PRINCIPALS' DISTRIBUTED LEADERSHIP BEHAVIORS AND THEIR IMPACT ON STUDENT ACHIEVEMENT IN SELECTED ELEMENTARY SCHOOLS IN TEXAS

A Dissertation

by

YI-HSUAN CHEN

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

August 2007

Major Subject: Educational Administration

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Approved by:

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ABSTRACT

Principals' Distributed Leadership Behaviors and Their Impact on Student Achievement in Selected Elementary Schools in Texas. (August 2007)

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Educators are frequently faced with the challenges of politics, hostility, selfishness, and violence; it is unwise to think that the principal is the only one providing leadership for school improvement. Thus a distributed perspective of leadership urges us to take leadership practice as the focus of interest and address both teachers and administrators as leaders.

The purpose of this descriptive statistical study was to explore principals' leadership practices as perceived by teacher leaders and its possible affect to student achievement. Data were collected by using the Leadership Practices Inventory (LPI) (self and observer) instrument (Kouzes & Posner, 2003) from all willing teacher leaders to determine the leadership practices of the principals in Region VI, Texas. Also, statewide assessment data available from three school years (2004-2006) were obtained from the Academic Excellence Indicator System (AEIS) report. In order to answer research questions one to four, descriptive statistics including frequency, percentage, mean and standard deviation were calculated for the LPI results.

The distributed framework offers considerable influence for studying leadership as

a schoolwide rather than individual practice. Based on the literature, six conclusions were drawn and recommendations were made regarding practice, future study and policy. First, the findings indicated that principals' collaborative working style with teacher leaders seems to have positive impact on student achievement. Second, failing to enlist teacher leaders in a common vision might have a negative affect on student academic performance. Third, the perceptions of teacher leaders in School 7, School 5 and School 16 reflected a need for the principal to take challenges and seek challenging opportunities to change and grow. Fourth, recognizing teacher leaders' contributions and celebrating team accomplishments is likely to have a positive and indirect impact on school academic performance. Fifth, schools that had higher principal self and observer LPI scores tended to have better TAKS scores. Last, the findings from the study complement studies of the effects of site-based management teams. The positive impact of "Enabling Others to Act" and "Inspiring a Shared Vision" on student achievement implies that distributed leadership is most likely to contribute to school improvement and to build school capacity for improvement.

DEDICATION

To my family, my husband, and my friends

ACKNOWLEDGEMENTS

Though the following dissertation is an individual work, I could never have explored the depths without the help, support, guidance and efforts of a lot of people. Firstly, I would like to thank my mentor Dr. Hoyle for instilling in me the qualities of being a good scholar. His infectious enthusiasm and unlimited zeal have been major driving forces through my graduate career at Texas A&M University. I'd like to thank my committee members Dr. Luana Zellner, Dr. Mario Torres and Dr. Gwendolyn Webb-Johnson for their guidance over the years.

A very special thanks to the teachers and principals from the selected elementary schools in Texas for their time and willingness to participate in this study.

I would also like to thank my parents and two sisters. They were always supporting me and encouraging me with their best wishes.

Finally, I would like to thank my husband, Wen-Ying Chang. He was always there cheering me up and stood by me through the good times and bad.

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CHAPTER I

INTRODUCTION

Social and political forces have combined to create an environment in which educational reform is expected and in which schools feel continued pressure to improve. Contemporary educational reform places great attention upon the relationship between leadership and school improvement (Harris, 2005). In many western countries, there has been an ongoing interest in the power of leadership to generate and sustain school improvement (Anderson, 2004; Hoyle, 2007). School leadership is critical to school improvement and to create a situation in which best teaching and learning can occur. The quality of leadership determines the motivation of teachers and the quality of teaching in the classroom (Leithwood, Jantzi, Ryan, & Steinbach, 1997; Fullan, 2001; Sergiovanni, 2001).

Although there has been large proliferation of leadership theories and styles, the majority of studies are largely concerned with the leadership capabilities of just one person (Spillane, Halverson & Diamond, 2004). Traditionally school leadership has been that of the top-down approach where the leader leads, makes key decisions, motivates, and inspires. In contrast to traditional scholars of leadership who pay attention to an individual managing hierarchical structure, other researchers have generated evidence that the school principal does not have a monopoly on school leadership (Harris & Muijs, 2005). Teachers, administrators, and other professionals also play important roles

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The style and format of this dissertation follows that of *Educational Administration Quarterly.*

(Smylie & Denny, 1990). Styles of leadership which encourage leaders to share responsibilities and authority have been the subject of much recent interest. This alternative involves thinking of leadership in terms of activities and interactions that are distributed across multiple people and situations (Camburn, Rowan, & Taylor, 2004; Spillane, 2006).

The bulk of school leadership research has made light of its distributed character (Wallace, 2001). Educators are frequently faced with the challenges of politics, hostility, selfishness, and violence; in order to overcome these obstacles requires teamwork, motivation, empowerment, and communication (Hoyle, 1992). Therefore, it is unwise to think that principal is the only one providing leadership for school improvement thus presenting a compelling argument for re-defining leadership away from role-based conceptions and towards distributive views (Hallinger & Heck, 1998; Spillane, Halverson, & Kaplan, 2001). A distributed perspective of leadership urges us to take leadership practice as the focus of interest and address both teachers and administrators as leaders (Spillane, 2005). The growth of collaboration, networking and partnerships means that organizational boundaries are changing and redefining leadership. It means change is taking place. It opens the possibility for every organizational member to become a leader and to be able to create changes for school improvement (Harris, 2002).

While work by Spillane, Halverson and Diamond (2001) and Muijs and Harris (2003) has started to explore distributed leadership in action, many more studies are required to understand the forms of distributed leadership activity that contributed to school improvement and student achievement (National College for School Leadership,

2003). This study aims to explore the possible affects of distributed leadership on student achievement, the role of teacher leaders in fostering distributed leadership as well as their perceptions of principals' leadership practices by synthesizing theoretical perspectives derived from the literature and new evidence obtained by means of empirical research.

Statement of the Problem

As National College for School Leadership (2003) suggests, "The relationship between distributed leadership and learning is a crucially important issue." (p. 12). Although researchers like Harris, Day, Hadfield, Hopkins, Hargreaves and Chapman (2002) have identified democratic, distributed and other leadership characteristics as leadership qualities associated with improving schools, more data are required to understand which forms of distributed leadership may have significant educational consequences (NCSL, 2003). Studies are still needed to build up a sound database on which to assess the effectiveness of distributed leadership strategies in raising school achievement, especially investigation of the effects of distributed leadership strategies in raising student achievement.

With the rise of the accountability system, the focus of educators may have shifted but the importance of collaboration and participation has never diminished. Site-based management as well as teacher leadership is a way to structure school site/district relationships in a manner that places much more power, authority, and accountability in the school. It has been proposed as a way to help schools produce higher student achievement. However, the literature on how teacher leaders perceived principals'

leadership practices and the possible affects between distributed leadership practices and student achievement is limited. This implies that there is still much that is not yet understood about how educational leadership is able to transform schools (Leithwood & Reil, 2003). In order for educational leaders, including teachers and administrators, to support reforms which may in turn boost student performance, they will need to take a grasp of distributed leadership behaviors in elementary school settings. Consequently, the researcher in this study investigated elementary school principals' leadership practices as perceived by teacher leaders. Also, through the perception of teacher leaders on site-based management teams, the researcher was able to understand how principals' leadership practices were being perceived and how the idea of distributed leadership was put into practice in these schools.

Purpose of the Study

The purpose of the study was to explore principals' leadership behaviors as perceived by teacher leaders on site-based management teams in selected Texas elementary schools in Region VI Education Service Center (ESC). In addition, the purpose was to examine the possible impact of principals' perceived leadership behaviors on student achievement. The researcher examined perceptions of teacher leaders of elementary schools in terms of principals' leadership practices. Examining the perceptions of teacher leaders from a distributed perspective will add to the knowledge base regarding professional development of principals. Also, examining the possible affects of principals' leadership behaviors and student achievement may assist in clarification of the idea of distributed leadership, in better preparation of new principals,

and in assisting current principals and teacher leaders into becoming more effective educational leaders. A descriptive statistical methodology was used to gather data. First, the Leadership Practice Inventory (LPI) (Kouzes & Posner, 1995) was used to assess leadership behaviors of elementary school principals. Then the results were compared to student achievement in each school to examine the possible affects of principal's leadership practices perceived by teacher leaders on student achievement.

Research Questions

The prevalence of the idea of distributed leadership exemplified by teacher leaders gives rise to the research questions for this study. To fulfill the purposes of the study, the following research questions were identified regarding principals' perceived distributed leadership behaviors and their possible affects on student achievement:

1. What are the leadership practices of principals as indicated by teacher leaders?

a. What are principals' Modeling the Way behaviors indicated by teacher leaders?

b. What are principals' Inspiring a Shared Vision behaviors as indicated by teacher leaders?

c. What are principals' Challenging the Process behaviors as indicated by teacher leaders?

d. What are principals' Enabling Others to Act behaviors as indicated by teacher leaders?

e. What are principals' Encouraging the Heart behaviors of indicated by teacher leaders?

2. What are principals' self-reported leadership practices?

a. What are principals' self-reported leadership practices in Modeling the Way?

b. What are principals' self-reported leadership practices in Inspiring a Shared Visions?

c. What are principals' self-reported leadership practices in Challenging the Process?

d. What are principals' self-reported leadership practices in Encouraging Others to Act?

e. What are principals' self-reported leadership practices in Encouraging the Heart?

3. What is the difference between leadership practices of principals as indicated by teacher leaders and self?

a. What is the difference between leadership practices of principals as indicated by teacher leaders and self in Modeling the Way?

b. What is the difference between leadership practices of principals as indicated by teacher leaders and self in Inspiring a Shared Vision?

c. What is the difference between leadership practices of principals as indicated by teacher leaders and self in Challenging the Process?

d. What is the difference between leadership practices of principals as indicated by teacher leaders and self in Enabling Others to Act?

e. What is the difference between leadership practices of principals as indicated by teacher leaders and self in Encouraging the Heart?

4. What impact do principals' leadership practices have on student achievement?

Significance of the Study

There is a gap between the existing research and the normative meaning of distributed leadership in elementary schools (Lucia, 2004). There are also gaps in descriptions of relationships and their affects on student achievement. Moreover, the research done on how principals' leadership practices perceived by teacher leaders from a distributed leadership point of view is limited. This study will fill in the gap. It will help to understand distributed leadership practices and their impact on student

achievement. By identifying distributed leadership practices perceived by teacher leaders and the relationship between leadership practices and student performance, the study will enable leaders to examine their practices from a distributed perspective. If it can be found out that if distributed leadership practices have positive impact on student achievement, then the distributed perspective has implications on reform efforts to improve the practice of leadership inside our public schools.

For teachers, the study could make contributions to provide important insights for teaching as a profession and for teacher professionalism as teachers become accustomed to the notion of teacher leadership and to the idea of changing their practice. For administrators, it is essential to understand how the practice of leadership is stretched over the work of multiple leaders in an organization since it is highly unlikely that only a principal can improve instruction in the school. Also, administrators need skills and knowledge that allow them to work with other leaders in school. For policymakers, this study should help them understand the impact of distributed leadership in schools, among teachers and students to allow a new leadership model to develop by legislating uninterrupted policy and financial support. In sum, the findings of the study will have possible policy and practice implications regarding the relationship between distributed leadership and school effectiveness.

Operational Definitions

For the purpose of this study, the following terms were defined in an attempt to assist the reader in understanding key concepts:

Academic Excellence Indicator System (AEIS): A statewide system that compiles an

array of information on the performance of students and school finance in every school and every district in Texas each year. The system involves district accreditation status, campus and district performance rating, and other campus, district and state-level reports on finance, population and staffing. This system is used to determine measurable student achievement for each school district. The AEIS serves as the basis for all accountability ratings, rewards and public reports (TEA, 2006).

Accountability: The Texas public schools accountability system features four academic ratings for districts and campuses:

a. Exemplary

b. Recognized

c. Academically Acceptable

d. Academically Unacceptable Each rating is tied to performance levels on three base indicators: student performance on TAKS, attendance rates and dropout rates (TEA, 2006).

Challenging the Process: This term is the first leadership practice of Kouzes and Posner's (1995) fundamental practices of effective leadership. According to Kouzes and Posner (1995, p. 10), "The leader's primary contribution is in the recognition of good ideas, the support of those ideas , and the willingness to challenge the system in order to get new products, processes, services, and systems adopted." Challenging the Process is composed of leader's ability to take risk and innovate better ways for organizational production.

Distributed Leadership: Distributed leadership implies a redistribution of power and

realignment of authority (Harris & Muijs, 2005, p.15). It is about more than accounting for all the leaders in a school and adding up their actions to arrive at some more wide-ranging account of leadership (Spillane, 2006).

Enabling Others to Act: Kouzes and Posner (1995) include this term in their five leadership practices of effective leadership. “Leaders involve, in some way, all those who must live with the results, and they make it possible for others to do good work (Kouzes & Posner, 1995, p. 12).” Leaders empower others because they realize that it contributes to better organizational production.

Encouraging the Heart: This leadership practice emphasizes that leaders not only encourage others but also themselves. Either by genuine care or by rewards, leaders are able to inspire others to achieve common goals.

Inspiring a Shared Vision: This term is one of Kouzes and Posner’s five leadership practices of effective leadership. Leaders are able to inspire others through dialogue in attainment of a common vision.

Leadership: According to Kouzes and Posner (1995), leadership is “the art of mobilizing others to want to struggle for shared aspirations” (p. 30). IT involves the process in which influence is exerted by one person over others in guiding, structuring, and facilitating organizational activity (Yukl, 1998).

Modeling the Way: This term is one of Kouzes and Posner’s five leadership practices of effective leadership. Leaders set examples for others in achieving organizational goals. Leaders understand that action speaks louder than words.

Region VI Education Service Center (ESC): One of twenty state services centers

established by the Texas Legislature in 1967 to provide school districts with technical and developmental support. Region VI Education Service is located in southeast Texas, 60 miles north of Houston, in Huntsville, Texas which serves 56 school districts.

Site-based Management (SBM) Team: Site-based management team, consisting of the principal, assistant principal, teachers, staff members, parents, and community members, ensures that the schools are achieving their goals. Site-based management can be viewed as a form of decentralization and relies on the redistribution of decision-making authority. Site-based management implies that (a) some formal authority to make decisions in the central domains of budget, personnel, and program is delegated to and frequently redistributed among site-level actors; (b) a formal structure (council, committee, team, board) often composed of principals, teachers, parents, and, at times, students and community residents is created so that these actors can be directly involved in schoolwide decision making; and (c) site participants are afforded substantial discretion, even though their formal authority may be circumscribed by existing statutes, regulations, accountability (Malen & Ogawa, 1992, p. 185). In Texas, Senate Bill 1 required all school districts have site-based management operational by September, 1992 (Hoyle, 1992).

Teacher Leadership: Teacher leadership is not a new concept (Forster, 1997). “A teacher leader is one who informs, who actively gathers information from colleagues and, more to the point of leadership, will deliver that information in a manner suitable to the person and situation regardless of the risks (Zepeda, Mayers & Benson, 2002).” Leadership means the capacity for teachers to exercise leadership for teaching and

learning within and beyond the classroom (Muijs, 2003). In this study, teacher leaders refer to those served on site-based management teams.

Texas Education Agency: The Texas Education Agency (TEA) is comprised of the commissioner of education and agency staff. The TEA and the State Board of Education (SBOE) guide and monitor activities and programs related to public education in Texas. The SBOE consists of 15 elected members representing different regions. One member is appointed chair by the governor. Under the leadership of the commissioner of education, the TEA administers the statewide assessment program, maintains a data collection system on public schools for a variety of purposes and operates research and information programs among numerous other duties. The TEA operational costs are supported by both state and federal funds.

Summary

Leaders are expected to achieve extraordinary results, especially in school settings, the leadership of principal is central to the success of schools. With the rise of distributed leadership, it provides us with a lens to examine school leadership. By researching leadership behaviors of principals and perceptions of teacher leaders, the researcher intended to add to the body of knowledge about the work of elementary school principals and distributed leadership. Results of the research may enhance the knowledge of distributed leadership not only in school principals but also other forms of leadership throughout schools.

Provided in chapter II is a review of related literature on school leadership, distributed leadership, teacher leadership and leadership effectiveness. Chapter III

presents a description of research methodology with research analysis and findings described in chapter IV. Summary, conclusions and recommendations for further research are included in chapter V, followed by references and appendices.

CHAPTER II

LITERATURE REVIEW

Introduction

In chapter II, a review of related literature relevant to the understanding of distributed leadership and teacher leadership as well as leadership effectiveness is examined. Chapter II includes theoretical constructs of distributed leadership, teacher leadership, and teacher leadership as a form of distributed leadership, site-based management and leadership effectiveness.

The theoretical construct of distributed leadership begins with changes that have happened in leadership research from early studies that focused on individual actions to the ability of a leader to empower and influence others. Also included are a review of studies that have been done in various settings providing a basis of defining distributed leadership and distinctive elements of distributed leadership. Distributed leadership and teacher leadership are the first two constructs. Teacher leadership is deeply connected to distributed leadership construct; therefore, teacher leadership is discussed after distributed leadership. Site-based management and educational reforms are also discussed.

The last part of literature review covers a historical account of how different researchers have defined different indicators of school effectiveness and how leaders used different means to achieve school visions and goals. Specific studies related to leadership effectiveness (Kouzes & Posner, 1995) are cited. The construct of leadership practices is examined through Kouzes & Posner’s Leadership Practice Inventory (1995).

While it was not designed to measure distributed leadership behaviors, the five leadership practices of Modeling the Way, Challenging the Process, Inspiring a Shared Vision, Enabling Others to Act, and Encouraging the Heart are related to components of distributed leadership. Discussions of each dimension are presented as a frame for studying how principals carry out leadership activities.

Reconceptualization of Leadership

The importance given to the idea of "leadership" has grown enormously in virtually all sectors, and education has been no exception (Harris, 2004). In order to have a comprehensive review of research and theories on leadership, a brief review of major lines of work is presented first. While acknowledging the contributions of previous research, several challenges need to be deal with in order to understand the development of school leadership practice.

Some of the earliest studies focused on studying traits of leaders in different sectors (Yukl, 1998). Researchers such as Stogdill (1948) reviewed 124 trait studies of leadership conducted from 1904 to 1947 and found several personal factors associated with leadership. These factors are capacity, achievement, responsibility, participation and status. During 1940s and 1950s, little attention was paid to examining how personality traits and aspects of contexts were interrelated in leadership studies. Even Stogdill himself concluded that the trait approach by it self resulted in negligible and confusing conclusions (Hoy & Miskel, 2001). As a consequence, "the effort to find universal qualities of leadership of great men proved fruitless" (Shorter & Greer, 1997, p. 18) and Stogdill added a situational component to complement the leadership theories

(Hoy & Miskel, 2001).

