson is to have a good product to sell. Principals must always undertake actions consistent with sound business methodologies such as marketing their school effectively, nurturing positive customer/client relationships, and the constant monitoring of organizational performance through customer satisfaction feedback. Another sound practice for leaders is to collect data about their competitors in

the same areas described above so that they have an understanding of where the school is in relation to the performance of others (Leithwood & Riehl, 2003b).

Finally, the market accountability approach calls for the principal to have sound managerial leadership skills in addition to their skills in the area of instructional leadership. When comparing how different principals react to the same competitive conditions, it can be determined that they tend to respond quite differently based on their individual frame of reference and leadership strengths and weaknesses. Grace has analyzed principal response to competition and suggests that principals either embrace, ignore, or actively oppose the competitive conditions that arise in situations representative of a market approach to accountability (1995).

A second approach to educational accountability is "decentralization accountability". This model of accountability allows for an increased voice for those who are not usually heard in typical school governance structures (Hirschman, 1970). When this is the case, site-based management is used to formally connect individuals such as campus-level administrators, parents, or teachers to the decision making process of a larger educational organization (Murphy & Beck, 1995). The underlying assumption for this approach to accountability is that schools should reflect, in terms of curriculum and resource allocation, the individuals who are given a greater voice in this model (Ornstein, 1983).

The leadership characteristics present in successful school administrators who operate under the conditions of the decentralized accountability model are collaborative in nature. Principals can be found working as members of teams and sharing decision

making power with those around them in this model. One of the tasks for the administrator in this case is to educate the individuals assisting in the decision-making process (teachers, parents, or community members) in their responsibilities and how they can undertake them effectively. Leaders in this setting must believe in the collaborative decision making process and that its implementation will lead to better decisions with which the members of the group will identify more closely than if they had merely been handed down from on high. In this approach to accountability, the building principal is the facilitator of the decision making process, but he or she does not have ultimate control over its outcome (Leithwood & Riehl, 2003b).

The professional approach to accountability is predicated on the existence of clear standards for excellence and professionalism in the educational setting. This method is based on a distinct link between outstanding professional practice and student performance and other schooling outcomes. Under this model, there exists a great deal of centralized control over entry into the profession by an entity such as a licensing board through the creation of standards to be adhered to by educators. It is then the responsibility of the members of the profession to enforce those standards (Leithwood & Riehl, 2003b).

The major premise of the professional accountability model is ready availability of qualified instruction leadership at the campus level. Principals are required to continually reflect on and improve their practices of instructional leadership. The reason for this is so that they will then be able to set expectations for their staff and foster an atmosphere of continuous improvement in the area of instruction and professional

development. In addition to the creation of a culture based on professional practice and instructional accountability, the leader of any educational organization needs to monitor his or expectations for the staff and their professional growth in the areas reflected by the standards themselves. It is also important that the principal protect the staff from things that would detract from their collective pursuit of professional standards. Clear communication of the standards and how the school is aspiring to meet them is also required on the part of the principal (Leithwood & Riehl, 2003b).

An environment of management accountability is predicated on the notion that there is nothing inherently wrong with the way a school or other educational organization is currently performing. In this setting, the goal is to merely enhance current performance by finding more efficient ways to operate based on existing data and best practices. This approach to schooling is one of centralized strategic planning primarily at the district level (Giles, 1997). The principal players in the leadership practices associated with this model are well-versed in the collection of data from across the entire educational system and analyzing it according to progress toward meeting district instructional performance objectives and goals. Principals then take this information and work with their staff to formulate clear plans for school improvement which are revisited often and revised when needed.

A fourth leadership claim made through the existing research analysis done by the task force is that "many successful leaders in schools serving highly diverse student populations enact practices to promote school quality, equity, and social justice" (Leithwood & Riehl, 2003b, p 24). This claim sheds light on the notion that not every

school environment is populated with students who have always been successful in school. Due to student factors such as race, immigration status, financial standing, physical limitation, and intellectual capacity, diversity is alive and well in today's public schools. Diverse student populations seem to call for and respond more positively to diverse leadership skills (Hallinger & Heck, 1996). These skills tend to connect with students in ways that allow them to take ownership of their own educational processes. Existing research confirms the notion that leadership effects on achievement are magnified when viewed through the lens of a low socio-economic status school (Andrews & Soder, 1987). Principals working in schools serving diverse populations would do well to employ many of the leadership practices discussed so far through the other three broad claims regarding leadership and student performance in this literature review. Additionally, there are more practices for leaders to employ that have been shown to positively impact student performance in diverse situations. These leadership practices are the promotion of powerful forms of teaching and learning, the creation of strong communities within schools, the nurturing of family educational cultures, and the expansion of the social capital of students (Leithwood & Riehl, 2003b).

An important piece of the puzzle for teachers who work with diverse student populations is that they are well-acquainted with the characteristics of and research-based strategies for success with the population they serve. The principal is responsible for equipping teachers to work with students from diverse populations. When this is the case, teachers feel more confident in their belief that they can affect meaningful educational change in the lives of the students they serve (Louis & Smith, 1992).

Successful leaders in diverse educational settings place an extremely high value on the school's commitment to teaching and learning when making decisions on classroom-level issues such as teacher expectations, class size, how students will be grouped, which curriculum to use, teacher recruitment, and exactly what will be expected of students (Leithwood & Riehl, 2003b). These classroom-level issues are important for student achievement at any level, and that success begins with the principal embodying the pursuit of organizational goals by modeling these leadership practices with teachers and students. Scheerens and Bosker concluded that the teacher's expectation for how a student will perform has proven to be the most important factor in predicting student success (1997). It stands to reason that creating expectations for success on the part of the teacher would be even more critical when dealing with students who are from diverse educational and familial backgrounds. Literature has already concluded that instruction and student performance are positively correlated with the variable of small class size. This effect is increased when working with at-risk or diverse student populations. While the principal typically cannot control the number of students enrolling on his or her campus, they usually do have some way of impacting the manner in which those students are spread across the different course sections in the building. One possible method is the restructuring of grade-level class sizes to reduce the maximum number of students in a room at lower grades and raise it as students get older (Leithwood & Riehl, 2003b). The manner in which students are grouped at school also has a more dramatic effect on diverse student populations. Students who are disadvantaged by their socioeconomic status tend to learn more when grouped

heterogeneously instead of homogenously (Wells & Serna, 2002) due to factors such as peer modeling of successful learning and exposure to a more rich and challenging curriculum.

Another area of focus for leaders of schools serving diverse populations is the development of strong communities within the school. There are two important communities within the school: the community between adults and students and the professional community of teachers, administrators, and other professional staff. Creating strong bonds between students and the adults they encounter at school on a daily basis is critical to student motivation (Lee, Bryk, & Smith, 1993). Evidence also exists to show that student achievement is positively affected when there is a strong bond between members of the professional community on a campus (Bryk & Driscoll, 1988). Another component of this leadership area of developing communities within schools has to do with the actual size of the school. There is a considerable amount of research showing that smaller schools have more closely knit and, by extension, more cohesive faculties. When this is the case, organizations are better suited to meet the needs of students from diverse backgrounds (Lee & Smith, 1997; Lee, 2000). In smaller settings, all staff members tend to take a greater interest in becoming involved in and insuring the success of each individual student.

A student's family background provides the greatest amount of variation in their school performance according to the research of the past several decades. Many experts have tried to establish the reason for the link between family background and performance (Coleman et al., 1966; Jencks, 1977). This is especially true for students

who come from diverse backgrounds. Social factors such as unsafe living environments, mobility, changes in family structure, health problems, and substance abuse are all negatively related to student performance (Dillard, 1995; Portin, 2000). Leaders in schools dealing with these issues must be extremely sensitive to the social context in which they work. They must also be mindful of the family structure of the students they are serving. Parenting education programs and integrated social services are proving to be successful practices that the principal can support in order to validate and take an active interest in the entire family structure of students on their campuses who may be struggling.

It is also important that schools serving diverse populations make efforts to expand the degree to which the social capital of its students is valued by the school. A function of school leadership is to help families understand what services they are entitled to and how to get them (Leithwood & Riehl, 2003b).

The Delphi Method

This research project utilizes the Delphi method for futures research. The purpose of this section of this literature review is to provide the reader with an overall defining description of the Delphi process, a historical background for Delphi and its implementation in scientific research, an understanding of the logistical steps involved in undertaking a Delphi study, and a discussion of the strengths and weaknesses of this research model. At the conclusion of this section, the manner in which the Delphi

method can be useful in bridging the gap between social science theory and practice will also be discussed.

Delphi is a systematic way to develop group consensus from an expert panel without having the logistical (as well as other) struggles and group dynamic issues associated with more traditional collaborative processes. Many different descriptions and definitions of the Delphi method exist in the current body of scientific literature. Delbecq, Van de Ven, and Gustafson describe it as "a method for the systematic solicitation and collection of judgments on a particular topic through a set of carefully designed sequential questionnaires interspersed with summarized information and feedback of opinions derived from earlier responses" (1975, p.10). Another definition for the Delphi process is given by Fish and Busby as attempting to negotiate a reality that can be useful in moving a particular field forward, planning for the future, or even changing the future by forecasting its events (2005). Regardless of the exact definition used to describe its implementation, the Delphi method is an excellent way to have recurring and structured communication between a group of qualified experts in a particular field to determine an appropriate solution to a complex problem (Linstone & Turoff, 1975).

Named for the Greek town of Delphi, this research method has historical roots with ancient Greek god of light, purity, the sun and prophecy. Upon slaying the dragon Python in Delphi, myth holds that Apollo took possession of the temple in Delphi containing the famous oracle, Pythia. It was through this oracle that Apollo supposedly spoke to the ancient Greeks to predict the future (Fish & Busby, 2005). From this

humble mythological beginning, Delphi has evolved into an ever-increasingly popular methodology for research in both the natural and social sciences. Most scholars agree that Delphi method had its first scientific use in the area of military research and defense matters through a study done in the 1950s by the RAND Corporation (Dalkey & Helmer, 1968). "Project Delphi", as it was called, was tasked with developing a consensus among United States experts regarding Soviet opinions on optimal American industrial targets and the amount of firepower required for their destruction (Linstone & Turoff, 1975). The Delphi methodology saw a great increase in usage throughout the 1960s and 1970s. The method burst onto the scientific scene with Gordon and Helmer's 1964 study forecasting long-range trends in science and technology. In today's research community, the Delphi method is now commonly applied in the fields such as education, psychology, sociology, and political science. It has also found usage in more objective studies with respect to human health, transportation, and the environment (Fish & Busby, 2005).

The Delphi method is constructed around two basic assumptions: that group decisions carry a greater degree of validity than individual opinions, and that most round table collaborative processes are fraught with difficulties (Murry & Hammons, 1995). The first of these assumptions can be extended to specifically present the idea that group decisions made by a uniform group of experts are even more valid than group decisions made by random or diverse groups (Brooks, 1979). The second assumption relates to the idea that it is possible to reap the benefits of the group decision-making process without having to experience some of the negative facets of this type of communication.

This methodology also has roots in the philosophical arena as well. It rests primarily on the basic assumption presented by Dalkey that "*n* heads are better than one" (1972). It has also been stated that the Delphi method contains components of other major philosophies such as those purported by Locke, Leibniz, Kant, Hegel, and Singer (Mitroff & Turoff, 1975).

The Delphi is a relatively simple research methodology that is characterized by three major components or features which allow it to be distinguished from other more traditional methods of arriving at group consensus. First, the Delphi method is constituted by group interactions and responses. Next, Delphi utilizes multiple rounds of interaction between the researcher and the panel as well as between the panel and the responses of the entire group. Lastly, the Delphi affords its author the opportunity to present the reader with statistical group responses (Murry & Hammons, 1995). Other characteristics of the Delphi methodology are the use of an expert panel, carefully designed questionnaires, an overall goal of consensus (or well-defined divergence) of opinion, and anonymity of both the experts and their responses (Strauss & Ziegler, 1975). Delphi research is made up of a series of carefully-designed questionnaires (or rounds) that are responded to by members of an expert panel. The first questionnaire, generally, is open-ended and asks panel members to provide initial input as to the characteristics or issues associated with a complex problem. The second round of a Delphi process is merely a compilation of the ideas and feedback given by the members of the expert panel in round one. For this round, the expert feedback is categorized into objective items that are then rated by the panel members (usually on a Likert-type scale).

Between rounds two and three, the researcher undertakes a statistical analysis of the responses from the objective ratings in round two. The descriptive statistics calculated usually include the mean, median, and inter-quartile range. In round three, participants are presented the original items along with descriptive statistical data. They are then asked whether they would like to leave their answer at the original response level or change it based on the group feedback and statistical data that they have been presented. Respondents whose original answer fell outside the round two inter-quartile range and do not wish to change their answer in round three are asked to provide justification (often called a minority opinion) for their response. These minority responses, as well as the new group data, is presented to the entire expert panel in round four of the process. This process can be continued until a consensus is reached by the panel (Cunningham, 1982).

An important question that must be answered by a researcher considering the application of the Delphi method is whether or not it is an appropriate methodology for use in the intended case. Harold Linstone and Murray Turoff offer the following list of circumstances under which the Delphi method may be effectively employed:

1. The problem does not lend itself to precise analytical techniques but can benefit from subjective judgments on a collective basis.

2. The individuals needed to contribute to the examination of a broad or complex problem have no history of adequate communication and may respresent diverse experience or expertise.

3. More individuals are needed than can effectively interact in a face-to-face exchange.

4. Time and cost make frequent group meetings infeasible.

5. The efficiency of face-to-face meetings can be increased by a supplemental group communication process.

6. Disagreements among individuals are so severe or politically unpalatable that the communication process must be refereed and/or anonymity is assured.

7. The heterogeneity of the participants must be preserved to assure validity of results, i.e., avoiding domination by quantity or by strength of personality ("bandwagon effect") (Linstone & Turoff, 1975 p.4).

The decision of whether or not to use the Delphi method depends more on the demand for the use of a group communication process than it does on the specific nature of the intended application (Wilhelm, 2001).

Since its inception in the 1950s, the Delphi method has become more and more popular and has been implemented in a variety of research situations. According to Linstone and Turoff, the "conventional" Delphi pertains to a paper-and-pencil application aimed at forecasting and estimating unknown parameters (1975). As the specific characteristics of its intended applications have changed, the conventional Delphi exercise has spawned several different Delphi variations. These variations tend to vary along the lines of such variables as the method of communication and the overall objectives of the research project (Wilhelm, 2001). In this method, the researcher designs and analyzes a series of questionnaires that are sent to members of an expert

panel. The researcher is also responsible for evaluating the group's responses and continuing the process for multiple rounds. Through the use of this process, the variance of the median rating attached to a topic tends to decrease as the number of rounds in the Delphi exercise increases (Dalkey & Helmer, 1968).

A style of Delphi process that exists solely to bring into consideration all opinions on a particular subject in order spark meaningful debate with respect an issue is called a Policy Delphi. This type of procedure acts as a forum for members of the respondent group to express all of the pros and cons of their individual positions across the entire range of opinions represented by the entire panel (Bjil, 1992). This variation of the Delphi is generally used to bolster the communication that is already taking place within a well-defined committee approach or through some other type of nominal communication process. At the completion of this type of study, a small group often takes the information gained through the Delphi process and generates policy in the area under consideration (Turoff, 1970).

Another variation on the conventional Delphi is the real-time Delphi. This methodology does not have a different objective than most conventional exercises, but the method of communication differs dramatically. Rather than the use of paper-and-pencil, real-time Delphis incorporate computer conferencing which allows for greater expediency in completing each round of the process. When this type of forecasting is implemented, all of the communication characteristics for the entire study must be defined completely in advance of the first round (Wilhelm, 2001).

The Delphi method has even come to be used in adversarial situations. This variation, written about by Helmer, involves two distinct stages. The first stage in the adversary Delphi is used to completely explore the positions held by two or more opposing sides with respect to a particular issue. This stage of the Delphi is dedicated to each viewpoint being allowed the opportunity to completely justify its claims. The second stage is then devoted to seeking a consensus or majority opinion (Helmer, 1994).

Strauss and Ziegler developed another variation on the conventional Delphi called the historic Delphi in the 1970s. This method is based on the work of great political philosophers and the application of their work to contemporary issues and problems in our society. It was also used to predict societal issues and problems for the future and how the teachings of these philosophers were relevant to their solutions. Well-published university professors are selected as the expert panel. Each professor represents a group of members with expertise in the teaching or work of a particular philosopher Plato, Aristotle, Hobbes, Machiavelli, Swift, Burke, Rousseau, Locke, Marx, or Freud. The Delphi process then engaged to accomplish the goals of a fresh and meaningful approach to political analysis, connecting a large body of historical knowledge to present and anticipated situations, and developing a format in which students of political science could place this historical knowledge in a new context and format that was relevant to both their current and future society (Strauss & Ziegler, 1975).

All of the aforementioned Delphi variations begin with a relatively open-ended initial questionnaire for soliciting the feedback of members of the expert panel on a

particular issue or set of issues. However, some Delphi studies begin with structured questionnaires rather than just merely asking for opinion. This variation is known as the "modified" Delphi (Murry & Hammons, 1995). It is worth noting that this is the type of Delphi process that will be implemented in this research study of principal leadership characteristics. The modified Delphi, because of the fact that it begins the first round with a carefully-constructed objective questionnaire rather than the open-ended instrument typically used in conventional Delphi processes, is often completed more quickly than traditional studies. Two rounds may very well be sufficient in the modified Delphi process, but more than four rounds would certainly go beyond the point where consensus and response stability are evident (Brooks, 1979). Lanford has also ascribed that the majority of the convergence around a central idea or consensus occurs between the first and seconds rounds of the modified Delphi process (1972).

Even though the conventional Delphi has gone through an evolution of sorts and has spawned several different variations based on the intended application of the Delphi method, the overall goals of most Delphi exercises are strikingly similar. Turoff suggests that the aim of most Delphi exercises fits into at least one of four major goal categories: gaining insight into respondent assumptions or factors involved in making judgments, seeking consensus based on information presented by members of an expert panel, the correlation of expert judgments on a diverse set of issues or disciplines, or the education of an entire panel on the variation or diversity of thinking with respect to a single issue or range of issues (1970). These goals, while relatively broad in nature, are

a fair representation of what seems to be the intended application of any variation of the Delphi methodology in either natural or social science today.

In addition to understanding the basic structure and defining characteristics of the Delphi methodology, it is important to gain insight into the logistical considerations associated with it application. Two major components of any Delphi study are the selection of the expert panel and the number of rounds that will be used to gather feedback from the participants. The manner in which data is collected and analyzed through the use of various statistical procedures is also an important logistical consideration. Finally, the method chosen for the reporting of the findings of the Delphi study is extremely important.

The makeup of the expert panel is at the very core of the Delphi process. It is extremely important that the researcher give careful and systematic consideration to the process of panel selection. The chief concern is that the participants chosen for the study are truly deemed to be experts by the overall population. Ultimately, the panel members must possess the job skills and experience to qualify them as experts for the panel. It must be generally accepted that the individual under consideration possesses more knowledge about the subject matter than most people (Hill and Fowles, 1975). Membership in certain professional organizations is often used as a qualifying criterion for panel selection (Whitman, 1990). The method of selection often varies depending on the intended application of the particular Delphi study (Ziglio, 1996). In fact, some scholars advocate using, not only those with identified expertise in an area, but also those persons who may be directly affected by the decisions originating from the study

of a particular issue. Scheele explains that an expert panel contains "stakeholders, those who are or will be directly affected; experts, those who have an applicable speciality or relevant experience; and facilitators, those who have skills in clarifying, organizing, synthesizing, and stimulating" (1975, p. 68). Another way of selecting members of an expert panel is known as the lead-user method. This process is most useful when the subject being studied is geared toward a specific group of users or a particular segment of society. The lead-user concept is based on the notion that some users of every product will adapt that product to meet their needs and that they should be the ones to provide feedback as a member of the panel because they are considered by the field to be visionaries or role models. This methodology of panel selection is most often used in business and marketing research, but it can certainly be applied to the field of education as well. The lead users in the educational setting would be identified from those who are curriculum innovators, instructional reformers, critical scholars, creative thinkers, or instructional rebels (Duboff & Spaeth, 2000). Participant interest is also key in the selection process. Because the demands of a Delphi study are often relatively intense for its participants, it is critical that those chosen understand the commitment they are making and are interested in and motivated by the topic of study (Wilhelm, 2001). The manner in which the expert panel is selected is also at the heart of the overall validity of the study. Consensus can more or less be reached most of the time, but the more important issue at hand is whether or not the experts between whom consensus is being reached actually represent the correct body of experts for the issue being studied. Because traditional validity measures are not relevant in the Delphi setting, it is

important the overall selection criteria be themselves evaluated by several field professionals for content validity before selection of the panel occurs. This process establishes a reasonable level of validity to the overall study (Fish & Busby, 2005).

Panel size is also an important issue to consider in the planning stages of the Delphi process. The existing body of research on the Delphi method is mixed with respect to optimal panel size. One team of scholars believes that, while ten members should be adhered to as an absolute minimum for panel membership, there is no upper limit for the number of participants in a Delphi study (Parente & Anerson-Parente, 1987). Other theorists maintain that there is indeed a point of diminishing returns with respect to panel size. Delbecq, Van de Ven, and Gustafson claim that "few new ideas are generated within a homogenous group once the size exceeds thirty well-chosen participants" (1975, p. 89). Other researchers support this opinion, but attach an even lesser number to the maximum of participants of twenty-five (Brooks, 1979). Although an upper limit is certainly a topic of debate in the research community, most scholars believe that reliability improves and error is reduced as sample size increases (Cochran, 1983). Therefore, finding a balance between too many and too few is extremely important to the researcher.

Choosing the appropriate number of rounds for the study is an important issue for a researcher when using the Delphi process. Sometimes there is a fine line between providing each participant with an appropriate amount of feedback from the entire panel to consider in making their decisions and inundating the participant with questionnaires over and over that have no impact on their thinking. The redundancy associated with

repeated questionnaires can actually thwart the process of moving toward consensus. In

many cases, three rounds of the Delphi process have proven to be sufficient in

developing consensus. In instances of the use of more than three rounds, researchers

often see little to no change and the repetitive nature of the process begins to wear on the

members of the expert panel (Linstone & Turoff, 1975). Due to the iterative nature of

the Delphi process, the researcher must constantly examine the degree of variability

present in the feedback he or she is receiving from the members of the expert panel.

This is the reason that no specific number is accepted as absolute in terms of the number

of rounds used in a Delphi. Whitman states that the process needs to continue until a

consensus is reached or at least until there is enough convergence among the data to

permit the researcher to use the results in the absence of complete consensus (1990).

Frederick Parente and Janet Anderson-Parente conclude that "It is generally assumed

that a decrease in variability that occurs over successive rounds is correlated with

accuracy of the group prediction. Consequently, iterative polling continues until

variability has stabilized" (1987, p. 130). Therefore, it is generally assumed that the

Delphi process should end after it becomes clear that a stability of responses exists

(Murry & Hammons, 1995).

The manner in which data is collected in a Delphi study is largely dependent on

the responses of the members of the expert panel. However, the researcher (or research

design team) does have a significant impact on this process associated with the manner

in which the experiment is designed. Typically, data collection undergoes four distinct

phases with varying degrees of feedback flexibility for the participant. The first phase is

relatively exploratory on the part of the participant in that they are afforded the opportunity to give as much input as they would like on the topic under consideration. The second phase occurs on the part of the researcher to pull together all of the group input and come to an understanding of the overall group view. Third, the opposing views offered by various members of the expert panel are examined. The last phase of the data collection process occurs after the information obtained from the initial data collection phase is returned to the individual members of the expert panel for their analysis and consideration (Fish & Busby, 2005).

The Delphi exercise is a mixed methodology that bridges the gap between quantitative and qualitative analyses in some instances. When reporting Delphi results, the anonymity of panel members' responses is maintained within the reporting document which presents both areas of agreement and disagreement. These conclusions are supported by the relevant data from the previous rounds of the study (Wilhelm, 2001). The data reporting process for a Delphi exercise usually takes place in both narrative and tabular form (Fish & Busby, 2005). Another main focus of the final report for any Delphi exercise is to aid participants in their understanding of the other panel members' points of view (Wilhem, 2001).

There are many advantages to choosing the Delphi methodology for scientific research. In addition to being costly and time-consuming, the committee structure or other methods of face-to-face meetings are often more detrimental than they are beneficial to the overall communication process. One of the advantages of the Delphi method is that it cuts down on the potentially damaging effects of this type of

communication such as irrelevant or frustrating communication practices that the

researcher did not foresee in the original design process (Strauss & Ziegler, 1975).

Delphi has proven to be very useful in social science research. One reason for its

previous success is that the Delphi technique keeps many of the psychological

distractions normally associated with round-table or panel discussions from ever

becoming part of the research equation (Helmer, 1983). Some of the most significant

merits of the Delphi process are:

- It focuses attention directly on the issue under investigation;

- It provides a framework within which individuals with diverse

  backgrounds or in remote locations can work together on the same

  problem;

- It minimizes the tendency to follow-the-leader and other psychological

  and professional barriers to communication;

- It provides an equal opportunity for all experts involved in the process;

  and

- It produces precise documented records of the distillation process through

  which informed judgment has been achieved (Ziglio, 1996, p. 22).

Other scholars have noted that Delphis are better for processing judgmental data because

they allow the participant to stay focused on the issue at hand because they are not

distracted by other participants or by the process itself (Enzer et al., 1971). The fact that

the Delphi method utilizes anonymous feedback in a controlled situation is an advantage

to this type of research. An additional strength is that the responses obtained in a Delphi

tend to be well-reasoned on the part of the participant because they must logically

consider the issue under consideration throughout the questioning process. Additionally,

these well-reasoned responses may also be described statistically (Cochran, 1983).

According to Dalkey, the most compelling benefits of the Delphi process are that it

provides a forum that can't be heavily influenced by the personalities of dominant

individuals, reduces the effects of irrelevant or biasing communication, and it also

eliminates the notion that participants are pressured to conform to a preconceived or

"canned" ideas regarding the issue being studied (1972). Another of the biggest

strengths associated with the Delphi methodology is its simplicity. Most calculations are

simple and can be done without a calculator or advanced mathematical skills (Strauss &

Ziegler, 1975). The Delphi process certainly possesses a large number of strengths and

advantages that warrant an even broader implementation schedule in years to come.

Delphi does not exist without weaknesses or disadvantages. Some of the

disadvantages presented in the literature have to do with logistical issues. Delphi

questionnaires can be lengthy and time-consuming or they may be misinterpreted by

members of the expert panel. (Strauss & Ziegler, 1975). The demanding requirements

for participation may also be cause for some participants to drop out of the study

altogether or bias evident in the way questions are written may negatively impact a

participants responses (Murry & Hammons, 1995). Even though the Delphi method

originated within the confines of the RAND Corporation in the 1950s, one of the most

scathing critiques of the overall process is presented in a paper written by one of

RAND's employees attacking its scientific validity and asserting that it does not have

sufficient rigor to be a trusted scientific methodology. In this paper, Sackman argues ten points in which he believes the Delphi to be a failed methodology:

1. The Delphi's concept of the expert, and its claim to represent valid expert opinion, is scientifically untenable and overstated.

2. Delphi claims of superiority of group over individual opinion, and the superiority of remote and private opinion over face-to-face encounter, as well as their counterstatements, are unproven generalizations.

3. Delphi's consensus is specious consensus.

4. Delphi questions are likely to be vague.

5. Delphi responses are likely to be ambiguous.

6. Delphi results probably represent compounded ambiguity.

7. Delphi is primarily concerned with transient collections of snap judgment opinions of polled individuals from unknown samples, which should not be confused or equated with coherent predictions, analyses, or forecasts of operationally defined and systematically studied behaviors or events.

8. Delphi anonymity reinforces unaccountability in method and findings.

9. Delphi systematically discourages adversary process and inhibits exploratory thinking.

10. Delphi has been characterized by isolation from the mainstream of scientific questionnaire development and behavioral experimentation, and has set an undesirable precedent for interdisciplinary science in the

professional planning of policy studies community (RAND Corporation,

1974).