Other researchers attempted to identify distinctive characteristics of the setting that had relevance for leader behaviors and performance (Lawler, 1985) in response to criticisms towards leaders'-traits tradition research. For example, the Ohio State University studies attempted to identify effective leadership behavior (Yukl, 1998). Leadership style and influence were measured with Leadership Behavior Description Questionnaire (Hemphill & Coons, 1950). Results indicated that there are two categories of leader behavior, those being consideration and initiating structure.

Although providing valuable research findings, the focus of traditions in leadership studies is problematic (Spillane et al., 2004). Therefore, critics leveled at these ideas about single decision-makers in organization. Research on schools, for example, has suggested that leadership is not only practiced by a single leader, and teacher leaders along with other teachers and staff also play key roles in creating an environment for teaching and learning (Heller & Firestone, 1995; Leithwood et al., 1997). Later, Yukl (1998) examined the leader's role in influencing other which he considered a major component of leadership. He further stated that participative leadership focuses on leader's efforts to include others in decision-making and increasing production.

To sum up, leadership in earlier periods focused on individual actions and interactions between individuals. The dominant model of leadership, which has been mainly concerned with the skills, knowledge and capabilities of one person, has been shown to be restricted in generating and sustaining school and classroom level change (Fullan, 2001). This phenomenon is being challenged because much of the literature falls

short to reflect contemporary leadership practice in schools (Owens, 2001; Morrison, 2002) and rarely reflect authentic leadership activity (Harris, 2002) .

Recent researchers have recognized leaders' ability to mobilize others as organizational goals are achieved and pursued (Kouzes & Posner, 1995). Among recent studies of effective leadership in schools, one of the most consistent findings is that the authority needs not to be placed in the hand of one person but can be dispersed within the school in between and among people (Leithwood, Jantzi, Ryan, & Steinbach, 1997; Day, et al., 2000). This implies a reconfiguration of principals' leadership behaviors within the school since the growth of collaboration, networking and partnerships means that organizational boundaries are changing and redefining leadership is taking place (Woods, Bennett, Harvey, & Wise, 2004). It opens the possibility for all teachers to become leaders and to be able to create changes for school improvement (Harris & Muijs, 2005).

One theory about how leadership practices stretch over to other members is the distributed leadership. In this vein, traditional leadership assumptions are challenged as distributed leadership has become increasingly used in the discourse about school leadership and is receiving growing empirical support (Gronn, 2000; Gronn, 2002a; Harris, 2002; Spillane, et. al., 2001). This reconceptualization of leadership has origins in the 1980s and early 1990s as developing ideas about the cultural and historical influences on individual cognition led to an understanding of this cognition being distributed through the material and social artifacts in a particular environment (Cole & Engestrom, 1993). Similar to these ideas on individual cognition were those on

developing organizational cultures involving many actors (Sergiovanni, 1984). Not until mid-1990s that the idea of distributed leadership has been the focus of research literature (Timperley, 2005). As Copland (2003) notes, leadership is viewed as:

> a set of functions or qualities shared across a much broader segment of the school community that encompasses administrators, teachers and other professionals and community members both internal and external to the school. Such approach imposes the need for school communities to create and sustain broadly distributed leadership systems, processes and capacities (p. 376).

The distributed framework offers considerable influence for studying leadership as a school wide rather than individual practice (Lucia, 2004) and it emphasizes on "engaging expertise wherever it exists within the organization rather than seeking this only through formal position or role" (Harris, 2004, p. 13).

Distributed Leadership: A Re-Emerging Concept

Distributed leadership has various meanings, and some of these meanings are related to collegiality (Woods, Bennett, Harvey & Wise, 2004). The term "distributed leadership" was first used in Jack R. Gibb's *Dynamics of Participative Groups* in 1951. Gibb (1951) identified four leadership environments: autocratic, paternalistic, individualistic and participative. In participative environment, "there is a maximum of emphasis upon the growth and development of all the members of the group. There is no one leader, the leadership is distributed" (Gibb, 1951, p. 18). Since then, related concepts like teacher leadership (Harris & Muijs, 2005), shared leadership (Sergiovanni, 1995) and site-based management (Murphy & Beck, 1995; Bauer & Bogotch, 2006) have

emerged and received a lot of attention from educators.

While distributed leadership has roots in earlier concepts such as "shared decision-making," current definitions are more far-reaching. The term “distributed leadership” means different things to different people. However, as Bennett, Harvey, Wise and Woods (2003, p.2) point out, there seems to be “little agreement as to the meaning of the term” and interpretations vary. Bennett et al. (2003, p.2) suggest that it is more practical to think distributed leadership as a “way of thinking” about leadership and Spillane (2006) suggests that distributed leadership is a framework for examining leadership. Other research concludes that distributed leadership is a developing process. In addition, distributed leadership is a developing process involving different forms of leadership practices. MacBeath (2005) interviewed and shadowed headteachers of 11 schools which exemplified distributed leadership and were interested in becoming more distributive in their practices in order to explore what “distributed leadership” means in the day-to-day life in schools in the United Kingdom. The research findings suggest that distributed leadership is a developing process. Under the developing process, six categories of distributed leadership practice were defined: distribution formally, pragmatically, strategically, incrementally, opportunistically, and culturally, and each of them represents a different way of thinking about leadership and exemplifies differing processes of distribution. According to Macbeath (2005), distribution formally in English schools means a single headteacher who comes increasingly with formal qualifications for leadership. Pragmatic distribution is characterized as a reaction to external events such as demands from government or the local authority or parental

issues. Strategic distribution focused on a longer-term goal of school improvement. Incremental distribution refers to a professional development in which people prove their ability to exercise more leadership they are given. Opportunistic distribution means leadership doesn't need to be distributed because it is dispersed. Last, cultural distribution develops when leadership is intuitive and embedded in the culture. Leadership is expressed in activities rather than formal positions or roles.

In reviewing related literature, the following distinctive elements of the concept of distributed leadership can be discerned (Gronn, 2000; MacBeath, 2005; Timperley, 2005; Spillane, 2006).

A form of collective leadership

First, in characterizing distributed leadership, Silins and Mulford (2002) describe it as, "sharing learning through teams of staff working together to argument the range of knowledge and skills available for the organization to change and participate future developments" (p. 21). The notion of distributed leadership is characterized as a form of collective leadership in which teachers develop expertise by working collaboratively which incorporates the activities of numerous individuals in a school who work at guiding other teachers in the process of instructional change (Harris, 2000; Gronn, 2002b). In this regard, school leadership as distributed implies that school leadership is an activity spread across the school community and that, "Schools that wish to constantly evolve will need to harness their human and social capital that is their richest potential, creating and sharing the leadership opportunities that provide the capacity to achieve this" (Hopkins, 2001, p. 11).

A distributed view of leadership recognizes that leading schools involves multiple leaders such as co-principals who share responsibilities for operating a school (Gronn, 2003). The basic notion is outlined by (Yukl, 1999, p. 292): distributed leadership perspective moves beyond the “heroic of leadership” genre or the “heroic leader paradigm” (Yukl, 2002).

> an alternative perspective [to the heroic single leader], that is slowly gaining more adherents is to define leadership as a shared process of enhancing the individual and collective capacity of people to accomplish their work effectively…Instead of a heroic leader who can perform all essential leadership functions, the functions are distributed among different members of the team or organization (p. 432).

Focusing on instructional improvement and student achievement

Second, distributed leadership is particularly important in relation to the instructional aspects of leadership, which has been shown to have greatest influence in effecting instructional improvement (Southworth, 1990; Leithwood, Jantzi, Ryan, & Steinbach, 1997). Fullan (2002) stated “the role of the principal as an instructional leader is too narrow a concept to carry the weight of the kinds of reforms that will create the schools that we need for future (p. 17)”. As Fullan (2001) argued, the dominant model of leadership, which has been mainly concerned with the skills, knowledge and capabilities of one person, has been shown to be restricted in generating and sustaining school and classroom level change. Schools have not adopted models of leadership that generate instructional improvement and enhance student performance (Elmore, 2000). It seems

that the skills and abilities that shape leadership practice focus on controlling organizational functions, rather than the improvement of instruction and student achievement (Harris, 2002).

On the contrary, distributed forms of leadership focus on how leadership is distributed among formal and informal leaders. Distributed leadership is a form of joint action incorporating the individuals' activities in a school who work at mobilizing and guiding other teachers in the process of instructional change (Spillane, et. al., 2001). Elmore (2000) suggested some principles for distributed leadership that focus on improving teaching and learning in school systems. First the purpose of leadership is to improve practice and performance. Second, improvement requires continuous learning, both by individuals and groups. Creating an environment that views learning as a collective good is critical for distributed leadership. Third, leaders lead by exemplifying the values the values and behaviors they want others to adopt. Since learning is central to distributed leadership, leaders must model the learning they expect others to engage in. The model of distributed leadership assumes that what happens in the classroom are for the "collective good" (Elmore, 2000, p. 6), as well as individual concern. By respecting, acknowledging, and capitalizing on different expertise, distributed leadership is the "glue" in the improvement of instruction leading an organization toward instructional improvement (Elmore, 2000).

Recognizing other people's expertise

Third, distributed leadership highlights leadership as an emergent property of a group or network of interacting individuals (Gronn, 2002). Gronn identified the notion

of distributed leadership as “an emergent property of a group or network of individuals” in which group members “pool” their expertise (Gronn, 2002b). It is not something “done” by an individual “to” others, or a set of individual actions through which people contribute to a group or organization (NCSL, 2003, p. 7). It is about the additional dynamic which is the product of conjoint activity (NCSL, 2003, p. 7) as well as group activity that works through and within relationships. When people work together in such a way; they pull together their abilities and expertise. The outcome is greater than the sum of their individual actions. Distributed leadership perspectives focuses on how school leaders encourage and sustain conditions for successful schooling in interaction with others, rather than on what structures are necessary for success (Spillane et al., 2004). In all, distributed leadership is about more than accounting for all the leaders in a school and adding up their actions to arrive at some more wide-ranging account of leadership (Spillane et al., 2004; Spillane, 2006). Therefore, by distributing responsibilities among teachers and staff, it is believed that every member of the school community has the capability to work as a leader (Lambert, 1998).

Openness of the boundaries

Fourth, distributed leadership suggests openness of the boundaries of leadership (NCSL, 2003, p. 7). This idea suggests that leadership should be available to organizational members who demonstrate their expertise in different aspects with leadership delivered to them (Woods et al., 2004). Leadership is not confined to a traditional definition that espouses only one person in charge of the organization (Spillane et al., 2001). Moreover, distributed leadership supports the view that varieties

of expertise are distributed across many, not the few (NCSL, 2003, p. 7). Numerous perspectives and capabilities found in individuals through the organization can forge a concerted dynamic which represents more than the sum of the individual contributors. It is possible that people other than those experts will then adopt, adapt and improve them within a mutually trusting and supportive culture that expertise are distributed throughout the organization.

In a knowledge-intensive enterprise like teaching and learning, there is no way to perform these complex tasks without distributing the leadership responsibility in the organization (Elmore, 2000). Heller and Firestone (1995) found in a study of eight elementary schools that multiple leaders, including school district personnel and external consultants, were taking on leadership responsibilities. Another recent study of more than one hundred elementary schools also found that leadership responsibilities were distributed across three to seven formally designated leadership positions per elementary school (Camburn, et. al., 2003). Camburn and colleagues surveyed formal leaders (i.e. principals, assistant principals, program coordinators or facilitators, subject area facilitators, mentors, master teachers, or other teacher consultants, and other "auxiliary" professional staff) in each school to investigate the distribution of leadership functions. Furthermore, leadership in a school is beyond formal leadership roles. In addition to the principal, other potential school leaders include assistant principals, curriculum or subject specialists, and ESL, reading or Title 1 teachers engage in leadership responsibilities collectively or individually, including mentoring peers and providing professional development (Spillane, 2006). Individuals with no formal leadership

designations also take responsibilities for leadership activities (Spillane, Camburn, & Lewis, 2006).

Interactions among leaders, followers and situations

Fifth, a distributed perspective focuses on interactions among leaders, followers and their situations. Most scholars appear to agree that distributed leadership is not the same as dividing tasks among school personnel who perform defined and separate organizational roles; they believe that distributed leadership consists of dynamic interactions between multiple leaders and followers (Timperley, 2005). According to Spillane (2006), a distributed perspective on leadership involves two aspects: the leader-plus aspect and the practice aspect. The leader-plus aspect recognizes that leading and running a school involves multiple leaders. Leader-plus aspect alone is vital but not sufficient for explaining the complexity of leadership. The conceptual framework of distributed leadership developed by Spillane (2006) moves beyond the leader-plus aspect. Distributed leadership means more than shared leadership. As leadership moves away from a "command and control" model to a more "cultivate and coordinate" model, the way that leadership is taught must change, too. The leadership practice aspect moves the focus from traditional leadership beyond an individual's actions to the interactions among leaders, followers and their situations (Spillane, 2006).

"People" are an important factor to the analysis of leadership practice since actions of leaders and followers are central regarding leadership practice. A critical challenge involves unpacking how leadership practice is stretched over leaders. Most of the time, attempts to analyze leadership practice never go beyond the actions of individuals,

usually the leader of organization or perhaps two or more leaders. In a distributed view of leadership, it is also critical to take account of how leadership practice takes shape in the interactions between leaders and followers (Spillane, 2006). The interactions between leaders and followers are depicted in Figure 1.

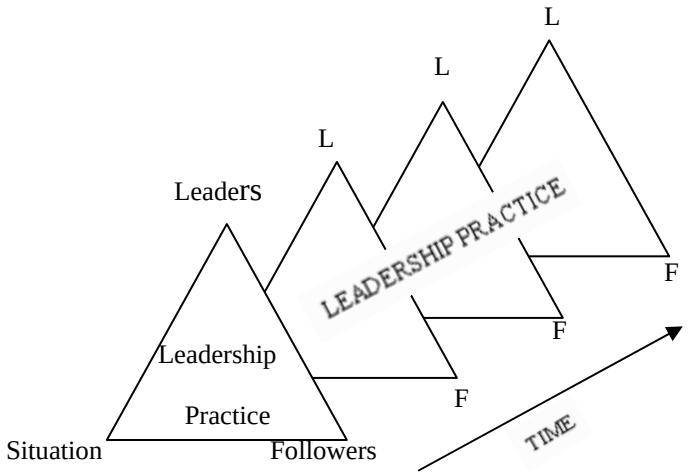

Figure 1. Leadership Practice from a Distributed Perspective (Spillane, 2006, p. 3)

In order to analyze interactions among leaders in leadership practice, Spillane et al. (2004) identified three types of distribution: collaborated distribution, collective distribution and coordinated distribution. In collaborated distribution, the leadership practice is “stretched over the work of two or more leaders who work together in place and time to execute the same leadership routine” (Spillane, 2006, p. 61). It involves leaders

co-performing a leadership routine together in the same time and place. There is a reciprocal interdependency in which the actions of different leaders require participation from one another in co-performing a leadership routine. Reciprocal interdependencies have to do with individuals working with one another in the same place and time, with the action of A directly facilitating the action of B and vice versa.

In collective distribution, the leadership practice is stretched over the work of two or more leaders who enact a leadership routine by working separately but interdependently (Spillane, 2006). It involves leaders to co-perform a leadership routine separately and interdependently. Note that almost every leadership routines involve collective distribution (Spillane, 2006). In this study, interdependence is not limited to interactions at the moment. In coordinated distribution, the leadership practice involves leaders co-performing a leadership routine in which they work separately or together on sequential leadership tasks that are essential for the functioning of the routine (Spillane, 2006).

Distributed Leadership and School Improvement

Engaging many people in leadership activities are the foundation of distributed leadership (Harris, 2004) and where positive effects of distributed leadership clearly have been demonstrated. Research by Silns and Mulford (2002) has shown that student outcomes are more likely to improve when leadership sources are distributed throughout the school community and when teachers are empowered in areas of expertise. Such an emphasis on decentralized leadership informs the increasing focus on the role of teacher leadership and the development of the contribution of teachers in making decisions

about the approaches to educating students (Anderson, 2004). Together the literature suggests that effective schools have greater educational and social cohesiveness (Heck et al., 1990; Leithwood, 1994; Hallinger & Heck, 1998).

From a distributed leadership perspective, effective principals do not just string together a series of individual actions, but systematically distribute leadership by building it into the fabric of school life (Spillane, 2006). Leadership is distributed not by delegating it or giving it away, but by weaving together people, materials, and organizational structures in a common cause. Research supports the notion that improving school leadership at the building level holds tremendous potential in helping schools bolster student academic performance, particularly for low-income and minority students. Studies of effective urban schools (Mendez-Morse, 1992) have found that a key factor in the success of these schools is the presence of a skilled principal who creates a sense of shared mission around improving teaching and learning and delegates authority to educators who have the trust and support they need to get the job done. Meanwhile, research shows that schools that have raised student achievement in spite of students' socioeconomic backgrounds almost invariably do so with the guidance of an effective leader (Mendez-Morse, 1992).

Distributed leadership theory advocates the need for schools to adopt a more democratic and collective form of leadership that reflects the view that every person in one way or another can demonstrate leadership (Goleman, 2002). The conceptual framework guiding the research on school leadership focuses more on “network” patterns of control, where leadership activities are widely distributed across multiple

roles (Smylie & Denny, 1990; Hart, 1995; Heller & Firestone, 1995). What comes from this research is a new vision of effective leadership, one in which multiple school members are seen as exercising powerful instructional leadership. Moreover, with the emergence of school reforms such as site-based management, career ladders for teachers and mentor teacher programs, researchers are beginning to focus not only on the leadership practices of individual principal, but also on the leadership exercised by teachers. These types of teacher leadership all emphasize collaborative efforts in school improvement. In order to understand the importance of distributed leadership and its manifestation in the field of educational leadership, it is necessary to review related concepts. Two concepts addressed in the following section are teacher leadership and site-based management.

Teacher Leadership

The notion of teacher leadership is not new. Teachers have been assigned different roles such as team leaders, department heads and curriculum developers. However teachers mostly serve as representatives in these roles, not a leader (Lieberman & Miller, 2004). Recently there's a strong urge and compelling needs for a different roles for teachers. Such need requires teacher to increase their leadership roles because teachers are in a unique position to make change happen (Lieberma & Miller, 2004). Katzemeyer and Moller (2001) have the following definition for teacher leader, "teachers, who are leaders lead within and beyond classroom, identify with and contribute to a community of teacher learners and leaders, and influence others towards improved educational practice (p. 5)". Harris and Lambert (2003) define teacher leadership as a model of

leadership in which teaching staff at various levels within the organization have the opportunity to lead.