Another criticism that is often made of the Delphi study is that it does not always

produce results that are better than any other structured communication technique (Rowe

et al., 1991). Masini makes another point regarding the Delphi's inability to accurately

hold its own in the arena of scientific research by stating that the process is subject to the

personal biases of the current world view and those of the coordinating researcher. He

believes that the researcher detracts from the validity of the study because he or she is

responsible for key components of the methodology such as panel selection, information

analysis, and item construction (1993). Linstone and Turoff also point out the following

reasons for the failure of Many Delphi studies that are related to the personal

agenda/bias of the researcher:

- Imposing monitor views and preconceptions of a problem upon the

  respondent group by over-specifying the structure of the Delphi and not

  allowing for the contribution of other perspectives related to the problem

- Assuming that Delphi can be a surrogate for all other human

  communications in a given situation

- Poor techniques of summarizing and presenting the group response and

  ensuring common interpretations of the evaluation scales utilized in the

  exercise

- Ignoring and not exploring disagreements, so that discouraged dissenters

  drop out and an artificial consensus is generated

- Underestimating the demanding nature of a Delphi and the fact that the respondents should be recognized as consultants and properly compensated for their time if the Delphi is not an integral part of their job function (1975, p. 6)

Wilhelm argues that there are more weaknesses associated with the Delphi as a choice for research design, but, he admits, that many of them are problems associated with any methodology chosen from the category of being related to group inquiry (2001). While the Delphi method does possess many of the weaknesses and disadvantages presented above, it is worth noting that its implementation continues to increase in today's research community.

As with any research methodology, it is important to understand the degree of reliability that coincides with its implementation. Traditional reliability estimates that work for well-designed quantitative studies break down when the analysis turns to the Delphi procedure because of the open-ended nature of the process. A test-retest reliability is often used in qualitative studies, but, with Delphi, the members of the expert panel are unlikely to tolerate the complexity and time requirements of completing multiple Delphi questionnaires that point toward the same issue. Therefore, the researcher must examine the degree of consensus found between the initial and second round of questionnaire presented to the expert panel as a measure of reliability. If the study seems to be moving well toward consensus after Round Two, then it can be assumed that the researcher has done a reasonable job of summarizing the expert feedback given by participants in Round One. Therefore, it can reasonably be assumed

that and acceptable degree of reliability can be inferred upon the study (Fish & Busby, 2005).

Delphi is a versatile methodology that provides for many different applications in social science research. The overall characteristics of the process equip the Delphi as being useful in attempting to bridge the gap between theory and practice. Because it does not require large samples, intense statistical analysis, or huge research budgets, this methodology makes it practical to survey the experts whose opinions are important with respect to a particular field at any time. Probably one of the most significant "gap-bridging" characteristics of the Delphi process is that its results are presented in the language of the respondents rather than being dominated by theoretical lingo or statistical jargon that is difficult to understand. This feature alone elevates the interest level of readers because they can speak the same language in which the results of a particular study are presented (Fish & Busby, 2005).

Leadership is the subject of a wealth of literature in educational administration. Understanding the historical perspectives of leadership, the basis for the claims regarding the contribution of leadership to student success, and the methodological characteristics of the Delphi method is important for successful implementation of the research proposed in the previous chapter. The research framework presented in this chapter will prove to be useful in the development of a Delphi questionnaire that will effectively measure principals' perceptions regarding the relationship between leadership and student performance.

CHAPTER III

PROCEDURES AND METHODOLOGY

Introduction

The purpose of this chapter is to describe the research methodology that was implemented by this study of successful leadership characteristics for student performance as demonstrated by Texas high school principals. The chapter includes three major sections: the research design used in the study, a description of the population selected for participation, and the procedures followed throughout the course of the research project.

Research Design

Since its earliest application in the 1950's, the Delphi technique has proven to be a viable method for developing group forecasts or consensus regarding various societal issues. One of the greatest strengths of the Delphi is that it allows an expert panel to comment on issues or make predictions without falling prey to many of the confounding group dynamic characteristics normally associated with collaborative projects.

The application of the Delphi technique in this research project did vary somewhat from the classical Delphi approach. Typically, the initial round of a Delphi study is somewhat open-ended and the expert panel is asked to identify critical issues or concerns regarding the global research topic which they are presented. In the case of this study, panel members were presented with a research-based selection of leadership

characteristics for their rating in the first round of the Delphi procedure as well as an open-ended opportunity to include leadership characteristics that they deemed to be critical to student success that were not included in the initial section of the Round One instrument. Therefore, this project began where many other classically-oriented Delphi studies tend to pick up in Round Two of the process.

The next round of a Delphi study provides participants with all of the data presented by the expert panel in the previous round. The data is presented along with various descriptive statistics describing the data. For the purposes of this study, the most essential statistical data were the mean and the inter-quartile range (IQR). The mean was chosen by this researcher for the purposes of this study, but it is worth noting that many Delphi studies select the median as a more suitable measure of central tendency rather than the mean. The IQR is calculated by determining which ratings or scores for each item fall between the 25th and 75th percentile of responses for the entire panel. In addition to viewing the overall data from the entire panel, panel members are also shown which individual items on the survey that they answered outside of the IQR. For these items, participants have the option to either change their answer to fall within the identified IQR or to provide justification as to why they feel their answer is the correct answer. This justification will be presented for the entire panel to consider in the next round of the Delphi process. This procedure is then repeated for as many rounds as necessary until consensus is reached by the members of the expert panel.

Research Population

The population selected for the study was high-performing Texas High School Principals. The selection criteria for panel members included campus accountability ratings, school size, and the principal's tenure at the school. Beginning with the universal population of every Texas High School Principal, these three selection criteria were applied to develop the expert panel that would be invited to participate in this study. Potential participants had to qualify in all three areas in order to be eligible for participation. Each of the three selection criteria will now be described in detail.

The Texas Education Agency gives every school in the state an accountability rating every year through the Academic Excellence Indicator System (AEIS). These accountability ratings include the categories of Academically Unacceptable, Academically Acceptable, Recognized, and Exemplary. Principals of schools receiving a campus accountability rating of either Recognized or Exemplary on their 2005 AEIS report were identified as possible participants in the study pending qualification under other selection criteria.

The school size selection criterion was based on the University Interscholastic League (UIL) conference designation of each Texas High School. The UIL designates which conference a member school will be designated for participation in based on the number of students enrolled in grades 9-12 on the PEIMS Snapshot Day (the last Friday of October) in a given school year. Conference classifications are recalculated on a biennial basis. Potential participants for this study were based on the conference designation of their high school for the 2005-06 school year. At that time Conference

5A high schools had a minimum enrollment of 1985 students and Conference 4A schools were those that enrolled at least 900 students. Principals marked as potential participants in this study based on school size were employed at either 4A or 5A high schools for 2005-06. It is worth noting that conference designations were recalculated for the 2006-07 and 2007-08 school years and that the line between 3A and 4A is currently 950 students (rather than the level of 900 that was in place for the 2005-06 school year). One participant in the study is currently the principal of a 3A high school based on this new calculation, but they are still participating as a member of the expert panel based on the 2005-06 designation of their school as 4A. The purpose of imposing the school size criterion on the study was to insure that participants were true instructional leaders of high schools that dealt with all segments of the accountability spectrum. For example, some smaller schools may be rated at a higher level due to small numbers in particular subgroups that are not factored into the Texas Education Agency's assignment of an accountability rating to that campus. Larger schools were chosen so that the campus principal would be someone who has demonstrated success in working with the entire spectrum of accountability issues set forth by the State of Texas.

The final selection criterion for participation in the study dealt with the campus principal's tenure in their current position. This criterion was used to be sure that the current principal was indeed closely associated with the high degree of student performance at their campus rather than having merely "inherited" a high degree of student success and academic performance. This would have presented a potential validity issue and could possibly have skewed the results of the study. On the other end

of the spectrum from having recently come into an already high achieving culture, some principals assume leadership roles in schools that are in serious need of a turnaround in terms of student success and academic performance. When this is the case, it can take several years to begin to see the results brought about by both instructional and organizational initiatives put in place by a new principal. Therefore, it was decided that a principal would need to have been in his or her current position for at least three years to be eligible for participation in the study. When it came to selecting participants to serve on the expert panel for this study, several exceptions were made with respect to this criterion. One principal was just beginning her first year as principal of a campus that met the other two criteria for participation in the study. However, the campus she was just leaving also met the other two criteria for participation in the study and she had served as the principal of the previous campus for a number of years that exceeded the selection criterion. She was, therefore, allowed to participate because the questions she would be asked throughout the course of the research process were of a conceptual nature regarding leadership rather than specifically tied to experiences in a particular situation. Two other potential participants had been serving as principal at their campus for less than three years (1 and 2 years respectively), but had served in administrative roles closely tied to organizational and instructional performance such as Dean of Instruction or Associate Principal for many years on the same campus. It was decided that these two participants would be allowed to participate in the study due to their extensive knowledge and leadership experience in the respective assignments.

The above criteria were applied (in the order presented in this section) to all of the 1,037 public school districts in Texas. Due to the fact that some school districts had multiple high schools to be evaluated with respect to the selection criteria, 1,698 schools were analyzed. Of these 1,698 high schools, seven were rated as exemplary and another 146 were rated as recognized. Therefore a total of 153 schools satisfied the initial selection criterion based on their accountability rating. When the second selection criterion (school size) was applied to these 153 schools, it was determined that 33 of the high schools were eligible for participation in either Conference 4A or Conference 5A as designated by the University Interscholastic League. Finally, the selection criterion dealing with the amount of time each principal had served in their current leadership role on the campus was examined. Including the three exceptions to this criterion detailed in the preceding paragraph, 29 principals were identified as potential participants in this study. Due to the small number of individuals meeting the overall selection criteria, it was determined by the researcher that the entire population would be invited to participate rather than perform any kind of sampling procedure. While it was hoped that 100% of the identified principals would agree to participate in the study, the researcher determined that it would be necessary to begin the study with no less than fifteen participants. Participation at this level would provide an adequate representation of the leadership characteristics of high-performing Texas high school principals.

Procedures

On May 1, 2006, the Institutional Review Board Protocol for this research project received Category Two exemption from the Office of Research Compliance at Texas A&M University. At this point, preparations began to implement the study described in Chapter I of this document. The researcher used the selection criteria above to identify twenty-nine high-performing Texas high school principals as potential participants in the study. The Executive Director of the Texas Association of Secondary School Principals (TASSP) graciously provided a cover letter endorsing this research project to be included with the invitation materials for the study. It was hoped that this endorsement would positively impact the decisions of the identified principals regarding their participation in the study. On Tuesday, May 30, 2006, the materials for Round One of the Delphi study were sent to the twenty-nine individuals at their official school addresses. The Round One research packets included an introductory letter from the researcher describing the study and requesting the principal's participation, the aforementioned letter of endorsement from TASSP, a research information sheet, the Round One survey instrument, a self-addressed stamped envelope for the return of research materials, and a form upon which the participant could indicate his or her preferred method of participation in the study (through the use of hard copies sent back and forth by U.S. mail or through the use of electronic copies transmitted by email). All of these items can be found in Appendix A. A follow-up email (Appendix B) was sent to all prospective participants on Friday, June 2, 2006 to thank them for their consideration of participation in the study. Attached to this email were electronic

versions of the research documents referenced above. The timing of this email was such

that the participants should have already received their hard copy of the research packet

prior to the email. On June 19, 2006, a second follow-up email was sent to the

remaining invited participants who had not previously returned the Round One survey

(Appendix C). A research information sheet and another copy of the Round One survey

were electronically attached to this email. Realizing that high school principals are

incredibly busy and that the summer months are typically when vacation time is used, a

great deal of extra time was included for invited participants to respond to the Round

One survey. Surveys continued to trickle in throughout the summer and beginning of

August. The greatest participation possible from these twenty-nine individuals was

desired. Therefore, a final round of phone calls was made in early September to solicit

participation from those who had not returned any survey materials. On Friday,

September 15th, 2006, the researcher declared Round One to be complete and moved

forward with data analysis in preparation for Round Two. The expert panel for the study

ultimately consisted of seventeen high-performing Texas high school principals. Ten

members of the expert panel chose to participate by way of hard copies being sent

through the U.S. mail with the remaining seven participants opting for e-mail

participation.

The data from Round One was entered into a spreadsheet for analysis. Each of

the twenty-six items contained a prompt that represented a research-based leadership

characteristic that was rated by each participant along a five point Likert scale. Scores

ranged from one to five. These scores corresponded to the categories of "Not necessary

for student success" (one), "Moderate importance for student success" (two), "Average importance for student success" (three), "Above average importance for student success" (four), and "Critical importance for student success" (five). Descriptive statistics were run for each of the twenty-six items including the inter-quartile range (IQR) and three measures of central tendency (mean, median, and mode).

Members of the expert panel also were asked to complete Section Two of the survey, which was much more open-ended than the initial twenty-six items. This portion allowed each respondent to list any particular leadership characteristics that they may have felt were not represented by the objective statements presented in Section One of the instrument. Only seven of the seventeen Round One participants opted to make any comments in this section of the survey. These comments were recorded in the data summary and then added to the instrument that had been prepared for Round Two of the Delphi study.

The results from Round One of the Delphi study were studied by the researcher on both a whole-group and individual basis. The inter-quartile range (IQR) was an extremely important statistic that had to be examined in preparation for Round Two. In contrast to the identical surveys that been sent out during Round One of the study, the Round Two instruments had to be prepared in a manner that allowed them to be individualized for each participant. Each individual Round Two survey included a presentation of the mean of the entire group's responses, the IQR from Round One for each individual question, and a reminder for the participant of which answer they entered for the original question in Round One. Section Two of the Round Two survey

listed all of the individual comments from Round One describing what leadership

characteristics were not included in the original twenty-six questions in Section One. In

this section, the panel members were asked provide feedback on the Round One

suggestions and comments and discuss how they felt they related to the original items.

This instrument can be found in Appendix D of this document. A copy of the twenty-six

original questions was also included as part of the Round Two instrument for the

respondents' information.

The research packets containing all of the materials for Round Two were either

mailed or electronically transmitted on October 9, 2006. These materials included a

letter to the participants explaining exactly what was being asked of them during this

round, an individualized Round Two questionnaire, and a research information sheet.

The materials that were sent electronically went out in separate emails to insure the

confidentiality and anonymity of each participant. These materials can be found in

Appendix D of this document. Due to the fact that the Fall semester was beginning to

draw to a close and that the holiday season was fast approaching, participants were given

a little extra time to return the Round Two questionnaires.

On January 7, 2007, a very small portion of the questionnaires that had been sent

out in October had been returned. A follow-up correspondence was sent on this date via

email (Appendix E). This included a new participant letter, the individualized Round

Two questionnaire, and a research information sheet. This attempt did draw immediate

feedback from several participants, but overall return rate was still not at an acceptable

level.

Every remaining participant that who had not returned his or her questionnaire for Round Two was contacted by telephone on January 23, 2007. In cases that did not result in direct contact with either the participant or their secretary, a follow-up email was sent the same day (Appendix F). This effort at retrieving the desired data resulted in fifteen out of seventeen surveys being complete by the day's end. Additional phone calls were made to the remaining two participants the following day (January 24, 2007) which resulted in one more survey being completed. With sixteen out of seventeen surveys being completed (94.1% response rate), the research declared Round Two to be complete on January 26, 2007.

The data from the Round Two survey was then entered into a spreadsheet and analyzed. The responses to the objective items in Section One seemed to be moving well toward developing group consensus after two rounds. Sixteen of the twenty-six items ended up with no participants providing responses outside of the original inter-quartile range (IQR) after two rounds. Seven questions were completed with only one of the sixteen responses being outside the original IQR. One item remained with two responses outside the IQR as well as one item each with three and four responses not falling within the 25th and 75th percentile of the data generated by the respondents in Round One. Only five members of the expert panel chose to make any comments regarding the leadership characteristics presented in Section Two of the Round Two instrument. Most of these comments talked about how the leadership characteristics originally generated in this section were merely specific examples of those presented in the twenty-six objective items in Section One.

At the conclusion of the Round Two data analysis period, the Round Three Questionnaire was developed. This instrument sought to finalize the responses from the sixteen participating principals on the eleven questions for which there were still a few responses outside of the original inter-quartile range (IQR). All participants (even those whose responses to a particular question fell inside the IQR) received a questionnaire containing information regarding all eleven items. Each item was presented in a table containing the original prompt that was rated in the Round One Survey, the IQR, the current mean, their current response, the justification for the responses currently outside the IQR, and an opportunity to change their response based on the information presented in the table.

On January 28, 2007, the Round Three research packets were sent both electronically and through the United States Mail. These packets contained an explanatory letter for Round Three, the Round Three Questionnaire, a research information sheet, and a postage-paid return envelope. An email was also sent on January 28th to insure that all participants were contacted in a variety of ways. All of these items are presented in Appendix G of this document. Participants were asked to return the Round Three Questionnaire as soon as possible. They were informed that they could return the questionnaire by United States Mail, email, fax, or by telephone. Participants returned the surveys more quickly in Round Three than in previous rounds. On Friday, February 2nd, a reminder email was sent to the members of the expert panel who had not yet returned the Round Three Questionnaire. This email is shown in Appendix H. Follow-up phone calls were made beginning Monday, February 5th. By

Wednesday, February 7th, the last questionnaire had been returned and Round Three ended.

The data was entered into a spreadsheet and the relevant descriptive statistics were calculated. The original inter-quartile range (IQR) was used as a basis for which responses still needed to be viewed as outliers. There were very few responses to any of the eleven items in Round Three that were changed by any of the sixteen participants. Due to the lack of variation in responses and the small number of items for which there remained responses outside the original IQR, it was decided by the researcher that a fourth round would not be necessary. Therefore, the data collection period for this Delphi study of the leadership practices of high-performing Texas high school principals was complete.

After the completion of Round Three, some additional calculations were made regarding average means and weighted group statistics for comparison between groups of different sizes. The purpose for calculating these statistics was to allow the researcher to draw conclusions based on the research-based claims regarding the contribution of leadership to student success. A prioritized list of leadership characteristics was created based on the Round Three individual means for the twenty-six original items from Section One of the questionnaire. Prioritized lists were also generated for the same twenty-six items at the conclusions of Rounds One and Two. These lists were created so that the leadership characteristics presented in the study could be ranked overall in an effort to answer the research questions for the study.

In summary, the timeline for completion of this study ranged from the approval of the Institutional Review Board on May 1, 2006 to the completion of the Round Three data collection on February 7, 2007. The Delphi exercise consisted of three questionnaires with the first two containing two sections to be completed by the members of the expert panel. Sixteen of the thirty invited high-performing Texas high school principals ultimately completed the study. Their input has proven invaluable in identifying the most essential leadership characteristics for student success at the high school level.

CHAPTER IV

RESULTS AND DATA ANALYSIS

Introduction

The purpose of this study was to determine which leadership characteristics are of critical importance to school principals for student success. The study described made use of the Delphi methodology to collect data from the Summer of 2006 to the Spring of 2007. Sixteen high-performing Texas high school principals participated as members of the expert panel for this modified Delphi study. This chapter describes the data gathered throughout the three rounds of the Delphi study and presents it to the reader as it relates to each of the following research questions:

1. Do the leadership characteristics presented in the available literature on educational administration represent the qualities viewed as critical to student success by successful practitioners?

2. What are the most essential leadership characteristics for success as a Texas High School principal?

3. What leadership characteristics are viewed as being critical to student success that have not already been identified by existing leadership literature?

These questions, and the data gathered in an attempt to answer them, are beneficial in that they have implications for principal preparation programs, the daily practice of current administrators, and the continuing staff development needs of educators. The

remainder of this chapter will be divided into five sections: an overview of the data received in each individual round of the Delphi study, a discussion of the data relevant to each of the three individual research questions, and a closing summary of the data that examines the data as a whole and illustrates how that data changed over the course of the entire Delphi process.

Raw Data Overview

The Round One Questionnaire was sent to thirty Texas High School principals who met the identified criteria for the study in the areas of campus accountability rating, total school enrollment, and the principal's tenure in his/her current assignment. Seventeen principals responded to the questionnaire in Round One and agreed to participate in the study. This research project took the form of a modified Delphi study. Therefore, the initial questionnaire was not entirely open-ended. The twenty-six items in Section One presented research-based leadership characteristics. The responding principals were asked to rate these on a Likert scale ranging from one to five with one representing "Not necessary for student success" and five representing "Critical importance for student success". Section Two of the Round One instrument afforded the participants an opportunity to provide open-ended feedback. In this section, respondents were asked to provide any campus-level leadership characteristics that they felt were of critical importance to student success and had been omitted from the first section of the questionnaire.

Each of the twenty-six items in Section One of the Round One Questionnaire corresponded to leadership characteristics that were found to be supported by the existing body of literature for educational administration. Some of the items also corresponded to leadership standards for campus principals developed by agencies such as the Educational Leadership Constituent Council (as approved by the National Council for Accreditation of Teacher Education), the Texas State Board of Educator Certification, and the Interstate School Leaders Licensure Consortium. Due to the overall length of the prompt used in some items, it became necessary to generate a summary phrase or descriptor for each item to be used in data analysis and summary. The summary phrases for each of the twenty-six items can be seen in Table 1 along with the corresponding item from the questionnaire. A complete copy of the Round One Questionnaire may be viewed in Appendix A.

TABLE 1. Round One Questionnaire Items and Corresponding Item Summary Phrases

Item	Complete Prompt	Item Summary Phrase
1	The campus principal develops a collective vision of the future that focuses, inspires, and sustains goal achievement efforts over time.	Collective Vision Development
2	The campus principal endorses visions of exemplary instructional practices.	Exemplary Instructional Vision
3	The campus principal develops people through intellectual stimulation, promotion, and support of those engaged in meaningful change.	People Development
4	The campus principal views the school as a professional learning community embedded within a local context.	Learning Community

TABLE 1. Continued

Item	Complete Prompt	Item Summary Phrase
5	The campus principal develops and strengthens school culture	Culture Development
6	The campus principal modifies organizational structures (assignments, allocation of resources, and procedures) to create optimal conditions for learning and teaching.	Structure Modification
7	The campus principal builds collaborative processes.	Collaboration Building
8	The campus principal manages the environment.	Environmental Management
9	The campus principal responds proactively to challenges and opportunities created by the accountability-oriented policy context in which they work.	Proactive Response
10	The campus principal responds productively to the opportunities and challenges of educating diverse groups of students.	Productive Response
11	The campus principal builds powerful forms of teaching and learning.	Form Building
12	The campus principal creates strong communities in schools.	School Community
13	The campus principal expands students' social capital valued by schools.	Social Capital Expansion
14	The campus principal nurtures the development of families' educational cultures.	Family Culture Development
15	The campus principal influences student learning by supporting teacher efforts to achieve high expectations for student learning.	High Expectations
16	The campus principal devotes a great deal of time and energy to the school improvement process.	School Improvement

TABLE 1. Continued

Item	Complete Prompt	Item Summary Phrase
17	The campus principal promotes student achievement through the effective management of the school's human, financial, and physical resources.	Resource Management
18	The campus principal continuously seeks out new available resources for the enhancement of student learning.	New Resources
19	The campus principal interacts with the entire community within which his or her organization is located by becoming knowledgeable of, responsive to, engaged in the larger social, economic, legal and cultural contexts of the community.	Community Interaction
20	The campus principal models integrity, fairness, and ethical behavior in all situations.	Ethical Behavior
21	The campus principal consistently supervises instructional practices throughout the entire school and is knowledgeable enough regarding curriculum and instruction to provide meaningful feedback to teachers.	Instructional Supervision
22	The campus principal's top priority is protecting instructional time.	Instructional Time
23	The campus principal supports teachers and regularly provides them with incentives	Teacher Support
24	The campus principal chooses meaningful professional development activities for his or her staff and participates in them when they are presented.	Professional Development
25	The campus principal maintains a high degree of visibility to staff, students, parents, and other members of the community.	Principal Visibility
26	The campus principal strives to build the leadership capacity of those around them (teachers, students, parents, etc…).	Leadership Capacity

With seventeen of the thirty original questionnaires having been returned, Round

One of the Delphi process was declared to be over in September of 2006 by the

researcher. At this point, the responses from Section One were analyzed using

descriptive statistical practices. The mean, median, and mode were calculated for each

of the twenty-six items. The descriptive statistics associated with this analysis are

presented in Table 2. The inter-quartile range (IQR) was also calculated. Table 3 shows

the IQR for each item in Section One as well as the number of responses that fell outside

of the IQR for each item.

TABLE 2. Descriptive Statistics for Round One Questionnaire

Item	Summary Phrase	Mean	Median	Mode
1	Collective Vision Development	4.71	5	5
2	Exemplary Instructional Vision	4.59	5	5
3	People Development	4.35	4	5
4	Learning Community	4.41	5	5
5	Culture Development	4.71	5	5
6	Structure Modification	4.47	5	5
7	Collaboration Building	4.18	4	4
8	Environmental Management	4.12	4	4
9	Proactive Response	4.47	5	5
10	Productive Response	4.76	5	5
11	Form Building	4.18	4	4

TABLE 2. Continued

Item	Summary Phrase	Mean	Median	Mode
12	School Community	3.94	4	4
13	Social Capital Expansion	3.59	3	3
14	Family Culture Development	3.71	4	3
15	High Expectations	4.71	5	5
16	School Improvement	4.29	4	4
17	Resource Management	4.59	5	5
18	New Resources	4.24	4	5
19	Community Interaction	3.94	4	4
20	Ethical Behavior	4.71	5	5
21	Instructional Supervision	4.53	5	5
22	Instructional Time	4.18	4	4
23	Teacher Support	4	4	4
24	Professional Development	4.24	4	5
25	Principal Visibility	4.82	5	5
26	Leadership Capacity	4.53	5	5

TABLE 3. Round One Inter-Quartile Range (IQR) and Number of Outlier Responses

Item	Summary Phrase	IQR	Number of Responses Outside IQR
1	Collective Vision Development	(5,5)	4
2	Exemplary Instructional Vision	(4,5)	1
3	People Development	(4,5)	2
4	Learning Community	(4,5)	2
5	Culture Development	(4,5)	0
6	Structure Modification	(4,5)	3
7	Collaboration Building	(4,5)	2
8	Environmental Management	(4,5)	3
9	Proactive Response	(4,5)	1
10	Productive Response	(5,5)	3
11	Form Building	(4,5)	2
12	School Community	(3,4)	4
13	Social Capital Expansion	(3,4)	4
14	Family Culture Development	(3,4)	4
15	High Expectations	(4,5)	0
16	School Improvement	(4,5)	1
17	Resource Management	(4,5)	1
18	New Resources	(4,5)	3
19	Community Interaction	(4,4)	8
20	Ethical Behavior	(5,5)	4

TABLE 3. Continued

Item	Summary Phrase	IQR	Number of Responses Outside IQR
21	Instructional Supervision	(4,5)	2
22	Instructional Time	(4,5)	3
23	Teacher Support	(4,4)	5
24	Professional Development	(4,5)	3
25	Principal Visibility	(5,5)	3
26	Leadership Capacity	(4,5)	1

Section Two of the Round One Questionnaire presented the respondent with an opportunity to provide open-ended feedback regarding other essential leadership characteristics. Members of the expert panel were asked to write down any additional leadership characteristics that they believed essential to student success which had been omitted from the objective items in Section One. Only seven of the members of the expert panel chose to suggest additional leadership characteristics in Section Two. Table 4 illustrates the comments made in this section.

TABLE 4. Section Two Comments from Round One Questionnaire

Respondent	Comments Regarding Additional Leadership Characteristics
6	Excellent Communicator - many administrators have the qualities listed above and can't translate them into action and communicate a clear vision to the staff
11	The principal must actively monitor the student climate, the community climate, and the climate of the professional staff. Student engagement is a piece that is gaining in focus, but it is long overdue. Any student who wants to learn has more than ample opportunity despite the scope and sequence of curriculum and instructional delivery system. Building a culture of constructivist learning communities must precede extraordinary achievement. Traditional methods ramped up in order to "cover" all the TEKS will have limited potential for bringing about desired results.
13	The principal of a school where the success level is high always has an open door to listen and show an interest in all stakeholders in the school system.
15	The campus principal together with staff, students, and parents make all of the above possible. The principal alone will not make things happen. All are important to reach maximum student success.
21	Safe orderly managed school. Understanding that kids come first. Able to work well with central admin and the board. Clear expectations for kids and staff.
24	CRITICAL TO STUDENT SUCCESS - Benchmark testing. Proper placing of teaching schedule. Hiring excellent teachers. Helping teachers grow. Clinical supervision. Positive reinforcement. TAKS incentives so TAKS is a valid assessment. Visibility.
25	1. Hire the best people. 2. Lead and support the best people. 3. Strategically remove those people who are not the best people.

Round Two of the Delphi process took place from October of 2006 until January of 2007. In this round, members of the expert panel were provided with the group results from the Round One Questionnaire. The Round Two Questionnaire, like its predecessor in Round One, was in two sections. Section One presented the same

twenty-six items as Round One. Along with the prompt, members of the expert panel were shown the group mean for each question, the inter-quartile range (IQR), their original response and whether or not their response fell outside the IQR. Respondents were asked to consider all of the items for which their response fell outside of the IQR and then make a decision as to whether they wished to change their answer to one falling within the IQR or leave it the same and provide justification for their response that would provided to the entire group to consider.