Teacher leadership, which is widely recognized as a critical factor in school reform, is not the same thing as administrative leadership (Lieberman & Miller, 2004). Teacher leadership is more likely to fill the gap between principals and teachers when principals attempt to shift their roles to focus more in instructional leadership (Fullan, 1994). In addition, teachers should have opportunities to engage in peer coaching, team planning and teaching, and collaborative research that enables them to construct new means for improving their practice (Darling-Hammond, 1996). A key factor in the leadership model is that the nature and purpose of it is "the ability of those within a school to work together, constructing meaning and knowledge collectively and collaboratively" (Lambert, 1998, p. 5).

Teacher leadership as a form of distributed leadership

The convergence of distributed leadership theory with research demonstrating the benefits of situated professional development has contributed to widespread implementation of formal teacher leadership roles (Harris & Muijs, 2005). These leadership positions are intended to increase student's academic performance by first improving teachers' instruction. In many instances, these formal leadership roles are associated with comprehensive school reform (CSR) models (Dantow & Castellano, 2001; Smylie, Wenzel, & Frendt, 2003) and one consequence of this movement has been the implementation of similar roles in districts without formal CSR models (Mangin, 2005). Theses new leadership roles diverge from previous initiatives from the 1980s and

early 90s, which were premised on the professionalization of teaching and greater decentralization of authority (Mangin, 2005).

Teacher leadership may be either formal or informal in nature (Leithwood et al., 1997). Among the many designations associated with formal leadership roles are lead teacher, master teacher, department head, union representative, member of the school's governance council and mentor. Teachers who are assigned these roles are expected to carry out various kinds of functions including improving the school's decision-making process (Malen, Ogawa & Kranz, 1990); representing the school in district-level decision making (Fullan, 1993); and motivating the professional growth of colleagues (Wasley, 1991). On the other hand, teachers exercise informal leadership by sharing their expertise, by helping other colleagues to perform their classroom tasks (Leithwood et al., 1997). Teachers also attribute leadership qualities to colleagues who accept responsibility for their own professional development and work for the improvement of the school (Wasley, 1991; Smylie & Denny, 1990).

Improving schools through teacher leadership

To better understand the kinds of interactions that occurred between principals and teacher leaders; it is helpful to understand how the teacher leadership role is conceptualized with respect to instructional reform (Fullan, 1994). Formal teacher leadership role development has been affected partially by research on instructional leadership, which has focused on the role of principals and their responsibility for establishing, sustaining, and monitoring a vision for reform (Firestone, 1996). This idea has been critiqued because of its hierarchical notion of instructional leadership, resulting

in a move in the 1980s toward reform efforts that viewed teachers as pivotal to instructional leadership (Berry & Ginsberg, 1990; Hart, 1995; Smylie, 1994). Such efforts have brought greater recognition to teachers' capacity to make valuable contributions to instructional reform and prompted districts and schools to create new positions that expand responsibility for instructional leadership beyond the individual principal (Dantow & Castellano, 2001; Smylie et al., 2003).

Over the last twenty years the rhetoric of school improvement has changed from a language of school reform to a language of school restructuring (Lambert, 2003). Efforts to make the current education system more efficient have shifted to initiatives that aim for the fundamental redesign of schools, of approaches to teaching and learning, and the goals for schooling (Lambert, 2003). From many school improvement studies, it is clear that leadership is a key factor in a school's ability to improve. Leadership is composed of the leadership of the teacher leader or principal and it has been assumed that the leadership capacity of teacher leadership or principal leadership plays a critical role in promoting school improvement (Harris & Muijs, 2005).

Fullan (1995) advocates moving away from a narrow sight of an individual trying to combat a bureaucratic world to a more complex perspective that involves multiple levels of leadership. By working together teacher leaders can build a new culture that has the capacity to support the diverse leadership approaches and other elements necessary to "reculture" a school (Fullan, 1995). Lambert (1998), in line with Fullan, suggests "constructivist leadership", where leadership means learning together and constructing meaning and knowledge collaboratively. It requires more input, reflection and new

information from not only the principal, but also the teaching staff. Moreover, it actually brings teacher leadership into action with more emphasis on greater involvement from stakeholders and teacher leadership (Leithwood, et al., 1997; Smylie & Denny, 1990; Wasley, 1991) and “changing forms of leadership (Anderson, 2004, p. 97)”. The change signals a new mission for education and the school campus not merely to “deliver instructional services, but to ensure that all students learn at high levels” (Anderson, 2004, p. 97) We know that the improvement of school is possible when the reform effort is well thought-out, when teachers are active agents in the process, when there are abundant resources and time to support the reform (Dantow & Stringfield, 2000).

The capacity-building approach requires policy tools and different ways to producing, sharing, and using knowledge, more than previously used traditional approaches (Dantow & Castellano, 2001). School reform efforts must focus on building school and teacher capacity to undertake challenging tasks (Darling-Hammond, 1993; Leithwood, et al., 1997). Classroom teachers should assume greater roles of responsibility and leadership in this process of change (Darling-Hammond, 1993).

Significance of distributed leadership and teacher leadership

There is a growing body of recent research on school improvement that emphasizes the importance of the capacity-building model. Distributed leadership along with cohesion and trust was considered the core of the capacity-building model (Hopkins & Jackson, 2002, p. 95). In the context of this research, leadership consists of teacher practices, either as informal leaders or in formal leadership positions. Research also suggests that teacher leaders can help other teachers to “enhance goals, to understand the

changes that are needed to strengthen teaching and learning and to work towards constitutive progress" (Leithwood & Reil, 2003, p. 3). Distributed leadership is particularly helpful in providing greater conceptual clarity around the terrain of teacher leadership for three main reasons (Harris, 2003b). First, distributed leadership "incorporates the activities of multiple groups of individuals in a school who work at guiding and mobilizing their staff in the instructional change process" (Spillane, 2001, p. 20) Second, distributed leadership implies a social distribution of leadership where the leadership function is stretched over a number of individuals and where the leadership task is accomplished through multiple leaders (Spillane, 2001). Third, distributed leadership implies interdependency rather than dependency with regard to how various leaders in a variety of shared responsibility roles (Harris, 2003). It is clear that upon collective action, teacher leadership emphasizes empowerment and shared ownership which is also reflected in distributed leadership theory.

The school improvement literature suggests that distributed leadership to teachers or teacher leadership has positive effects on transforming schools as organizations and helping to diminish teacher alienation (Little, 1990; Fullan, 2001; Leithwood, Seashore, Anderson, & Wahlstrom, 2004). Moreover, high performance is associated with every area acting to support leadership (Dimmock, 2003) and successful teacher leaders play a critical role in directing school improvement through decision-making about staff (Collins, 2001). Similar findings were reported by Ovando (1996) who found that teachers reported decreased time for lesson planning and preparation once they had undertaken leadership roles and that time used for distributed leadership tasks was a

critical factor in her case study of a school where distributed leadership was being implemented. Research has also shown that teacher leaders talk favorably about models of leadership that involve staff collaboration and delegates responsibility where everyone has the opportunities to develop leadership skills (Hammersely-Fletcher & Brundrett, 2005).

The distributed form of leadership has important repercussions for how organizational change is understood and enacted (Harris, 2003a). The implication is that teachers have the expertise to lead change and to guide organizational development and improvement as well as gain sustainability. While some initial work on distributed leadership is under way, more work is required to explore distributed forms of leadership, including teacher leadership (NCSL, 2003). New forms of leadership are necessary in order to support collaboration among teachers and administrators. Research suggests that distributed forms of leadership among school staff are more likely to have a significant impact on improving student outcomes than traditional top down leadership; consequently, we can not afford to ignore the notion of teacher leadership as a form of distributed leadership (Harris, 2003). Distributed leadership furthers the notion of leadership as an interactive process that occurs when people in both formal and informal leadership roles work together to accomplish instructional improvement-related tasks (Spillane, et. al., 2001). Inherent with the notion of distributed leadership is the idea that teachers who interact with one another about instruction implicitly lead one another. Based on this notion, new models of teacher leadership emphasize that leadership is extended across multiple roles including teacher teams (Pounder, 1999), teacher research

initiatives (Cochran-Smith & Lytle, 1999) and coordinator roles that frequently accompany comprehensive school reform models (Dantow & Castellano, 2001). Teacher leadership does illustrate how distributed forms of leadership practice can be developed to contribute to school development and improvement (Harris, 2003). Teacher leadership offers "qualitatively different points of reference for understanding professional practice compared with traditional sets of assumptions that have informed the work of previous generations of school leaders (Gronn, 2003, p.14)."

Site-Based Management in the Age of Accountability

Once popular in the late 1980s and early 1990s, research seldom showed a direct link between the implementation of SBM and the improvement of teaching practices or student achievement (Cohen, 1988; Murphy & Beck, 1995; Taylor & Bogotch, 1994). Although the focus of educators may have shifted towards testing and accountability, the importance of shared decision making has always been one of the components of effective leadership. Hoy and Tarter (1992) assumed that school administrators should take into account the expertise that teachers bring to decision-making. This includes their personal stake in the outcomes, and their recognition of school goals. Teachers have often been isolated from involvement in significant decision making and from frequent and meaningful contact with one another. Site-based management arrangements tend to increase their involvement in these areas, often to a significant degree (Cotton, 1992). Blanchard and Karr-Kldwell (1995) also indicates that many kinds of educational reform, especially site-based management, have contributed to teacher empowerment. Distributed leadership, particularly, supports this belief. As Bauer & Bogotch, (2006)

stated, Distributed leadership theories expand the context and work done by school staff, teachers, administrators across the whole day's activities (into teaching, learning and administratoring), not just the singular set of activities related to decision making within the circumscribed setting of site-based management teams (p. 449). Under the No Child Left Behind Act (NCLB), school advisory committees composed of administrators, staff, teachers, parents, and business owners are mandated. The demands of accountability have made decision-making and leadership practices more important to quality education (Bauer & Bogotch, 2006). With the emergence of distributed leadership (Elmore, 2000; Gronn, 2000; Spillane, 2006), the needs to understand site-based management (SBM) leadership practices have been increased. A distributed perspective includes SBM activities within the school as a whole rather than isolating these entities from holistic school activities (Bauer & Bogotch, 2006). Instead of studying the effectiveness of SBM as isolated entities, distributed leadership models study the school as a whole as well as (Lucia, 2004), and even district reform. For example, Elmore (2000) accepted that standards and accountability are to guide school reform and embraced the idea that school staff can develop specific directions for school-level reform. This idea has evolved from Elmore's basic idea of distributed leadership. "It is this problem of the distribution of knowledge required for large-scale improvement that creates the imperative for the development of models of distributed leadership (Elmore, 2000, P. 14)". Elmore recognized the importance of leaders to develop the knowledge and skills in people, while holding people accountable for their contributions to the organization (Lucia, 2004).

Strengthening school leadership will require extraordinary collaboration and patience in blurring the roles among teachers, administrators, and staff developers. We can no longer rely on charismatic leaders to form model schools of excellence or trust that every individual teacher acting alone will make the right changes to improve teaching and learning. Instead, administrators must learn to develop school and teacher capacity. Shifting to the model of distributed leadership will not be easy for schools or for school leaders. It will require substantial change in district practices that have can cause administrators to be preoccupied with management issues (Bauer & Bogotch, 2006). Districts will have to overcome resistance from district administrators, from teachers and unions who fear that principals' greater focus on instruction will reduce their own professional control and from some principals who may fear change or doubt their ability to successfully perform as distributed leaders.

Leadership Effectiveness

Being an effective leader has always been difficult, and the challenges have never diminished over time (Hoyle, 2007). Leadership effectiveness is not assessed by accomplishment but rather on how leaders respond to day-to-day situations and inspire others

> ….the overwhelming number of organizational leaders is not widely known and seldom become heroes, at least not in a historic or media sense. They are otherwise normal individuals to be found in every walk of life who consistently perform their leadership roles with relatively quiet effectiveness (Guthrie & Reed, 1991, p. 10).

Additionally, leadership effectiveness is a complex term that has various subtle

meanings (Hoy & Miskel, 1991) and differences between effective and non-effective leaders remain subtle (Bennis, 1989). One of the fundamental beliefs in research of school improvement, concerns the powerful impact of principals on processes related to school effectiveness and improvement (Hallinger & Heck, 1998). Hallinger and Heck (1998) reviewed research from 1980-1995 examining the relationship between principal leadership and student achievement. The studies confirmed that formal leaders-especially principals and teacher leaders- do have influence on student learning outcomes indirectly. Research findings from different contexts and different cultures draw similar conclusions. First, schools that make a difference in students' learning are led by principals who make a significant and measurable contribution to the effectiveness of school personnel and student's performance. Effective school research (Edmonds, 1979) examined what principals do at school to positively affect education. Simply stated, an effective school requires an effective leader (Bossert, 1985).

Effectiveness is an important concept in organization theory and it helps us understand whether organizations are performing well and achieving their goals. "Effective schools" are those schools that promote learning by a design that results in better achievement on the part of the students (Squires, Huitt, & Segars, 1983). A lot of research, policy and practice in education have assumed the stance that principals make an important difference in school effectiveness (Hallinger & Heck, 1998). In Texas, a common goal is to improve student achievement as a way of working towards maintaining an Exemplary school, the highest rating applied to districts and schools rated under the standard accountability procedures. Leadership has become an important

topic as site-based management teams are required to produce annual plans based on test results and other academic indicators. The school principal is responsible for facilitating development of a shared vision for school improvement, while creating an environment that all students can learn (Wilmore & Thomas, 2001).

The effective school movement in the 1970's and 1980's described effective principals in terms of instructional leadership (Wilmore & Thomas, 2001). Edmonds (1979) believed that an effective principal should have the following characteristics: (1) strong instructional leadership; (2) the ability to lead in the development of a pervasive and broadly understood instructional focus; (3) an orderly and safe school climate conducive to teaching and learning; (4) high teacher expectations; and (5) program evaluations based on varied assessment measures of student achievement. Tichy and Devanna (1986) indicated that effective leaders are able to transform organizations. They are able to (1) recognize need for change, (2) manage the transition process, (3) develop a new vision, (4) help others to internalize the vision, and (5) institutionalize changes necessary for implications of the new vision. The National Policy Board for Educational Administration (1993) summarized a framework for developing 21 domains of knowledge and skills for principal training. The leadership domain was defined as providing purpose and direction for individuals and groups, shaping school cultures and values, facilitating the development of a shared strategic vision for the school, formulating goals and planning change efforts with staff, and setting priorities for one's school in the context of community and district priorities and student and staff needs. This domain also brought attention to three main functions of principals. First, the

principal must understand the values of the local school with the ability to shape the school's culture positively. Second, the principal must articulate a clear, shared vision to staff, students and parents. Third, the principal should be innovative and facilitate change contributing to school improvement.

Definitions on effective leaders vary. As Ehrle and Bennett (1985) observed, it is difficult to describe just what constitute effective leadership. Like effective teachers, effective leaders come in all sized and shapes, and have different styles and different ways of getting their way and helping others get theirs. Whatever one's style, however, deliberate efforts must occur to make one's values and goals visible to others in the empowerment of their activities (p. 191). According to Hoyle (2001), de-emphasizing the theories of leadership and focusing on the actual behaviors of successful leaders helps gain an understanding of why effective leaders who incorporate these concepts are known by what they do— not by what they say.

Among leadership effectiveness studies, leadership practices identified by Kouzes and Posner (1995) appear to offer the best explanation of how leadership practices contribute to high-performance organizations. In analyzing thousands of case studies, Kouzes and Posner uncovered The Five Practices of Exemplary Leadership, the common practices associated with "personal best". The Five Practices of Exemplary Leadership are: a) Challenging the Process processes: search for innovative growth, opportunities, take risks and learn from mistakes; b) Inspiring a Shared Vision: develop and communicate an image of what is possible, and get everyone aligned with a common purpose; c) Enable their followers to act in accordance with the vision: foster trust and

collaboration and build energetic, winning teams based on mutual goals and shared power; d) Modeling the Way for followers to perform: clarify personal values and set the example; and e) Encourageing their followers through recognition and celebration of success (Kouzes & Posner, 1995, p. 7). While the Leadership Practice Inventory (LPI) is not specifically developed to measure distributed leadership, the five leadership practices of Challenging the Process, Inspiring a Shared Vision, Enabling Others to Act, Modeling the Way, and Encouraging the Heart are related to components of distributed leadership. In distributed leadership, relationships between leaders and followers are examined just as the five leadership practices may be used to examine the interactions between leaders and followers. Later, in this study, framework for analysis is based on the five fundamental practices that enable leaders to get "extraordinary things done"

Developed after extensive studies in various settings with thousands of case studies, in-depth interviews, and questionnaires, the LPI is based on results that relate to leadership behaviors that illustrates leadership effectiveness (Kouzes & Posner, 1993). The LPI is also utilized as a management development instrument for assessing individual leadership actions. Research results indicated that there is a large degree of consistency about characteristics of effective and admired leaders (Kouzes & Posner, 2002). In Kouzes and Posner's studies, leaders who performed their best were able to (1) Challenge the Process, (2) Inspire a Shared Vision, (3) Enable Others to Act, (4) Model the Way, (5) Encourage the Heart.

Challenging the process

Change is a process through which people and organizations move as they become

skilled and competent in new practices. An organization does not change until the individuals within it change suggested (Hall & Hord, 2001). Many admired leaders are noncourageous in taking risks and implementing change. Change requires leadership; it is a prime impetus to move toward successful strategic decisions implementations (Kanter, 1983). Leadership is inextricably connected with the process of change, of bringing new ideas and solutions into use (Kouzes & Posner, 1995). As Burns (1978) notes, “The ultimate test of practical leadership is the realization of intended, real change that meets people’s enduring needs (p. 461).” Exemplary leaders experiment and take risks, focusing on improving individual and organizational performance in situations that are either successful or ones that fail (Kouzes & Posner, 1995).

Inspiring a shared vision

Among studies on principal and organizational effectiveness, the most consistent finding is that principals’ involvement in structuring, framing, and supporting schools’ purposes and goals represent an important domain of “indirect” influence on school outcomes (Andrews & Soder, 1987; Hallinger & Murphy, 1986; Leithwood, 1994). Brewer (1993) found higher academic progress in high schools where principals held high performance goals and selected more of the teachers while low test scores resulted when principals held lower academic expectations and selected fewer teachers. He concluded that principal leadership had an impact on both selection and motivation of teachers regarding their classroom goal-setting. It also suggests the importance of the principal’s expectations for achievement and staff selection as a means for moving towards school’s goals (Hallinger & Heck, 1998).

Also, Hallinger, Bickman and Davis (1996) noted that establishing an explicit school mission was a vital path through which principals have influence over school effectiveness. Through this approach, principals shaped teachers' expectations and student opportunity to learn in the school environment. The indirect effects had a measurable impact on reading achievement at the elementary school level (Hallinger & Heck, 1998). These findings provide strong data regardless the key roles principals play in identifying school visions and sustaining school goals as well as high performance expectations. There are important variables related to the principal's ability to stimulate innovation and high achievement.