Sixteen of the seventeen Round Two Questionnaires were returned before the researcher declared the round to be officially ended in January of 2007. The data from round two was then analyzed using the same descriptive statistical practices used in Round One with the exception of the inter-quartile range (IQR). Due to the fact that the original IQR was used as the measuring stick for consensus in the overall study, a new IQR was not computed in the second round. Table 5 shows the descriptive statistics associated with Round Two.

TABLE 5. Descriptive Statistics for Round Two Questionnaire

Item	Summary Phrase	Mean	Median	Mode
1	Collective Vision Development	5	5	5
2	Exemplary Instructional Vision	4.63	5	5
3	People Development	4.5	4.5	4
4	Learning Community	4.5	4.5	4
5	Culture Development	4.75	5	5

TABLE 5. Continued

Item	Summary Phrase	Mean	Median	Mode
6	Structure Modification	4.63	5	5
7	Collaboration Building	4.38	4	4
8	Environmental Management	4.31	4	4
9	Proactive Response	4.56	5	5
10	Productive Response	4.94	5	5
11	Form Building	4.31	4	4
12	School Community	3.88	4	4
13	Social Capital Expansion	3.56	3.5	3
14	Family Culture Development	3.69	4	4
15	High Expectations	4.69	5	5
16	School Improvement	4.25	4	4
17	Resource Management	4.63	5	5
18	New Resources	4.38	4	4
19	Community Interaction	4.06	4	4
20	Ethical Behavior	5	5	5
21	Instructional Supervision	4.63	5	5
22	Instructional Time	4.38	4	4
23	Teacher Support	3.94	4	4
24	Professional Development	4.31	4	5
25	Principal Visibility	4.93	5	5
26	Leadership Capacity	4.63	5	5

After the analysis of the statistical data was completed for Round Two, the researcher examined the questions for which respondents had still made responses falling outside the original inter-quartile range (IQR) from Round One. The number of questions for which this was the case decreased dramatically for Round Two. Table 6 reports the information regarding questions falling outside of the IQR. In terms of the

TABLE 6. Change in Number of Questions Falling Outside the Inter-Quartile Range (IQR) from Round One to Round Two

Item	Summary Phrase	Number of Responses Outside IQR after Round One	Number of Responses Outside IQR after Round Two
1	Collective Vision Development	4	0
2	Exemplary Instructional Vision	1	0
3	People Development	2	0
4	Learning Community	2	0
5	Culture Development	0	0
6	Structure Modification	3	0
7	Collaboration Building	2	0
8	Environmental Management	3	0
9	Proactive Response	1	0
10	Productive Response	3	1
11	Form Building	2	0
12	School Community	4	2

TABLE 6. Continued

Item	Summary Phrase	Number of Responses Outside IQR after Round One	Number of Responses Outside IQR after Round Two
13	Social Capital Expansion	4	1
14	Family Culture Development	4	2
15	High Expectations	0	0
16	School Improvement	1	1
17	Resource Management	1	1
18	New Resources	3	1
19	Community Interaction	8	3
20	Ethical Behavior	4	0
21	Instructional Supervision	2	0
22	Instructional Time	3	0
23	Teacher Support	5	4
24	Professional Development	3	2
25	Principal Visibility	3	1
26	Leadership Capacity	1	0
	Total	68	19

number of responses continuing to fall outside the inter-quartile range (IQR), the expert

panel seemed to be moving well toward consensus in Section One of the questionnaire.

There was an 72.1% drop in the overall number of responses outside the IQR. The

justifications for the remaining outlier responses were collected and would be presented for the expert panel's consideration in Round Three of the Delphi process. A complete listing of the justifications for outlier responses can be found on the Round Three Questionnaire in Appendix G.

Section Two of the Round Two Questionnaire asked participants to consider all of the additional leadership characteristics that were believed to have been omitted from the Section One items in Round One. Space was provided to give feedback regarding these characteristics. Only four participants opted to give any written feedback in this section. These four comments are shown in Table 7. It is worth noting that only two individual comments discuss particular aspects of the feedback presented in Section One of the original survey. One response states that they feel that the Round One responses of omitted leadership characteristics were not actually omitted characteristics, but, rather, that they just represented specific examples of the broad characteristics from Round One of the questionnaire. The final comment merely affirmed that the individual believes that the characteristics presented were part of their individual leadership style. Due to the small number of participants responding in this section of the questionnaire, phone calls were made to the respondents who had not previously provided written information in Section Two. The principal's feedback regarding Section Two of the questionnaires was solicited during these phone conversations. In each case, the responding principal stated that he or she felt like there was nothing new presented in Section Two and that the comments and suggestions made by other participants could be

generalized into the leadership characteristics presented in the twenty-six items in

Section One.

TABLE 7. Section Two Comments from Round Two Questionnaire

Respondent	Comments Regarding Additional Leadership Characteristics Presented in Section Two of the Round One Questionnaire
6	The first two characteristics are related to the vision of the school leaders. I feel that it is extremely important for the school leader to have a clear vision of guiding a school that prepares students for the 21st century. I believe that schools ten to twenty years from now will look very different from the typical school today.
22	All of the above are right on the money and fall under my leadership style
23	I believe that most ideas listed above are specific examples of the broad areas listed on the original survey and thus are not necessary for inclusion. Combining bullet 1 and bullet 6 though to address principal accessibility and communication with stakeholders might be beneficial. I think accessibility is different from visibility as addressed in statement 25 on the original survey. Some might say though that communication is a necessary strength in all areas listed originally and thus doesn't need to be addressed separately.
25	1. Hire the best people. 2. Effectively lead and support the best people. 3. Strategically remove those people who are not the best people.

Round Three of the Delphi process began at the end of January 2007. The

Round Three Questionnaire provided participants with an opportunity to reexamine their

Round Two answer to a particular item based on the feedback and results from the

overall group. In this questionnaire, the eleven questions for which there remained

responses from at least one member of the expert panel falling outside the inter-quartile

range (IQR) were presented along with the participant's current answer, the current

mean, the original IQR and any comments written by members of the panel in

justification of their choosing to not change their answer in Round Two even though it

fell outside the IQR. The Round Three Questionnaires were mailed to the sixteen

participants who had completed the Round Two Questionnaire.

The data collection period for Round Three of the Delphi exercise ended on

Wednesday, February 7, 2007 with results being received from all sixteen participants.

In the third round of the study, it became clear that consensus was very close to being

reached. Only four items were changed at all during this round. Table 8 reports the

descriptive statistics for Round Three. Only two items experienced any fluctuation at all

with respect to the overall number of responses falling outside the original inter-quartile

range (IQR). The answer to these two items changed so that there were now no

responses outside of the IQR. The items experiencing changes in the number of items

within the IQR are shown in Table 9. The total number of overall responses falling

outside the IQR decreased from nineteen to seventeen. Additionally, the total number of

questions for which these responses were spread out over decreased from eleven at the

end of Round Two to nine at the end of Round Three.

TABLE 8. Descriptive Statistics for Round Three Questionnaire

Item	Summary Phrase	Mean	Median	Mode
1	Collective Vision Development	5	5	5
2	Exemplary Instructional Vision	4.63	5	5
3	People Development	4.5	4.5	4
4	Learning Community	4.5	4.5	4
5	Culture Development	4.75	5	5
6	Structure Modification	4.63	5	5
7	Collaboration Building	4.38	4	4
8	Environmental Management	4.31	4	4
9	Proactive Response	4.56	5	5
10	Productive Response	5	5	5
11	Form Building	4.31	4	4
12	School Community	3.94	4	4
13	Social Capital Expansion	3.56	3.5	3
14	Family Culture Development	3.69	4	4
15	High Expectations	4.69	5	5
16	School Improvement	4.25	4	4
17	Resource Management	4.69	5	5
18	New Resources	4.38	4	4
19	Community Interaction	4.06	4	4
20	Ethical Behavior	5	5	5

TABLE 8. Continued

Item	Summary Phrase	Mean	Median	Mode
21	Instructional Supervision	4.63	5	5
22	Instructional Time	4.38	4	4
23	Teacher Support	3.94	4	4
24	Professional Development	4.25	4	4
25	Principal Visibility	4.93	5	5
26	Leadership Capacity	4.63	5	5

TABLE 9. Change in Number of Questions Falling Outside the Inter-Quartile Range (IQR) from Round Two to Round Three

Item	Summary Phrase	Number of Responses Outside IQR after Round Two	Number of Responses Outside IQR after Round Three
1	Collective Vision Development	0	0
2	Exemplary Instructional Vision	0	0
3	People Development	0	0
4	Learning Community	0	0
5	Culture Development	0	0
6	Structure Modification	0	0
7	Collaboration Building	0	0
8	Environmental Management	0	0
9	Proactive Response	0	0

TABLE 9. Continued

Item	Summary Phrase	Number of Responses Outside IQR after Round Two	Number of Responses Outside IQR after Round Three
10	Productive Response	1	0
11	Form Building	0	0
12	School Community	2	2
13	Social Capital Expansion	1	1
14	Family Culture Development	2	2
15	High Expectations	0	0
16	School Improvement	1	1
17	Resource Management	1	0
18	New Resources	1	1
19	Community Interaction	3	3
20	Ethical Behavior	0	0
21	Instructional Supervision	0	0
22	Instructional Time	0	0
23	Teacher Support	4	4
24	Professional Development	2	2
25	Principal Visibility	1	1
26	Leadership Capacity	0	0
	Total	19	17

After the data collection and analysis period for Round Three of the Delphi study ended, it was determined that there was no need to proceed with a fourth round of questionnaires because consensus had been reached among the members of the expert panel. The main reason for this conclusion was the small amount of variation that occurred in Round Three where only 4 out of 176 possible responses were changed (2.3%). The next section of this chapter will explore the data relevant to each of the three research questions guiding the study.

Research Question One

Do the leadership characteristics presented in the available literature on educational administration represent the qualities viewed as critical to student success by practitioners?

The first research question deals with a comparison of successful leadership characteristics presented in the available literature on educational administration and those generated by successful practitioners. The manner in which this question can be analyzed is two-fold. First, it must be determined whether or not the research-based leadership characteristics in the first section of the questionnaire are viewed as being critical to student success by the principals involved in the study. Second, whether or not the members of the expert panel found these twenty-six items to be all-inclusive or not must be examined. Examining the median response to any given item in Section One of the Delphi Questionnaire gives insight as to whether or not the high school principals surveyed felt that the particular leadership characteristic being asked about

was of critical importance to student success. Table 10 presents the twelve items from the Delphi Questionnaire that received a median rating of five after the completion of all three rounds (Critical Importance to Student Success). These items are definitely viewed by practitioners as being of great importance for student success. Table 11 shows the two items that received a median response of 4.5 (between above average and critical importance to student success). Table 12 illustrates the eleven additional items that receive a response indicating that it was viewed as being of above average importance for student success. The fact that twenty-five of the original twenty-six research based items on the questionnaire resulted of a median response in the highest two categories on the scale of the research instrument lends justification to the idea that the responding principals do feel that the leadership characteristics proposed by the questionnaire are of great importance to the overall success of students.

TABLE 10. Round One Questionnaire Items Receiving a Median Rating of 5 (Critical Importance to Student Success)

Item #	Leadership Prompt
1	The campus principal develops a collective vision of the future that focuses, inspires, and sustains goal achievement efforts over time.
2	The campus principal endorses visions of exemplary instructional practices.
5	The campus principal develops and strengthens school culture.
6	The campus principal modifies organizational structures (assignments, allocation of resources, and procedures) to create optimal conditions for learning and teaching.
9	The campus principal responds proactively to challenges and opportunities created by the accountability-oriented policy context in which they work.

TABLE 10. Continued

Item #	Leadership Prompt
10	The campus principal responds productively to the opportunities and challenges of educating diverse groups of students.
15	The campus principal influences student learning by supporting teacher efforts to achieve high expectations for student learning.
17	The campus principal promotes student achievement through the effective management of the school's human, financial, and physical resources.
20	The campus principal models integrity, fairness, and ethical behavior in all situations.
21	The campus principal consistently supervises instructional practices throughout the entire school and is knowledgeable enough regarding curriculum and instruction to provide meaningful feedback to teachers.
25	The campus principal maintains a high degree of visibility to staff, students, parents, and other members of the community.
26	The campus principal strives to build the leadership capacity of those around them (teachers, students, parents, etc…).

TABLE 11. Round One Questionnaire Items Receiving a Median Rating of 4.5 (Above Average to Critical Importance for Student Success

Item #	Leadership Prompt
3	The campus principal develops people through intellectual stimulation, promotion, and support of those engaged in meaningful change.
4	The campus principal views the school as a professional learning community embedded within a local context.

TABLE 12. Round One Questionnaire Items Receiving a Median Rating of Four (Above Average Importance to Student Success)

Item #	Leadership Prompt
7	The campus principal builds collaborative processes.
8	The campus principal manages the environment.
11	The campus principal builds powerful forms of teaching and learning.
12	The campus principal creates strong communities in schools.
14	The campus principal nurtures the development of families' educational cultures.
16	The campus principal devotes a great deal of time and energy to the school improvement process.
18	The campus principal continuously seeks out new available resources for the enhancement of student learning.
19	The campus principal interacts with the entire community within which his or her organization is located by becoming knowledgeable of, responsive to, engaged in the larger social, economic, legal and cultural contexts of the community.
22	The campus principal's top priority is protecting instructional time.
23	The campus principal supports teachers and regularly provides them with incentives.
24	The campus principal chooses meaningful professional development activities for his or her staff and participates in them when they are presented.

Having already determined that the high school principals making up the expert panel for this Delphi study found the leadership characteristics presented in the Section One items to be greatly important to student success, it was also important to ascertain whether or not they believed the characteristics presented in the aforementioned section were representative of an exhaustive list. For this reason, Section Two of the first two

questionnaires provided an opportunity for written feedback for the principals to append,

if necessary, the list of research-based characteristics from Section One. Table 4,

presented earlier in this chapter, shows the comments from Round One of the Delphi

study regarding additional leadership characteristics. The feedback given in this section,

as well as the feedback obtained in Round Two, led the researcher to the conclusion that

the members of the expert panel had not found any glaring omissions of leadership

characteristics from the set represented by the twenty-six original items on the Delphi

questionnaire.

The declaration of the twenty-six items from Section One of the Delphi

questionnaire to be research-based is predicated on the major themes of existing research

in educational administration. As discussed in Chapter II of this document, the Task

Force on Developing Research in Educational Leadership of the American Educational

Research Association (Division A) presents six major claims regarding the contribution

of school leadership to student learning based on a comprehensive review of existing

research (Leithwood & Riehl, 2003b). Four of these six claims deal primarily with the

role of the principal and make up the framework for this study. These claims regarding

leadership are presented in Table 13.

TABLE 13. Major Claims Regarding the Contribution of Leadership to Student
Learning (Leithwood & Riehl, 2003b).

#	Claim Regarding Leadership
1	"Leadership has significant effects on student learning, second only to the effects of quality curriculum and teacher's instruction" (p. 10).
2	"A core set of leadership practices form the basics of successful leadership and are valuable in almost all educational contexts" (p. 16).
3	"Many successful leaders in schools serving highly diverse student populations enact practices to promote school quality, equity, and social justice" (p. 21).
4	"Successful school leaders respond proactively to challenges and opportunities created by the accountability-oriented policy context in which they work" (p. 24).

Each of these leadership claims was analyzed in great detail by the researcher in

developing the questionnaire for use in this Delphi procedure. Table 14 details the

correspondence between the questionnaire items and each particular claim regarding

leadership mentioned above. Some of the items also corresponded to leadership

standards for campus principals developed by agencies such as the Educational

Leadership Constituent Council (as approved by the National Council for Accreditation

of Teacher Education), the Texas State Board of Educator Certification, and the

Interstate School Leaders Licensure Consortium.

TABLE 14. Correspondence Between Questionnaire Items and Leadership Claims

Claim # (Description)	Questionnaire Items Corresponding to Claim
1 (Leadership Effect on Learning)	15, 16, 17, 18, 21, 22, 23, 24
2 (Core Leadership Practices)	1, 2, 3, 4, 5, 6, 7, 8, 20
3 (Accountability-Oriented Context)	9, 19, 25, 26
4 (Diverse Student Populations)	10, 11, 12, 13, 14

An examination of these claims regarding leadership was also useful in answering the first research question for this study. This question dealt with whether or not the leadership characteristics from the research matched those viewed as being of critical importance for student performance by practitioners. One piece of evidence that helps answer this question is whether or not each of the leadership claims was represented in the group of characteristics rated as being of critical importance by participating principals. Table 10 presents the questionnaire items receiving a median score of 5 (critical importance for student success). The twelve items in this category are made up of representative questions from each of the four major claims regarding the contribution of leadership to student learning. Questions based on leadership claim #1 represented four of the twelve questions receiving a median score of five followed by five questions, two questions, and one question for leadership claims two, three, and four respectively. Each claim being represented in the category of receiving a median score of five is indicative of a fairly good match between the leadership characteristics coming from the research and those viewed as essential by high-performing principals. This match is

strengthened when the second-highest response category (4 - above average importance for student success) is included in the analysis. When this is the case, leadership claims one, two, three, and four were represented in the category of either above average or critical importance by nine, nine, three, and four questions respectively. Another method of examining whether or not the practitioners agree with the research on essential leadership characteristics is to examine the overall means for each leadership claim. These means are shown in Table 15 as well as the specific questions characterized by the individual leadership claims.

TABLE 15. Grouped Means for Specific Research-Based Leadership Claims

Claim #	Questionnaire Items	Overall Mean
1	15, 16, 17, 18, 21, 22, 23, 24	4.398
2	1, 2, 3, 4, 5, 6, 7, 8, 20	4.632
3	9, 19, 25, 26	4.547
4	10, 11, 12, 13, 14	4.100

Research Question Two

What are the most essential leadership characteristics for success as a Texas High School principal?

The first research question in this study sought to determine whether or not there was agreement between practitioners and the research base as to which leadership

characteristics are important for student success. Having determined that there was a high degree of relative agreement in the section above, attention became focused on the question of which leadership characteristics were most essential for student success. The answer to this question has major ramifications for professional development and principal preparation. The data that provides insight into the answer to this research question is described in the following section.

The first step in arriving at a meaningful answer to the research question dealing with which leadership characteristics are most essential was examining the individual means for each question in Section One of the Round One, Two, and Three Delphi questionnaires. By ranking the questions in decreasing order of their individual means, a list of prioritized leadership characteristics according to the members of the expert panel was created. This prioritized list is presented in Table 16. Table 17 shows the final prioritized list of leadership characteristics with the individual mean response for each particular item as determined after the expert panel of high-performing principals completed the Round Three Questionnaire.

TABLE 16. Prioritized Leadership Characteristics

Item #	Prompt	Round 1 Priority	Round 2 Priority	Round 3 Priority
25	The campus principal maintains a high degree of visibility to staff, students, parents, and other members of the community.	1	4	4
10	The campus principal responds productively to the opportunities and challenges of educating diverse groups of students.	2	3	2
1	The campus principal develops a collective vision of the future that focuses, inspires, and sustains goal achievement efforts over time.	3	1	1
5	The campus principal develops and strengthens school culture.	4	5	5
15	The campus principal influences student learning by supporting teacher efforts to achieve high expectations for student learning.	5	6	6
20	The campus principal models integrity, fairness, and ethical behavior in all situations.	6	2	3
2	The campus principal endorses visions of exemplary instructional practices.	7	7	8
17	The campus principal promotes student achievement through the effective management of the school's human, financial, and physical resources.	8	9	7
21	The campus principal consistently supervises instructional practices throughout the entire school and is knowledgeable enough regarding curriculum and instruction to provide meaningful feedback to teachers.	9	10	10

TABLE 16. Continued

Item #	Prompt	Round 1 Priority	Round 2 Priority	Round 3 Priority
26	The campus principal strives to build the leadership capacity of those around them (teachers, students, parents, etc…).	10	11	11
6	The campus principal modifies organizational structures (assignments, allocation of resources, and procedures) to create optimal conditions for learning and teaching.	11	8	9
9	The campus principal responds proactively to challenges and opportunities created by the accountability-oriented policy context in which they work.	12	12	12
4	The campus principal views the school as a professional learning community embedded within a local context.	13	14	14
3	The campus principal develops people through intellectual stimulation, promotion, and support of those engaged in meaningful change.	14	13	13
16	The campus principal devotes a great deal of time and energy to the school improvement process.	15	21	20
18	The campus principal continuously seeks out new available resources for the enhancement of student learning.	16	16	16
24	The campus principal chooses meaningful professional development activities for his or her staff and participates in them when they are presented.	17	20	21
7	The campus principal builds collaborative processes.	18	15	15
11	The campus principal builds powerful forms of teaching and learning.	19	19	19

TABLE 16. Continued

Item #	Prompt	Round 1 Priority	Round 2 Priority	Round 3 Priority
22	The campus principal's top priority is protecting instructional time.	20	17	17
8	The campus principal manages the environment.	21	18	18
23	The campus principal supports teachers and regularly provides them with incentives.	22	23	24
12	The campus principal creates strong communities in schools.	23	24	23
19	The campus principal interacts with the entire community within which his or her organization is located by becoming knowledgeable of, responsive to, engaged in the larger social, economic, legal and cultural contexts of the community.	24	22	22
14	The campus principal nurtures the development of families' educational cultures.	25	25	25
13	The campus principal expands students' social capital valued by schools.	26	26	26

TABLE 17. Final Prioritized Leadership Characteristics with Individual Means

Rank	Prompt	Mean
t1	The campus principal develops a collective vision of the future that focuses, inspires, and sustains goal achievement efforts over time.	5
t1	The campus principal responds productively to the opportunities and challenges of educating diverse groups of students.	5
t1	The campus principal models integrity, fairness, and ethical behavior in all situations.	5
4	The campus principal maintains a high degree of visibility to staff, students, parents, and other members of the community.	4.9375

TABLE 17. Continued

Rank	Prompt	Mean
5	The campus principal develops and strengthens school culture.	4.75
t6	The campus principal influences student learning by supporting teacher efforts to achieve high expectations for student learning.	4.6875
t6	The campus principal promotes student achievement through the effective management of the school's human, financial, and physical resources.	4.6875
t8	The campus principal endorses visions of exemplary instructional practices.	4.625
t8	The campus principal modifies organizational structures (assignments, allocation of resources, and procedures) to create optimal conditions for learning and teaching.	4.625
t8	The campus principal consistently supervises instructional practices throughout the entire school and is knowledgeable enough regarding curriculum and instruction to provide meaningful feedback to teachers.	4.625
t8	The campus principal strives to build the leadership capacity of those around them (teachers, students, parents, etc…).	4.625
12	The campus principal responds proactively to challenges and opportunities created by the accountability-oriented policy context in which they work.	4.5625
t13	The campus principal develops people through intellectual stimulation, promotion, and support of those engaged in meaningful change.	4.5
t13	The campus principal views the school as a professional learning community embedded within a local context.	4.5
t15	The campus principal builds collaborative processes.	4.375
t15	The campus principal continuously seeks out new available resources for the enhancement of student learning.	4.375
t15	The campus principal's top priority is protecting instructional time.	4.375
t18	The campus principal manages the environment.	4.3125
t18	The campus principal builds powerful forms of teaching and learning.	4.3125

TABLE 17. Continued

Rank	Prompt	Mean
t18	The campus principal chooses meaningful professional development activities for his or her staff and participates in them when they are presented.	4.3125
21	The campus principal devotes a great deal of time and energy to the school improvement process.	4.25
22	The campus principal interacts with the entire community within which his or her organization is located by becoming knowledgeable of, responsive to, engaged in the larger social, economic, legal and cultural contexts of the community.	4.0625
t23	The campus principal creates strong communities in schools.	3.9375
t23	The campus principal supports teachers and regularly provides them with incentives.	3.9375
25	The campus principal nurtures the development of families' educational cultures.	3.6875
26	The campus principal expands students' social capital valued by schools.	3.5625

The table above, in essence, represents the answer to the second research question for this study. This question asked what the most essential leadership characteristics were for success as a Texas high school principal. The prioritized list shown in Table 17 illustrates what were viewed as essential leadership characteristics for student success by the sixteen high-performing principals that participated in this study. There were three items that were ultimately rated as high as possible by the expert panel of principals. Each of these items received a unanimous rating of five (critical importance for student success) after the third round of the Delphi study. The item prioritized as the fourth most essential leadership characteristic received a mean

response rating of 4.9375 which is indicative of all but one of the participants rating it at a level of five. The remaining member of the panel rated this item as a four (above average importance for student success. The fifth leadership characteristic on the prioritized list was rated at the highest level by twelve members of the expert panel with the other four principals scoring it at the above average level. Each of these top five leadership characteristics from the questionnaires will be discussed in detail in the following section.

The first item on the Delphi questionnaire stated "the campus principal develops a collective vision for the future that focuses, inspires, and sustains goal achievement efforts over time". Figure 1 illustrates the frequency distribution of responses to this item through the three rounds of the Delphi process and Table 18 shows the descriptive statistics for this item. This item received very high response ratings from the outset

FIGURE 1. Frequency Distriubtion for Item #1
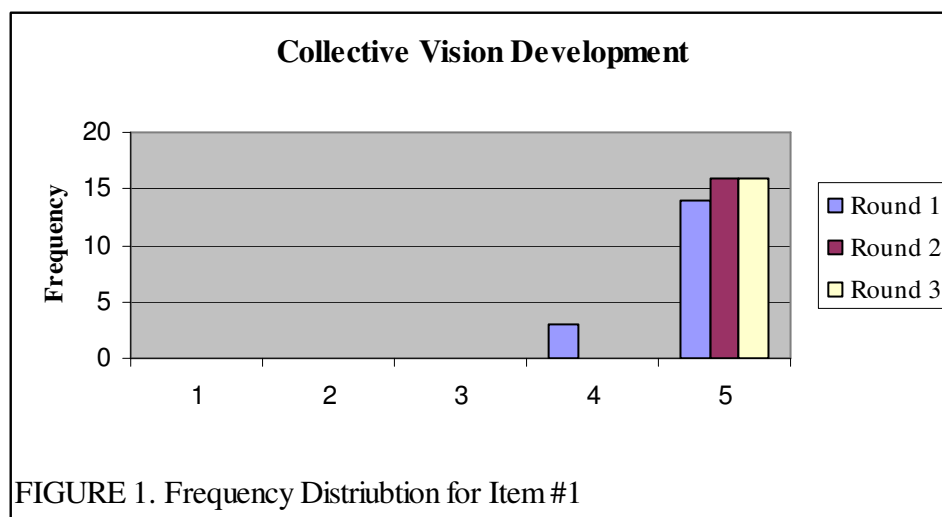
TABLE 18. Descriptive Statistics by Delphi Round for Item #1

	Round One n = 17	Round Two N = 16	Round Three N=16
Mean	4.706	5.000	5.000
Median	5	5	5
Mode	5	5	5
IQR	(5,5)	(5,5)	(5,5)
# of Responses Outside IQR	4	0	0
Priority (out of 26)	3rd	1st	1st

of the study. The spread of the inter-quartile range (IQR) was zero due to the fact that

the range only included values of five. Even though there was a relatively high number

of responses (four) falling outside the IQR after Round One, every participant changed

their answer in Round Two to bring it inside the IQR. In fact, two principals commented

in Round Two that they could not believe they had only rated this item with a four in

Round One and that it should definitely be scored as a five. The mean increased to

5.000 after Round Two from 4.706 after Round One. The responding principals

obviously felt that developing vision was one of the most critical factors for student

success in the high school setting.

        The tenth item on the Delphi questionnaire contained the prompt "the campus

principal responds productively to the opportunities and challenges of educating diverse

groups of students". This item was tied with two others for the top spot on the

prioritized list of leadership characteristics shown in Table 17. Figure 2 illustrates the

number of responses in each category of importance for student success as rated by the

principals participating in Rounds One, Two, and Three of the study. Table 19 records

the descriptive statistics on this item for all three rounds. This item had fewer overall

responses outside of the inter-quartile range (IQR) than the items with which it was tied

FIGURE 2. Frequency Distribution for Item #10
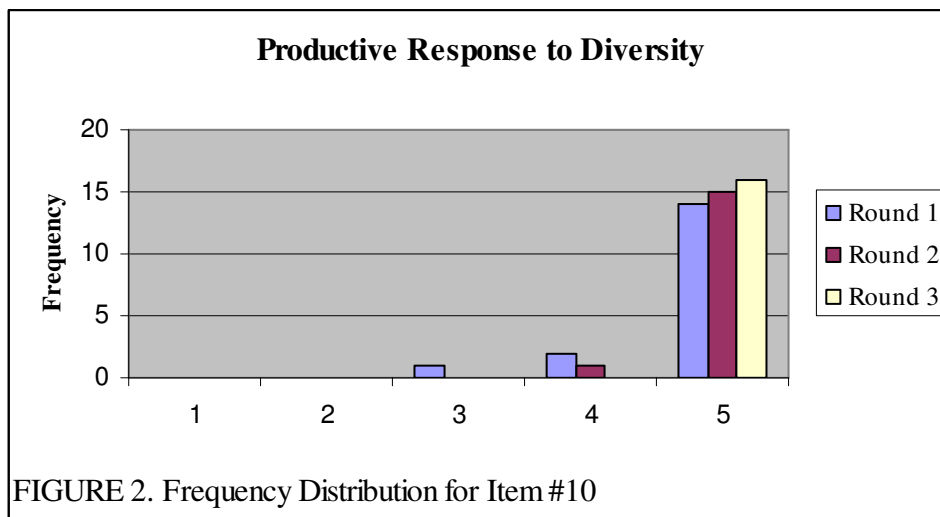
TABLE 19. Descriptive Statistics by Delphi Round for Item #10

	Round One n = 17	Round Two N = 16	Round Three N=16
Mean	4.765	4.938	5.000
Median	5	5	5
Mode	5	5	5

TABLE 19. Continued

	Round One n = 17	Round Two N = 16	Round Three N=16
IQR	(5,5)	(5,5)	(5,5)
# of Responses Outside IQR	3	1	0
Priority (out of 26)	2nd	3rd	3rd

in terms of priority, but it is the only one of the top three items to have any responses

remaining outside the IQR after Round Two. This item also had an IQR spread of zero

due to the high number of responses of five in the first round. The mean for this item

increased with each round and ended up at a value of 5.000 indicating a unanimous

response by all participating principals. This mean value indicated overwhelming

agreement by the members of the expert panel that responding effectively to the

challenges and opportunities associated with educating diverse groups of students is of

critical importance to student success in the high school setting.

Another item which was ranked in a tie for first on the prioritized list of essential

leadership characteristics was item number twenty. This item read "the campus

principal models integrity, fairness, and ethical behavior in all situations". As with the

previous two items, the mean rating for this item was 5.000 after Round Three of the

Delphi study. A frequency distribution for the responses to this item is shown in Figure

3. Table 20 presents the statistical values generated by an analysis of this item after all

three rounds. After Round One, the mean for this item was 4.706 with four responses

falling outside the inter-quartile range (IQR). Every outlier response to this question

was changed to fall within the IQR in Round Two and remained there after Round

Three. The fact that a high school principal must be an unwavering example of ethical

behavior was clearly indicated by the expert panel to be an essential characteristic of

leadership.

FIGURE 3. Frequency Distribution for Item #20

TABLE 20. Descriptive Statistics by Delphi Round for Item #20

	Round One n = 17	Round Two N = 16	Round Three N=16
Mean	4.706	5.000	5.000
Median	5	5	5
Mode	5	5	5
IQR	(5,5)	(5,5)	(5,5)
# of Responses Outside IQR	4	0	0
Priority (out of 26)	6th	2nd	2nd

With a final mean value of 4.938, item number twenty-five occupied fourth place on the list of essential leadership characteristics after Round Three of the study. The prompt for this item stated, "the campus principal maintains a high degree of visibility to staff students, parents, and other members of the community". The high degree of support for this leadership characteristic on the part of principals indicated that they felt it to be of critical importance for any leader. Figure 4 illustrates the categorization of responses for this item. Table 21 shows the statistical summary after Rounds One, Two, and Three. This is the first item in the study for which there remained any response outside the inter-quartile range (IQR) after the completion of Round Three. There was less variation with respect to this item than the previous three on the prioritized list, but one participant clearly believed that this leadership characteristic should not be rated at the highest level. However, the panel members obviously found visibility on the part of the principal to be of great value in the leadership repertoire for student success. This question pointed out that being visible was not just an important thing for the principal to do with students and staff, but with all of the members of the educational community.

Principal Visibility

FIGURE 4. Frequency Distribution for Item #25
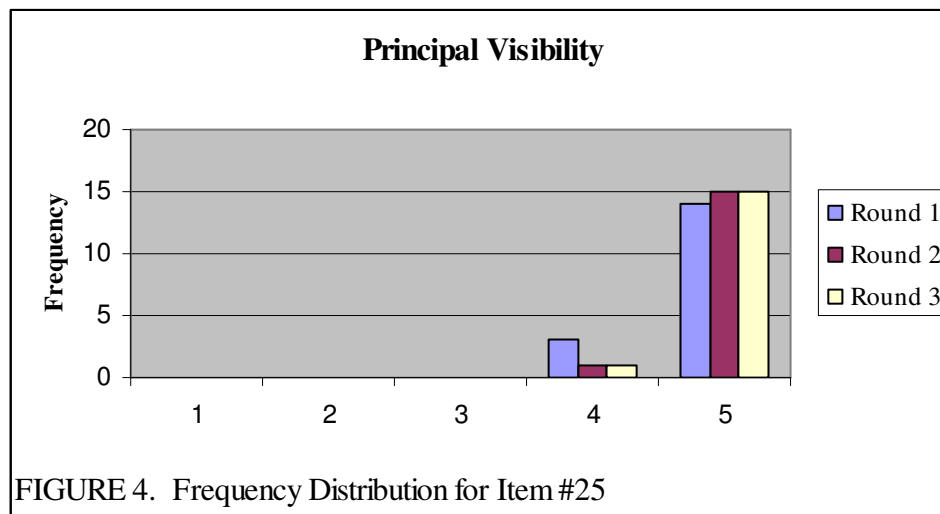
TABLE 21. Descriptive Statistics by Delphi Round for Item #25

	Round One n = 17	Round Two N = 16	Round Three N=16
Mean	1	4	4
Median	4.824	4.938	4.938
Mode	5	5	5
IQR	(5,5)	(5,5)	(5,5)
# of Responses Outside IQR	3	1	1
Priority (out of 26)	1st	4th	4th

The fifth-rated overall essential leadership characteristic chosen by the principals

who participated in this study was the importance of strengthening school culture. The

item dealing with this subject on the Delphi questionnaires for all three rounds was number five. Figure 5 and Table 22 show the frequency distribution and descriptive statistics for this item respectively. An interesting note about this item is that it was the first item in the order of prioritization for which the inter-quartile range (IQR) did not begin and end with the same number. The spread of the IQR for this item was one unit. Due to the larger IQR for this question, there were no outlier responses for this item after any of the three rounds.   One possible reason for this item to have been rated a little lower may be that the concept of school culture can mean many different things to many different people. Even though the final mean response was slightly lower for this question, it was still very high given the overall scale and is clearly viewed by the participating principals on the expert panel to be of great importance for school leaders in working toward student success.
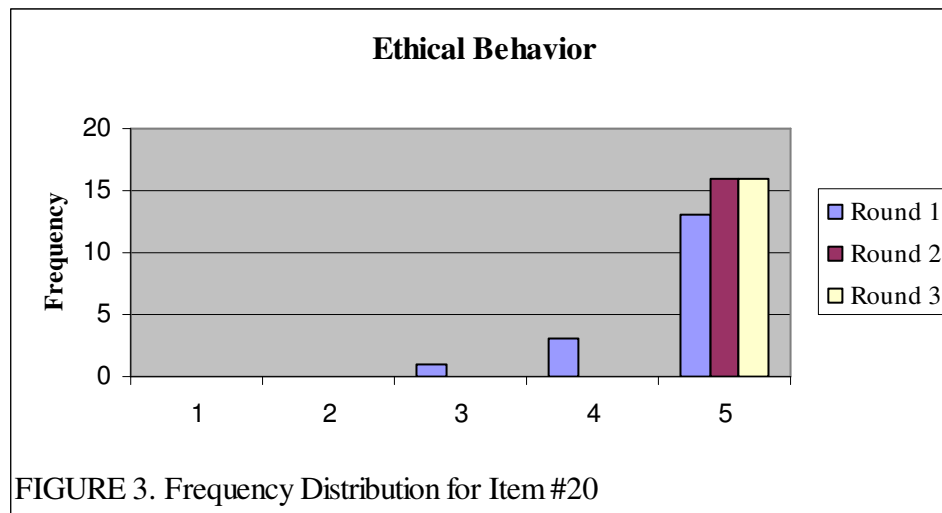

FIGURE 5. Frequency Distribution for Item #5
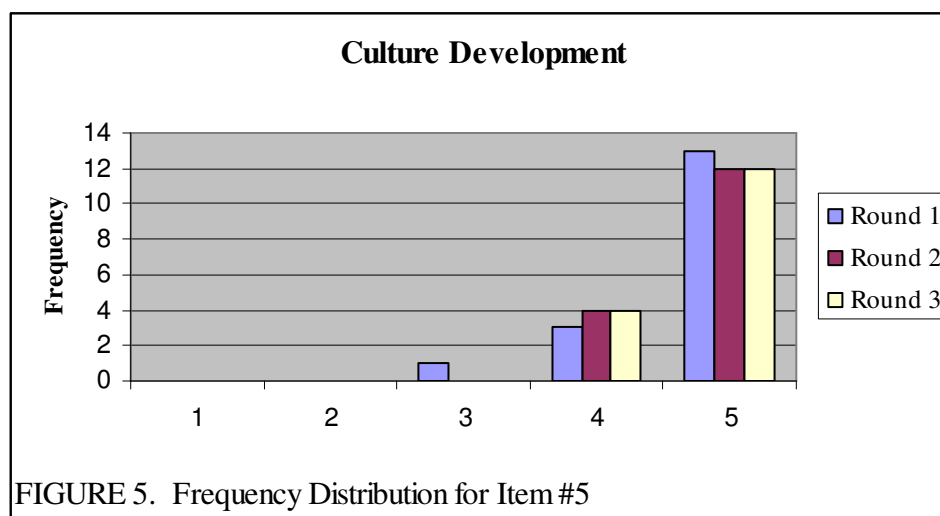
TABLE 22. Descriptive Statistics by Delphi Round for Item #5

	Round One n = 17	Round Two N = 16	Round Three N=16
Mean	4.706	4.750	4.750
Median	5	5	5
Mode	5	5	5
IQR	(4,5)	(4,5)	(4,5)
# of Responses Outside IQR	0	0	0
Priority (out of 26)	4th	5th	5th

The five items discussed in the preceding paragraphs represent the most essential

leadership characteristics as rated by the participating principals. However, this does

need mean that the other characteristics included in the study are not noteworthy and

should not be aspired to by current and prospective leaders of school organizations. Of

the twenty-six total items on the Delphi questionnaire, only four received mean response

ratings below four (above average importance for student success). Therefore, the

distinctions made between the top five prioritized leadership characteristics presented in

Table 17 and the bottom five are not incredibly severe. For this reason, figures and

tables describing the individual responses in each round to the remaining twenty-one

items are included in the Appendix I of this document. It is also important to note that

the research is well-represented in the prioritized list of leadership characteristics arrived

at empirically by the expert panel. Of the top five items, three of the broad claims

regarding the contribution of leadership to student success (Leithwood & Riehl, 2003b)

are represented and items six and seven on the list are questions related to the fourth

research-based claim.

Research Question Three

What leadership characteristics are viewed as being critical to student success that have not already been identified by existing leadership literature?

This study was based on a well-defined body of research and the leadership

characteristics that it has generated that contribute to student success. A comparison was

made between the leadership characteristics coming out of the literature and those as

deemed to be critical to student success by high-performing Texas high school

principals. After the completion of the Delphi exercise and an analysis of the data from

its three rounds, it was determined by the researcher that the opinions of the participating

principals as to what was essential in terms of leadership did indeed match what has

grown out of the research base to be accepted as being of great importance to school

leaders. This research question assumed that the leadership characteristics presented in

the literature were essential to student success but it asked if there were any leadership

characteristics viewed as critical to student success in the minds of the high-performing

principals that have gone unidentified by the research. Determining an answer to this

question involved four steps: reviewing the claims about the contribution of leadership

to student learning made in the literature, examining the section of the Delphi instrument designed to aid in answering this particular research question, analyzing the results from Section Two of the Round One Questionnaire, and analyzing the results from Section Two of the Round Two Questionnaire.

The major themes found in the existing body of educational research were discussed in detail in chapter II of this document, but a reexamination of them was important in answering this research question. The framework used in the construction of the twenty-six objective items in Section One of the Delphi questionnaire used in Rounds One and Two was the Task Force on Developing Research in Educational Leadership report to Division A of the American Educational Research Association entitled *What Do We Already Know About Successful School Leadership?* This report was authored by Kenneth Leithwood and Carolyn Riehl in the Spring of 2003. In the document generated by the task force, six major claims regarding the contribution of leadership to student success in educational settings. Four of these claims were used as a base for the leadership prompts presented to the members of the expert panel in Section One of the Delphi instrument used in the first and second rounds of this study. These claims were that leadership has an important effect on student learning, a core set of leadership practices does exist, leaders must adapt to the accountability-oriented context in which they work, and that they must implement practices that are effective for reaching a diverse student population (Leithwood & Riehl, 2003b). Each of the twenty-six questionnaire items from the first two rounds of this study fell into one of these research-based claims regarding leadership.

Section Two of the Delphi questionnaires was aimed at answering the third research question for this study. This section asked respondents to provide open-ended feedback regarding campus-level leadership characteristics that they felt were of critical importance to student success and that had not been included in the first section of the questionnaire. This section was left incomplete by eleven of the seventeen members of the expert panel who completed the Round One Questionnaire. The seven responses to this Section from the first round of the Delphi were presented in Table 4 earlier in this chapter. Each of these responses, as was confirmed by all of the members of the expert panel in Round Two of the Delphi study, indicated a concept that was connected to one of the original twenty-six items from Section One. In some cases, the comments made by participants in Section Two were specific examples of broader leadership characteristics included in the original questionnaire. Table 23 shows the correspondence between the comments made by participating principals and specific questions in Section One of the Delphi questionnaire. In all but one case, at least four questions of the original leadership questionnaire pertained to the comment made by the participating principal. In the one instance in which there was only one item on the original survey connected to the comment made by the member of the expert panel, the connection was very clear regarding hiring practices and managing the human resources of the organization.

TABLE 23. Correspondence Between Section Two Questionnaire Comments and Section One Items from Round One

Respondent	Comment Regarding Omitted Leadership Characteristics	Section One Items Corresponding to Comment
6	Excellent Communicator - many administrators have the qualities listed above and can't translate them into action and communicate a clear vision to the staff	1, 8, 20, 24, 25, 26
11	The principal must actively monitor the student climate, the community climate, and the climate of the professional staff. Student engagement is a piece that is gaining in focus, but it is long overdue. Any student who wants to learn has more than ample opportunity despite the scope and sequence of curriculum and instructional delivery system. Building a culture of constructivist learning communities must precede extraordinary achievement. Traditional methods ramped up in order to "cover" all the TEKS will have limited potential for bringing about desired results.	4, 5, 11, 12, 13, 19, 21, 22, 25
13	The principal of a school where the success level is high always has an open door to listen and show an interest in all stakeholders in the school system.	5, 12, 19, 25
15	The campus principal together with staff, students, and parents make all of the above possible. The principal alone will not make things happen. All are important to reach maximum student success.	5, 7, 19, 25, 26
21	Safe orderly managed school. Understanding that kids come first. Able to work well with central admin and the board. Clear expectations for kids and staff.	7, 8, 15, 25
24	CRITICAL TO STUDENT SUCCESS - Benchmark testing. Proper placing of teaching schedule. Hiring excellent teachers. Helping teachers grow. Clinical supervision. Positive reinforcement. TAKS incentives so TAKS is a valid assessment. Visibility.	2, 11, 17, 21, 22, 25, 26

TABLE 23. Continued

Respondent	Comment Regarding Omitted Leadership Characteristics	Section One Items Corresponding to Comment
25	1. Hire the best people. 2. Lead and support the best people. 3. Strategically remove those people who are not the best people.	17

In Section Two of the Round Two Questionnaire, participants were presented with the comments made by other members of the expert panel regarding leadership characteristics which, in their opinion, had been left out of the original twenty-six questionnaire items. In the second round, participating principals were asked to provide feedback regarding these Round One comments made by their peers. Table 7, presented earlier in this chapter, shows the four comments made by principals in the section of the second round. Two of these comments did not have to do with specific leadership characteristics at all. The other two comments were easily connected to specific questions from Section One of the questionnaire. Follow-up phone calls to participants who did not provide any feedback in this section resulted in confirmation that the participant felt the specific comments made in Section Two of Round One were merely restatements of leadership characteristics which had been encapsulated by the original twenty-six items. Having analyzed the information obtained in Section Two from the first two rounds of the Delphi exercise, it was determined by the researcher that this section did not need to be represented in the Round Three Questionnaire which was sent to participants at the end of January 2007.

Based on the data obtained in Section Two of the first two rounds of the study, there was a clear consensus among the members of the expert panel that the leadership characteristics presented in the twenty-six items from Round One of the questionnaire represented a complete list. Therefore, the answer to the third research question stated that there were not, in the opinion of the members of the expert panel, any leadership characteristics viewed as being critical to student success that have not already been identified by the existing research.

Summary

The data presented in this chapter was generated over the course of three rounds of a Delphi study of high-performing Texas high school principals in an effort to answer three research questions regarding leadership practices that positively affect student achievement. Thirty principals were invited to participate in the study. Seventeen principals completed the Round One Questionnaire and agreed to be members of the expert panel. All but one of these principals completed the study. There were three major findings of this study. First, there seems to be agreement between the body of research on leadership and the viewpoint of successful practitioners as to which leadership characteristics are essential for student success. Second, vision for goal achievement, response to diversity, and ethical practice head the list of critical leadership attributes for high school principals. Third, leadership characteristics presented in the literature base are, at least in the opinion of the high-performing high school principals involved in this study, comprehensive and are not missing any major components for

student success. The next chapter will further analyze the importance of the data

collected as well as present any relevant implications from the study.

CHAPTER V

SUMMARY OF FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

Introduction

This chapter presents a summary of this study and the conclusions drawn from the data presented in Chapter IV. There are five sections in this chapter: a summary of the study, a presentation of the major findings, implications for further study, recommendations, and conclusions.

Summary

The purpose of this study was to identify what leadership characteristics are most important to high school principals in improving school performance. These leadership characteristics, derived from the research literature, were submitted to an expert panel of high school principals to evaluate their importance to successful practice. By comparing this theoretical basis of leadership with the practical analysis of needed leadership characteristics performed by experts in the field, this study provided valuable insight into the necessities of principal training, practice, and continuing professional development.

This study was designed to determine how well the leadership characteristics identified as having the greatest impact on student success by the literature matched up with those viewed as being important by successful school leaders. The significance of a study of this nature can be useful for principals to improve their daily practice as building administrators. Individuals already serving as building-level principals will be

able to take the findings of this study and use them to develop their own personalized plans for continuing professional development. This study also has implications for principal training programs as well. Designers of these programs will certainly want to be sure that they include successful elements from both the theoretical and practical frames of reference.

The research questions for this study were used to analyze principal leadership and its effect on student performance. First, the degree to which the leadership characteristics presented in the literature matched the opinions of the sixteen participating high-performing Texas high school principals was examined. Second, this study sought to determine which specific leadership characteristics were absolutely critical for student success in the high school setting as determined by the members of the expert panel. Finally, the degree to which the research base completely identified a set of essential leadership characteristics was analyzed. The data supporting these questions was presented in Chapter IV.

The literature base with respect to leadership in educational settings was found to be quite extensive. Chapter II of this document walked through this literature in great detail. The study began by identifying the different types of leadership that are present in educational leaders. These leadership types were determined to be instructional leadership, transformational leadership, contingent leadership, moral leadership, managerial leadership, and participative leadership (Leithwood & Duke 1999). With an understanding of the basic types of leadership generally found in the school setting, the general themes of how campus-level leadership impacts student performance were

examined. The 2003 report entitled *What Do We Already Know About Successful School Leadership?* released by the Task Force on Developing Research in Educational Leadership made several claims regarding the impact of school leadership on student learning (Leithwood & Riehl, 2003b). These claims were used to define a set of essential research-based leadership characteristics that would be used in the study.

A modified Delphi procedure was chosen as the methodology for this study. The reason for this choice was that Delphi provides an opportunity for a collaborative process without actually having to meet in a group or committee process which can be negatively impacted by issues such as member dominance, "follow the leader" mentality, or the exclusion or isolation of participants. The expert panel for the Delphi study was made up of high-performing Texas high school principals. The criteria used in the selection process were campus accountability ratings, school size, and principal tenure.

The instrument used in this study was constructed from the overall themes present in the existing body of research on leadership. Each of the twenty-six items in Section One of the questionnaires corresponded to leadership characteristics that were found to be supported by the existing body of literature for educational administration. Leithwood and Riehl's claims (2003) regarding leadership's contribution to student learning were used as an initial framework for the development of the instrument. Items also corresponded to leadership standards for campus principals developed by agencies such as the Educational Leadership Constituent Council (as approved by the National

Council for Accreditation of Teacher Education), the Texas State Board of Educator

Certification, and the Interstate School Leaders Licensure Consortium.

Thirty high school principals were originally invited to participate in Round One

of the study in June of 2006. Seventeen principals completed the Round One

Questionnaire and agreed to participate in the study. This response rate of fifty-seven

percent yielded an acceptable number of participants for the study. The questionnaire

used in this round presented twenty-six research-based leadership characteristics in

Section One to be rated by the participant on a Likert scale as to their importance for

student success. Section Two provided the principals an open-ended opportunity to give

feedback as to the other leadership characteristics that they felt were of great importance

to student success that had been omitted from the study in Section One.

Round Two of the Delphi process began in October of 2006 after an analysis of

the results obtained in the first round. The Round Two Questionnaire was also divided

into two sections. In Section One, participants were able to view their answer to each

question, the mean response rating generated by the entire panel, as well as the inter-

quartile range (IQR) for each item. Participants were asked to consider the group data

that they received and reevaluate their answer in light of the feedback from other

participants. In the case of items for which their individual response fell outside the

IQR, members of the expert panel were asked to either change their answer to fall within

the IQR or provide justification as to why they believed their answer to be appropriate.

Section Two of the questionnaire reported the comments made in this section of the

original questionnaire regarding omitted leadership characteristics from Section One.

Principals were asked to make any comments regarding the information presented or provide additional leadership characteristics that they felt were missing. At the end of Round Two in January 2007, sixteen principals had returned their questionnaires to be included in the study. As discussed in Chapter IV, the number of responses falling outside the original IQR was substantially less after Round Two than at the completion of Round One. At this point, the panel of high-performing principals seemed to be well on its way to developing consensus regarding essential leadership characteristics for student success.

The data from Round Two was analyzed and formulated into the instrument used in Round Three of the Delphi study which began on January 28, 2007. This round only included one section containing eleven items. These eleven items represented all of the items for which there remained responses falling outside of the inter-quartile range (IQR). The justifications made in Round Two by members of the expert panel who chose for their answer to remain outside the IQR were presented for every participant to consider in making their final selection of a rating for each leadership characteristics. Only four participants chose to change their answer on one of the eleven items presented in this round. All of the Round Three Questionnaires were completed and received by Wednesday, February 7, 2007. Due to both the degree of consensus achieved by the members of the expert panel and the extremely small amount of variation in responses observed between the second and third round, it was determined that this would be the final round of the Delphi process.

Major Findings

The findings of this study are centered around the major research questions that were presented at its outset. First, there is agreement between the body of research on leadership and the viewpoint of successful practitioners as to which leadership characteristics are essential for student success. Second, vision for goal achievement, response to diversity, and ethical practice head the list of critical leadership attributes for high school principals. Third, leadership characteristics presented in the literature base are, at least in the opinion of the high-performing high school principals involved in this study, comprehensive and are not missing any major components for student success. Each of these major findings is discussed in the following section.

It is commonly perceived that there is a gap (in the view of some this may even be described as a chasm) between theory and practice in education. One of the most interesting aspects of this study, in the opinion of the researcher, is making a comparison between the theoretical and the practical. It is this specific comparison that contributes to the overall significance of the study. Principal preparation programs, while predicated on the theoretical, are designed to give their participants the skills that they need to be successful in the field. This study was designed to provide feedback to those in charge of designing preparation programs regarding the perceptions of effective leadership practices shared by the realms of theory and practice. An acknowledgement of the harmony that exists between these two entities represents the first major finding of this study.

One of the most compelling arguments for this finding is the level at which the principals rated each of the twenty-six items. The scale that the items were rated on included categories of one (not necessary for student success), two (moderate importance for student success), three (average importance for student success), four (above average importance for student success), and five (critical importance for student success). A major goal of the study was to determine which specific leadership characteristics are most necessary for student success. However, an examination of the overall ratings is relevant in the case of this finding to illustrate the agreement between the viewpoints of the research and the practitioners. This notion is related to the second major claim regarding the contribution of leadership to student learning presented in the Task Force on Developing Research in Educational Leadership's report to the American Educational Research Association (Leithwood & Riehl, 2003b). The overall mean for all of the twenty-six items taken after Round Three was 4.445. The fact that this statistic turned out almost half way between "above average importance for student success" and "critical importance for student success" indicates that the participating principals strongly agree with the leadership characteristics presented in the study. This validation of specific leadership practices being of great importance across many different school settings and circumstances is strongly supported in the scholarly community (Bass, 1997; Leithwood, Jantzi & Steinbach, 1999). As mentioned earlier, the leadership characteristics incorporated into the twenty-six items found in Section One of the Delphi questionnaires were taken directly from the research base. Therefore, the opinions of the successful practitioners seem to affirm the findings of the research base. Further

evidence of this affirmation can be seen in that only five out of the 1,274 responses to the items in Section One through all three rounds were rated at a level below three indicating less than average importance for student success. Of these five responses, three of them were made by the same participant on the same question in all three rounds.

This finding is also supported by the responses (or lack thereof) of the principals in Section Two of the Delphi questionnaires from the first two rounds. In Round One, only seven out of seventeen participants (forty-one percent) provided any feedback at all regarding aspects of leadership that were not represented in the original twenty-six items. In Round Two, only four out of the sixteen participants (twenty-five percent) responded to the feedback in Section Two regarding missing leadership characteristics in the objective portion of the questionnaire which is illustrative of agreement between the principals and the research evidence presented by scholars such as Leithwood and Riehl (2003b). Upon further analysis of the feedback provided in this section, it became apparent that the leadership characteristics added by the principals were not representative of new characteristics that were missing from the questionnaire. In some cases, the new items listed by principals were specific examples of broader themes included in the twenty-six items, and, in others, the participants were merely commenting that the original list seemed to be comprehensive and complete. Section Two of both the Round One and Round Two questionnaire is the portion of this study where a disagreement between the participating principals and the research-based leadership characteristics presented in the study would most likely have manifested itself

(another possibility is that the average means for the twenty-six research-based items would have been drastically lower than it turned out to be).

In assessing the agreement between theory and practice, the information obtained from both the overall mean and the lack of input regarding missing leadership characteristics provides substantial evidence of agreement between the two. This finding should be viewed as a serious validation of the research findings of scholars such as Leithwood, Riehl, and others. This finding also lends credibility to the theoretical foundation included in most principal preparation programs. An analysis of the individual leadership characteristics viewed by the principals to be of the greatest importance for student success will be presented in the next section.