Enabling others to act

Enabling Others to Act is closely related to a key concept of distributed leadership that the Act encompasses the ability to empower and collaborate. Leaders in Kouzes and Posner's study realized that goals cannot be achieved without team effort. Spillane (2006) thinks it's especially helpful to investigate leadership from the perspective of followers in figuring out how leadership is constructed and what makes some individuals influential leaders in terms of distributed leadership theory. Exemplary leaders did not feel vulnerable by giving away power, but understood the importance of doing so. By empowering others, leaders were able to enable others to use information and in producing outstanding results (Kouzes & Posner, 1995).

Modeling the way

Modeling the way is a powerful positive and/or negative influence, either positively or negatively (Maxwell & Dornan, 1997). Results from the study of Joyce and Weil

(1996) support this idea. They found quality like principal support of teachers and an active problem-solving attitude separate typical and more effective elementary schools. More involvement from a variety of stakeholders in decision making is characteristic of high performance schools. In addition, areas of transformational leadership such as providing support for individual teachers, fostering cooperation, and encouraging them to work toward school goals have proved to have positive effects on school outcomes (Leithwood, 1994). In the same vein, researches across nations reveal similar findings that support the same point of view (Hallinger & Heck, 1998). In Hong Kong, strong primary school principals tend to promote participation in decision making, stronger and more cohesive social interactions, commitment, and higher morale among staff (Cheng, 1994).

Encouraging the heart

This leadership practice focuses on the importance of encouraging others when facing challenges and obstacles. Encouragement involves reward and recognition. Exemplary leaders not only encourage and motivate others intrinsically and extrinsically, they also recognize the importance of self-motivation. They realize the wisdom of recognizing individual success, and the accomplishments of the entire organization. Little research has been done regarding the use of LPI in studying leadership practices of principals' as perceived by teacher leaders from a distributed leadership needed. Research done by Rouse (2005) focused on the perceptions of principals and teachers as determined by the LPI, but did not examine means by which the leadership practices could be increased to improve school improvement.

Summary

The review of literature indicates that there is insufficient research about principals' leadership practices as perceived by teacher leaders and its possible affects on student achievement. Based on the research presented here, the literature suggests that successful leaders are those who practice distributed forms of leadership and recognize the importance of "reciprocal learning processes that lead to a shared purpose" (Harris & Lambert, 2003, p. 7). As noted by Hopkins and Jackson (2002, p. 17),

> …despite more than two decades of writing about organizational development we are still in a position of needing to develop understandings about what leadership really involves when it is distributed, how schools might function and act differently and what operational images of distributed leadership in action might look like.

By studying the leadership practices of principals as perceived by teacher leaders, the researcher will add to the body of knowledge related to improving school leadership practice, the preparation of future leaders, and particularly leadership at the elementary school level.

Chapter III is a description of the research methodology including an overview of population, instrumentation, and data collection. Analysis of data is presented in chapter IV. Summary, conclusion and recommendations are included in chapter V followed by references and appendices. The appendices include copies of cover letters to teachers and principals, LPI instruments, and approval from the Institutional Review Board (IRB).

CHAPTER III

METHODOLOGY

Introduction

The purpose of this descriptive statistical study was to explore principals' leadership practices as perceived by teacher leaders and its possible affect to student achievement. Data were collected by surveys from all willing teacher leaders to determine the leadership practices of the principals in Region VI, Texas. An analysis was made using the Leadership Practices Inventory (LPI) (self and observer) instrument (Kouzes & Posner, 2003). This chapter is presented in the following four sections:

1. Population
2. Instrumentation
3. Data Collection Procedures
4. Data Analysis

Population

The survey population was teacher leaders and principals on campus site-based management teams from selected school districts within Education Service Center, Region VI, Texas. Region VI Education Service Center is located in Huntsville, Texas. It serves 15 counties, 57 schools districts, and various private, charter, and state schools which include more than 150,000 students, and over 21,000 educators. It must be noted that charter and private schools within Education Service Center, Region VI, Texas were not considered for the purpose of this research study. With the omission of the charter and private schools, a sample public elementary schools as listed in the Texas Education

Agency's *2005-2006 Texas School Directory* was collected. Using a stratified sampling method (Lohr, 1998), the whole population was first into mutually exclusive subgroups based on one of the school characteristics of public schools and districts of school size. Because 50.8% of the students go to school districts that have more than 1,000 students enrolled (Hoffman, 2002). Based on this criterion, the 57 school districts in Region VI were divided into 30 small districts (less that 1000 students enrolled) and 27 large school districts (more than 1,000 students enrolled). 15% of both small and large school districts were randomly selected including four large (District A, District B, District C, District D) and four small (District E, District F, District G, District H) school districts were invited to participate in this study. For teacher leaders, a total number of 224 surveys were distributed and 144 of them were responded. For principals, 13 surveys were responded out of 20 schools. A summary of demographics characteristics of these school districts is listed in Table 1 summarized the demographic characteristics of participating elementary principals.

Table 1

The Demographics Characteristics of Participating School Districts and Elementary Schools

School District	Elementary School	Number of Students	Number of Teachers	Economically Disadvantaged
A	1	532	38	25%
	2	622	43	50%
	3	613	40	22.5%
	4	654	48	47.1%
	5	554	40	25.6%
	6	627	43	45.5%
B	7	655	41	61.2%
	8	356	24	59.8%
	9	508	36	72.8%
	10	589	39	64.5%
	11	611	43	76.9%
C	12	358	25	68.7 %
	13	440	31	79.5%
D	14	607	41	72%
	15	719	50	54.7%
	16	680	49	56.2%
E	17	206	14	53.4%

Table 1 Continued

School District	Elementary School	Number of Students	Number of Teachers	Economically Disadvantaged
G	19	303	27	68.3%
H	20	407	32	67.8

Note. Data for this table were obtained from the 2005-06 AEIS Reports.

Instrumentation

The survey instrument used for this study is the latest 2003 third edition Leadership Practices Inventory (LPI) developed by James M. Kouzes and Barry Z. Posner (2003). Kouzes and Posner (2003) translated the actions that made up the five practices of exemplary leadership into behavioral statements so that managers and nonmanagers, across both private and public organizations, could assess their skills and use the feedback to improve their leadership abilities. The LPI is a 30-item questionnaire used to rate leaders on The Five Practices behaviors: (a) Modeling the Way, (b) Inspiring a Shared Vision, (c) Challenging the Process, (d) Enabling Others to Act, and (e) Encouraging the Heart. Each of the five practices is measured using six statements (Table 2). The scale score for each of the five-leadership practices is created by summing numeric responses of the statements included in each scale. A 10-point scale allows the participants the opportunity to indicate the degree to which the leader behaves as described (Kouzes & Posner, 2003) including (1) Almost never do what is described in the statement; (2) Rarely; (3) Seldom; (4) Once in a while; (5) Occasionally; (6)

Sometimes; (7) Fairly often; (8) Usually; (9) Very frequently; (10) Almost always do what is described in the statement.

Table 2

Five Leadership Practices and Number of Questions

Scale	Questions
Modeling the Way	1. Sets a personal example of what he/she expects of others
	6. Spends time and energy making certain that the people he/she works with adhere to the principals and standards we have agreed on.
	10. Makes it a point to let people know about his/her confidence in their abilities.
	16. Asks for feedback on how his/her actions affect other people's performance.
	21. Builds consensus around a common set of values for running our organization.
	26. Is clear about his/her philosophy of leadership?
Inspiring a Shared Vision	2. Talks about future trends that will influence how our work gets done.
	7. Describes a compelling image of what our future could be like.

Table 2 Continued

Scale	Questions
	17. Shows others how their long-term interests can be realized by enlisting in a common vision.
	22. Paints the “big picture” of what we aspire to accomplish.
	27. Speaks with a genuine conviction about the higher meaning and purpose of our work.
Scale	Questions
Challenging the Process	3. Seeks out challenging opportunities that tests his/her own skills and abilities.
	8. Challenges people to try out new and innovative ways to do their work.
	13. Searches outside the formal boundaries of his/her organization for innovative ways to improve what we do.
	18. Asks “what can we learn?” when things don’t go as expected.
	23. Makes certain that we set achievable goals, make concrete plans, and establish measurable milestones for the projects and programs that we work on.
	28. Experiments and take risks, even when there is a chance of failure.
Enabling Others to Act	4. Develops cooperative relationships among the people

Table 2 Continued

Scale	Questions
	he/she works with.
	9. Actively listens to diverse points of view.
	14. Treats others with dignity and respect.
	19. Supports the decisions that people make on their own.
	24. Gives people a great deal of freedom and choice in deciding how to do their work.
	29. Ensures that people grow in their jobs by learning new skills and developing themselves.
Encouraging the Heart	5. Praises people for a job well done.
	10. Makes it a point to let people know about his/her confidence in their abilities.
	15. Makes sure that people are creatively rewarded for their contributions to the success of our projects.
	20. Publicly recognizes people who exemplify commitment to shared values.
	25. Finds ways to celebrate accomplishments.
	30. Gives the teacher leaders of the team lots of appreciation and support for their contributions.

Self and observer forms of the LPI were used in this study. Each leadership practice has a potential scoring range of 6-60. Permission to use the LPI for this research was granted by Barry Posner (see Appendix A). The researcher selected the LPI because it is a well-established instrument, can be easily understood by participants and may be completed by participants in a short amount if time. In addition, the researcher chose to use the LPI studying principals leadership behaviors because the five dimensions of the LPI (1) Challenging the Process, (2) Inspiring a Shared Vision, (3) Enabling Others to Act, (4) Modeling the Way, and (5) Encouraging the Heart are closely related to the components of other leadership theories, especially distributed leadership.

Developed as an empirical measure from both quantitative and qualitative data gathered from leaders in thousands of situations, the LPI has been used in a variety of situations. The LPI might also be used to measure leadership in terms of effectiveness of organizations (Kouzes & Posner, 1993).

> The LPI is also intended as a management development instrument and in this capacity useful for assessing individuals' leadership actions and behaviors (practices) and subsequently enhancing their leadership capabilities. Previous research sustained the reliability and validity of the LPI and this updated analysis provides continuing strong evidence of the LPI's ability to reliably assess leadership behaviors and skills… (Kouzes & Posner, 1993)

Although it is not designed specifically to measure distributed leadership, the five fundamental leadership practices are related to the components of distributed leadership. Discussion of each leadership practice is presented as frame for studying how leaders

practice distributed leadership. Moreover, the LPI has been used successfully in studying leaders in K-12 arena. Leech & Fulton (2002) used the LPI to examined the differences in middle-school and high-school teachers; perceptions of the leadership practices of educational leaders. Rouse (2005) used the LPI to study the leadership practices of principals and perceptions of teachers in Sullivan County. It is important to note here that because the conceptual domain of most leadership dimensions has substantial overlap, even though the LPI is not specifically designed for the purpose of distributed leadership, it may provide data that can be used in a variety of ways, depending on how the scores are combined or interpreted (Fields & Herold, 1997). In this study, principals completed the LPI-Self, and the teacher leaders completed LPI-Observer about their principals.

Reliability

Reliability refers to the extent to which an instrument contains “measurement errors” that cause scores to vary unrelated to the respondents. An instrument that has reliabilities above .60 are considered good (Aiken, 1997).With over 18 years of research that has included over 250,000 leaders and more than a million of their constituents, the reliabilities for the LPI are consistently above this criteria (Kouzes & Posner, 2002)(See Table 3). Internal reliability on the LPI ranges between .81 and .91. Kouzes and Posner (2002) reported, “The Leadership Practices Inventory has sound psychometric properties. Internal reliability for the five leadership practices is very good and is consistent over time. The underlying factor structure has been sustained across a variety of studies and settings, and support continues to be generated for the instrument’s construct and

concurrent validity (p. 18).” Moreover, there is a tendency that the reliability coefficients from the LPI-Self (between .75 and .87) are a bit lower than those for the LPI-Observer (between .88 and .92). Table 3 shows Kouzes and Posner Cronbach’s Alpha Reliability Coefficients for the Self and Observer Forms.

Table 3

Kouzes and Posner Cronbach’s Alpha Reliability Coefficients for the Self and Observer Forms

Leadership Practice	Self	Observer
Challenging the Process	.80	.89
Inspiring a Shared Vision	.87	.92
Enabling Others to Act	.75	.88
Modeling the Way	.77	.88
Encouraging the Heart	.87	.92

Table 4

Kouzes and Posner Means and Standard Deviations for the Self and Observer Forms

Leadership Practice	*M*	*SD*
Challenging the Process		
Self	43.9	6.8
Observer	44.4	9.1
Inspiring a Shared Vision		
Self	40.6	8.8
Observer	42.0	10.6
Enabling Others to Act		
Self	48.7	5.4
Observer	47.8	8.4
Modeling the Way		
Self	47.0	6.0
Observer	47.5	8.5
Encouraging the Heart		
Self	43.8	8.0
Observer	44.9	10.2

Note. Data for this table were obtained from Kouzes & Posner (2002).

The means and standard deviations for each of the five Leadership Practices from the Kouzes-Posner study are shown in Table 4.

Data Collection Procedure

The study was conducted in the fall of 2006. In order to conduct the study, a research application was submitted for approval to Texas A&M University Institutional Review Board (IRB). Upon approval from IRB (Appendix B), the selected districts were contacted by emails and physical mails (Appendix C) for approval to conduct research at their site. They were informed of this study and its date, time, assured confidentiality, procedures for the data collection, and invited to submit questions to the researcher by phone, mail and email. Before the actual data collection began, an email of invite was emailed in advance to each principal to inquire the names of teacher leaders on the site-based management teams and assistance for the distribution of questionnaires. For those principals who did not feel comfortable giving out names, number of teacher leaders on the teams was obtained instead in order to distribute the surveys.

Subsequently, 20 personalized packets were delivered to principals to distribute to teacher leaders on the site-based management teams for completion. Packets contained a cover letter to teacher leaders (Appendix C), a demographic sheet for teacher leaders (Appendix D), a Leadership Practice Inventory-Observer (Appendix E), and a self-addressed prepaid envelope. Inside each packet, there was an envelope for principals enclosed with a cover letter to principals (Appendix F), a demographic sheet for principals (Appendix G), a Leadership Practice Inventory –Self (Appendix H), and a self-addressed prepaid envelope. Principals and teacher leaders were given two weeks to

complete the questionnaires.

Follow-up procedure for non-respondents

Research has shown that in any survey there will be non-respondents (Dilman, 2000). It is suggested that rigorous procedure should be followed in every stage of the survey process. In order to decrease the number of non-respondents, follow-up was made via postcards to both principals and teacher leaders. Two weeks after the initial mailing, follow-up postcard was sent to the teachers encouraging them to complete surveys. For schools that principal assisted survey distribution, postcard was sent to them as well. Subsequently, follow-up letter and replacement survey packets were sent to teacher leaders and principals. The actual data collection period took ten weeks.

Data Analysis

This study utilized descriptive statistics to analyze the data collected. Basic survey research outlined in Educational Research: An Introduction (Gall, Borg & Gall, 1996) guided the manner in which data is obtained. The results of LPI were reported using descriptive statistics including means, frequencies, percentages and standard deviations. In addition to the LPI results, data from AEIS report was used in order to find out the impact of distributed leadership on student achievement. The research questions are presented below.

1. What are the leadership practices of principals as indicated by teacher leaders?

a. What are principals' Modeling the Way behaviors indicated by teacher leaders?

b. What are principals' Inspiring a Shared Vision behaviors as indicated by teacher leaders?

c. What are principals' Challenging the Process behaviors as indicated by teacher leaders?

d. What are principals' Enabling Others to Act behaviors as indicated by teacher leaders?

e. What are principals' Encouraging the Heart behaviors of indicated by teacher leaders?

2. What are principals' self-reported leadership practices?

a. What are principals' self-reported leadership practices in Modeling the Way?

b. What are principals' self-reported leadership practices in Inspiring a Shared Visions?

c. What are principals' self-reported leadership practices in Challenging the Process?

d. What are principals' self-reported leadership practices in Encouraging Others to Act? e. What are principals' self-reported leadership practices in Encouraging the Heart?

3. What is the difference between leadership practices of principals as indicated by teacher leaders and self?

a. What is the difference between leadership practices of principals as indicated by teacher leaders and self in Modeling the Way?

b. What is the difference between leadership practices of principals as indicated by teacher leaders and self in Inspiring a Shared Vision?

c. What is the difference between leadership practices of principals as indicated by teacher leaders and self in Challenging the Process?

d. What is the difference between leadership practices of principals as indicated by teacher leaders and self in Enabling Others to Act?

e. What is the difference between leadership practices of principals as indicated by teacher leaders and self in Encouraging the Heart?

4. What impact do principals' leadership practices have on student achievement?

Summary

In sum, this chapter described steps that were taken to conduct the study. In included detail description of variables, sampling method, and statistical analysis procedures used. Chapter IV presents the results of data analysis for the study. Topics include demographic characteristics of respondents, student achievement data, and results of statistical procedures performed on the hypothesis in this study.

CHAPTER IV

FINDINGS AND DISCUSSIONS

Introduction

The purpose of this study was to investigate principals' leadership practices perceived by teacher leaders on site-based management teams as well as the effectiveness of these practices in elementary school settings. The findings from the statistical analyses of the data collected in relation to the purpose of the study as well as discussions of the findings are presented in this chapter.

This study was analyzed with a distributed, democratic perspective (Gronn, 2003; Spillane, 2006). Leadership in this study was viewed as horizontal rather than hierarchical. However, distributed leadership over many people is a risky business and may result in the greater distribution of ineffectiveness (Timperley, 2005). Therefore, the position the researcher has taken here is to examine the differential effectiveness of leadership on formal roles in schools, such as teacher leaders. From this viewpoint, the study examined the leadership practices of principals and their effectiveness in elementary school settings.

The research findings reported in this chapter are organized into several sections including: demographic characteristics of respondents, the comparison of principals' perceptions and teacher leaders' perceptions, as well as a description of leadership practices and their relation to student achievement. Due to the number of returned survey, this study used a descriptive statistical methodology to analyze the data. The data analyzed in this chapter comes from selected school districts in Region VI, Texas. The

achievement and demographic data used in this study were retrieved from the Academic Excellence Indicator System (AEIS) compiled by the Texas Education Agency's Division of Performance Reporting.

Principals from 13 selected schools returned the administered surveys. Analysis began with a profile of each school, a descriptive analysis of LPI findings, and a trend found between Principal leadership practices perceived by teacher leaders and their possible impact on student achievement.

Overview of the Study

Twenty elementary schools from four large districts and four small districts in Region VI, Texas participated in this study. Both principals and teacher leaders were asked to complete the Leadership Practice Inventory. Data was gathered from the participants to answer the following research questions:

1. What are the leadership practices of principals as indicated by teacher leaders?
2. What are principals' self-reported leadership practices?
3. What is the difference between leadership practices of principals as indicated by teacher leaders and self?
4. What impact do principals' leadership practices have on student achievement?