A second major finding of this study is the prioritization of the leadership characteristics by the participants. The second research question for the study asked what leadership characteristics were the most essential for student success. After each round of the Delphi study, an individual mean was calculated for each item. The number of respondents (n) was seventeen, sixteen, and sixteen for Rounds One, Two, and Three respectively. The items were then prioritized after each round according to their individual means to indicate which characteristics that the principals believed to be most essential. At the conclusion of Round Three, three items (numbers one, ten, and twenty) had the same individual mean of 5.000 which reflecting unanimous ratings by the expert panel that they were of critical importance to student success. Due to their position on top of the prioritized list, these three characteristics represent the most essential leadership attributes determined by this study. The prompt in item number one stated,

"The campus principal develops a collective vision of the future that focuses, inspires, and sustains goal achievement efforts over time". This item was based on the notion having a clear vision helps members at every level of the organization motivate themselves and others toward achieving a set of common goals (Leithwood & Riehl, 2003b; Hallinger & Heck, 2002; Lock, Latham & Eraz, 1988). The principal's efforts in this area can also increase organizational success by fostering an attitude among teachers, students, and parents that the organizational goals, while they may be perceived as challenging, are attainable through collective effort (Weick, 1995). Item number ten, also rated with a mean response of 5.000, read, "the campus principal responds productively to the opportunities and challenges of educating diverse groups of students". The strong ratings on this item lend tremendous support to the findings regarding leadership presented in the research base. Responding to the challenges of educating diverse groups of students is one of the major leadership claims presented in Leithwood and Riehls's report for the Task Force on Developing Research in Educational Leadership (2003b). This item was the only one of three items with a final mean of 5.000 that was not rated unanimously by members of the expert panel until the conclusion of the third round of the study. Schools that have student populations hailing from diverse backgrounds are becoming more and more common across the state. In their review of literature regarding leadership, Hallinger and Heck point out that leadership effects are magnified in environments where this is the case (1996). Principals who provide effective leadership in settings characterized by low socioeconomic status also have an increased impact on student performance (Andrews &

Soder, 1987; Rowan & Denk, 1984). It is the hope of the researcher that the leadership characteristics identified in this study will aid both current and future school administrators. The prompt for item number twenty stated, "the campus principal models integrity, fairness, and ethical behavior in all situations. The foundation for this item was drawn from the professional standards for the principalship. Ethical behavior is specifically cited as being of paramount importance in the standards developed by agencies such as the Educational Leadership Constituent Council (as approved by the National Council for Accreditation of Teacher Education), the Texas State Board of Educator Certification, and the Interstate School Leaders Licensure Consortium. In addition to being mandated by educational governing agencies, ethical behavior impacts the manner in which the principal is viewed by members of the educational community such as teachers, students, parents, and fellow administrators. This leadership characteristic acts as somewhat of an "umbrella clause" over many of the other qualities covered in the study.

Another interesting analysis with respect to the prioritization of the leadership characteristics can be seen by examining the overall research-based claims (see Table 13 in Chapter IV) regarding the contribution of leadership to student success (Leithwood & Riehl, 2003b). The four claims used as a framework for the twenty-six original items were supported by the principals as they made their responses to the questionnaires. The question of which claim, in the opinion of the members of the expert panel, provided the greatest contribution to student success was certainly worthy of examination. Due to the fact that the different claims were represented by varying numbers of items on the

questionnaires (see Table 14 in Chapter IV), a method of weighting the responses was needed. It was decided that a response weight would be given to each item based on its overall priority after Round Three of the study. This response weight would be a whole number inversely related to an item's final priority rating. For example, an item that was rated with a priority of one would receive a response weight of twenty-six. Conversely, an item rated with a priority of twenty-six would only receive a response weight of one. Next, the total response weight for each claim was calculated by summing the individual response weights for all of the questions falling within each of the four research-based claims. Finally, an average response weight was calculated to provide for the varying number of items in each category by dividing the total response weight by the number of items. This analysis proved that the second claim regarding the contribution of leadership to student success was most supported by the Delphi participants. This claim stated, "A core set of leadership practices form the basics of successful leadership and are valuable in almost all educational contexts" (Leithwood & Riehl, 2003b, p. 16). The leadership practices described by this claim fall into three major categories of setting directions, developing people, and redesigning the organization (Leithwood, 1996; Conger & Kanungo, 1998; Hallinger & Heck, 1999). Items corresponding to this claim occupied five of the top nine spots on the overall prioritized list of leadership characteristics generated by this study.

A third major finding of the study has to do with the leadership characteristics found in the literature base for educational administration and determining if it is complete in its summary of what are the most essential tools for principals. Earlier, it

was determined that the leadership practices presented in the research were in agreement

with those viewed as being essential for student success by the high-performing

principals who made up the expert panel for this Delphi study, but it is also important to

ascertain whether or not there are tools that administrators need to be aware of that are

not represented in the literature on educational administration. As with the first major

finding discussed above, it is Section Two of the Delphi questionnaires that sheds the

most light on this issue. The fact that there were no additional leadership characteristics

pointed out by respondents in this section of the questionnaire affirms the conjecture that

the administrative knowledge base does present a well-defined and comprehensive set of

leadership practices. These leadership practices are not specific to merely campus

principals. They can be applied by individuals providing leadership in the educational

setting regardless of their official place in the organization.

An analysis of the data collected in this study presents clear evidence of the

strong ties regarding leadership beliefs between the research base and current school

leaders. The leadership characteristics included in these findings (visionary practices,

ethical behavior, and responding to the needs of diverse student populations) are

prevalent themes of the leadership work in the scholarly community. Kenneth

Leithwood and Carolyn Riehl's work includes the importance of visionary practices and

building powerful form of teaching and learning to meet the needs of diverse student

populations (2003b). Modeling integrity and making ethical decisions are included

repeatedly in the state and national leadership standards for school principals from

agencies such as the Educational Leadership Constituent Council (as approved by the

National Council for Accreditation of Teacher Education), the Texas State Board of Educator Certification, and the Interstate School Leaders Licensure Consortium. This study, based on the findings of agreement between the research base and the beliefs of high-performing principals regarding leadership, empirically confirms the previously suspected link between theory and practice.

Conclusions

This study of high-performing Texas high school principals examined which leadership characteristics truly have the greatest impact on student performance. Having completed the planning, data collection, and analysis phases, the following conclusions can be drawn:

1. The existing research on leadership clearly identifies successful leadership practices that make meaningful contributions to student success.

2. Communication of a vision for goal achievement, responding to the needs of diverse student groups, and maintaining ethical leadership practices are three of the most essential leadership characteristics.

3. There are no leadership characteristics purported by high-performing principals that have not already been identified in existing research.

These conclusions are clear after analyzing the data collected in this study. Delphi offered an effective methodology that allowed the researcher to gather results without being hampered by distractions or other confounding variables.

Implications for Further Study

The Delphi study conducted in this research project obtained information regarding the leadership practices and preferences of high-performing Texas high school principals. At the conclusion of this study, the researcher submits the following as recommendations for further study:

1. Varied Methodology – It would be interesting to observe how (if at all) the results regarding leadership practices of principals would vary if the methodology used to perform the study was of a purely quantitative nature using advanced statistical practices. At the other end of the spectrum, a purely qualitative or narrative study would be interesting as well.

2. Demographic Analysis – The results of this study represent the opinions of the identified participants based on specific selection criteria. None of the criteria used for selection were based on specific demographic variables. A study further analyzing the results of this Delphi exercise breaking down the participating principals' responses according to various demographic variables might yield compelling results.

3. Other Leaders – A clear theme in existing research is that principals are not the only members of educational organizations who provide leadership that affects student performance. It would be useful to have the results of Delphi studies utilizing the same instrument with expert

panels made up high-performing teachers, assistant principals, central office personnel, or superintendents.

4. Random Sample – This study used a carefully selected expert panel. Further study could draw comparisons between the findings of this study and of another Delphi study using the same instrumentation with a randomly selected panel of principals.

5. National Sample – This study was based in Texas and is, therefore, only generalizable to Texas high school principals. How would the results of a national study differ from this one?

6. Turnaround Study – The result of this study were obtained from established high school principals with a pattern of excellence in their current assignments. It might be worthwhile to assess the beliefs regarding leadership of principals who have recently taken over low-performing campuses and implemented initiatives that have yielded student success. Years of administrative experience might truly prove to be an interesting variable in this study.

7. Third Person Study – The Delphi exercise in this research project obtained results by directly asking the individuals in leadership positions about their leadership practices and beliefs. It would be intriguing to study the same practices and beliefs from the angle of someone who has had the opportunity to observe high-performing high school principals rather than from the individuals themselves.

Recommendations

The study is significant in that it provides principals (both current and future) with findings regarding successful leadership practices that they can either refine in their current practice or add to their leadership repertoire through experience and professional development. This study also has implications for principal preparation programs to consider. The leadership practices identified by successful principals are worthy of continued study and discussion as practitioners prepare for the challenges that await them in the front office. In light of the aforementioned significance, the researcher would like to make the following recommendations:

1. School district officials need to make a commitment to developing, refining, and refreshing leadership practices by providing time, resources, and a forum for leadership development activities to occur. This may be done through either formal or informal procedures ranging from whole-group professional development to administrative conversation partners scheduling regular time to discuss leadership practices.

2. Educational leaders, whether they are occupying formal administrative roles such as the principalship or not, need to devote conscious time and effort to thinking about leadership. Reflective practice is an invaluable habit for anyone in an organization. Evaluating achievement of personal goals, reading professional articles, and journaling are wonderful examples of how

an educator (ranging from the campus secretary to the district superintendent) can seek to constantly improve his or her professional practice.

3. Principal preparation programs must make a commitment to develop principals who understand the components of leadership. Most graduate programs offer survey courses on subjects such as leadership and organizational theory. However, it would be useful if preparation programs offered seminar-type courses where students could delve deeply into cutting-edge research on successful leadership models and practices. This practice could be followed by structured dialogue to help the students truly comprehend what an impact leadership can have on student performance. It would be especially useful if these leadership seminars included a field-based component in which some of the dialogues took place between students and individuals currently occupying the role of principal.

4. The Texas Education Agency and State Board of Educator Certification should cooperatively develop a principal mentor program. Many districts have administrative mentor programs in place, but mandating such a program would allow all new principals to receive the benefits associated with having a seasoned mentor. School districts and universities all across the nation have recognized the crisis that exists due to the inability to retain quality teachers and have developed (in spite of the costs involved) elaborate mentoring programs to keep teachers in the profession. In light of this, the state would do well to recognize that a similar crisis may very well be

developing in the ranks of school administration. A mentoring program would be an effective step toward alleviating the stress placed on educational organizations (and, by extension, on students) when high rates of principal turnover exist.

It is apparent that leadership has a meaningful impact on student performance and success. Paying attention to the leadership practices of principals and other individuals who exercise influence in the area of instructional leadership in today's schools is of paramount importance to the continued success of the American educational system. Taking the time to understand what the research base has to say regarding leadership and implementing those concepts into daily practice will provide principals with the opportunity and ability to affect meaningful change in the lives of students, staff, and community members for many years to come.

REFERENCES

Achilles, C. M. (1992). The leadership enigma is more than semantics. *Journal of School Leadership, 2*(1), 59- 65.

Andrews, R., & Soder, R. (1987). Principal instructional leadership and school achievement. *Educational Leadership, 44*, 9-11.

Bass, B. (1997). Does the transactional/transformational leadership transcend organizational and national boundaries? *American Psychologist,* 52, 130-139.

Battersby, D. (1987). Is there a place for "craft theory" in educational administration? *Educational Management and Administration, 15*, 63-66.

Beck, L. G. (1994). *Reclaiming educational administration as a caring profession.* New York: Teachers College Press.

Beck, L. G., & Murphy, J. (1993). *Understanding the principalship: Metaphorical themes 1920s-1990s.* New York: Teachers College Press.

Bjil, R. (1992). Delphi in a future scenario study on mental health and mental health care. *Futures, 24*(3), 232-250.

Blumberg, A. (1989). *School administration as a craft.* Boston: Allyn and Bacon.

Blumberg, A., & Greenfield, W. (1980). *The effective principal: Perspectives on school leadership.* Boston: Allyn and Bacon.

Bredeson, P. V. (1985). An analysis of the metaphorical perspectives of school principals. *Educational Administration Quarterly, 21*(3), 29-50.

Bredeson, P. V. (1988). Perspectives on schools: Metaphors and management in education. *Journal of Educational Administration, 26*(3), 293-310.

Brooks, K. W. (1979). Delphi technique: Expanding applications. *North Central Association Quarterly, 53*(3), 377-385.

Burns, J. (1978). *Leadership.* New York: Harper & Row.

Bryk, A. S., & Driscoll, M. E. (1988). *The school as community: Theoretical foundations, contextual influences, and consequences for students and teachers.* Madison, WI: University of Wisconsin, National Center for Effective Secondary Schools.

Coburn, C. E. (2001). Collective sensemaking about reading: How teachers mediate reading policy in their professional communities. *Educational Evaluation and Policy Analysis, 23*(2), 145-170.

Cochran, S. W. (1983). The Delphi method: Formulating and refining group judgments. *Journal of Human Sciences, 2*(2), 111-117.

Cohen, D. K. & Hill, H. C. (2000). Instructional policy and classroom performance: The mathematics reform in California. *Teachers College Record, 102*(2), 294-343.

Coleman, J. S., Campbell, E. Q., Hobson, C. F., McPartland, J., Mood, A. M., Weifield, F. D., et al. (1966). *Equality of educational opportunity.* Washington, DC: U.S. Government Printing Office.

Conger, J., & Kanunga, R. (1998). *Charismatic leadership in organizations.* Thousand Oaks, CA: Sage.

Crowther, F., Kaagen, S. S., Ferguson, M., & Hann, L. (2002). *Developing teacher leaders: How teacher leadership enhances school success.* Thousand Oaks, CA: Corwin Press.

Cunningham, W. G. (1982). *Systematic planning for educational change.* Palo Alto, CA: Mayfield Publishing Company.

Dalkey, N., & Helmer, O. (1968). An experimental application of the Delphi method to the use of experts. *Management Science, 9*(3), 458-467.

Darias, J. D. (2002). Teachers as leaders, leaders as teachers. *Teaching in changing times: The courage to lead,* 13-29.

David, J. L. (1989). Synthesis of research on school-based management. *Educational Leadership, 46*(8), 45-53.

Davidson, G. (1992). Beyond direct instruction: Educational leadership in the elementary school classroom. *Journal of School Leadership, 2*(3), 280-288.

Delbecq, A. L., Van de Ven, A., & Gustafson, D. (1975). *Group techniques for program planning: A guide to nominal group and Delphi processes.* Glenview, Il: Scott Foresman and Company.

Dillard, C. B. (1995). Leading with her life: An African American feminist (re)interpretation of leadership for an urban high school principal. *Educational Administration Quarterly, 31*(4), 539-563.

Duboff, R., & Spaeth, J. (2000). *Market research matters: Tools and techniques for aligning your business.* New York: John Wiley & Sons Inc.

Erlandson, D. A., Atkinson, N., & Allen, S. D. (1990). *The management profile: A handbook for the development of management skills.* College Station, TX: Texas A&M University Principals' Center Press.

Evers, C. W. & Lakomski, G. (1991). *Knowing educational administration.* Oxford: Pergamon Press.

Firestone, W. A. (1996). Leadership: Roles or functions? In K. Leithwood, J. Chapman, D. Corson, P. Hallinger, & A. Hart (Eds.), *International handbook of educational leadership and administration* (pp. 395-418). Boston: Kluwer.

Fish, L. & Busby, D. M. (2005). The Delphi method. In Piercy, F. P., & Sprenkle, D. H. (Eds.), *Research methods in family therapy* (2nd ed.) (pp. 238-253). New York: Guilford Press.

Floden. R. E., Porter, A. C., Alford, L. E., Freeman, D. J., Irwin, S., Schmidt, W., et al. (1988). Instructional leadership at the district level: A closer look at autonomy of control. *Educational Administration Quarterly, 24*(2), 96-124.

Foster, W. (1989a) *The reconstruction of leadership*. Victoria, Australia: Deakin University Press.

Foster, W. (1989b). The administrator as a transformative intellectual. *Peabody Journal of Education, 66*(3), 5-18.

Fullan, M. (2003). *The moral imperative of school leadership.* Thousand Oaks, CA: Corwin Press.

Geltner, B. B., & Shelton, M. M. (1991). Expanded notions of strategic instructional leadership: The principal's role with student support personnel. *Journal of School Leadership, 1*(4), 338-350.

Giles, C. (1997). *School development planning: A practical guide to the strategic management process.* Plymouth, UK: Northcote House Publishers.

Grace, G. (1995). *School leadership: Beyond education management.* London: Falmer Press.

Hallinger, P. (1992). The evolving role of American principals: From managerial to instructional to transformational leaders. *Journal of Educational Administration, 30*(3), 35-48.

Hallinger, P., & Heck, R. (1996). The principal's role in school effectiveness: An assessment of methodological progress, 1980-1995. In K. Leithwood et al. (Eds.), *International handbook of educational leadership and administration* (pp. 723-783). The Netherlands: Kluwer Academic Publishers.

Hallinger, P., & Heck, R. (1999). Next generation methods for the study of leadership and school improvement. In J. Murphy & K. Louis (Eds.), *Handbook of research in educational administration,* 2nd ed. (pp. 141-162). San Francisco: Jossey-Bass.

Hallinger, P., & Heck, R. (2002). What do you call people with visions? The role of vision, mission, and goals in school leadership and improvement. In Leithwood, K., & Hallinger, H. (Eds.), *Second international handbook of educational leadership and administration* (pp. 9-40)*.* London: Kluwer.

Hamilton, M. L., & Richardson, V. (1995). Effects of the culture in two schools on the process and outcomes of staff development. *Elementary School Journal, 95*(4), 367-385.

Heck, R. H. & Marcoulides, G. A. (1996). School culture and performance: Testing the invariance of an organizational model. *School Effectiveness and School Improvement, 7*(1), 76-95.

Helmer, O. (1983). *Looking forward: A guide to futures research.* Beverly Hills, CA: Sage Publications.

Helmer, O. (1994). Adversary Delphi. *Futures, 26*(1), 79-88.

Hess, G. A. (1991). *School restructuring Chicago style.* Newbury Park, CA: Corwin

Hill, K. Q., & Fowles, J. (1975). The methodological worth of the Delphi forecasting technique. *Technological Forecasting and Social Change, 7*, 179-92.

Hirschman, A. O. (1970). *Exit, voice, and loyalty: Responses to decline in firms, organizations, and states.* Cambridge, MA: Harvard University Pres.

Hodgkinson, C. (1978). *Towards a philosophy of administration.* Oxford:Basil Blackwell.

Hodgkinson, C. (1991). *Educational leadership: The moral art.* Albany, NY: SUNY Press.

Hoy, W. K., & Miskel, C. G. (2001). *Educational administration: Theory, research, and practice* (6th ed.). New York: McGraw-Hill.

Hoyle, J, R., Bjork, L. G., Collier, V., & Glass, T. (2005). *The superintendent as CEO: Standards-based performance.* Thousand Oaks, CA: Corwin Press

Jencks, C. (1977) *The effects of family background, test scores, personality traits and education on economic success.* Cambridge, MA: Center for the Study of Public Policy.

Johnston, J., & Pickersgill, S. (1992). Personal and interpersonal aspects of effective team-oriented headship in the primary school. *Educational Management and Administration, 20*(4), 239-248.

Kerchner, C. T. (1988). Bureaucratic entrepreneurship: The implications of choice for school administration. *Educational Administration Quarterly, 24*(4), 381-392.

Kerr, S. & Jermier, J. (1978). Substitutes for leadership: Their meaning and measurement. *Organizational Behavior and Human Performance, 22*(3), 375-403.

Kleine-Kracht, P. (1993). Indirect instructional leadership: An administrator's choice. *Educational Administration Quarterly, 29*(2), 187-212.

Kunert, K. W. & Lewis, P. (1987). Transactional and transformational leadership: A constructive/developmental analysis. *Academy of Management Review, 12*(4), 648-57.

Ladd, H. F., & Zelli, A. (2002). School-based accountability in North Carolina: The responses of school principals. *Educational Administration Quarterly, 38*(4), 494-529.

Lanford, H. W. (1972). *Technological forecasting methodoloigies: A synthesis.* New York: American Management Association Inc.

Lee, V., Byrk, A., & Smith, J. B. (1993). The organization of effective high schools. In L. Darling-Hammond (Ed.), *Review of research in education,* Vol. 19 (pp. 171-267). Washington, DC: American Educational Research Association.

Lee, V. E. (2000). School size and organization in secondary schools. In M.T. Hallinan (Ed.), *Handbook of the sociology of education* (pp.327-344). New York: Klewer/Plenum.

Lee, V. E., & Smith, J. B. (1997). High school size: Which works best and for whom? *Educational Evaluation and Policy Analysis, 19*(3), 205-227.

Leithwood, K. (1994). Leadership for school restructuring. *Educational Administration Quarterly, 30*(4), 498-518.

Leithwood, K., & Duke, D. L. (1999). A century's quest to understand school leadership. In K. S. Louis & J. Murphy (Eds.), *Handbook of research on educational administration* (2nd ed.) (pp. 45-72). San Francisco: Jossey-Bass.

Leithwood, K., & Earl, L. (2000). Educational accountability effects: An international perspective. *Peabody Journal of Education, 75*(4), 1-18.

Leithwood, K., & Jantzi, D. (1990). Transformational leadership: How principals can help reform school cultures. *School effectiveness and school improvement, 1*(4), 249-280.

Leithwood, K., & Riehl, C. (2003a). *What we know about successful school leadership.* Philadelphia, PA: Laboratory for Student Success, Temple University.

Leithwood, K., & Riehl, C. (2003b). *What do we already know about successful school leadership?* (Report). New Brunswick, NJ: AERA Division A Task Force on Developing Research in Educational Leadership.

Leithwood, K., & Prestine, N. (2002). Unpacking the challeneges of leadership at the school and district level. In J. Murphy (Ed.), *The educational leadership*

challenge: Redefining leadership for the 21st century (pp. 42-64). Chicago: National Society for the Study of Education.

Leithwood, K., Jantzi, D., & Steinbach, R. (1999). *Changing leadership for changing times.* Buckingham, UK: Open University Press.

Leithwood, K., Leonard, L., & Sharratt, L. (1998). Conditions for fostering organizational learning in schools. *Educational Administration Quarterly, 34*(2), 243-276.

Leithwood, K., Steinbach, R., & Raun, T. (1993). Superintendents' group problem-solving processes. *Educational Administration Quarterly, 29*(3), 364-391.

Lesourd, S., Tracz, S., & Grady, M. L. (1992). Attitude toward visionary leadership. *Journal of School Leadership, 2*(1), 34-44.

Levine, D. U., & Lezotte, L. W. (1990). *Unusually effective schools: A review and analysis of research and practice.* Madison, WI: National Center for Effective Schools Research and Development.

Linstone, H. A., & Turoff, M. (Eds.) (1975). *The Delphi method: Techniques and applications.* Reading, MA: Addison-Wesley.

Little, J. W. (1982). Norms of collegiality and experimentation: Workplace conditions of school success. *American Educational Research Journal, 19*(3), 325-340.

Locke, E. A., Latham, G. P., & Eraz, M. (1988). The determinants of goal commitment. *Academy of Management Review*, 13, 23-39.

Lord, R. G. & Maher, K. J. (1993). *Leadership and information processing.* London: Routledge.

Lortie, D. (1975). *Schoolteacher.* Chicago: University of Chicago Press.

Louis, K. S., & Kruse, S. D., & Associates (1995). *Professionalism and community: Perspectives on reforming urban schools.* Thousand Oaks, CA: Corwin Press.

Louis, K. S., & Smith, B. (1992). Cultivating teacher engagement: Breaking the iron law of social class. In F. M. Newmann (Ed.), *Student engagement and achievement in secondary schools* (pp. 119-152). New York: Teachers College Press.

Louis, K. S., Toole, J., & Hargreaves, A. (1999). Rethinking school improvement. In J. Murphy & K. S. Louis (Eds.), *Handbook of research on educational administration* (2nd ed.) (pp. 251-276). San Francisco: Jossey-Bass.

Marsh, D. D. (2000). Educational leadership for the twenty-first century: Integrating three essential perspectives. In M. Fullan (Ed.), *The Jossey-Bass reader on educational leadership* (pp. 126-145). San Francisco: Jossey-Bass.

Marzono, R. J. (2003). *What works in schools: Translating research into action.* Alexandria, VA: Association for Supervision and Curriculum Development.

Masini, E. (1993). *Why futures studies?* London: Grey Seal.

Mitroff, I. L., & Turoff, M. (1975). Philosophical and methodological foundations of the Delphi. In H. A. Linstone, & M. Turoff (Eds.), *The Delphi method: Techniques and applications* (pp. 17-35)*.* Reading, MA: Addison-Wesley.

Mojkowski, C., & Fleming, D. (1988). *School-site management: Concepts and approaches*. Andover, MA: Regional Laboratory for the Educational Improvement of the Northeast and Islands.

Moore, A., George, R., & Halpin, D. (2002). The developing role of the headteacher in

    English schools. *Educational Management and Administration, 30*(2), 175-188.

Murphy, J. (1994). Redefining the principalship in restructuring schools. *NASSP*

    Bulletin, 78(560), 94-99.

Murphy, J., & Beck, L. G. (1995). *School-based management as school reform.*

    Thousand Oaks, CA: Corwin Press.

Murphy, J., & Hallinger, P. (1992). The principalship in an era of transformation.

    Journal of Educational Administration, 30(3), 77-88.

Murphy, J., Hallinger, P., & Mitman, A. (1983). Problems with research on educational

    leadership: Issues to be addressed. *Educational Evaluation and Policy Analysis,*

    5(3), 297-305.

Murry, J. W., & Hammons, J. O. (1995). Delphi: A versatile methodology for

    conducting qualitative research. *The Review of Higher Education, 18*(4), 423-

    436.

Ornstein, A. C. (1983). Administrative decentralization and community policy: Review

    and outlook. *Urban Review, 15*(1), 3-10.

Parente, F., & Anderson-Parente, J. (1987). Delphi inquiry systems. In G. Wright & P.

    Ayton (Eds.), *Judgemental forecasting* (pp. 129-156). New York: John Wiley

    and Sons.

Pitner, N. J. (1986). Substitutes for principal leadership behavior: An exploratory study.

    Educational Administration Quarterly, 21(1), 23-42.

Pittman, T. S. (1998). Motivations. In D.T. Gilbert, S. Fiske, & G. Lindzey (Eds.), *The handbook of social psychology* (4th ed.): Vol. 1, (pp. 549-590). Boston: McGraw-Hill.

Podsakoff, P. M., MacKenzie, S. B., Moorman, R. H., & Fetter, R. (1990). Transformational leaders' behaviors and their effects on followers' trust in leader, satisfaction, and organizational citizenship behaviors. *The Leadership Quarterly, 1*(2), 107-142.

Portin, B. S. (2000). The changing urban principalship. *Education and Urban Society, 32*(4), 492-505.

Reitzug, U. C., & Reeves, J. E. (1992). "Miss Lincoln doesn't teach here": A descriptive narrative and conceptual analysis of a principal's symbolic leadership behavior. *Educational Administration Quarterly, 28*(2), 185-219.

Ross, J. A., Cousins, J. B., & Gadalla, T. (1996). Within-teacher predictors of teacher efficacy. *Teaching and Teacher Education*, 12, 385-400.

Rossmiller, R. A. (1992). The secondary school principal and teachers' quality of work life. *Educational Management and Administration, 20*(3), 132–146.

Rowan, B. (1996). Standards as incentives for instructional reform. In S. H. Fuhrman, & J. O'Day (Eds.), *Rewards and reform: Creating educational incentives that work* (pp.195-225). San Francisco: Jossey-Bass.

Rowe, G., Wright, G., & Bolger F. (1991). Delphi: A reevaluation of research and theory. *Technological Forecasting and Social Change*, 39, 235-251

Sanders, M. G., & Harvey, A. (2002). Beyond the school walls: A case study of
principal leadership for school-community collaboration. *Teachers College
Record, 104*(7), 1345-1368.

Scheele, D. S. (1975). Reality construction as a product of Delphi interaction. In H.A.
Linstone, & M. T. Turoff (Eds.), *The Delphi method: Techniques and
applications* (pp. 37-64). Reading, MA: Addison-Wesley Publishing Company.

Scheerens, J., & Bosker, R. J. (1997). *The foundations of educational effectiveness.* New
York: Elsevier.

Schon, D. A. *The reflective practitioner.* New York: Basic Books.

Schwahn, C. J., & Spady, W. G. (1998). *Total leaders: Applying the best future-focused
change strategies to education.* Arlington, VA: American Association of School
Administrators.

Sergiovanni, T. J. (1989). Mystics, neats and scruffies: Informing professional practice
in educational administration. *Journal of Educational Administration, 27*(2), 7-
21.

Sergiovanni, T. J., & Carver, F. C. (1973). *The new school executive: A theory of
administration.* New York: Dodd Mead.

Sheppard, B. (196). Exploring the transformational nature of instructional leadership.
Alberta Journal of Educational Research, (42), 325-344.

Slater, R. O. (1994). Symbolic educational leadership and democracy in America.
Educational Administration Quarterly, 30(1), 97-101.

Sleegers, P., Geijsel, F., & Van den Borg, R. (2002). Conditions fostering educational change. In K. Leithwood, & P. Hallinger (Eds.), *Second international handbook of educational leadership and administration: Part one* (pp. 75-102)*.* Norwell, MA: Kluwer.

Stallhammar, B. (1994). Goal oriented leadership is Swedish schools. *Educational Management and Administration, 22*(1), 14-25.