As stated earlier, the purpose of the study was to identify teacher leaders' perceptions and their possible affects on student achievement. In order to accomplish these purposes, the researcher used the Leadership Practice Inventory to assess principals' leadership behaviors as perceived by teacher leaders on site-based management teams. Information obtained from this research may help current and future

principals in evaluating their working relationships with teacher leaders in performing effective school leadership. Additionally, information brought together in this study may be useful in planning graduate programs that foster leaders and professional development in schools.

Leadership Practice Inventory

The Leadership Practice Inventory (LPI), developed by Kouzes and Posner (1995), follows extensive research. The five leadership practices that this study focused on were (Kouzes & Posner, 2003),

1. Modeling the Way
2. Inspiring a Shared Vision
3. Challenging the Process
4. Enabling Others to Act
5. Encouraging the Heart

Teacher leaders in each school were asked to rate the frequency in which their principals engaged in thirty leadership practices by using the LPI-Observer instrument. Principals evaluated themselves by using the LPI-Self instrument. The questions on the LPI-Observer and the LPI-Self were correlated in content.

Return rate

Cover letters and LPI instruments were mailed to principals and teacher leaders in 20 elementary schools. As mentioned in chapter III, 10% of both small and large school districts were randomly selected. There were four large school districts (A, B, C, D) and four small school districts (E, F, G, H). Among all school districts, A has six elementary

schools (school 1 to school 6), B has five elementary schools (School 7 to School 11), C has two elementary schools (School 12 and School 13), and D has three elementary schools (School 18 to School 20). There is one elementary school in the rest of the four small school districts (E, F, G, H).

Among 224 surveys sent to teacher leaders, 144 of them were responded resulting in a return rate of 61%. Of the 20 requests made to school principals, 14 participated in the study with a return rate of 70%. Provided in Table 5 is an overview of the LPI return rate by school. School 1 had the highest percentage return rate (100%). School 19 had the lowest return rate (17%). School 2 had the highest number of participants even though the percentage return rate was only 63%. The total number of participants of school 2 was 12.

Table 5

LPI Return Rate

School	Number of LPI sent to teacher leaders	Number of LPI returned from teacher leaders	Return rate for teacher leaders	Principal returned LPI
1	10	10	100%	1
2	19	12	63%	1
3	12	10	83%	0
4	12	7	58%	1
5	13	11	85%	1
6	12	7	58%	1
7	15	8	53%	1
8	12	8	67%	1
9	12	6	50%	0
10	12	8	67%	0
11	12	9	75%	1
12	12	10	83%	1
13	12	7	58%	1
14	12	4	33%	0
15	12	8	67%	1
16	12	10	83%	1
17	7	4	57%	1
18	5	2	40%	0

Table 5 Continued

School	Number of LPI sent to teacher leaders	Number of LPI returned from teacher leaders	Return rate for teacher leaders	Principal returned LPI
20	5	2	40%	1
Total	224	144	65%	14

Demographic Characteristics of Respondents

A form to collect demographics was completed by each member and principal who volunteered to participate in the study (see Appendices D & G). Demographic data were reported concerning respondents' gender, age, highest educational level, total years of experience, and number of years in current position. Table 6 shows demographics by gender of the principals and teacher leaders in the study.

Table 6

Principal and Teacher Leader Gender

	Principals		Teacher Leaders	
Gender	*N*	%	*N*	%
Male	4	28.5	9	6.2
Female	10	71.4	135	93.8

As indicated in Table 6, the majority of the principals and teachers were female which reflects the gender composition of teachers in elementary schools. Next, the numbers and percentages for the highest degree earned by both principals and teacher leaders are shown in Table 7. Table 8 and Table 9 illustrates the descriptive statistics for principals' and teacher leaders' age, number of years in the current position, and the total number of years experience in education. In this study, most teacher leaders have completed a bachelor's degree (65.9%) and have taught over 10 years (56.6%). Most of the principals had a master's degree (78.5%) and were in their first five years of being a principal.

Table 7

Principal and Teacher Leader Highest Degree Earned

	Principals		Teacher Leaders	
Degree	*N*	%	*N*	%
Bachelor's	0	0.0	95	65.9
Master's	11	78.5	49	34.1
Doctorate	3	21.4	0	.0
Total	14	100.0	144	100.0

Table 8

Descriptive Statistics for Teacher Leader Age and Years of Experience

Demographic Characteristics		Frequency	Percentage
Age	Below 30	22	15.2%
	31-40	47	32.4%
	41-50	46	31.7%
	51-60	25	17.2%
	61 and above	4	2.8%
	Total	144	100%
Years of Teaching	1-10	57	39.3%
	11-20	57	39.3%
	21 and above	25	17.9%
	Total	139	100%
Years in Current Position	0-5	77	53.1%
	6-10	41	28.3%
	11-15	9	6.2%
	16 and above	14	9.9%
	Total	141	100%

Table 9

Descriptive Statistics for Principal Age and Years of Experience

Demographic Characteristics		Frequency	Percentage
Age	31-40	6	42.8%
	41-50	3	21.4%
	51-60	4	28.6%
	61-70	1	7.1%
	Total	14	100%
Years of Principalship	1-5 years	9	64.2%
	6-10 years	2	14.2%
	11-15 years	1	7.1%
	16-20 years	1	7.1%
	21-25 years	1	7.1%
	Total	14	100%
Years in Current Position	1-5 years	12	85.7%
	6-10 years	1	7.1%
	11-15 years	0	0%
	16-20 years	0	0%
	21-25 years	1	7.1%
	Total	14	100%

The distribution of age of respondents illustrated that the highest percentage of respondents at any single age was from the ages of the 31-40. 42.8% of the principals were in the range of 31 to 40 years of age.

Reliability

Cronbach's alpha reliability coefficients for teacher leaders' perceptions of their principals' leadership practices (observer) are illustrated in Table 10. Only teacher leaders' perceptions were used in the statistical analyses. The reliability coefficients were all within an acceptable range, ranging from .89 to .93.

Table 10

Cronbach's Alpha Reliability Coefficients for the Observer Forms for This Study

Leadership Practice	Observer
Challenging the Process	.89
Inspiring a Shared Vision	.923
Enabling Others to Act	.933
Modeling the Way	.917
Encouraging the Heart	.906

LPI for Each school and Its Impact on Student Achievement

Fourteen principals responded to the LPI, one of the schools had fewer than two

teacher leaders respond; therefore, this data was deleted from the study. Among 13 principals, 2 were in current positions less than three years. For School 6 and School 17, both principals served for a year. There was not enough information to make the link between principals' leadership practices and student achievement. After eliminating these schools, there were 11 schools (School 1, 2, 4, 5, 7, 8, 11, 12, 13, 15, and 16) left for this part of data analysis.

For each school, the LPI scores from each teacher leader were combined to calculate means for each of the five leadership practices: Modeling the Way, Challenging the Process, Inspiring a Shared Vision, Enabling Others to Act, and Encouraging the Heart. Mean scores were also calculated for data given by the principal and are reported as mean scores for the principal. Based on a ten-point scale, the highest possible mean score for each leadership practice was 10 as there were six statements applied to each of the five practices. In addition to principal mean scores and mean scores for teacher leaders, normative data for the LPI was obtained from Kouzes (2001) in order to compare the sample population mean scores to normative data. The normative data was based on 17,908 respondents and computed as of May, 2000.

The achievement and demographic data used in this study were retrieved from the Academic Excellence Indicator System (AEIS) compiled by Texas Education Agency's Division of Performance Reporting. TAKS scores from 2004 to 2006 were used to determine the possible link between principals' leadership practices and student achievement.

School 1

School profile and student achievement

School 1 had a student population of about 530 and teacher population of 40. The principal served at this site for the past eight years. Of the students, over than 50% were White. The minority rate was about 50%. Almost 25% of the students were economically disadvantaged. Figure 2 depicts the academic performance of School 1. School 1 had been an "Exemplary" campus from 2004 to 2006. School 1 improved continuously in TAKS performance with a positive campus change of 7%. The average TAKS score for school 1 from 2004 to 2006 was 88.3 and its average progress was 3.5%.

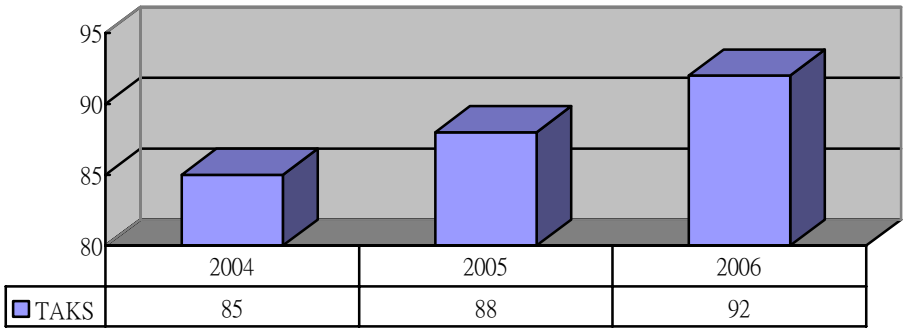

Figure 2. 2004-2006 TAKS Performance for School 1

LPI scores

Table 11 shows the comparison of principals, teacher leaders and normative LPI means for school 1. In school 1, overall means for principals and teacher leaders were higher than the normative data. The principal's means were higher than teacher leaders' means except for Challenging the Process. The principal ranked Challenging the Process the lowest mean and both Encouraging the Heart and In Inspiring a Shared Vision the highest practice. Teacher leaders perceived Modeling the Way to be the lowest and both Encouraging the Heart and Enabling Others to Act the highest category. The principal's means and teacher leaders' means were the same in the practice of Enabling Others to Act. Both principals' and teacher leaders' mean scores were higher than normative means in five leadership practices. Among five leadership practices, Enabling Others to Act and Encouraging the Heart was the highest perceived by teacher leaders, indicating this leadership practice might have a link to continuous student achievement.

Table 11

Comparison of Principals, Teacher Leaders and Normative LPI Mean for School 1

Population	n	Modeling the Way	Inspiring a Shared Vision	Challenging the Process	Enabling Others to Act	Encouraging the Heart	Composite Mean
Principal	1	56	58	52	57	58	56.2
Teacher Leaders	10	53.6	56.7	55	57	53.7	55.2
Norm Data	17908	47.41	41.83	44.32	47.93	44.74	45.2

School 2

School profile and student achievement

Student population in School 2 totals approximately 600, with almost 50% White students and 30% of Hispanic. Half of the students were economically disadvantaged. The principal had served at this school for five years. The TAKS performance of school 2 increased 4% from 2004 to 2006 with an average of 84%. School 2's accountability rating dropped from "Recognized" to "Academically Acceptable" in 2004-2005 but earned another "Recognized" in 2006. School 2's average progress was 2%. Figure 3 depicts the academic performance of School 2.

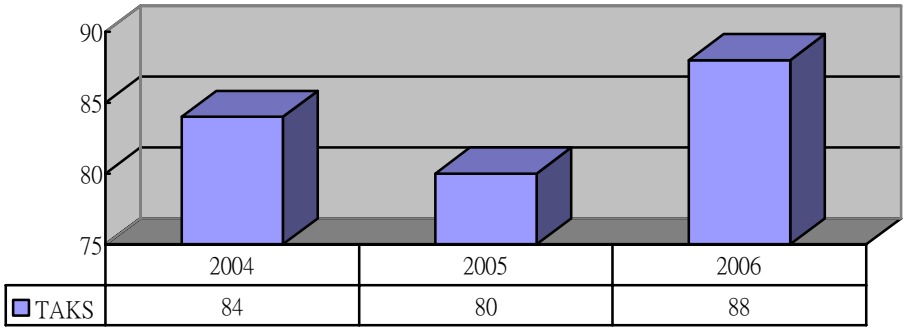

Figure 3. 2004-2006 TAKS Performance for School 2

LPI scores

Table 12 illustrates the comparison of the principal, teacher leaders and normative LPI means for School 2. In School 2, principals' and teacher leaders' mean scores were close to the normative data. For Inspiring a Shared Vision and Challenging the Process, teacher leaders' mean scores were below the normative data. When comparing principal's mean scores to teacher leaders', principals' mean scores were higher in three practices of Inspiring a Shared Vision, Challenging the Process and Encouraging the Heart. Interestingly, principal and teacher leaders had identical perceptions in which they both perceived "Inspiring a Shared Vision" the lowest and Enabling Others to Act was the best-performed practice. Since School 2 had improved in TAKS performance with a change of +13%, the LPI results might imply that Enabling Others to Act, which was highly rated, indicating its positive impact on better student achievement. On the other

hand, Inspiring a Shared Vision might be one of the reasons that cause the drop in TAKS scores in 2005.

Table 12

Comparison of Principals, Teacher Leaders and Normative LPI Means for School 2

Population	n	Modeling the Way	Inspiring a Shared Vision	Challenging the Process	Enabling Others to Act	Encouraging the Heart	Composite Mean
Principal	1	45.2	42.8	42.8	52.3	46	45.8
Teacher Leaders	12	50	37	40	53	43	44.6
Norm Data	17908	47.41	41.83	44.32	47.93	44.74	45.2

School 4

School profile and student achievement

The principal of School 4 had been at the site for over five years. School 4 had a student population of over 600. Among these students, about half of them were White. Almost 50% of students were economically disadvantaged. School 4's accountability rating dropped from "Exemplary" to "Recognized" from 2003 to 2004 and maintained "Recognized" since 2004. Its TAKS performance also dropped from 89% to 83% from 2005 to 2006. The average TAKS score for school 4 was 86.7. The average progress of School 4 was -2.5%. Figure 4 depicts the academic performance of School 4.

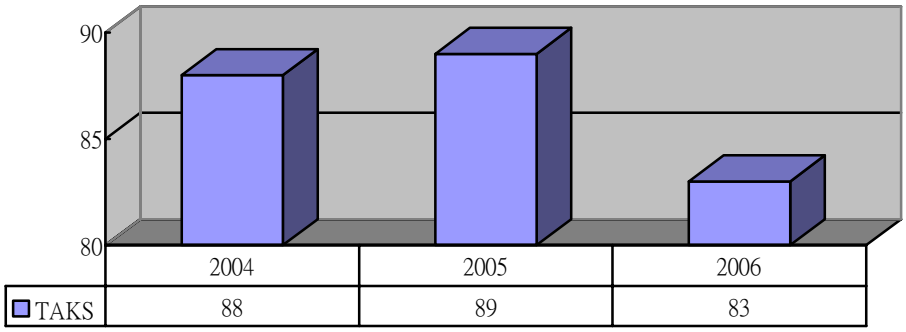

Figure 4. 2004-2006 TAKS Performance for School 4

LPI scores

Table 13 illustrates the comparison of the principal, teacher leaders and normative LPI means for School 4. Principal's means were much lower than the normative mean in five leadership practices for school 4 with a mean difference from 6 to 11. Similarly, teacher leaders' mean scores were lower or only slightly higher than the normative data. Inspiring a Shared Vision was the only category perceived higher than the normative data by teacher leaders. When looking at the teacher leaders' mean scores, Challenging the Process was perceived to be highest and Encouraging the Heart the lowest category. When comparing principals' and teacher leaders' means, teacher leaders' mean scores were slightly higher than principal mean scores except for the practice of "Enabling Others to Act". Principal's mean scores were especially low in the practice of "Inspiring a Shared Vision". In contrary, teacher leaders perceived "Inspiring a Shared Vision" to

be the highest. Since School 4 dropped 6% in TAKS in 2006, the data indicated that the practice of Inspiring a Shared Vision could have an influence on academic achievement.

Table 13

Comparison of Principals, Teacher Leaders and Normative LPI Means for School 4

Population	n	Modeling the Way	Inspiring a Shared Vision	Challenging the Process	Enabling Others to Act	Encouraging the Heart	Composite Mean
Principal	1	38	31	33	44	38	36.8
Teacher Leaders	7	43.2	43.6	44.2	43.8	41.4	43.2
Norm Data	17908	47.41	41.83	44.32	47.93	44.74	45.2

School 5

School profile and student achievement

School 5 had about 600 students, and over than 60% of the students were White. The principal had been at this school over three years. One third of the students were economically disadvantaged. Figure 5 contains data for all test TAKS performance for school 5 from 2004 to 2006. School 5 experienced a positive change in TAKS performance. School 5 had been making progress continuously from 2004-2006 with a campus change of +9%. The average TAKS score for school 5 was 86 and the average progress was 5%. Figure 5 depicts the academic performance of School 5.

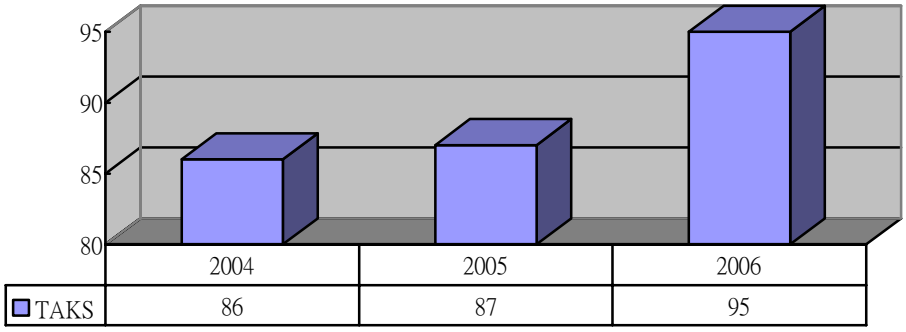

Figure 5. 2004-2006 TAKS Performance for School 5

LPI scores

Table 14 illustrates the comparison of the principal, teacher leaders and normative LPI means for School 5. Both principals' and teacher leaders' means of were higher than normative means in five leadership practices except for "Challenging the Process" perceived by the principal. When comparing teacher leaders and the principal's mean scores, principal's mean scores were slightly lower than teacher leaders' means in five leadership practices but they have similar perceptions. The principal ranked "Enabling Others to Act" as the highest and teacher leaders, too. Since 2006, School 5 had been making progress academically. The result, again, leads our attention to the practice of "Enabling Others to Act". Serving as principal is a demanding responsibility essential to success of the school as challenges in the areas of quality, retention of teachers and professional development of faculty increase. It is critical that the leaders enable others

to act through empowerment and collaboration.

Table 14

Comparison of Principals, Teacher Leaders and Normative LPI Means for School 5

Population	n	Modeling the Way	Inspiring a Shared Vision	Challenging the Process	Enabling Others to Act	Encouraging the Heart	Composite Mean
Principal	1	49	46	43	55	46	47.8
Teacher Leaders	11	49.5	48.1	50.9	57.5	52.4	51.7
Norm Data	17908	47.41	41.83	44.32	47.93	44.74	45.2

School 7

School profile and student achievement

School 7 had over 650 students. Half of the students were White and one third of them were Hispanic. Over 60% of the students were economically disadvantaged. The principal of School 7 had served at this school for more than five years. School 7 received an accountability rating of “Exemplary” in 2003, and “Recognized” in 2004, 2005 and 2006. The average TAKS score for school 7 was 88.3. Although the TAKS performance dropped 3% in 2006, school 7 still maintained 88%. School 7’s average progress in TAKS was 1%. Figure 6 depicts the academic performance of School 7.