Strauss, H. J., & Ziegler, L. H. (1975). The Delphi technique and its uses in social science research. *Journal of Creative Behavior, 9*(4), 253-259.

Texas Education Agency. (n.d.). *Division of accountability website.* Retrieved February 2, 2007, from http://www.tea.state.tx.us/accountability.html

Texas Education Code, Subchapter E: Section 11.202 (2005).

Tersine, R.G., & Riggs, W. E. (1976). The Delphi technique: A long range planning tool. *Business Horizons, 19*(2), April.

Turoff, M. (1970). The design of a policy Delphi. *Technological Forecasting and Social Change*, *2*(2), 149.

Van de Grift, W., & Houtveen, A. M. (1999). Educational leadership and pupil achievement in primary education. *School Effectiveness and School Improvement, 10*(4), 373-389.

Vandenberghe, R. (1992). The changing roles of principals in primary and secondary schools in Belgium. *Journal of Educational Administration, 30*(3), 20-34.

Weick, K. E. (1995). *Sensemaking in organizations*. Thousand Oaks CA: Sage.

Wells, A. S., & Serna, I. (1996). The politics of culture: Understanding local political resistance to detracking in racially mixed schools. *Harvard Educational Review, 66*(1), 93-118.

Whitman, N. I. (1990). The Delphi techniques as an alternative for committee meetings. *Journal of Nursing Education, 29*(8), 377-79.

Wilhelm, W. (2001). Alchemy of the oracle: The Delphi technique. *Delta Pi Epsilon Journal, 43*(1), 6-26.

Wohlstetter, P. (1990). *Experimenting with decentralization: The politics of change*. University of Oregon: ERIC Document Reproduction Service No. ED337861.

Wohlstetter, P., & Mohrman, S. A. (1993). *School-based management: Strategies for success.* New Brunswick, NJ: Rutgers University.

Wohlstetter, P., & Odden, A. (1992). Rethinking school-based management policy and research. *Educational Administration Quarterly, 28*(4), 529-549.

York-Barr, J., & Duke, K. (2004). What do we know about teacher leadership? Findings from two decades of scholarship. *Review of Educational Research, 74*(3), 255-316.

Yukl, G. (1994). *Leadership in organizations* (3rd ed.). Englewood Cliffs, NJ: Prentice Hall.

Yukl, G. (1998). *Leadership in organizations* (4th ed.). Upper Saddle River, NJ: Prentice Hall.

Ziglio, E. (1996). The Delphi method and its contributions to decision-making. In M.

    Adler, & E. Ziglio (Eds.), *Gazing into the oracle: The Delphi methods and its*

    applications to social policy and public health (pp. 3-33). London: Jessica

    Kingslea Publishers.

APPENDIX A

INITIAL ROUND ONE RESEARCH PACKET MATERIALS

Bryan Independent School District

1901 E. Villa Maria, Bryan TX 77803
(979) 209-2700 Fax (979) 209-2704
David E. Young, Director of Alternative and Accelerated Instruction

May 29, 2006

Participant Name
_____ High School
Participant Address

Dear _____,

My name is David Young. I am the Director of Alternative and Accelerated Instruction for Bryan Independent School District. I would like to invite you to participate in a research study regarding successful leadership practices.

Strong campus level leadership is a critical factor for positively impacting student success. High school principals are faced with challenges in many different arenas each and every day including budgeting, managing personnel, guiding the instructional program, working with teachers and students, and being an ambassador for the organization in the community in which they work. These challenges demand effective leadership practices.

I am extremely interested in which leadership characteristics most positively affect student performance in Texas High Schools. As a part of my dissertation, I am conducting a study of the leadership characteristics employed by highly successful Texas High School Principals. Through a collaborative process with the Texas Association of Secondary School Principals, you have been selected as a potential participant in the study. The time commitment on your part will be minimal, but I believe that we can truly add value to both our own professional development as well as university principal preparation programs by collecting data regarding leadership.

The study will utilize the Delphi procedure. This process uses a panel of experts to arrive at a group consensus without actually meeting together as a group. Over the course of four rounds (possibly five), you will provide input into which leadership practices are of critical importance to principals. In Round One, you will be presented with a survey regarding research-based leadership practices and their relevance to increasing student performance. The second and subsequent rounds will be aimed at developing a consensus between the members of the panel. Each survey should not exceed twenty minutes. I sincerely hope that you will be willing to participate.

I know that there is a never a good time to make one more time commitment, but I believe this study can have a meaningful impact on Texas high school students. Thank you for your consideration of this project.

David Young
Principal Investigator

INFORMATION SHEET

EFFECTIVE LEADERSHIP CHARACTERISTICS FOR STUDENT PERFORMANCE AS PERCEIVED BY HIGH-PERFORMING TEXAS HIGH SCHOOL PRINCIPALS: A DELPHI STUDY

As a selected, outstanding, high-performing principal, you understand the following regarding this study:

- The purpose of this study is to determine what educational leadership characteristics are of critical importance to student success.
- This study is part of a dissertation being done to partially fulfill requirements for the principal investigator to receive an advanced degree.
- **Participation in this study is completely voluntary**. Participants also have the right to drop out of the study at any time once it has begun.
- As a participant in this study, you are one of 30 high-performing Texas 4A or 5A High School Principals. You were selected for possible participation by the principal investigator through a collaborative process with the Texas Association of Secondary School Principals.
- Participation in this study is anonymous. The principal investigator's private records will be the only place where participant identifying information will be kept. These records will be destroyed when the study is completed. Participants will have no way of knowing who the other participants in the study are.
- The only risks or potential discomforts associated with this study are in the area of time management. Participation will require a minimum amount of time on your part. While every effort has been made on the part of the principal investigator to streamline the questionnaire for each round of the Delphi study, you as the participant will be making a commitment of your time to participate in the study.
- You will not be compensated for your participation in this study.
- The benefits of this study are improved opportunities for Texas High School students.
- Your time commitment should be no more than twenty minutes for each of the four questionnaires. These questionnaires will require you to respond to statements regarding principal leadership characteristics and their importance to student success. There will also be 1 open-ended question on the first questionnaire.
- The time period will be no more than 8 weeks and will begin June 1st, 2006.
- I hope that you will participate throughout the entire project, but you are free to withdraw at any time.
- This research study has been reviewed by the Institutional Review Board – Human Subjects in Research, Texas A&M University. For research-related problems or questions regarding subjects' rights, you can contact the Institutional Review Board through Ms. Angela Raines, Director of Research Compliance, Office of the Vice President for Research at (979)458-4067, araines@vprmail.tamu.edu
- Questions regarding participation in the study, research instruments, or any other facet of the study should be directed to :

David Young	John Hoyle
(979)209-2785	(979)845-2748
dyoung@bryanisd.org	jhoyle@tamu.edu
Principal Investigator	Doctoral Committee Chair

Effective Leadership for Student Performance
Delphi Study – Round One

Part One: Leadership has an impact on the performance of students in any school. Please respond to the following statements regarding leadership practices and their importance to positive student performance by placing the number corresponding to your belief in the answer blank. Use the following scale as a basis for your answer to each question:

1	2	3	4	5
Not Necessary For Student Success	Moderate Importance For Student Success	Average Importance For Student Success	Above Average Importance For Student Success	Critical Importance For Student Success

_____ 1. The campus principal develops a collective vision of the future that focuses, inspires, and sustains goal achievement efforts over time.

_____ 2. The campus principal endorses visions of exemplary instructional practices.

_____ 3. The campus principal develops people through intellectual stimulation, promotion, and support of those engaged in meaningful change.

_____ 4. The campus principal views the school as a professional learning community embedded within a local context.

_____ 5. The campus principal develops and strengthens school culture.

_____ 6. The campus principal modifies organizational structures (assignments, allocation of resources, and procedures) to create optimal conditions for learning and teaching.

_____ 7. The campus principal builds collaborative processes.

_____ 8. The campus principal manages the environment.

_____ 9. The campus principal responds proactively to challenges and opportunities created by the accountability-oriented policy context in which they work.

_____ 10. The campus principal responds productively to the opportunities and challenges of educating diverse groups of students.

_____ 11. The campus principal builds powerful forms of teaching and learning.

_____ 12. The campus principal creates strong communities in schools.

_____ 13. The campus principal expands students' social capital valued by schools.

_____ 14. The campus principal nurtures the development of families' educational cultures.

_____ 15. The campus principal influences student learning by supporting teacher efforts to achieve high expectations for student learning.

_____ 16. The campus principal devotes a great deal of time and energy to the school improvement process.

_____ 17. The campus principal promotes student achievement through the effective management of the school's human, financial, and physical resources.

_____ 18. The campus principal continuously seeks out new available resources for the enhancement of student learning.

_____ 19. The campus principal interacts with the entire community within which his or her organization is located by becoming knowledgeable of, responsive to, engaged in the larger social, economic, legal and cultural contexts of the community.

_____ 20. The campus principal models integrity, fairness, and ethical behavior in all situations.

_____ 21. The campus principal consistently supervises instructional practices throughout the entire school and is knowledgeable enough regarding curriculum and instruction to provide meaningful feedback to teachers.

_____ 22. The campus principal's top priority is protecting instructional time.

_____ 23. The campus principal supports teachers and regularly provides them with incentives.

_____ 24. The campus principal chooses meaningful professional development activities for his or her staff and participates in them when they are presented.

_____ 25. The campus principal maintains a high degree of visibility to staff, students, parents, and other members of the community.

_____ 26. The campus principal strives to build the leadership capacity of those around them (teachers, students, parents, etc…).

Part Two: Please use the space below to provide any additional campus-level leadership characteristics not presented in the questions above that you feel are of critical importance to student success.

_____

_____

_____

_____

_____

_____

Survey Participation Preference Form

It is my goal for participation in this study to be as effortless on your part as possible. There are two methods by which you can complete your surveys: hard copies sent back and forth through the mail or electronically through email. Please indicate your preference below:

_____ I would like to participate electronically. Please send all future correspondence to me at the following email address: _____

_____ I would like to participate via hard copy through the mail.

_____ I do not wish to participate in the research study at all.

* **Please return this form in the enclosed self-addressed stamped envelope along with your completed Round One Survey.** If you would like to complete Round One electronically, please email me at dyoung@bryanisd.org and I will send you an electronic version of the survey.

APPENDIX B

INITIAL FOLLOW-UP EMAIL TO ROUND ONE RESEARCH PACKETS

Friday, June 02, 2006

Message

From: David Young
Subject: Principal Leadership Research Study

Bcc: all twenty-nine potential participants listed individually

Dear Principal,

On Tuesday, I placed a research packet in the mail to you at your school address. I hope that you have received it by now. I am currently working on my dissertation at Texas A&M and am requesting your assistance in gathering data regarding successful leadership practices. I hope that you will examine the materials and choose to participate in the study. I have attached a copy of the survey instrument for the first round of the study to this email. If you would like to fill it out electronically and return it to me via email rather than the self-addressed stamped envelope in your packet, please feel free to do so. If you have any questions about the survey, please do not hesitate to contact me at either (979)209-2785 or (979)255-5071.

Thank you for your assistance.

David Young
Bryan ISD
Director of Alternative and Accelerated Education
1901 Villa Maria RD
Bryan, TX 77803
Phone - (979) 209-2785 Fax - (979) 209-2704
dyoung@bryanisd.org

•   This research study has been reviewed by the Institutional Review Board – Human Subjects in Research, Texas A&M University. For research-related problems or questions regarding subjects' rights, you can contact the Institutional Review Board through Ms. Angela Raines, Director of Research Compliance, Office of the Vice President for Research at (979)458-4067, araines@vprmail.tamu.edu

APPENDIX C

2ND FOLLOW-UP EMAIL FOR ROUND ONE PARTICIPATION

Monday, June 19, 2006
Message

From: David Young
Subject: Principal Leadership Research Study

Bcc: all potential participants not having already submitted listed individually

Dear Principal,

I recently mailed a research packet to your school address requesting your participation in a study regarding the leadership characteristics of high-performing Texas high school principals. This study is a part of my dissertation requirement at Texas A&M University. Obtaining the input of principals across the state is vital to the study. You were chosen as 1 of 30 possible participants due to your school's exemplary or recognized status. I hope that you will choose to participate. I have attached a copy of the survey instrument to this email (as well as info sheet required by A&M). Please feel free to fill it out electronically and email it back to me or you may mail it back in the self-addressed stamped envelope that you received with the original packet.

Thank you for your assistance with this project. If you have already mailed back your survey, please disregard this email.

David Young
Bryan ISD
Director of Alternative and Accelerated Education
1901 Villa Maria RD
Bryan, TX 77803
Phone - (979) 209-2785 Fax - (979) 209-2704
dyoung@bryanisd.org

APPENDIX D

ROUND TWO RESEARCH PACKET MATERIALS

Bryan Independent School District

1901 E. Villa Maria, Bryan TX 77803
(979) 209-2700 Fax (979) 209-2704
David E. Young, Director of Alternative and Accelerated Instruction

October 9, 2006

Participating Principal
_____ High School
Participant Address

Dear _____,

In June you received a survey regarding successful leadership practices of high-performing Texas High School Principals. Thank you for taking the time to complete the survey and for agreeing to participate in the study. I apologize for the delay before moving on to the next round of the study, but I wanted to give everyone ample time to respond to the survey

As stated in the previous correspondence regarding the study, we will be utilizing the Delphi procedure to develop consensus regarding what are the most critical leadership characteristics for principals to utilize in order to maximize student success. A Delphi study utilizes an expert panel (of which you have agreed to be a member) to provide input and develop consensus over the course of several rounds of communication regarding the research topic. We are currently in the second round which will allow us to begin to move toward a consensus as to which leadership characteristics on the part of a campus principal are absolutely critical to student success.

Included in this mailing, you will find a table containing your responses to the questions in Round One, the mean responses for the panel, and the response categories making up the inter-quartile range (responses falling between the 25th and 75th percentiles for the entire data set).

For each question on the survey, please note whether or not your response falls within the inter-quartile range (IQR). If your response does fall within the IQR, then you do not need to do anything and may move on to the next question. If your response does not fall within the IQR, then please take one of the following two actions:

1) <u>Revise your original response</u> based on the group feedback of the entire panel so that it does fall within the IQR. If you choose this option, please enter your new response in the column entitled "Change".

- or -

2) <u>Maintain your original response</u> and provide written justification for why you believe it to be an appropriate response for that particular item on the Response

Justification Form. Your written justification will be made available to the group in Round 3 for their consideration.

Revisiting the original survey responses in this manner will allow the entire panel to move toward consensus on the items in this and any subsequent rounds of the Delphi procedure. Please remember that only the items for which your original response fell outside the IQR require action on your part.

At the end of the survey you will find a listing of all of the responses to the open-ended portion of the original survey. Please provide any feedback on these items in the space provided. If you feel that any of these responses do not fall under umbrella of the leadership characteristics presented in items #1-26, please indicate this in the same space.

It is my hope that this round of the study will not require a great deal of time on your part. The feedback of each member of the panel is incredibly important. I am excited about the study, and I am looking forward to sharing the results with you. Please complete this round and return it to me by Friday, October 20th.
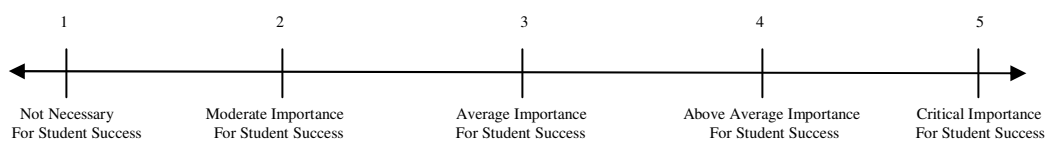
If you have any questions or if I can be of any assistance to you during this round, please do not hesitate to call me at (979) 255-5071. Thank you once again for your participation.

David Young
Principal Investigator
dyoung@bryanisd.org

189

Effective Leadership for Student Performance
Delphi Study – Round Two

Directions: Below you will find a table illustrating your individual responses and the overall group responses to the 26 objective items presented in Round One of the Delphi Study. For each question, note whether your response was within the inter-quartile range. If so, no action is required. If not, you need to either enter a new response in the "Change" column or justify your original response in the space below the table. (**A copy of the original survey questions can be found on the back of this page**)

	1	2	3	4	5
	Not Necessary For Student Success	Moderate Importance For Student Success	Average Importance For Student Success	Above Average Importance For Student Success	Critical Importance For Student Success

Item #	Original Response	Group Mean	Inter-Quartile Range (IQR)	Was your original response inside the IQR?	Change (if necessary)
1	5	4.71	5 to 5	inside	
2	4	4.59	4 to 5	inside	
3	4	4.35	4 to 5	inside	
4	5	4.41	4 to 5	inside	
5	5	4.71	4 to 5	inside	
6	4	4.47	4 to 5	inside	
7	4	4.18	4 to 5	inside	
8	4	4.12	4 to 5	inside	
9	5	4.47	4 to 5	inside	
10	3	4.76	5 to 5	outside	
11	4	4.18	4 to 5	inside	
12	3	3.94	3 to 4	inside	
13	3	3.59	3 to 4	inside	
14	3	3.71	3 to 4	inside	
15	4	4.71	4 to 5	inside	
16	4	4.29	4 to 5	inside	
17	4	4.59	4 to 5	inside	
18	3	4.24	4 to 5	outside	
19	4	3.94	4 to 4	inside	
20	4	4.71	5 to 5	outside	
21	3	4.53	4 to 5	outside	
22	4	4.18	4 to 5	inside	
23	4	4	4 to 4	inside	
24	4	4.24	4 to 5	inside	
25	4	4.82	5 to 5	outside	
26	5	4.53	4 to 5	inside	

Your response to the following questions was outside the inter-quartile range:
10, 18, 20, 21, 25

Original Survey Questions from Round One

1. The campus principal develops a collective vision of the future that focuses, inspires, and sustains goal achievement efforts over time.
2. The campus principal endorses visions of exemplary instructional practices.
3. The campus principal develops people through intellectual stimulation, promotion, and support of those engaged in meaningful change.
4. The campus principal views the school as a professional learning community embedded within a local context.
5. The campus principal develops and strengthens school culture.
6. The campus principal modifies organizational structures (assignments, allocation of resources, and procedures) to create optimal conditions for learning and teaching.
7. The campus principal builds collaborative processes.
8. The campus principal manages the environment.
9. The campus principal responds proactively to challenges and opportunities created by the accountability-oriented policy context in which they work.
10. The campus principal responds productively to the opportunities and challenges of educating diverse groups of students.
11. The campus principal builds powerful forms of teaching and learning.
12. The campus principal creates strong communities in schools.
13. The campus principal expands students' social capital valued by schools.
14. The campus principal nurtures the development of families' educational cultures.
15. The campus principal influences student learning by supporting teacher efforts to achieve high expectations for student learning.
16. The campus principal devotes a great deal of time and energy to the school improvement process.
17. The campus principal promotes student achievement through the effective management of the school's human, financial, and physical resources.
18. The campus principal continuously seeks out new available resources for the enhancement of student learning.
19. The campus principal interacts with the entire community within which his or her organization is located by becoming knowledgeable of, responsive to, engaged in the larger social, economic, legal and cultural contexts of the community.
20. The campus principal models integrity, fairness, and ethical behavior in all situations.
21. The campus principal consistently supervises instructional practices throughout the entire school and is knowledgeable enough regarding curriculum and instruction to provide meaningful feedback to teachers.
22. The campus principal's top priority is protecting instructional time.
23. The campus principal supports teachers and regularly provides them with incentives.
24. The campus principal chooses meaningful professional development activities for his or her staff and participates in them when they are presented.
25. The campus principal maintains a high degree of visibility to staff, students, parents, and other members of the community.
26. The campus principal strives to build the leadership capacity of those around them (teachers, students, parents, etc…).

Response Justification Form

Item # ____ Original Response _____ Justification of Response: _____
_____
_____

Item # ____ Original Response _____ Justification of Response: _____
_____
_____

Item # ____ Original Response _____ Justification of Response: _____
_____
_____

Item # ____ Original Response _____ Justification of Response: _____
_____
_____

Item # ____ Original Response _____ Justification of Response: _____
_____
_____

Item # ____ Original Response _____ Justification of Response: _____
_____
_____

Item # ____ Original Response _____ Justification of Response: _____
_____
_____

Item # ____ Original Response _____ Justification of Response: _____
_____
_____

Item # ____ Original Response _____ Justification of Response: _____
_____
_____

Item # ____ Original Response _____ Justification of Response: _____
_____
_____

Additional Leadership Characteristics from Section 2 of Round One

Directions: The following is a list of responses to the open-ended section of the original survey. Respondents were asked to provide any additional campus-level leadership characteristics not presented in the objective questions of the Round One Survey that they felt are of critical importance to student success.

Use the space provided to make any comments regarding these responses and their relationship to the leadership characteristics presented in the original objective survey items.

- Excellent Communicator - many administrators have the qualities listed above and can't translate them into action and communicate a clear vision to the staff
- The principal must actively monitor the student climate, the community climate, and the climate of the professional staff. Student engagement is a piece that is gaining in focus, but it is long overdue. Any student who wants to learn has more than ample opportunity despite the scope and sequence of curriculum and instructional delivery system. Building a culture of constructivist learning communities must precede extraordinary achievement. Traditional methods ramped up in order to "cover" all the TEKS will have limited potential for bringing about desired results.
- The campus principal together with staff, students, and parents make all of the above possible. The principal alone will not make things happen. All are important to reach maximum student success.
- CRITICAL TO STUDENT SUCCESS - Benchmark testing. Proper placing of teaching schedule. Hiring excellent teachers. Helping teachers grow. Clinical supervision. Positive reinforcement. TAKS incentives so TAKS is a valid assessment. Visibility
- 1. Hire the best people. 2. Lead and support the best people. 3. Strategically remove those people who are not the best people.
- The principal of a school where the success level is high always has an open door to listen and show an interest in all stakeholders in the school system.
- Safe and orderly managed school. Understanding that kids come first. Able to work well with central admin and the board. Clear expectations for kids and staff.

INFORMATION SHEET

EFFECTIVE LEADERSHIP CHARACTERISTICS FOR STUDENT PERFORMANCE AS PERCEIVED BY HIGH-PERFORMING TEXAS HIGH SCHOOL PRINCIPALS: A DELPHI STUDY

As a selected, outstanding, high-performing principal, you understand the following regarding this study:

- The purpose of this study is to determine what educational leadership characteristics are of critical importance to student success.
- This study is part of a dissertation being done to partially fulfill requirements for the principal investigator to receive an advanced degree.
- **Participation in this study is completely voluntary**. Participants also have the right to drop out of the study at any time once it has begun.
- As a participant in this study, you are one of 30 high-performing Texas 4A or 5A High School Principals. You were selected for possible participation by the principal investigator through a collaborative process with the Texas Association of Secondary School Principals.
- Participation in this study is anonymous. The principal investigator's private records will be the only place where participant identifying information will be kept. These records will be destroyed when the study is completed. Participants will have no way of knowing who the other participants in the study are.
- The only risks or potential discomforts associated with this study are in the area of time management. Participation will require a minimum amount of time on your part. While every effort has been made on the part of the principal investigator to streamline the questionnaire for each round of the Delphi study, you as the participant will be making a commitment of your time to participate in the study.
- You will not be compensated for your participation in this study.
- The benefits of this study are improved opportunities for Texas High School students.
- Your time commitment should be no more than twenty minutes for each of the four questionnaires. These questionnaires will require you to respond to statements regarding principal leadership characteristics and their importance to student success. There will also be 1 open-ended question on the first questionnaire.
- The time period will be no more than 8 weeks and will begin June 1st, 2006.
- I hope that you will participate throughout the entire project, but you are free to withdraw at any time.
- This research study has been reviewed by the Institutional Review Board – Human Subjects in Research, Texas A&M University. For research-related problems or questions regarding subjects' rights, you can contact the Institutional Review Board through Ms. Angela Raines, Director of Research Compliance, Office of the Vice President for Research at (979)458-4067, araines@vprmail.tamu.edu
- Questions regarding participation in the study, research instruments, or any other facet of the study should be directed to :

David Young	John Hoyle
(979)209-2785	(979)845-2748
dyoung@bryanisd.org	jhoyle@tamu.edu
Principal Investigator	Doctoral Committee Chair

APPENDIX E

FOLLOW-UP EMAIL FOR ROUND TWO QUESTIONNAIRES

Sunday, January 7, 2007
Message

From: David Young
Subject: Principal Leadership Research Study

To: Participating Principal

Dear _____,

I would like to thank you once again for agreeing to be a member of my expert panel of high performing Texas high school principals.   I am continuing to work diligently on my doctoral dissertation studying successful school leadership and hope to graduate this May.

In October, I sent you the materials for Round 2 of the leadership study. This expert panel **only consists of 17 members** due to the high standards used to identify participants. While using such selective criteria will yield the most reliable results, it is **critical that all participants respond in each round**. I truly need your input in order to be able to complete the study. I have attached all of the necessary materials to this email to complete round 2 of the study. If you could please complete the round 2 questionnaire and **email it back to me as soon as possible** I would greatly appreciate it. I know that you are busy, but I thank you very much for agreeing to assist me with this project. I do not think that round 2's survey should require very much of your time to complete. Your prompt response will help ensure my being able to meet timelines for completion and graduation in May.

The files attached to this email include another copy of the October letter detailing the procedure for completing the round 2 questionnaire (please read this first for important instructions), a research project information sheet, and the round 2 questionnaire itself.

Thanks again for your participation.

David Young
Bryan ISD
Director of Alternative and Accelerated Education
1901 Villa Maria RD
Bryan, TX 77803
Phone - (979) 209-2785 Fax - (979) 209-2704
dyoung@bryanisd.org

APPENDIX F

2ND FOLLOW-UP EMAIL FOR ROUND TWO PARTICIPANTS

Tuesday, January 23, 2007
Message

From: David Young
Subject: Principal Leadership Research Study

To: Participating Principal

_____,

I just left a message on your voicemail. I wanted to go ahead and send an email so that you would know what I am calling about. I would like to thank you for participating in my leadership research study for my dissertation. I was calling about the second survey I sent you in October. I was just following up to see if I could get responses from you over the phone. There are 13 items that I need to ask you about (#'s 1, 2, 3, 4, 7,12, 13, 14, 19, 21, 22, 24 and 26 on the attached survey instrument). I need to know whether you would like to change your answers to fall within the inter-quartile range of the entire panel or provide justification for not changing you answer that the entire group will consider. If you would prefer to make your changes/justifications on the attached form and email it back, that would be fine. You may also call me (979-255-5071) and I will record our responses in a copy of the survey instrument. I am pretty under the gun to get responses in so that I can be able to meet Spring graduation timelines.

Thanks for your assistance.

David Young
Bryan ISD
Director of Alternative and Accelerated Education
1901 Villa Maria RD
Bryan, TX 77803
Phone - (979) 209-2785 Fax - (979) 209-2704
dyoung@bryanisd.org

APPENDIX G

ROUND THREE RESEARCH PACKET MATERIALS

Bryan Independent School District

1901 E. Villa Maria, Bryan TX 77803
(979) 209-2700 Fax (979) 209-2704
David E. Young, Director of Alternative and Accelerated Instruction

January 29, 2007

Participating Principal
_____ High School
School Address

Dear _____,

Thank you for taking the time to participate in the research study associated with my dissertation on successful leadership practices. Enclosed you will find the Round Three questionnaire for the Delphi Study of high-performing Texas high school principals.

With two rounds already completed, we are very near to developing consensus on all of the items. In fact, fifteen of the twenty-six Round One items now have all respondents' answers falling within the original inter-quartile range. The enclosed questionnaire presents the eleven remaining items around which there is still some debate.

You have been presented all eleven items for final consideration whether your response is within the inter-quartile range (IQR) or not. The reason for this is that you need to hear the reasoning from those who chose to stay outside the IQR before you make your final decision.

Please read each question and examine the corresponding statistics for the item. You will also find the comments from the original responses falling outside the inter-quartile range. **If you wish for your answer to remain the same, please select no and proceed to the next item. If you wish to change your answer, select yes and then select the new rating that corresponds with your answer (1-5).**

This should be the final round of the study. I will send you a summary of the data and research findings when the project is completed. Thank you once again for your participation.
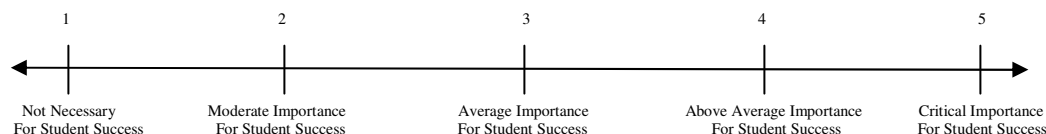
Please complete the questionnaire and return it to me by mail, fax (979-209-2704)**, telephone** (979-255-5071)**, or email** (dyoung@bryanisd.org) **by Friday, February 9, 2007.**

David Young
Principal Investigator

Effective Leadership for Student Performance
Delphi Study – Round Three

Directions: Presented below is a list of the eleven questions from the original leadership survey as well as the information associated with your responses from Rounds One and Two regarding these items. After reading the prompt and the justification for answers outside the inter-quartile range (IQR) given by members of the expert panel, click on the grey box(es) to either change your answer or leave it as is.