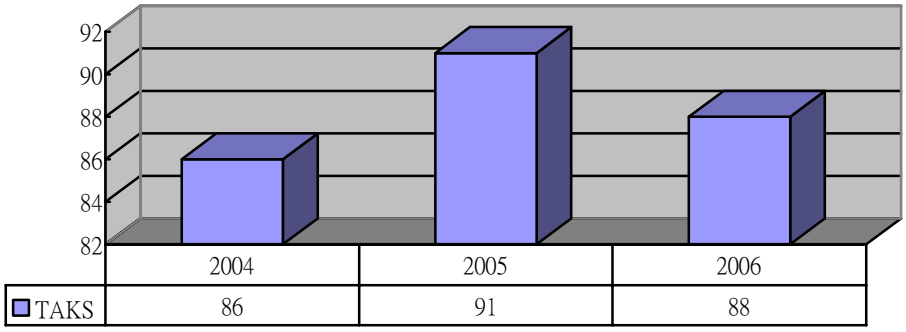

Figure 6. 2004-2006 TAKS Performance for School 7

LPI scores

Table 15 illustrates the comparison of the principal, teacher leaders and normative LPI means for School 7. Both principals' and teacher leaders' mean scores were much higher than the normative means. Principal's mean scores were also higher than teacher leaders' mean scores in the leadership practices of Modeling the Way, Inspiring a Shared Vision, Challenging the Process and Enabling Others to Act. Challenging the Process was perceived the lowest by teacher leaders and Inspiring a Shared Vision was the lowest rated by the principal. On the other hand, teacher leaders rated both "Enabling Others to Act" and "Encouraging the Heart" the highest categories. Similarly, the principal ranked "Enabling Others to Act" the highest category. It's worth noticing that in academically successful schools that we have discussed; their teacher leaders all rated the practice of "Enabling Others to Act" the highest category.

Table 15

Comparison of Principals, Teacher Leaders and Normative LPI Means for School 7

Population	n	Modeling the Way	Inspiring a Shared Vision	Challenging the Process	Enabling Others to Act	Encouraging the Heart	Composite Mean
Principal	1	56	54	55	56	54	55
Teacher Leaders	8	53.9	53.5	52	54.8	54.8	53.8
Norm Data	17908	47.41	41.83	44.32	47.93	44.74	45.2

School 8

School profile and student achievement

School 8 had a student population close to 350. A little over half of the students were White, 30% were African American and the rest were Hispanic and Asian. Almost 60% of the students were economically disadvantaged. The principal had been at the school for over five years. From an "Academically Acceptable" in 2003 to a "Recognized" campus in 2004, 2005 and 2006, school 8 also made progress continuously in TAKS performance with a campus change of 16% from 2004-2006. The average TAKS score for school 8 was 80 and the average progress was 8%. Figure 7 depicts the academic performance of School 8.

Figure 7. 2004-2006 TAKS Performance for School 8

LPI scores

Both the principal's and teacher leaders' mean scores were much higher than or close to the normative data for five leadership practices. When comparing the principal's and teacher leaders' LPI scores, perceptions of principal and teacher leaders were quite consistent in School 8. Both principal and teacher leaders ranked Enabling Others to Act and Encouraging the Heart the highest among five leadership practices. These two practices received a mean score of 54 or above from both groups. The lowest rated practice was "Challenging the Process" for both the principal and teacher leaders. School had been a "Recognized" campus since 2004. Moreover, School 8 had increased 24% in TAKS from 2004 to 2006. Therefore, the practice of Enabling Others to Act might also play an important role in student academic achievement. Table 16 illustrates the comparison of the principal, teacher leaders and normative LPI means for School 8.

Table 16

Comparison of Principals, Teacher Leaders and Normative LPI Means for School 8

Population	n	Modeling the Way	Inspiring a Shared Vision	Challenging the Process	Enabling Others to Act	Encouraging the Heart	Composite Mean
Principal	1	52	47	43	53	57	50.4
Teacher Leaders	8	53	52.2	51.6	55.8	55.6	53.6
Norm Data	17908	47.41	41.83	44.32	47.93	44.74	45.2

School 11

School profile and student achievement

There were 600 students in School 11. Broken down by ethnicity, one third of the students were White, one third of them were Hispanic, and the rest were African American and Asian. Over 70% of the students were economically disadvantaged. The principal had leaded the school for more than three years. School 11 had been a "Recognized" campus and the TAKS score had improved 16% since 2004. The average TAKS score for school 11 was 78 and the average progress was 8%. Figure 8 depicts the academic performance of School 11.

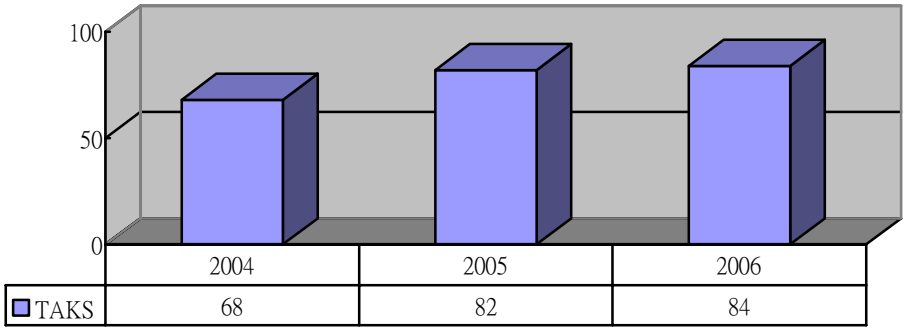

Figure 8. 2004-2006 TAKS Performance for School 11

LPI scores

Table 17 illustrates the comparison of the principal, teacher leaders and normative LPI means for School 11. The composite means for the principal's and teacher leaders' means were similar to or higher than the normative data. In school 11, teacher leaders' mean scores were higher than the normative data as well as were the principal's mean scores. An exception was Modeling the Way. When comparing the principal's and teacher leaders' mean scores, principal means were lower than teacher leaders' in all five leadership practices. The scores illustrated that teacher leaders had a better perception of principal's leadership practices than the principal.

Broken down by each leadership practice, the principal ranked Encouraging the Heart the highest. Teacher leaders also perceived this leadership practice to be the highest category, indicating there was a similarity between the principal's perception and

observers' perception of performance. Enabling Others to Act was another leadership practice recognized by teacher leaders. On the other hand, teacher leaders perceived "Challenging the Process" the lowest. Again, since School 11 had made substantial progress academically, results indicated that the practice of Enabling Others to Act and Encouraging the Heart might have positive impact on student achievement.

Table 17

Comparison of Principals, Teacher Leaders and Normative LPI Means for School 11

Population	n	Modeling the Way	Inspiring a Shared Vision	Challenging the Process	Enabling Others to Act	Encouraging the Heart	Composite Mean
Principal	1	45	43	43	47	49	45.4
Teacher Leaders	9	49.7	48.3	48	53.2	55	50.8
Norm Data	17908	47.41	41.83	44.32	47.93	44.74	45.2

School 12

School profile and student achievement

The student population was 700 is School 12. School 12 was a predominately White school with 80% of White students. The second largest population was Hispanic (about 20%). Similar to previous schools, over half of the students were economically disadvantaged with 40% at risk. The principal had lead the school for more than three

years. School 12 had been an "Academically Acceptable" campus and student performance was not impressive, but kept improving. School 12's average TAKS score was 52.5. The student performance in TAKS had increased 20% from 43% to 63% with an average of 55.7%, indicating school 12's substantial progress. School 12's average progress was 6.5%. Figure 9 depicts the academic performance of School 12.

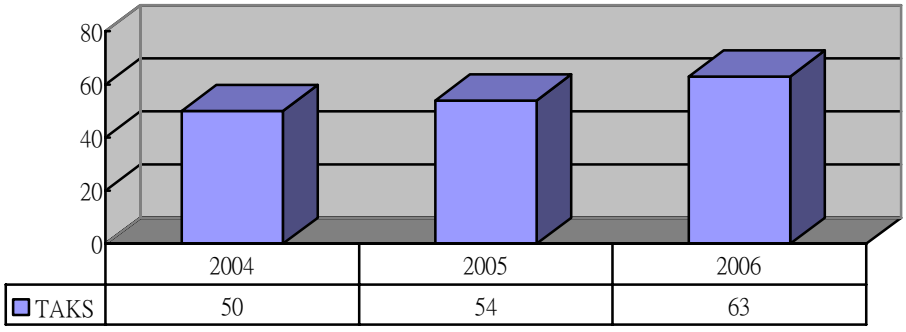

Figure 9. 2004-2006 TAKS Performance for School 12

LPI scores

In school 12, the range of mean scores for both the principal and teacher leaders was from 54.8 to 60, which was much higher than the normative means. Table 18 illustrates the comparison of the principal, teacher leaders and normative LPI means for School 12. The scores reflected principal's self recognition and teacher leaders' positive attitude towards principal's leadership behaviors. When comparing the principal's and

teacher leaders' mean scores, principal's mean scores were higher than teacher leaders' mean scores in four leadership areas including Modeling the Way, Challenging the Process, Enabling Others to Act and Encouraging the Heart.

The principal ranked "Encouraging the Heart" the highest with a mean score of 60. As for teacher leaders, Inspiring a Shared Vision, particularly, received the highest score followed by Encouraging the Heart and Modeling the Way. Overall, LPI scores for principal's leadership practices were above the average. To be more specific, it could be interpreted that School 12's progress on student achievement might be related to the common school vision shared by the principal and recognition of teacher leaders' accomplishments and a shared common vision.

Table 18

Comparison of Principals, Teacher Leaders and Normative LPI Means for School 12

Population	n	Modeling the Way	Inspiring a Shared Vision	Challenging the Process	Enabling Others to Act	Encouraging the Heart	Composite Mean
Principal	1	59	55	56	59	60	57.8
Teacher Leaders	10	56.4	57.6	54.8	55.2	56.4	56.1
Norm Data	17908	47.41	41.83	44.32	47.93	44.74	45.2

School 13

School profile and student achievement

School 13 had almost 600 students with a 40% minority rate. In comparison with other schools previously mentioned in this study, School 13 had a lower rate of economically disadvantaged students (about 35%). The principal had served at this site for four years. School 13 had been a "Recognized" campus since 2003. The student performance in TAKS increased 1% from 2004 to 2006 with an average of 92.6%, showing school 13's steady progress. The average score in TAKS was 0.5% for school 13. Figure 10 depicts the academic performance of School 13.

Figure 10. 2004-2006 TAKS Performance for School 13

LPI scores

In school 13, both the principal's and teacher leaders' mean scores were higher than

the normative data except for Modeling the Way perceived by teacher leaders. Table 19 illustrates the comparison of the principal, teacher leaders and normative LPI means for School 13. When comparing principal and teacher leaders' perceptions, principal mean scores were higher than teacher leaders' mean scores in five leadership practices, especially in the practice of "Inspiring a Shared Vision". However, the teacher leaders' mean score was approximately 10.3 points less in "Inspiring a Shared Vision", indicating a discrepancy in principal's perception and teacher leaders' perception in this practice.

Teacher leaders perceived "Enabling Others to Act" to be the highest and "Modeling the Way" the lowest, which was also lower than the normative mean. The principal also ranked "Modeling the Way" the lowest. Although School 13 had maintained a "Recognized" campus, teacher leaders were hesitant regarding the vision that the principal had conveyed. Teacher leaders perceived Enabling Others to Act, again, the highest category among five leadership practices.

Table 19

Comparison of Principals, Teacher Leaders and Normative LPI Means for School 13

Population	n	Modeling the Way	Inspiring a Shared Vision	Challenging the Process	Enabling Others to Act	Encouraging the Heart	Composite Mean
Principal	1	50	55	51	53	50	51.8
Teacher Leaders	7	44.6	44.7	45.7	49	45	45.8
Norm Data	17908	47.41	41.83	44.32	47.93	44.74	45.2

School 15

School profile and student achievement

School 15 also had a student population of 600 with 50% of the students labeled at risk. Among 600 students, 50% of them were White. The principal had been in this leadership position four years. School 15 was a “Recognized” school from 2004 to 2006, but its TAKS performance was not stable. The TAKS performance had been the same for 2004 and 2005, but dropped to 74% again in 2006. School 15’s average TAKS score was 78. For School 15, the average progress in TAKS scores was -3%. Figure 11 depicts the academic performance of School 15.

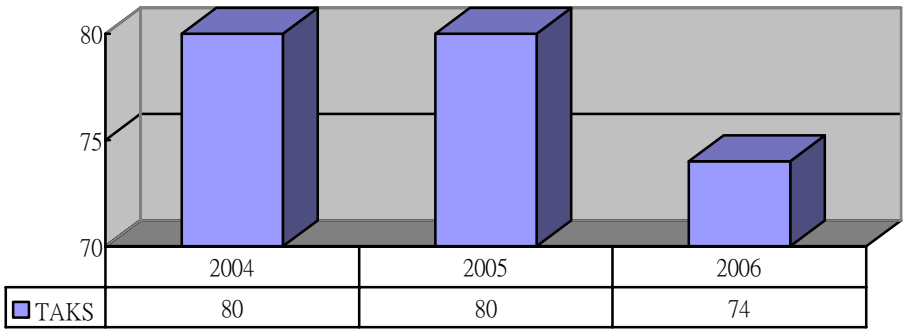

Figure 11. 2004-2006 TAKS Performance for School 15

LPI scores

In school 15, both principals' and teacher leaders' mean scores were much higher than the normative means in each of the five leadership practices, signifying a positive atmosphere among principal and teacher leaders. When looking at the principal's and teacher leaders' data, teacher leaders' mean scores were higher than normative means in five leadership practices especially in Encouraging the Heart with a mean difference of 11.56 compared to its normative mean.

When comparing each leadership practice, the lowest rated leadership practice by teacher leaders was Challenging the Process and the highest was Encouraging the Heart. The principal means were equal (Mean=54) in each of the five leadership practice. The result of LPI scores suggest that although teacher leaders recognized principal's leadership practices, lack of challenge and risks maybe related to student achievement. If

the leader becomes used to the status quo without taking risks by trying innovative methods of in getting things done, the leadership may not be a impetus for student achievement. Table 20 illustrates the comparison of the principal, teacher leaders and normative LPI means for School 15.

Table 20

Comparison of Principals, Teacher Leaders and Normative LPI Means for School 15

Population	n	Modeling the Way	Inspiring a Shared Vision	Challenging the Process	Enabling Others to Act	Encouraging the Heart	Composite Mean
Principal	1	54	54	54	54	54	54
Teacher Leaders	8	54.4	52.9	52.7	55.7	56.3	54.4
Norm Data	17908	47.41	41.83	44.32	47.93	44.74	45.2

School 16

School profile and student achievement

School 16 also had a student population of 700 with a minority rate of 50%. Over half of the students in School 16 were economically disadvantaged. The principal was the campus leader for three years. School 16's average TAKS score for the past three years was 83. School 16 had been a "Recognized" campus, although dropped 2% in 2005. School 16 made progress (+3%) from 2004 to 2006 according to the multi-year

history data from AEIS. The average TAKS scores progress was 1%. Figure 12 depicts the academic performance of School 16.

Figure 12. 2004-2006 TAKS Performance for School 16

LPI scores

Both principal's and teacher leaders' mean scores were higher than the normative means in all five leadership practices. When comparing the principal's and teacher leaders' means, teacher leaders regarded highly in the practice of "Enabling Others to Act" and ranked "Challenging the Process" the lowest category. In Modeling the Way, Inspiring a Shared Vision and Challenging the Process, the principal's mean scores were higher than teacher leaders'. The principal also perceived Enabling Others to Act, the highest practice as well as Modeling the Way. On the other hand, Encouraging the Heart was perceived to be the lowest leadership practice by the principal. Principal and teacher

leaders' perceptions were opposite on the practice of Encouraging the Heart with a mean difference of 5.8. Table 21 illustrates the comparison of the principal, teacher leaders and normative LPI means for School 16.

Table 21

Comparison of Principals, Teacher Leaders and Normative LPI Means for School 16

Population	n	Modeling the Way	Inspiring a Shared Vision	Challenging the Process	Enabling Others to Act	Encouraging the Heart	Composite Mean
Principal	1	54	53	52	54	49	52.4
Teacher Leader	10	53.6	51.3	50.6	55.6	54.8	53.2
Norm Data	17908	47.41	41.83	44.32	47.93	44.74	45.2

Summary

Information gathered from LPI and AEIS provided data for research questions. According to the LPI scores, there were some consistencies as well as discrepancies in what principals and teacher leaders perceived to be important in terms of leadership practices. Most groups had similar composite means and this had similar perceptions of how principals performed (Table 22). The normative means provided by Kouzes and Posner were quite close to the mean scores of participant groups in this study. Overall, principals' and teacher leaders' average mean scores were higher than or close to the

normative data.

Research question 1 and 2 investigated principals' leadership practices as indicated by principals and teacher leaders. Most principals and teacher leaders rated Modeling the Way higher than the normative mean. There is less disagreement between principals and teacher leaders in these practices. Enabling Others to Act was the highest ranked category by teacher leaders among the five leadership practices in seven schools (School 1, 7, 8, 11, 13 and 16). Challenging the Process was perceived to be the lowest practice in several schools by teacher leaders. Theses schools' student achievement tended to be unstable (School 7, School 15 and School 16) or making less progress other schools (School 11). In addition, principals who had been at the same school over five years (School 8) were most likely to be rated lowest in the practice of Challenging the Process. Inspiring a Shared Vision data indicated that there was discrepancy in perceptions of teacher leaders and principals. Teacher leaders and principals rated Encouraging the Heart higher than the normative mean in almost every school.

Research question 3 examined the difference between principal and teacher leader perceptions. Five principals ranked their leadership practices higher than did teacher leaders. Teacher leaders in six schools had higher composite mean scores than their principals did. Table 22 illustrates the composite mean difference between principals and teacher leaders' data and student achievement. Although there was no consistent association between composite mean difference and student achievement, interesting findings emerged from School 13 and School 4. In School 13, the principal consistently rated his or her performance above teacher leaders' means as well as the normative

means, indicating the principal believed he or she was performing well in the five leadership practices, but that view was not shared by teacher leaders. Teacher leaders perceived Modeling the Way the lowest practice. School 13's TAKS average was 92.% with an average progress of +0.5%. On the contrary, the principal of School 4 consistently rated his or her performance below the teacher leaders' scores and the normative data, indicating the principal either had higher expectation despite teacher leaders believed the principal perform the five leadership practices fairly well. School 4's average TAKS progress was -2% with an average of 84%. The comparison between School 13 and School 4 indicated that principals' self perceptions might imply indirect impact on student achievement. When the principal rated himself higher, student achievement might be better as well. In the rest of the sample schools, principals' and teacher leaders' scores were close about the performance of the principal.