1	2	3	4	5
Not Necessary For Student Success	Moderate Importance For Student Success	Average Importance For Student Success	Above Average Importance For Student Success	Critical Importance For Student Success

23. The campus principal supports teachers and regularly provides them with incentives.				
Inter-Quartile Range	4 to 4	Mean Response	3.9375	Your Response	4

In Round Two, 4 of the 16 principals remained outside the IQR on this question. They provided the following justifications for their answer:

- Any time the principal is able to do anything for the teachers (from merely a pat on the back to small bonuses such as donated gift cards from area merchants); it goes a long way toward making the teachers feel better. This, in turn makes the teachers happier in the classroom for their students. **(Rating: 5)**
- Especially at a large HS where we delegate responsibility. The principal's job is to be a cheerleader and give teachers the resources they need to be successful. **(Rating: 5)**
- I disagree with the incentives piece of this prompt. I am not an incentive-oriented person. I support, but I do not do it through the use of incentives. **(Rating: 2)**
- I strongly support teachers, but I can't provide them with incentives. **(Rating: 3)**

Based on the information above, do you wish to change your response to this item? Select
 - If you are opting to change your response, what is your new response? Select

24. The campus principal chooses meaningful professional development activities for his or her staff and participates in them when they are presented.				
Inter-Quartile Range	4 to 5	Mean Response	4.3125	Your Response	5

In Round Two, 2 of the 16 principals remained outside the IQR on this question. They provided the following justifications for their answer:

- The district chooses staff development for my campus. I would love more input on what my staff is exposed to. **(Rating: 3)**
- Formal staff development activities do not have a great impact on student performance. **(Rating: 3)**

Based on the information above, do you wish to change your response to this item? Select
 - If you are opting to change your response, what is your new response? Select

19. The campus principal interacts with the entire community within which his or her organization is located by becoming knowledgeable of, responsive to, engaged in the larger social, economic, legal and cultural contexts of the community.					
Inter-Quartile Range	4 to 4	Mean Response	4.0625	Your Response	4

In Round Two, 3 of the 16 principals remained outside the IQR on this question. They provided the following justifications for their answer:

- Many may think that this is not their responsibility because it is something that they do not have any control over. However, principals must try to affect the community to establish a sense of environmental legitimacy within their community. Perception of schools in the community is more important than anything else. **(Rating: 5)**
- The more you know about the culture of the community around you and build a relationship with them; the more successful you will be with the children that they send to you (also builds relationship with parents). **(Rating: 5)**
- I believe those things are important, but I question to what extent they impact student success. What happens within the school has more of an impact. **(Rating: 3)**

Based on the information above, do you wish to change your response to this item? Select
- If you are opting to change your response, what is your new response? Select

12. The campus principal creates strong communities in schools.					
Inter-Quartile Range	3 to 4	Mean Response	3.875	Your Response	4

In Round Two, 2 of the 16 principals remained outside the IQR on this question. They provided the following justifications for their answer:

- Focusing on departmental integrity and structure. Each must understand the mission that each constituent group (department) has to the whole. **(Rating: 5)**
- Principal develops a strong community in schools. As proven to be successful in such as Adlai Stevenson High School in Chicago. **(Rating: 5)**

Based on the information above, do you wish to change your response to this item? Select
- If you are opting to change your response, what is your new response? Select

10. The campus principal responds productively to the opportunities and challenges of educating diverse groups of students.					
Inter-Quartile Range	5 to 5	Mean Response	4.9375	Your Response	5

In Round Two, 1 of the 16 principals remained outside the IQR on this question. They provided the following justifications for their answer:

- very important but not the highest level **(Rating: 4)**

Based on the information above, do you wish to change your response to this item? Select
- If you are opting to change your response, what is your new response? Select

13. The campus principal expands students' social capital valued by schools.					
Inter-Quartile Range	3 to 4	Mean Response	3.5625	Your Response	4
In Round Two, 1 of the 16 principals remained outside the IQR on this question. They provided the following justifications for their answer:					
• Students must be empowered. The principal will respect them, and, in return, the students must understand their responsibility to how the school runs. (**Rating: 5**)					
Based on the information above, do you wish to change your response to this item? Select - If you are opting to change your response, what is your new response? Select					

14. The campus principal nurtures the development of families' educational cultures.					
Inter-Quartile Range	3 to 4	Mean Response	3.6875	Your Response	4
In Round Two, 1 of the 16 principals remained outside the IQR on this question. They provided the following justifications for their answer:					
• Educational cultures must be nurtured by the school when it does not exist in strong fashion at home. We can do something about these cultures. Key word is nurturing and cultivating. (**Rating: 5**)					
Based on the information above, do you wish to change your response to this item? Select - If you are opting to change your response, what is your new response? Select					

16. The campus principal devotes a great deal of time and energy to the school improvement process.					
Inter-Quartile Range	4 to 5	Mean Response	4.25	Your Response	5
In Round Two, 1 of the 16 principals remained outside the IQR on this question. They provided the following justifications for their answer:					
• I saw this as the site-based improvement committee and not the total efforts on school improvement. (**Rating: 3**)					
Based on the information above, do you wish to change your response to this item? Select - If you are opting to change your response, what is your new response? Select					

17. The campus principal promotes student achievement through the effective management of the school's human, financial, and physical resources.					
Inter-Quartile Range	4 to 5	Mean Response	4.625	Your Response	5
In Round Two, 1 of the 16 principals remained outside the IQR on this question. They provided the following justifications for their answer:					
• Specific examples such as extreme heat. How much time do you have to spend regulating conditions for student achievement? So how much time do you really have to spend on these things? (**Rating: 3**)					
Based on the information above, do you wish to change your response to this item? Select - If you are opting to change your response, what is your new response? Select					

18. The campus principal continuously seeks out new available resources for the enhancement of student learning.					
Inter-Quartile Range	4 to 5	Mean Response	4.375	Your Response	5
In Round Two, 1 of the 16 principals remained outside the IQR on this question. They provided the following justifications for their answer:					
• I put average because we already have a lot of resources available - it is more important to effectively use what we already have. **(Rating: 3)**					
Based on the information above, do you wish to change your response to this item? Select - If you are opting to change your response, what is your new response? Select					

25. The campus principal maintains a high degree of visibility to staff, students, parents, and other members of the community.					
Inter-Quartile Range	5 to 5	Mean Response	4.9375	Your Response	5
In Round Two, 1 of the 16 principals remained outside the IQR on this question. They provided the following justifications for their answer:					
• Visibility is important, but I think availability is more important - along with hiring and keeping the very best people - I am only 1 of about 160 staff members. **(Rating: 4)**					
Based on the information above, do you wish to change your response to this item? Select - If you are opting to change your response, what is your new response? Select					

INFORMATION SHEET

EFFECTIVE LEADERSHIP CHARACTERISTICS FOR STUDENT PERFORMANCE AS PERCEIVED BY HIGH-PERFORMING TEXAS HIGH SCHOOL PRINCIPALS: A DELPHI STUDY

As a selected, outstanding, high-performing principal, you understand the following regarding this study:

- The purpose of this study is to determine what educational leadership characteristics are of critical importance to student success.
- This study is part of a dissertation being done to partially fulfill requirements for the principal investigator to receive an advanced degree.
- **Participation in this study is completely voluntary**. Participants also have the right to drop out of the study at any time once it has begun.
- As a participant in this study, you are one of 30 high-performing Texas 4A or 5A High School Principals. You were selected for possible participation by the principal investigator through a collaborative process with the Texas Association of Secondary School Principals.
- Participation in this study is anonymous. The principal investigator's private records will be the only place where participant identifying information will be kept. These records will be destroyed when the study is completed. Participants will have no way of knowing who the other participants in the study are.
- The only risks or potential discomforts associated with this study are in the area of time management. Participation will require a minimum amount of time on your part. While every effort has been made on the part of the principal investigator to streamline the questionnaire for each round of the Delphi study, you as the participant will be making a commitment of your time to participate in the study.
- You will not be compensated for your participation in this study.
- The benefits of this study are improved opportunities for Texas High School students.
- Your time commitment should be no more than twenty minutes for each of the four questionnaires. These questionnaires will require you to respond to statements regarding principal leadership characteristics and their importance to student success. There will also be 1 open-ended question on the first questionnaire.
- The time period will be no more than 8 weeks and will begin June 1st, 2006.
- I hope that you will participate throughout the entire project, but you are free to withdraw at any time.
- This research study has been reviewed by the Institutional Review Board – Human Subjects in Research, Texas A&M University. For research-related problems or questions regarding subjects' rights, you can contact the Institutional Review Board through Ms. Angela Raines, Director of Research Compliance, Office of the Vice President for Research at (979)458-4067, araines@vprmail.tamu.edu
- Questions regarding participation in the study, research instruments, or any other facet of the study should be directed to :

David Young	John Hoyle
(979)209-2785	(979)845-2748
dyoung@bryanisd.org	jhoyle@tamu.edu
Principal Investigator	Doctoral Committee Chair

Sunday, January 28, 2007
Message

From: David Young
Subject: Final Round of Leadership Study

To: Participating Principal

Dear _____,

Thank you for participating in the research study associated with my dissertation on principal leadership. This should be the final round of the study. I have attached an explanatory letter and your questionnaire for Round Three to this email. The crux of this round is evaluating others' comments who did not fall into the inter-quartile range prior to making your final response choice.

Please respond as quickly as possible. If I can get all of the data in quickly enough, graduation in May is a real possibility. You may respond by email (don't forget to attach the file with your answers saved in it), fax (979)209-2704, mail or by telephone (979)255-5071.

Thank you very much for your participation!

David Young
Bryan ISD
Director of Alternative and Accelerated Education
1901 Villa Maria RD
Bryan, TX 77803
Phone - (979) 209-2785 Fax - (979) 209-2704
dyoung@bryanisd.org

APPENDIX H

FOLLOW-UP EMAIL TO PARTICIPANTS NOT RETURNING ROUND THREE

QUESTIONNAIRE

Friday, February 2, 2007
Message

From: David Young
Subject: Final Round of Leadership Research Study

To: Participating Principal

_____,

On January 28th, I sent you a questionnaire concerning the final round of the research study you have been participating in regarding outstanding principal leadership. It is very important that I receive these completed surveys so that I can finish the research project and complete my dissertation. I have attached another copy of the survey as well as the participant letter to this email. The survey should not require more than five minutes of your time. This will be the last survey that I ask you to complete. The only other correspondence you will receive from me regarding this project is an executive summary that I will send later this Spring to inform you of the group's overall responses.

Please complete the attached survey and return to me by email, fax, phone, or US mail as soon as possible.

Thank you very much for participating in the study. Your assistance has been truly invaluable.

Thanks for your assistance.

David Young
Bryan ISD
Director of Alternative and Accelerated Education
1901 Villa Maria RD
Bryan, TX 77803
Phone - (979) 209-2785 Fax - (979) 209-2704
dyoung@bryanisd.org

APPENDIX I

ADDITIONAL SUPPORTING DATA FOR PRIORITIZED LEADERSHIP

CHARACTERISTICS #6-26

Prioritized Leadership Characteristic # t6 (a)

The campus principal influences student learning by supporting teacher efforts to achieve high expectations for student learning.
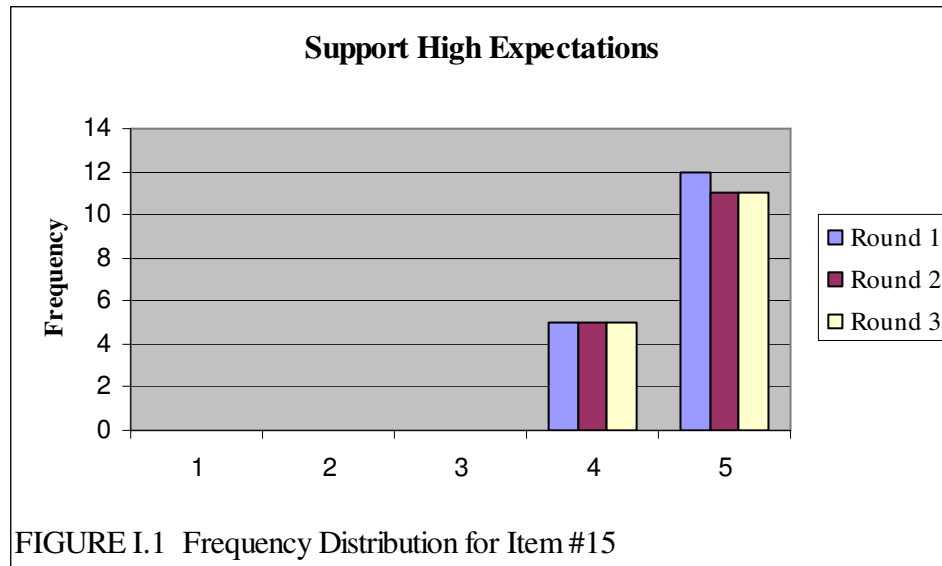

FIGURE I.1 Frequency Distribution for Item #15

TABLE I.1 Descriptive Statistics by Delphi Round for Item #15

	Round One n = 17	Round Two N = 16	Round Three N=16
Mean	4.706	4.688	4.688
Median	5	5	5
Mode	5	5	5
IQR	(4,5)	(4,5)	(4,5)
# of Responses Outside IQR	0	0	0
Priority (out of 26)	5th	6th	6th

Prioritized Leadership Characteristic # t6 (b)

The campus principal promotes student achievement through the effective management of the school's human, financial, and physical resources.
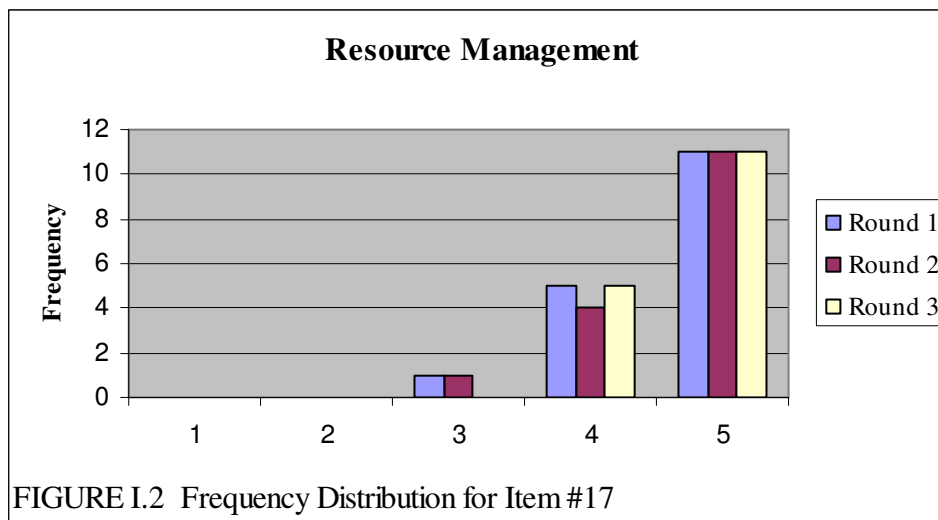
Resource Management

FIGURE I.2 Frequency Distribution for Item #17

TABLE I.2 Descriptive Statistics by Delphi Round for Item #17

	Round One n = 17	Round Two N = 16	Round Three N=16
Mean	4.588	4.625	4.688
Median	5	5	5
Mode	5	5	5
IQR	(4,5)	(4,5)	(4,5)
# of Responses Outside IQR	1	1	0
Priority (out of 26)	8th	9th	9th

Prioritized Leadership Characteristic # t8 (a)

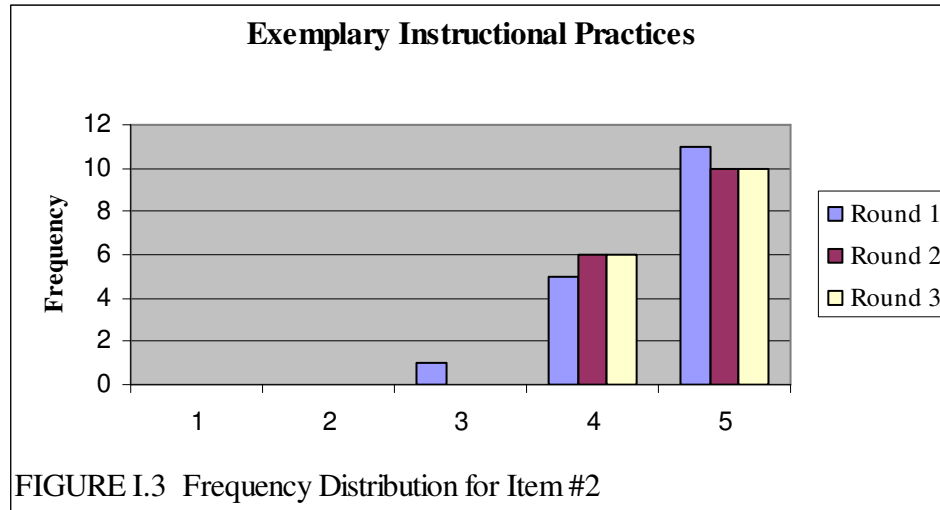The campus principal endorses visions of exemplary instructional practices.

Exemplary Instructional Practices

FIGURE I.3 Frequency Distribution for Item #2

TABLE I.3 Descriptive Statistics by Delphi Round for Item #2

	Round One n = 17	Round Two N = 16	Round Three N=16
Mean	4.588	4.625	4.625
Median	5	5	5
Mode	5	5	5
IQR	(4,5)	(4,5)	(4,5)
# of Responses Outside IQR	1	0	0
Priority (out of 26)	7th	7th	7th

Prioritized Leadership Characteristic # t8 (b)

The campus principal modifies organizational structures (assignments, allocation of resources, and procedures) to create optimal conditions for learning and teaching.
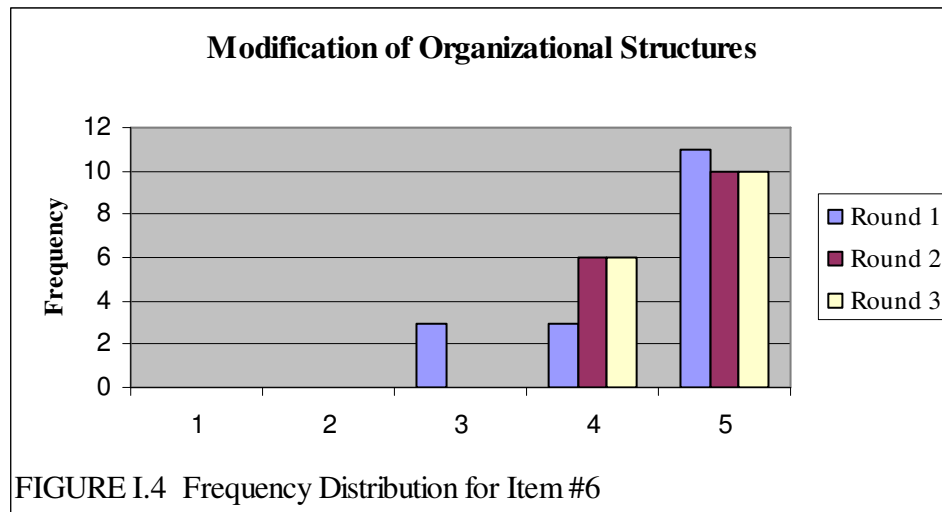
Modification of Organizational Structures

FIGURE I.4 Frequency Distribution for Item #6

TABLE I.4 Descriptive Statistics by Delphi Round for Item #6

	Round One n = 17	Round Two N = 16	Round Three N=16
Mean	4.471	4.625	4.625
Median	5	5	5
Mode	5	5	5
IQR	(4,5)	(4,5)	(4,5)
# of Responses Outside IQR	3	0	0
Priority (out of 26)	11th	8th	8th

Prioritized Leadership Characteristic # t8 (c)

The campus principal consistently supervises instructional practices throughout the entire school and is knowledgeable enough regarding curriculum and instruction to provide meaningful feedback to teachers.
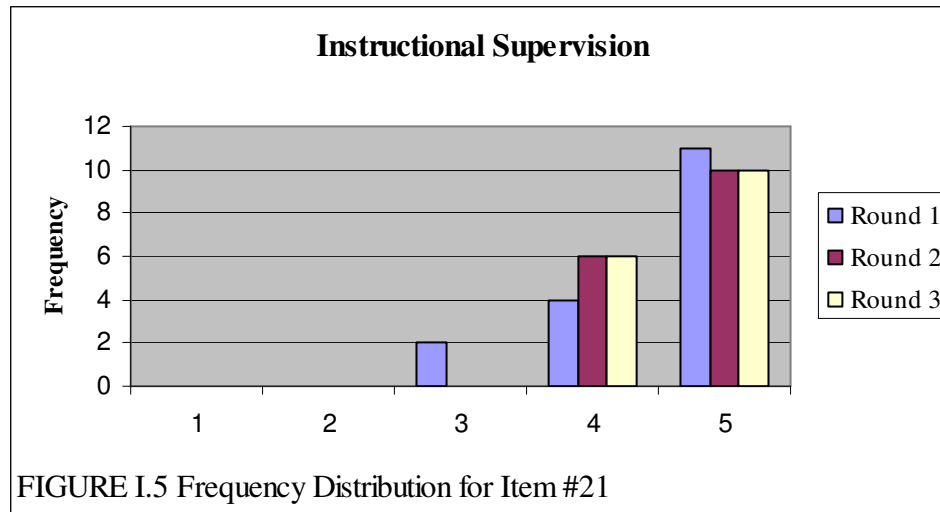
Instructional Supervision

FIGURE I.5 Frequency Distribution for Item #21

TABLE I.5 Descriptive Statistics by Delphi Round for Item #21

	Round One n = 17	Round Two N = 16	Round Three N=16
Mean	4.529	4.625	4.625
Median	5	5	5
Mode	5	5	5
IQR	(4,5)	(4,5)	(4,5)
# of Responses Outside IQR	2	0	0
Priority (out of 26)	9th	10th	10th

Prioritized Leadership Characteristic # t8 (d)

The campus principal strives to build the leadership capacity of those around them (teachers, students, parents, etc…).
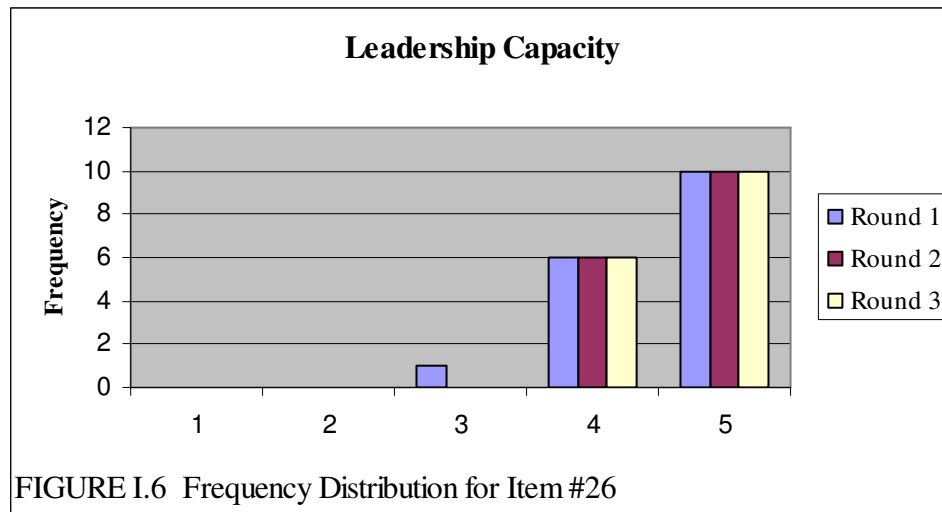

FIGURE I.6 Frequency Distribution for Item #26

TABLE I.6 Descriptive Statistics by Delphi Round for Item #26

	Round One n = 17	Round Two N = 16	Round Three N=16
Mean	4.529	4.625	4.625
Median	5	5	5
Mode	5	5	5
IQR	(4,5)	(4,5)	(4,5)
# of Responses Outside IQR	1	0	0
Priority (out of 26)	10th	11th	11th

Prioritized Leadership Characteristic #12

The campus principal responds proactively to challenges and opportunities created by the accountability-oriented policy context in which they work.
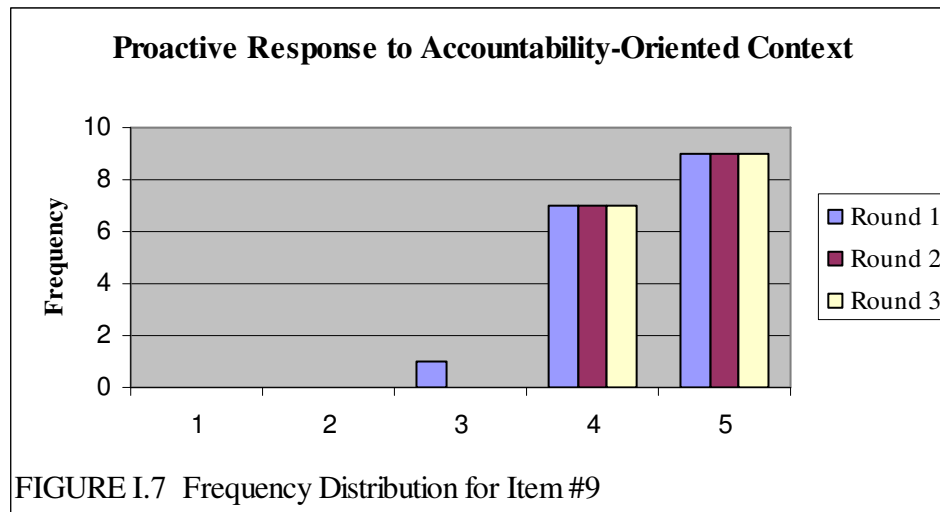

FIGURE I.7 Frequency Distribution for Item #9

TABLE I.7 Descriptive Statistics by Delphi Round for Item #9

	Round One n = 17	Round Two N = 16	Round Three N=16
Mean	4.471	4.563	4.563
Median	5	5	5
Mode	5	5	5
IQR	(4,5)	(4,5)	(4,5)
# of Responses Outside IQR	1	0	0
Priority (out of 26)	12th	12th	12th

Prioritized Leadership Characteristic # t13 (a)

The campus principal develops people through intellectual stimulation, promotion, and support of those engaged in meaningful change.
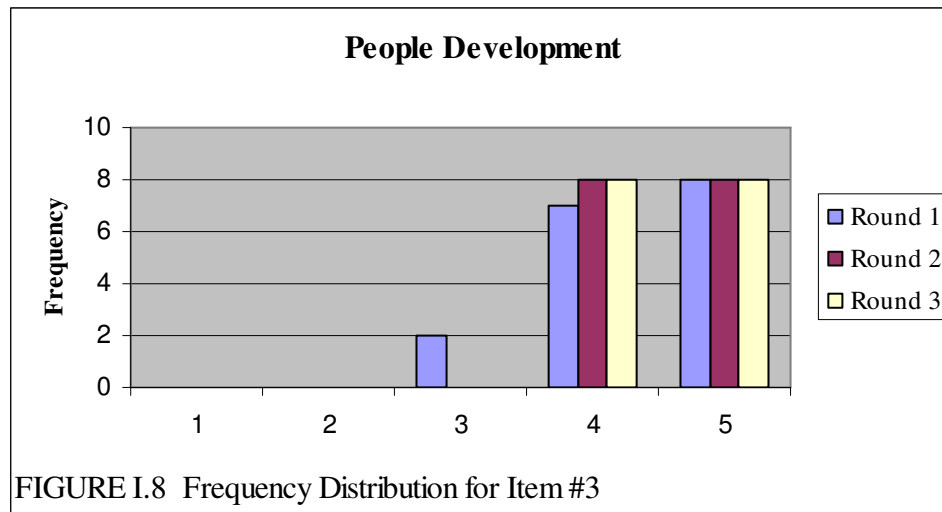
People Development

FIGURE I.8 Frequency Distribution for Item #3

TABLE I.8 Descriptive Statistics by Delphi Round for Item #3

	Round One n = 17	Round Two N = 16	Round Three N=16
Mean	4.353	4.500	4.500
Median	4	4.5	4.5
Mode	5	4	4
IQR	(4,5)	(4,5)	(4,5)
# of Responses Outside IQR	2	0	0
Priority (out of 26)	14th	13th	13th

Prioritized Leadership Characteristic # t13 (b)

The campus principal views the school as a professional learning community embedded within a local context.
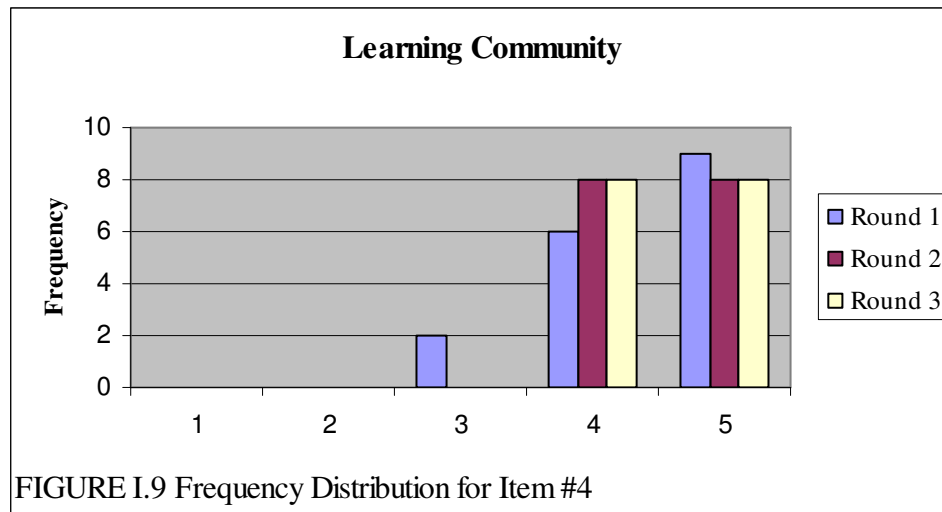
Learning Community

FIGURE I.9 Frequency Distribution for Item #4

TABLE I.9 Descriptive Statistics by Delphi Round for Item #4

	Round One n = 17	Round Two N = 16	Round Three N=16
Mean	4.412	4.500	4.500
Median	5	4.5	4.5
Mode	5	4	4
IQR	(4,5)	(4,5)	(4,5)
# of Responses Outside IQR	2	0	0
Priority (out of 26)	13th	14th	14th

Prioritized Leadership Characteristic # t15 (a)

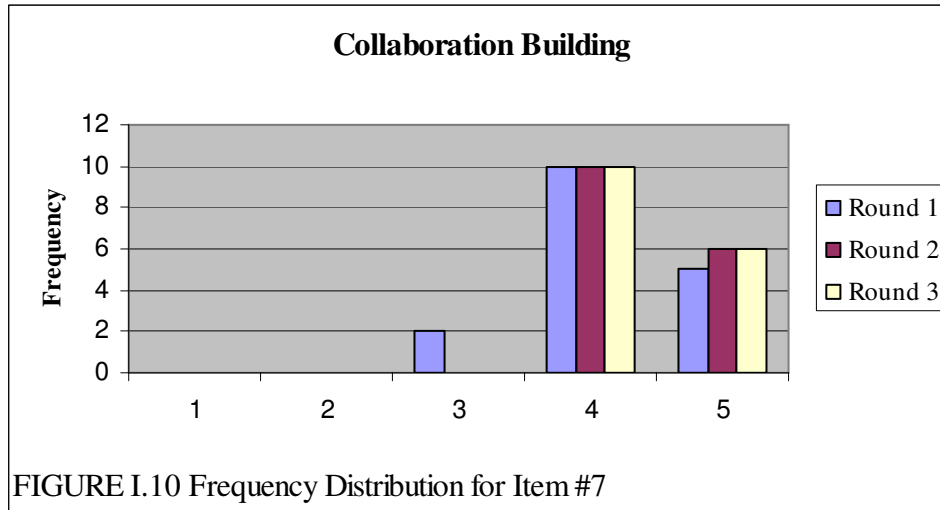The campus principal builds collaborative processes.