Table 22

Principals' to Teacher Leaders' Composite Mean Differences and Student Achievement

School	1	2	4	5	7	8	11	12	13	15	16
Principal to Teacher Leaders Mean Difference	+1	+1.2	-6.4	-3.9	+1.2	-3.2	-5.4	+1.7	+6	-0.4	-0.8
TAKS Average (%)	88.3	84	86.7	86	88.3	80	78	55.7	92.6	78	83
Average Progress (%)	+3.5	-2	-2.5	+4.5	+1	+8	+8	+6.5	+0.5	-3	+1

Table 23 illustrates principals' and teacher leaders' composite means and TAKS scores. Schools that had lower composite mean scores had lower TAKS scores (School 2 and School 4) and for those had higher principal and teacher leader mean scores, their student achievement seemed to be higher, too (School 1, School 7, School 8, and School 12).

Table 23

Principals' and Teacher Leaders' Composite Mean Scores and Student Achievement

School	1	2	4	5	7	8	11	12	13	15	16
Principal	56.2	45.8	36.8	47.8	55	50.4	45.4	57.8	51.8	54	52.4
Teacher Leaders	55.2	44.6	43.2	51.7	53.8	53.6	50.8	56.1	45.8	54.4	53.2
TAKS Average (%)	88.3	84	86.7	86	88.3	80	78	55.7	92.6	78	83
Average Progress (%)	+3.5	-2	-2.5	+4.5	+1	+8	+8	+6.5	+0.5	-3	+1

In comparing each leadership practice and student achievement, some patterns emerged. When perceptions of teacher leaders on principals' leadership behaviors were higher than the normative data, student achievement tended to improve (School 1, 5, 6, 7, 8, 11, 12, 13, and 16). Analyzing by leadership practice, Enabling Others to Act was the highest ranked category by teacher leaders among the five leadership practices in seven schools (School 1, 7, 8, 11, 13 and 16). These schools had one thing in common. They had been making positive changes during 2004 to 2006. Not only teacher leaders but principals ranked Enabling Others to Act the highest category. In this aspect, principals and teacher leaders rated very similarly. Teacher leaders seemed to be quite adamant about focusing on empowerment in the school culture. The data implies that the

principal should seek high levels of participation and involvement of decisions from teacher leaders. The findings indicated that principals and teacher leaders believed these practices were very important in the success of school. The emphasis on “Enabling Others to Act” proved that involvement with decision-making is critical to student achievement.

For schools where teacher leaders and principals did not have the same idea about “Inspiring a Shared Vision”, or had low scores for this category, their academic improvement tends to be limited. In School 4 whose TAKS scores dropped from 89 to 83 in 2006, the principal and teacher leaders had opposite ratings for Inspiring a Shared Vision. The principal rated it the highest while teacher leaders rated it the lowest practice. This could mean that leaders had difficulty in successfully demonstrating this practice or the principal was not visionary. On the other hand, this practice was rated lowest only in a few schools. The data revealed that teacher leaders and principals do fairly well in sharing their dreams and goals. For example, the overall scores for School 12 were much higher than the normative data. “Inspiring a Shared Vision” was rated the highest practice in School 1 and School 12, which had been making much progress (+7% and +13%). This implies that a leader’s ability to form a vision for the future of the organization and in assisting others in realizing the goals is important to school improvement.

In School 13, both principal and teacher leaders rated Modeling the Way the lowest category. The data indicated that while principals do quite well in these practices, there might be a need to address difference in perceptions in this school. Teacher leaders in

School 8, 11 and 15 rated Encouraging the Heart the highest category among five leadership practices. School 8, 11 and 15 were all “Recognized” campuses with positive change in terms of TAKS scores. The data imply that Encouraging the Heart might also have a positive yet indirect impact on student achievement.

The final chapter covers summary of this study, the discussions of findings, conclusions and recommendations for practice and future research.

CHAPTER V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

This chapter is composed of three sections: a summary of the study, conclusions from the findings and recommendations. After a summarization of the study, the findings and limitations are presented in this chapter and a discussion is provided. Recommendations for future research are also presented.

Summary

Current school reforms have stimulated inquiry about the value of the distributed forms of leadership. While support for the idea of distributed leadership is growing, empirical evidence concerning its nature and effects in organizations is still limited (Bryman, 1996). In addition, developing teacher leadership in ways that promote student achievement is another goal for those who advocate distributed leadership (Timperley, 2005). More research is needed into issues related to teacher leadership rather than assuming that distributed leadership helps develop school capacity. Therefore, this study focused on perceptions of teacher leaders towards principals' leadership practices. The purpose of the study was to investigate principals' leadership practices as perceived by teacher leaders on site-based management teams and its impact on student achievement as measured by AEIS. The study reviewed: a. literature and research on distributed forms of leadership, b. teacher leadership, c. and effective leadership where leadership practices were discussed from a distributed leadership perspective.

Leadership is thought important to reform in schools. The notion of distributing leadership evolved with Gibb (1951)'s participative theory in the 1950s. Recently,

research findings of effective leadership in schools suggest that authority needs not to be placed in the hand of one person but can be dispersed within the school (Leithwood et al., 1997). This implies a reconfiguration of leadership within the school. Distributed leadership has gained momentum since the 1990s, due to work of Elmore (2000), Gronn (2003) and Spillane et al. (2004). The increasing interest in distributed leadership reflects the need to explain the practice of leadership, as well as leadership in schools by exploring how leadership is stretched over a variety of roles. The term of distributed leadership has been used in two ways; one as the core of democracy in education (Lucia, 2004) and teacher empowerment (Harris & Muijs, 2005). The second use is as an analytic framework to understanding how leadership is distributed over leaders, followers, and the situation (Spillane, 2006). This study was based on both distributed leadership perspectives. The framework of Spillane (2006) provided an important set of constructs upon which to support the analysis of this study, especially the emphasis on leadership practices and how it affects populations. It is important to note that this study focused on formal teacher leaders and their interaction with the principal. This idea is aligned with the comment made by Timperley (2005), that distributing leadership over many people is a "risky business and may result in the greater distribution of incompetence" (p. 417). It is for these reasons that the study examined principal's leadership practices as perceived by teacher leaders in formal positions. The results were analyzed from a distributed leadership perspective.

The instrument used to identify teacher leaders' perceptions of their principals' leadership practices was the Leadership Practice Inventory (Kouzes & Posner, 2003). A

mail survey was used to collect data in the Fall of 2006. Principals and teacher leaders in 20 elementary schools in Region VI, Texas participated in this study. From the teacher leaders, 144 responses were received out of 224 surveys sent. The overall response rate for teacher leaders was 65% whereas the response rate for 14 participating principals was 70%.

This study used a descriptive statistical methodology. Descriptive statistics such as mean and frequency were used to analyze data. From research questions, the researcher found that principals who collaborated with teacher leaders in developing goals and making decisions affecting the schools tend to achieve better student performance. Also, schools with principals who were not innovative and visionary usually made less progress in terms of student achievement. A detailed discussion of findings and limitations of the study are presented in the following section.

Limitations

The researcher recognizes the following limitations in the study:

1. Participation was limited to principals and teacher leaders in 11 elementary schools in Region VI, Texas.
2. Objectivity of the responses to the survey instrument may be affected by personal biases of the respondents completing the instrument.
3. The scope of this study is limited to the selected elementary schools in Texas.
4. The study is limited by interpretations and deductions made by the researcher.

Discussion of Findings

The researcher was able to find out principal leadership practices derive from the

data gathered from the LPI and their impact on student achievement. Following is a discussion of each research question and the conclusions of the study as related to the literature review and data collected for this study. The findings of the study are organized under four research questions. Findings from the sample principal population and teacher leader population are reported. Both consistencies and discrepancies in response are reported.

Research question 1 and research question 2 examined the leadership practices of principals as indicated by teacher leaders and principals. Information was gathered from principals and teacher leaders. Due to the limited number of respondents, the researcher used descriptive statistics to describe the leadership behaviors of elementary school principals as measured by the LPI. There were consistencies in responses as well as discrepancies in what teacher leaders and principals perceived to be important in terms of leadership behaviors. “Enabling Others to Act” was the highest rated category as perceived by teacher leaders among five leadership practices in School 1, School 7, School 8, School 11, School 13 and School 16. These schools had been continuously making positive changes in TAKS scores at least 3% for the past three years. The data gathered from LPI indicated that this leadership practices have positive, but indirect impact on student achievement. From this result, it is obvious that by developing collaborative relationships, embracing different opinions and assisting others in achieving organizational goals, the principals were able to achieve organizational goals. Successful leaders treat people in a way that leads to extraordinary achievements (Kouzes & Posner, 1995). Moreover, leaders tend not to give up on people, and have

high expectations for themselves and their followers.

"Encouraging the Heart" was rated higher than the normative mean by teacher leaders in every sample school (90%) except for School 4. In school 4, principal mean score for "Encouraging the Heart" was also lower than the normative mean. Similarly, teacher leaders in nine sample schools (82%) rated "Modeling the Way" higher than the normative mean. There is less disagreement between principals and teacher leaders in this practice. The findings suggest that both principals in sample schools did fairly well in setting an example and leading by examples.

"Inspiring a Shared Vision" was rated the highest practice in School 1 and School 12, which had been making huge progress (+10% and +20%). Their overall LPI scores were also much higher than the normative data. The higher scores imply that a leader's ability to form a vision for the future of the organization as well as their ability to assist others in realizing the relationship between goals and school improvement is vital in producing a shared vision. For schools where teacher leaders and principals did not have the same idea about "Inspiring a Shared Vision", or had low scores in this category, their schools' academic improvement tended to be limited. Various authors cited in the literature have addressed the importance of the leader having a vision and conveying the vision to the rest of the organization (Yukl, 1998). But this practice was rated lower in many schools participating in this study.

"Challenging the Process" was perceived to be the lowest practice in several schools. In theses schools' student achievement tended to be unstable or make less progress than other schools. In addition, principals who had been at the same school over

five years were most likely to be rated lowest in the practice of “Challenging the Process”. From a distributed leadership perspective, the result implies that if leaders are courageous enough to take risks by trying innovative ways to get things done, to challenge the system, and to recognize individual’s expertise and make good use of it, they are able to create positive effects for school improvement. As Kouzes and Posner (1995) stated, “This awareness of human need for challenge and the sensitivity to human need to succeed at that challenge are among the critical skills of any leader” (p. 43).

Research question 3 examined the comparison of LPI scores by principals and teacher leaders. Among 11 sample schools whose principals (presently in practice for more than three years) and teacher leaders completed the LPI, 6 principals ranked their leadership practices higher than did their teacher leaders in more than four of the leadership practices identified in this study. Teacher leaders in five schools had higher mean scores than did their principals did in more than four leadership practices. Even though there were some discrepancies in how teacher leaders rated their principals, most schools had similar mean scores and thus, had similar perceptions of principals. But in School 4, principal self means were much lower than teacher leaders’ means in four leadership practices except for “Enabling others to Act”. On the other hand, the principal in School 13 consistently gave a self rating higher than teacher leaders in five leadership practices.

Research question 4 investigated the possible affects of principals’ leadership practices as perceived by teacher leaders and student achievement. To explore this relationship, the Academic Excellence Indicator System by Texas Education Agency

was used for statistical analyses. The student scores for reading, math, and writing in 2005-2006 were used for computing the relationship of distributed leadership practices and student achievement. This question used descriptive statistics. The mean scores revealed that schools who had higher teacher leader mean scores tend to have better student achievement.

According to the LPI results, schools having lower principals' and teacher leaders' composite mean scores had lower TAKS scores and vice versa. When comparing principals' and teacher leaders' composite mean scores, there was no specific connection between scores and student achievement. Looking at the five leadership practices, data gathered from LPI indicated that school principals who practiced "Enabling Others to Act" and "Encouraging the Heart" were schools that had been making progress in TAKS scores. These leaders demonstrated that they valued their relationship with teacher leaders by sharing their power and developing cooperative relationships. In addition, they praised people for doing well, and recognized individual's accomplishments.

Many studies show a positive effect between principal and student achievement. In this study, principals of high-performing schools received higher scores on the practices of Enabling Others to Act and Encouraging the Heart. In this respect, the study provides support for previous research in confirming that distributed leadership practices do have a positive affect on student achievement. It would appear that in order to achieve better student academic achievement, principals should consider adopting a collaborative style when working with teacher leaders, which turns out to be the essence of distributed leadership. The practice of "Encouraging the Heart", which was highly recognized in

this study, suggests that principals may need to assume responsibility for encouraging teachers and staff to participate in decision-making and recognizing individual success. In addition, principals may also work with teacher leaders in developing goals and visions for the school and set examples for teacher leaders.

Conclusions

This leadership study had two purposes. The first was to examine principals' leadership practices perceived by teacher leaders. The second was to describe the "trend" between principals' perceived leadership behaviors and student achievement. Based on the research, the following conclusions are presented. Specifically, this study used distributed perspective of leadership (Spillane, 2006) as the conceptual framework by invest aging principals' leadership practices closely related to site-based management practices. Instead of a replication of previous research, this study offers a new and different results leading to better understanding of principals' leadership practices and their impact on student achievement.

Excellent leadership is invariably one of the main factors in high performing schools (Bush & Jackson, 2002). The school improvement literature makes similar links between principal leadership, the motivation of teachers and the quality of teaching and learning (Day et al., 2000; Fullan, 1992; Hopkins, 1994). Recent studies in education have begun to give special attention to the idea of distributed leadership (Gronn, 2003; Harris 2003; Spillane, 2006), a new emerging wisdom that no single head or leader can handle the complexity in organizations. As a conceptual framework for this study, the idea of distributed leadership was evolved from Gibb's participative theory in the 1950s and was

further broadened by work of Fullan (2001), Hopkins and Jasckson (2002) and Mitchell and Sackney (2000).Their school improvement research point towards the importance of capacity building as a means of sustaining improvement (Harris, 2004). Hopkins and Jackson (2002) have argued that the core of capacity-building model is “distributed leadership along with social cohesion and trust” (p. 95). In this section, conclusions of the study will be discussed based on reviews of the literature, data of this study and findings of other empirical studies.

First, principals’ collaborative working style with teacher leaders seems to have positive impact on student achievement. Effective principals are recognizant of the importance of working collaboratively with others in accomplishing the work of school. Support of this finding may be found in the work of distributed leadership (Spillane et al., 2004; Timperley, 2005; Gronn, 2006). The scholars state that task responsibilities are distributed across traditionally defined roles. Leadership, from this perspective, lies in the human potential available to be used within the organization (Harris & Muijs, 2005). Spillane et al. (2004) refer the distributed forms of leadership as being “stretched over” people in different roles and leadership in schools is “almost inevitably distributed” (Timperley, 2005, p. 397). It was also what Gronn (2000) terms “an emergent property of a group or network of individuals in which group members pool their expertise”.

Findings also indicated that leadership becomes a collaborative effort involving teacher leaders. In a distributed leadership approach, it is critical to look at how leadership practice takes shape in the collaboration between leaders and followers. Teachers who are assigned these roles are expected to carry out various kinds of

functions such as improving decision-making process (Malen et al., 1990) and motivating professional growth of colleagues (Wasley, 1991). Empowering teacher leaders is another key factor in encouraging teacher leadership at the school.

Second, failing to enlist teacher leaders in a common vision might have a negative affect on student academic performance. This conclusion is made based on the LPI scores on Inspiring a Shared Vision in School 4. In School 4, the principal and teacher leaders had opposite ratings for Inspiring a Shared Vision. School 4's student academic performance tended to be unstable. The implication is that principals who are able to share the school vision with teacher leaders may do better in improving student achievement according to findings of this study. Kouzes and Posner (1995) found in their research that a clear vision is a powerful resource. A clear vision has a significant impact on followers. When leaders articulate their vision for the organization, people reported significantly higher levels of job satisfaction, commitment and productivity (Kouzes& Posner, 1995). It is quite evident that clearly explaining visions make a difference in terms of organizational effectiveness and improvement.

For teacher leaders, the research evidence suggests that the "Inspiring a Shared Vision", which is critical to distributed leadership practice, is based on an important idea. The idea is that if schools are to become better at providing learning for students, they must also become better at providing teacher leaders chances to develop and grow. It is also suggested that school improvement is achieved where individuals understand visions, and are able to put the visions into practice.

Third, the perceptions of teacher leaders in School 7, School 5 and School 16

reflected a need for the principal to take challenges and seek challenging opportunities to change and grow. School improvement implies an intensive change in school as organizations. The distributed perspective also suggests some ways of thinking about making changes to school leadership practice (Spillane et al., 2004). Harris (2003) suggests that, “the overarching message about leadership in schools facing challenging circumstances is one of building the community of the school in its widest sense”, and this is achieved through involving people in the enactment of leadership. Therefore, through distributed leadership research which generates rich knowledge about school leadership, a distributed leadership perspective can help leaders identify their practice and think about changing their practice.

Fourth, recognizing teacher leaders’ contributions and celebrating team accomplishments is likely to have a positive and indirect impact on school academic performance. This conclusion is drawn from the LPI results of School 8, School 11 and School 15. Teacher leaders in these schools rated Encouraging the Heart the highest category among the five leadership practices and these schools were all “Recognized” campuses during 2004-2006. In fact, not only teacher leaders, principals should encourage more teachers to see themselves as part of the leadership team within the school. The emphasis on encouraging and enabling people to achieve their best is also at the core of distributed leadership and is acknowledged by the National College of School Leadership that;

> One of the key ways to encourage more teachers to take on leadership roles is to give them early opportunities to take responsibility and initiative. The concept of

distributed leadership has a significant part to play. (NCSL, 2001, p. 8)

Distributed leadership moves beyond traditional leadership theories and is constituted through the interaction of leaders, teachers, and the situation as they influence instructional practice (Spillane, 2006). According to Camburn et al. (2003), such distribution has the potential to build capacity within a school through the intellectual development and expert capital of the teachers. Teacher leaders, in particular, have been found to play a central role in generating and supporting teacher leadership (Harris & Muijs, 2005). Therefore, leaders need to identify and support teacher leaders by encouraging teachers to become leaders and providing feedback and rewards (Buckner & McDowell, 2000). In the same vein, leadership becomes a collaborative effort involving leaders and followers, and the practice of "Encouraging the Heart" plays an important role.

Fifth, schools that had higher principals' and teacher leaders' LPI scores tended to have better TAKS scores. Although there was no specific link between principals' and teacher leaders' mean difference and student achievement, principals' self-perceptions seemed to affect students' academic achievement. In this study, student achievement tended to be higher when principal rated himself higher than teacher leaders and vice versa. When comparing teacher leaders' perceptions with student achievement, in most of the school where perceptions of teacher leaders were higher than the normative data, student achievement tended to improve.

Sixth, the findings from the study complement studies of the effects of site-based management teams (Leithwood & Stager, 1989; Miskel & Owens, 1983). Recent

research on distributed leadership has brought a new interest to previous site-based management research (Bauer & Bogotch, 2006). In this study, the researcher attempted to focus on the principals' leadership practices as perceived by teacher leaders and their impact on student achievement. Based on the findings, the positive impact of "Enabling Others to Act" and "Inspiring a Shared Vision" on student achievement implies that distributed leadership is most likely to contribute to school improvement and to build school capacity for improvement (Harris & Muijs, 2005). This study lends itself to educators (Spillane, 2006) that advocate distributed leadership style should be a framework for investigations of leadership practice. Practicing distributed leadership increase the likelihood of achieving excellence in elementary schools in which principals providing autonomy for teachers, taking teachers opinion into account and recognizing the importance of teacher leaders. Also related to this finding are the positive benefits of teacher leadership on pedagogy, school culture and educational quality (Griffin, 1995). This is also a support for the discussion of distributed leadership. Distributing leadership means maximizing the human potential within organization (Harris & Muijs, 2005), especially those in formal positions. As noted by Leithwood and Reil (2003), "research suggest that teacher leaders can help other teachers to embrace goals, to understand the changes that are needed to strengthen teaching and learning and to work towards improvement" (p. 3). From the findings of this study, it is concluded that formal leaders in schools need to nurture the space for distributed leadership to take place and to create an environment for collaborative leadership (Hopkins & Jackson, 2003). As Elmore (2000) suggests, education is a knowledge intensive enterprise, and there is "no way to

perform these complex tasks without widely distributing the responsibility for leadership among roles in the organization" (p. 14).

The findings confirm that strong distributed leadership leaders create organizations where both leaders and followers are able to participate and unite in purpose. This implication gives good reason for the practice of this style of leadership in education. This is consistent with previous research (Lucia, 2004) that student gains were more likely to improve where leadership was distributed throughout the school and where teachers and support staff had control over areas that are important to them. The results of this study portray a somewhat promising view of the current status of school leadership from a distributed point-of-view. Over half of the responding teacher leaders perceived their principals as demonstrating Kouzes and Posner's (1995) effective leadership practices. Although these results are encouraging, educational leaders and principal preparation programs must undertake the responsibility of improving our school leaders' abilities to employ effective leadership.

Recommendations

The researcher recommends the following in terms of future research and implications for practice.

Recommendations for practice

A review of literature and new knowledge gained through this study suggest there is a need for additional efforts in the area of principals' distributed leadership behaviors for preparing people to assume leadership position. School districts are encouraged to develop professional development programs and pre-service/in-service activities that

will educate principals on the components of distributed leadership. District level principal evaluation procedures should reflect distributed leadership perspective.

For teachers, there are important ramifications for teaching as a profession and for teacher professionalism as teachers become accustomed to the notion of teacher leadership and to the idea of changing their practice. In this respect, educators can begin to make sense of teacher leadership, not only related to positions but also as exercised individually in a culture which conveys a shared sense of collegiality.

The findings also point out the importance of supporting distributed leadership through the adoption of a "learning-centered" approach (Sourthworth, 2002) by building a professional community by working closely with teacher leaders as well as teachers who are not in formal leadership positions. Being an effective leader, they learn from the process, from both success and obstacles as they focus on improving organizational performance as well as individual accomplishments (Kouzes & Posner, 1995).

Moreover, this research suggests a view of school as a professional community where teachers should have the opportunity to innovate and change, especially those in formal leadership positions. A professional learning community is only possible with the support of teacher leaders as one of the necessary human resources for restructuring staff into school-based professional communities (Louis & Kruse, 1995). It is also recommended that colleges and universities modify their principal preparation programs to include the view of distributed leadership.

Recommendations for future research

This study shows the importance of collaboration and encouragement in an

elementary school setting, so further studies is needed to explore the interactions among principals and teacher leaders in these areas not only in elementary schools but also high schools. Additional research should use student achievement scores for a period of as least five years as a variable to establish more reliable relationship between principals' distributed leadership style and student learning. Moreover, future study should take student demographic information and school size as variables in order to find out the relationship between principals' distributed leadership practices and student achievement.

More longitudinal studies need to be conducted on principals that demonstrate high degrees of distribution. Interviews and observations could be conducted to find out how distributed leadership is practiced in these schools to find out if distribution is obvious, the way leadership tasks are distributed as well as obstacles and difficulties encountered by principals and teachers.

Finally, research should be conducted to find out the important features of different leadership tasks from different actors and link them to changes in teaching practice and implications of distributed leadership for the improvement of teaching and learning. More research is needed to focus on building capacity of an elementary school setting that would facilitate distributed forms of leadership.

Recommendations for policy

Policymakers and district leaders should not view distributed leadership approach as the solution to complex workload issues in districts and schools. The approach requires attention and planned implementation for it to be successful. Districts may want

to take a look at their human-resource capacity and how they collaborate and coordinate together. In addition, to acknowledge the contributions of school leaders, a recognition system should be designed to honor [superintendents, principals, and assistant principals] for outstanding work related to distributed leadership behaviors that result in better student achievement. Last, to facilitate the professional development of principals and to recognize their expertise, legislation should be crafted to invite outstanding, recently retired principals with records of excellence in the profession, especially in distributed leadership, to serve as master educators.

In closing, leaders create the culture, the context and the environment in which teachers influence the development of students' skills, knowledge and performance. The results of this study suggest that leaders who want to create a sustainable legacy of continuous improvement collaborate with their people. By recognizing the expertise and talent of all members of the school community toward the accomplishment of a common goal of better student achievement, distributed leadership should be considered as a promising practice that deserves further study on successful structures resulting in better student performance. Much more will need to be done in order to allow staff to engage people in areas where they can provide expertise by using their strengths for the greatest benefit of students.

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APPENDIX A

LETTER OF REQUEST FOR USING LEADERSHIP PRACTICE INVENTORY

Dear Dr. Bowman,

I am a doctoral student of the Department of Educational Administration and Human Resource Development at Texas A&M University. The purpose of this correspondence is to request your assistance with a research project I am completing.

The goal of the study is to develop an understanding of principals' distributed leadership behaviors and its relationship to school effectiveness. It is intended that the findings of the study prove useful in helping to further build the knowledge base on specific leadership practices that are used in Texas.

I will be using the Leadership Practices Inventory (30 items) created by Kouzes and Posner (2003).

I am formally requesting permission to survey the teacher leaders on site-based management teams of elementary schools in your district (which was randomly selected). All response will remain confidential, with neither school names nor principal names being revealed in any way.

I hope you will give me permission to conduct the study in your district. Thank you.

Sincerely,

Yihsuan Chen

APPENDIX B

IRB APPROVAL LETTER

TEXAS A&M UNIVERSITY

VICE PRESIDENT FOR RESEARCH - OFFICE OF RESEARCH COMPLIANCE

1186 TAMU
College Station, TX 77843-1186
1500 Research Parkway, Suite B-150

979.458.1467
FAX 979.862.3176
http://researchcompliance.tamu.edu

Institutional Biosafety Committee	Institutional Animal Care and Use Committee	Institutional Review Board

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DATE: 26-Sep-2006

MEMORANDUM

TO: CHEN, YI-HSUAN

TAMU-EDUCATIONAL ADMN & HUMAN RESOURCE(00028)

FROM: Office of Research Compliance

Institutional Review Board

SUBJECT: Amendment

Protocol Number:	2006-0275
Title:	The Distribution of Power Between Teacher Leaders and Principals in a Selected Urban School in Texas: A Case Study
Review Category:	Expedited
Approval Period:	26-Sep-2006 To 04-May-2007

Approval determination was based on the following Code of Federal Regulations:

45 CFR 46. 110(b)(1) - Some or all of the research appearing on the list and found by the reviewer(s) to involve no more than minimal risk.

(6) Collection of data from voice, video, digital, or image recordings made for research purposes.

Revising protocol to conduct survey in selected urban elementary schools in Region 6, Texas.

Provisions:

PLEASE NOTE: PI must provide documentation of ISD approval to the IRB prior to conducting human subject research.

This research project has been approved for one (1) year. As principal investigator, you assume the following responsibilities

Continuing Review: The protocol must be renewed each year in order to continue with the research project. A Continuing Review along with required documents must be submitted 30 days before the end of the approval period. Failure to do so may result in processing delays and/or non-renewal.

Completion Report: Upon completion of the research project (including data analysis and final written papers), a Completion Report must be submitted to the IRB Office.

Adverse Events: Adverse events must be reported to the IRB Office immediately.

Amendments: Changes to the protocol must be requested by submitting an Amendment to the IRB Office for review. The Amendment must be approved by the IRB before being implemented.

Informed Consent: Information must be presented to enable persons to voluntarily decide whether or not to participate in the research project.

This electronic document provides notification of the review results by the Institutional

Review Board.

APPENDIX C

COVER LETTER FOR TEACHERS

Dear Teachers,

I am a doctoral student at Texas A&M University. The purpose of this correspondence is to request your assistance with a research project I am completing. The superintendent has also approved this research. The goal of my research is to develop an understanding of principals' distributed leadership behaviors and its relationship to school effectiveness. It is intended that the findings of the study prove useful in helping to further build the knowledge base on specific leadership practices that are used in Texas.

This survey should take approximately five minutes to complete. Your input is essential to the success of my study. All responses will be confidential. After collection of the data, all questionnaires will be destroyed and only group summary data will be reported. The names of the schools and districts will not be used in the dissertation or subsequent publications, either. You may omit answering any question you do not feel comfortable with. Results of the study will be mailed to each school after the study is complete.

Your help with my research project is greatly appreciated. If you would please take the time to complete the survey and return it before 11/15, I would be most grateful. If you have any questions about the research, please contact Yihsuan Chen at 979-422-0530 or by email: yihsuan@neo.tamu.edu

Sincerely,

Yihsuan Chen

Texas A&M University

Dr. John Hoyle

Professor

Texas A&M University

APPENDIX D

DEMOGRAPHIC SHEET FOR TEACHER LEADERS

Be assured that all responses will be considered confidential and will be totally anonymous. After the data have been collected, all questionnaires will be destroyed and only group summary data will be reported. No individual employee will be identified in the research study. Anonymity is guaranteed to the teachers who participate in this study.

1. Name of School _____

2. Gender:

_____ 1. Male

_____ 2. Female

3. What is your age? _____

4. What is the highest degree you have earned?

_____ 1. Bachelor's

_____ 2. Master's

_____ 3. Doctorate

_____ 4. High School

5. Number of years in your current position, including this year _____.

6. Total years you have taught, including this year _____.

7. Were you hired by the principal you are assessing?

_____ 1. Yes

_____ 2. No

8. What's your position on the site-based management team? _____

9. Were you appointed or selected?_____

APPDENDIX E

LEADERSHIP PRACTICE INVENTORY: OBSERVER

Leadership Practice Inventory: Observer

To what extent does your principal typically engage in the following behaviors? Choose the response number that best applies to each statement and record it in the box to the right of that statement.

1 = Almost Never 2 = Rarely 3 = Seldom 4 = Once in a While 5 =Occasionally

6 = Sometimes 7 =Fairly Often 8 = Usually 9 = Very Frequently 10 = Always

1	Sets a personal example of what he/she expects of others	
2	Talks about future trends that will influence how our work gets done.	
3	Seeks out challenging opportunities that tests his/her own skills and abilities.	
4	Develops cooperative relationships among the people he/she works with	
5	Praises people for a job well done.	
6	Spends time and energy making certain that the people he/she works with adhere to the principals and standards we have agreed on.	
7	Describes a compelling image of what our future could be like.	
8	Challenges people to try out new and innovative ways to do their work.	
9	Actively listens to diverse points of view.	
10	Makes it a point to let people know about his/her confidence in their abilities.	
11	Follows through on the promises and commitments that he/she makes.	
12	Appeals to others to share an exciting dream of the future.	
13	Searches outside the formal boundaries of his/her organization for innovative	

	ways to improve what we do.	
14	Treats others with dignity and respect.	
15	Makes sure that people are creatively rewarded for their contributions to the success of our projects	
16	Asks for feedback on how his/her actions affect other people's performance.	
17	Shows others how their long-term interests can be realized by enlisting in a common vision.	
18	Asks "what can we learn?" when things don't go as expected.	
19	Supports the decisions that people make on their own.	
20	Publicly recognizes people who exemplify commitment to shared values.	
21	Builds consensus around a common set of values for running our organization.	
22	Paints the "big picture" of what we aspire to accomplish.	
23	Makes certain that we set achievable goals, make concrete plans, and establish measurable milestones for the projects and programs that we work on.	
24	Gives people a great deal of freedom and choice in deciding how to do their work.	
25	Finds ways to celebrate accomplishments.	
26	Is clear about his/her philosophy of leadership?	
27	Speaks with a genuine conviction about the higher meaning and purpose of our work.	
28	Experiments and take risks, even when there is a chance of failure.	

29	Ensures that people grow in their jobs by learning new skills and developing themselves.	
30	Gives the teacher leaders of the team lots of appreciation and support for their contributions.	

APPENDIX F

COVER LETTERS TO PRINCIPALS

Dear Principals,

I am a doctoral student at Texas A&M University. I am writing this letter to request your assistance with a research project I am completing. This dissertation is chaired by Dr. John Hoyle. The goal of my research is to develop an understanding of principals' distributed leadership behaviors and its relationship to school effectiveness. The superintendent has approved this research.

This LPI-Self survey should take approximately fifteen minutes to complete. All responses will be confidential. After collection of the data, all questionnaires will be destroyed and only group summary data will be reported. The names of the schools and districts will not be used in the dissertation or subsequent publications, either. Results of the study will be mailed to each school after the study is complete.

Your help with my research project is greatly appreciated. If you would please take the time to complete the survey and return it by e-mail, I would be most grateful. If you have any questions about the research, please contact Yihsuan Chen at 979-422-0530 or by email: yihsuan@neo.tamu.edu.

Sincerely,

Yihsuan Chen

Texas A&M University

Dr. John Hoyle

Professor

Texas A&M University

APPENDIX G

DEMOGRAPHIC SHEET FOR PRINCIPALS

Be assured that all responses will be considered confidential and will be totally anonymous. After the data have been collected, all questionnaires will be destroyed and only group summary data will be reported. Confidentiality is guaranteed to all study participants.

1. Name of School _____

2. Gender:

_____ 1. Male _____ 2. Female

3. What is your age? _____

4. What is the highest degree you have earned?

_____ 1. Bachelor's

_____ 2. Master's

_____ 3. Doctorate

5. In what year did you earn your highest degree? _____ (year degree conferred)

6. Number of years in current position as principal, including this year _____.

7. Total years you have been a principal, including this year _____.

APPENDIX H

LEADERSHIP PRACTICE INVENTORY: SELF

Leadership Practice Inventory: Self

To what extent does your principal typically engage in the following behaviors? Choose the response number that best applies to each statement and record it in the box to the right of that statement.

1 = Almost Never **2** = Rarely **3** = Seldom **4** = Once in a While **5** =Occasionally

6 = Sometimes **7** =Fairly Often **8** = Usually **9** = Very Frequently **10** = Always

1	Sets a personal example of what he/she expects of others	
2	Talks about future trends that will influence how our work gets done.	
3	Seeks out challenging opportunities that tests his/her own skills and abilities.	
4	Develops cooperative relationships among the people he/she works with	
5	Praises people for a job well done.	
6	Spends time and energy making certain that the people he/she works with adhere to the principals and standards we have agreed on.	
7	Describes a compelling image of what our future could be like.	
8	Challenges people to try out new and innovative ways to do their work.	
9	Actively listens to diverse points of view.	
10	Makes it a point to let people know about his/her confidence in their abilities.	
11	Follows through on the promises and commitments that he/she makes.	
12	Appeals to others to share an exciting dream of the future.	
13	Searches outside the formal boundaries of his/her organization for innovative ways to improve what we do.	

14	Treats others with dignity and respect.	
15	Makes sure that people are creatively rewarded for their contributions to the success of our projects	
16	Asks for feedback on how his/her actions affect other people's performance.	
17	Shows others how their long-term interests can be realized by enlisting in a common vision.	
18	Asks "what can we learn?" when things don't go as expected.	
19	Supports the decisions that people make on their own.	
20	Publicly recognizes people who exemplify commitment to shared values.	
21	Builds consensus around a common set of values for running our organization.	
22	Paints the "big picture" of what we aspire to accomplish.	
23	Makes certain that we set achievable goals, make concrete plans, and establish measurable milestones for the projects and programs that we work on.	
24	Gives people a great deal of freedom and choice in deciding how to do their work.	
25	Finds ways to celebrate accomplishments.	
26	Is clear about his/her philosophy of leadership?	
27	Speaks with a genuine conviction about the higher meaning and purpose of our work.	
28	Experiments and take risks, even when there is a chance of failure.	
29	Ensures that people grow in their jobs by learning new skills and developing	

	themselves.	
30	Gives the teacher leaders of the team lots of appreciation and support for their contributions.	

APPENDIX I

FOLLOW-UP POSTCARDS FOR TEACHER LEADERS

Dear Teachers,

Two weeks ago, a Leadership Practice Inventory was mailed to you. If you have already completed and returned the survey, please accept our sincere appreciation for doing so. If not, please do so at your earliest convenience. Your answers are extremely important to our research on distributed leadership behaviors and school effectiveness. If by some chance you did not receive the survey or if it has been misplaced, please call at (979) 422-0530 or email me at yihsuan@neo.tamu.edu so that we can send you another one. Thank you for your assistance.

Sincerely,

Yihsuan Chen

Texas A&M University

Dr. John Hoyle

Professor

Texas A&M University

APPENDIX J

FOLLOW-UP POSTCARDS FOR PRINCIPALS

Dear Principals,

Two weeks ago a package of Leadership Practice Inventory, was mailed to you. If you have already distributed the surveys, please accept our sincere appreciation for doing so. If not, please do so at your earliest convenience. Your answers are extremely important to our research on distributed leadership behaviors and school effectiveness. If by some chance you did not receive the survey or if it has been misplaced, please call at (979) 422-0530 or email me at yihsuan@neo.tamu.edu so that we can send you another one. Thank you for your assistance.

Sincerely,

Yihsuan Chen

Texas A&M University

Dr. John Hoyle

Professor

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VITA

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Education

2007 Doctor of Philosophy, Educational Administration, Texas A&M University, College Station, TX

2001 Master of Education, Educational Administration, National Taiwan Normal University, Taipei, Taiwan

1998 Bachelor of Arts, Political Science, National Taiwan University, Taipei, Taiwan

Experience

2004-2007 Graduate Assistant, Department of Educational Administration & Human Resource Development, Texas A&M University, College Station, TX

2002-2003 Consultant, Joy Enterprises, Taipei, Taiwan

2001-2002 Teacher, Affiliated High School of National Taiwan Normal University, Taipei, Taiwan