FIGURE I.10 Frequency Distribution for Item #7

TABLE I.10 Descriptive Statistics by Delphi Round for Item #7

	Round One n = 17	Round Two N = 16	Round Three N=16
Mean	4.176	4.375	4.375
Median	4	4	4
Mode	4	4	4
IQR	(4,5)	(4,5)	(4,5)
# of Responses Outside IQR	2	0	0
Priority (out of 26)	18th	15th	15th

Prioritized Leadership Characteristic # t15 (b)

The campus principal continuously seeks out new available resources for the enhancement of student learning.
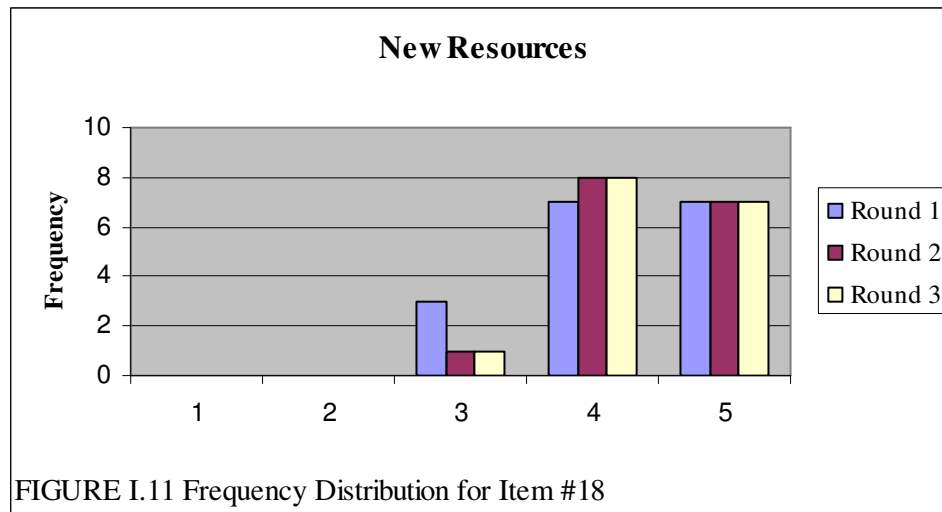
New Resources

FIGURE I.11 Frequency Distribution for Item #18

TABLE I.11 Descriptive Statistics by Delphi Round for Item #18

	Round One n = 17	Round Two N = 16	Round Three N=16
Mean	4.235	4.375	4.375
Median	4	4	4
Mode	5	4	4
IQR	(4,5)	(4,5)	(4,5)
# of Responses Outside IQR	3	1	1
Priority (out of 26)	16th	16th	16th

Prioritized Leadership Characteristic # t15 (c)

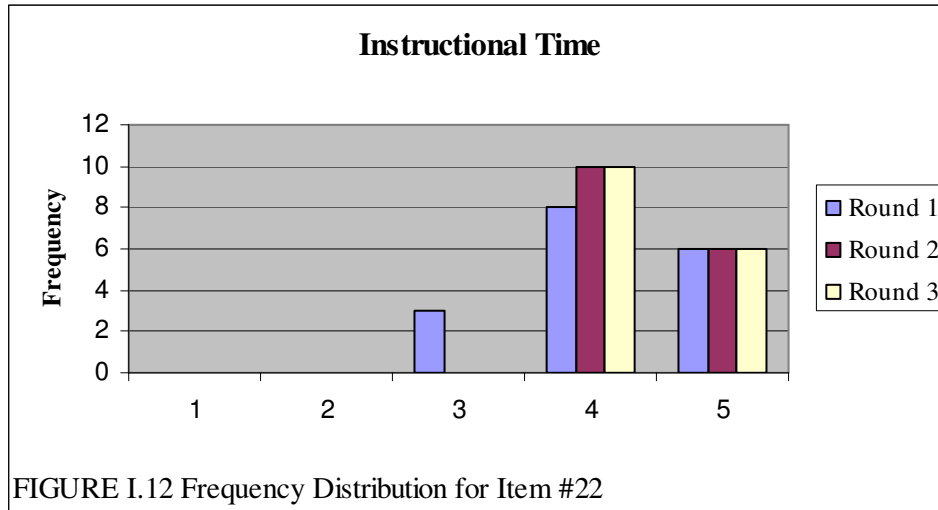The campus principal's top priority is protecting instructional time.

FIGURE I.12 Frequency Distribution for Item #22

TABLE I.12 Descriptive Statistics by Delphi Round for Item #22

	Round One n = 17	Round Two N = 16	Round Three N=16
Mean	4.176	4.375	4.375
Median	4	4	4
Mode	4	4	4
IQR	(4,5)	(4,5)	(4,5)
# of Responses Outside IQR	3	0	0
Priority (out of 26)	20th	17th	17th

Prioritized Leadership Characteristic # t18 (a)

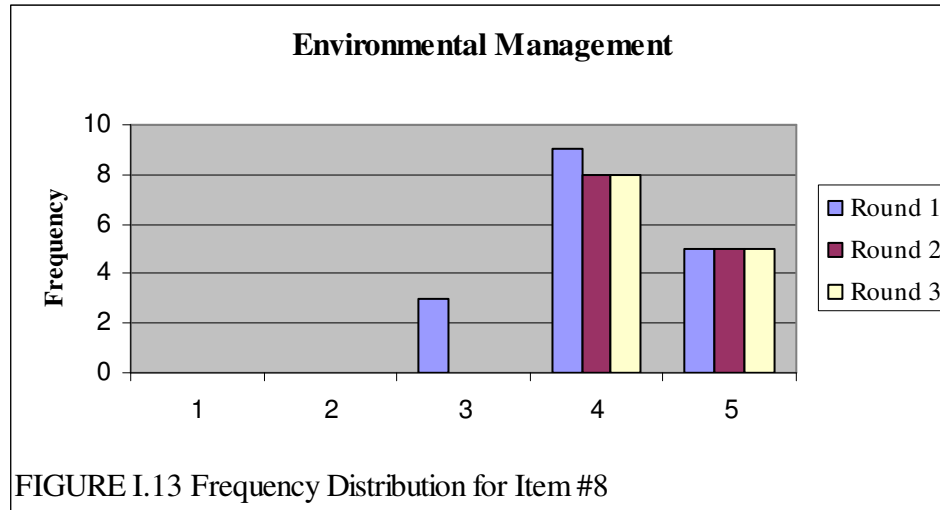The campus principal manages the environment.

FIGURE I.13 Frequency Distribution for Item #8

TABLE I.13 Descriptive Statistics by Delphi Round for Item #8

	Round One n = 17	Round Two N = 16	Round Three N=16
Mean	4.118	4.313	4.313
Median	4	4	4
Mode	4	4	4
IQR	(4,5)	(4,5)	(4,5)
# of Responses Outside IQR	3	0	0
Priority (out of 26)	21st	18th	18th

Prioritized Leadership Characteristic # t18 (b)

The campus principal builds powerful forms of teaching and learning.

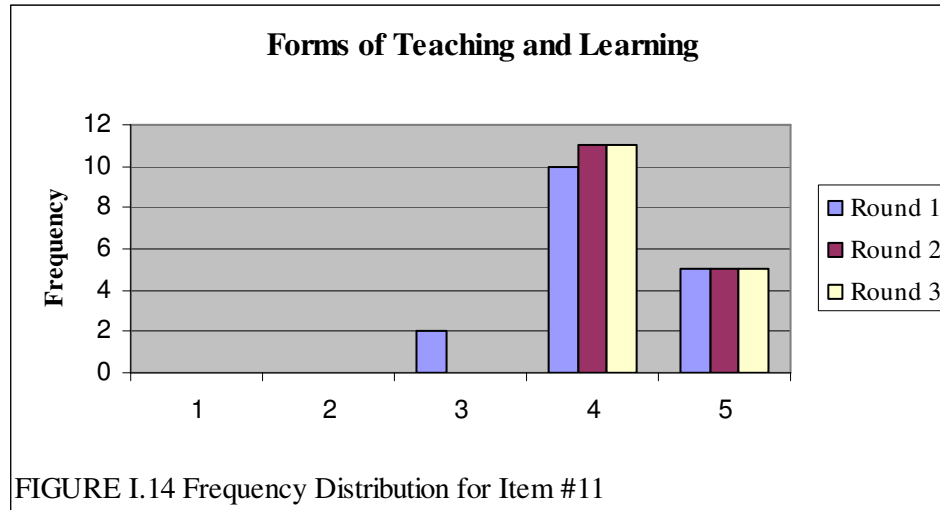FIGURE I.14 Frequency Distribution for Item #11

TABLE I.14 Descriptive Statistics by Delphi Round for Item #11

	Round One n = 17	Round Two N = 16	Round Three N=16
Mean	4.176	4.313	4.313
Median	4	4	4
Mode	4	4	4
IQR	(4,5)	(4,5)	(4,5)
# of Responses Outside IQR	2	0	0
Priority (out of 26)	19th	19th	19th

Prioritized Leadership Characteristic # t18 (c)

The campus principal chooses meaningful professional development activities for his or her staff and participates in them when they are presented.
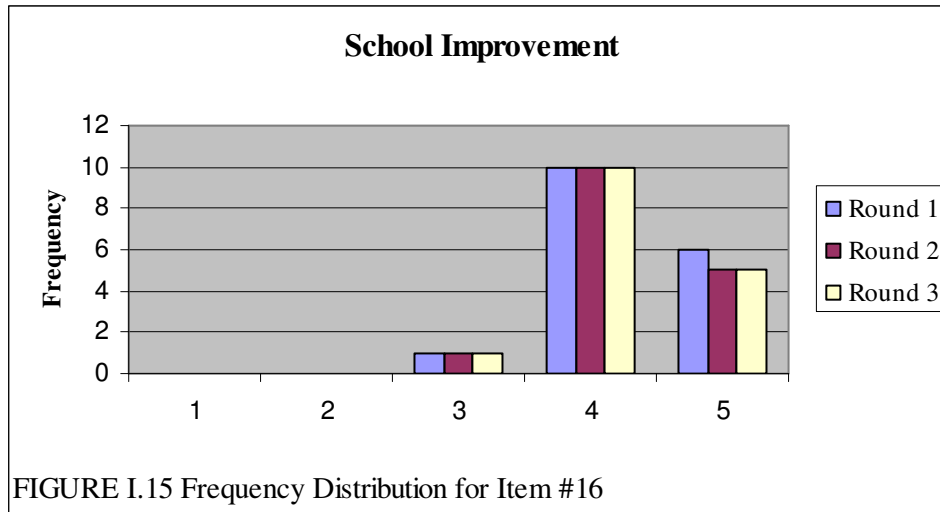
School Improvement

FIGURE I.15 Frequency Distribution for Item #16

TABLE I.15 Descriptive Statistics by Delphi Round for Item #24

	Round One n = 17	Round Two N = 16	Round Three N=16
Mean	4.235	4.313	4.250
Median	4	4	4
Mode	5	5	4
IQR	(4,5)	(4,5)	(4,5)
# of Responses Outside IQR	3	2	2
Priority (out of 26)	17th	20th	20th

Prioritized Leadership Characteristic # 21

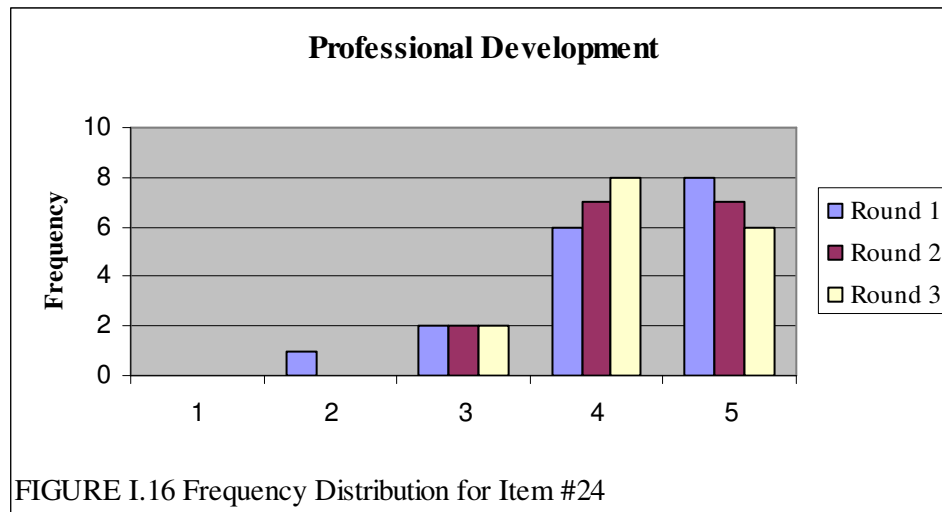The campus principal devotes a great deal of time and energy to the school improvement process.

Professional Development

FIGURE I.16 Frequency Distribution for Item #24

TABLE I.16 Descriptive Statistics by Delphi Round for Item #16

	Round One n = 17	Round Two N = 16	Round Three N=16
Mean	4.294	4.250	4.250
Median	4	4	4
Mode	4	4	4
IQR	(4,5)	(4,5)	(4,5)
# of Responses Outside IQR	1	1	1
Priority (out of 26)	15th	21st	21st

Prioritized Leadership Characteristic # 22

The campus principal interacts with the entire community within which his or her organization is located by becoming knowledgeable of, responsive to, engaged in the larger social, economic, legal and cultural contexts of the community.
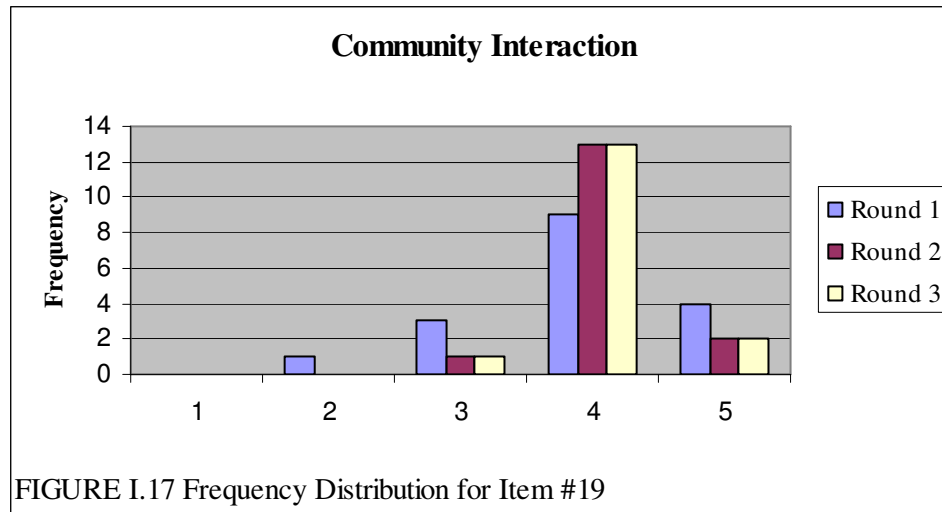

Community Interaction

FIGURE I.17 Frequency Distribution for Item #19

TABLE I.17 Descriptive Statistics by Delphi Round for Item #19

	Round One n = 17	Round Two N = 16	Round Three N=16
Mean	3.941	4.063	4.063
Median	4	4	4
Mode	4	4	4
IQR	(4,4)	(4,4)	(4,4)
# of Responses Outside IQR	8	3	3
Priority (out of 26)	24th	22nd	22nd

Prioritized Leadership Characteristic # t23 (a)
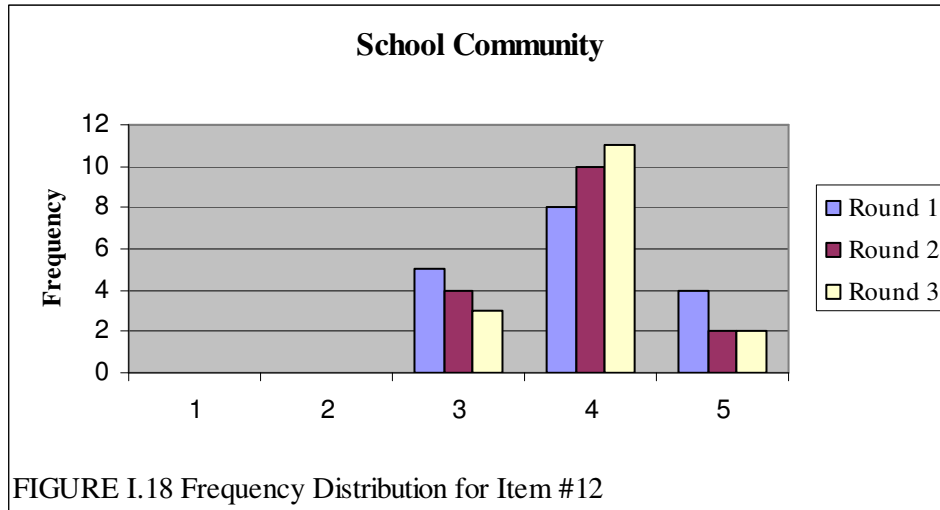
The campus principal creates strong communities in schools.

School Community

FIGURE I.18 Frequency Distribution for Item #12

TABLE I.18 Descriptive Statistics by Delphi Round for Item #12

	Round One n = 17	Round Two N = 16	Round Three N=16
Mean	3.941	3.875	3.938
Median	4	4	4
Mode	4	4	4
IQR	(3,4)	(3,4)	(3,4)
# of Responses Outside IQR	4	2	2
Priority (out of 26)	23rd	24th	23rd

Prioritized Leadership Characteristic # t23 (b)

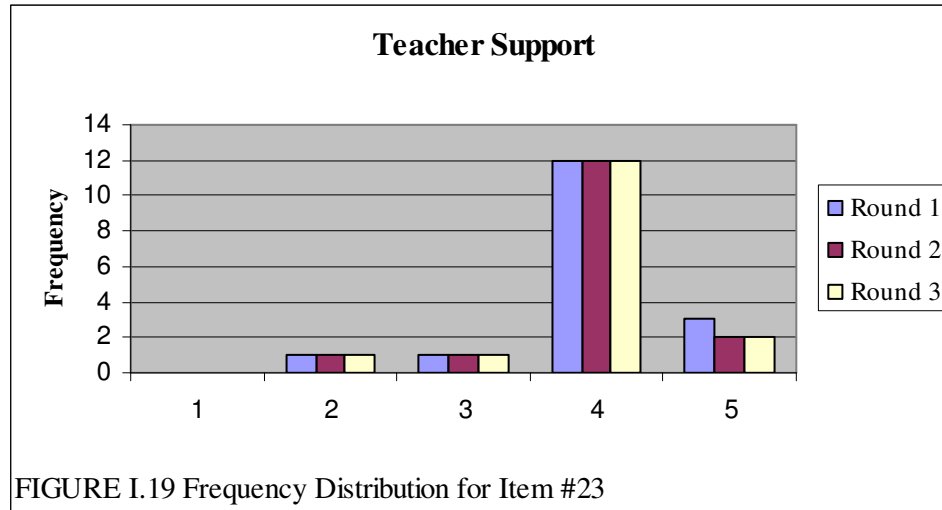The campus principal supports teachers and regularly provides them with incentives.

FIGURE I.19 Frequency Distribution for Item #23

TABLE I.19 Descriptive Statistics by Delphi Round for Item #23

	Round One n = 17	Round Two N = 16	Round Three N=16
Mean	4.000	3.938	3.938
Median	4	4	4
Mode	4	4	4
IQR	(4,4)	(4,4)	(4,4)
# of Responses Outside IQR	5	4	4
Priority (out of 26)	22nd	23rd	24th

Prioritized Leadership Characteristic # 25

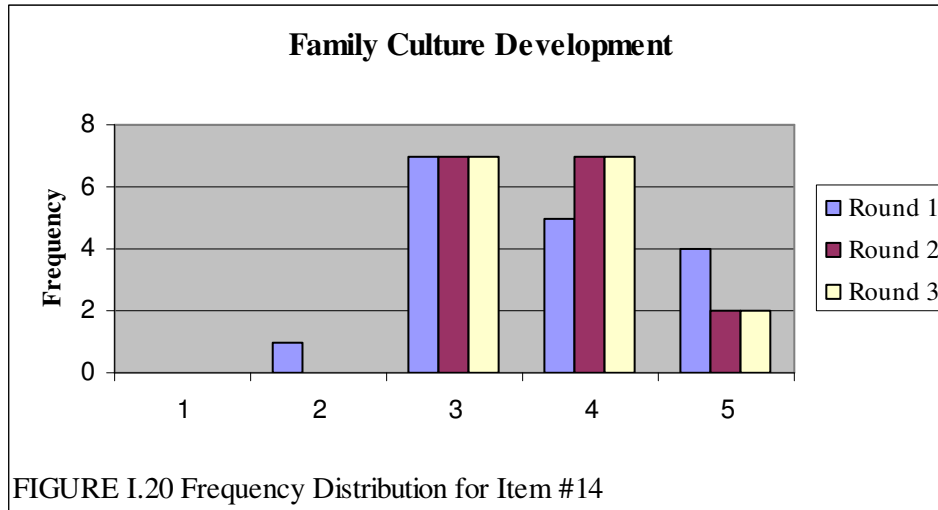The campus principal nurtures the development of families' educational cultures.

Family Culture Development

FIGURE I.20 Frequency Distribution for Item #14

TABLE I.20 Descriptive Statistics by Delphi Round for Item #14

	Round One n = 17	Round Two N = 16	Round Three N=16
Mean	3.706	3.688	3.688
Median	4	4	4
Mode	3	4	4
IQR	(3,4)	(3,4)	(3,4)
# of Responses Outside IQR	4	2	2
Priority (out of 26)	25th	25th	25th

Prioritized Leadership Characteristic # 26

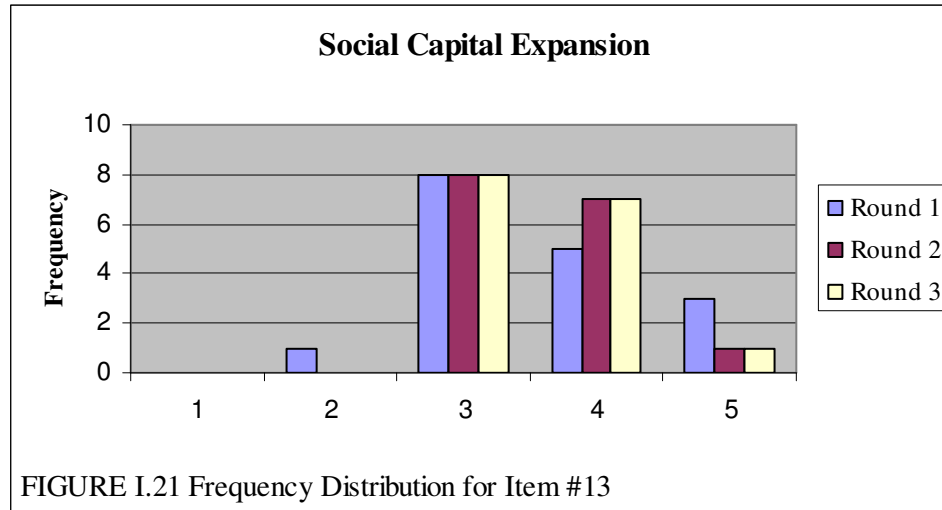The campus principal expands students' social capital valued by schools.

Social Capital Expansion

FIGURE I.21 Frequency Distribution for Item #13

TABLE I.21 Descriptive Statistics by Delphi Round for Item #13

	Round One n = 17	Round Two N = 16	Round Three N=16
Mean	3.588	3.563	3.563
Median	3	3.5	3.5
Mode	3	3	3
IQR	(3,4)	(3,4)	(3,4)
# of Responses Outside IQR	4	1	1
Priority (out of 26)	26th	26th	26th

VITA

Name:	David Earle Young
Address:	4901 Park Row Place Bryan, Texas 77802
Email Address:	dyoung@bryanisd.org
Education:	Ph.D., Educational Administration, Texas A&M University, College Station, Texas, 2007
	M.S., Educational Administration, Texas A&M University-Commerce, Commerce, Texas, 1998
	B.A., History, Texas A&M University, College Station, Texas, 1994
Professional Certifications:	Superintendent Certification, Texas A&M University, College Station, Texas 2006
	Mid-Management Certification, Texas A&M University-Commerce, Commerce, Texas, 1998
Professional Experience:	8 years Public School Administrator 4 years Public School Teacher
Professional Educational Positions:	Director of Alternative and Accelerated Education High School Principal High School Assistant Principal High School Mathematics Teacher Junior High School Mathematics Teacher
Professional Associations:	Texas Association of Secondary School Principals National Association of Secondary School Principals Texas Association of Alternative Education Association for Supervision and Curriculum Development