

AN EXAMINATION OF THE RELATIONSHIP BETWEEN TEACHER
EFFICACY AND TEACHERS' PERCEPTIONS OF THEIR
PRINCIPALS' LEADERSHIP BEHAVIORS

Harry D. Ryan, B.S., M.S.

Dissertation Prepared for the Degree of
DOCTOR OF EDUCATION

UNIVERSITY OF NORTH TEXAS

May 2007

APPROVED:

Johnetta Hudson, Major Professor
Jane B. Huffman, Committee Member
Martha A. Burger, Committee Member
Leslie Patterson, Chair of the Department
Teacher Education and Administration
M. Jean Keller, Dean of the College of
Education
Sandra L. Terrell, Dean of the Robert B.
Toulouse School of Graduate Studies

Ryan, Harry D., An Examination of the Relationship Between Teacher Efficacy and Teachers' Perceptions of Their Principals' Leadership Behaviors, Doctor of Education (Educational Administration), May 2007, 153 pp., 13 tables, 12 illustrations, references, 75 titles.

Over the years there has been significant discussion of the connection between principal's leadership qualities and teacher efficacy. Students come to the classroom from stable, traditional, supportive home environments as well as from unstable, broken, and homeless situations. Teachers are asked to teach a classroom full of students with a wide range of learning abilities as well as a varied range of learning disabilities. The confidence to do this for the measure of a teacher's career takes a strong sense of efficacy. The purpose of this study was to examine the relationship between teachers' sense of efficacy and teachers' perceptions of their principals' leadership qualities that enhance and/or diminish the teachers' sense of efficacy.

This study utilized both quantitative and qualitative research methods to study the effects of leadership qualities on teacher efficacy. Quantitative data was acquired utilizing the teacher sense of efficacy scale and the principal leadership questionnaire. Qualitative data was gathered through a focus group meeting of teachers with measurably strong efficacy to identify principal practices that affect teachers' efficacy.

The study's outcomes reported that total respondent data indicates a generally positive relationship between these two variables. Subgroup analysis revealed varying results with diminishing relationships measured from elementary to secondary teachers. Qualitative information gathered from teachers with strong efficacy reported strategies that foster teacher efficacy, make teachers feel good about teaching and inhibit the

development of teacher efficacy. The study recommends that principals and school administrators be especially knowledgeable of the six components of transformational leadership as well as the three aspects of teacher efficacy examined in this study. Being mindful of how daily leadership decisions not only fit within the transformational leadership constructs, but more importantly, how they affect good classroom teaching practices, should help principals plan and initiate strategies and programs that create a campus atmosphere more conducive to comprehensive learning.

Copyright 2007

by

Harry D. Ryan

ACKNOWLEDGMENTS

The inspiration for the topic of this study came from eighteen years of leading teachers utilizing various strategies to motivate and inspire them. I have always been curious how leadership styles from both ends of the spectrum often appear equally effective. I have strived to be a servant leader who inspires teachers through facilitation and motivation. I wanted to show that principals could significantly impact a teacher's confidence and effectiveness with strategies that support their efforts and encouragement that inspires them.

Completion of this project could not have been possible if not for the love and prayers of my family. My wonderful wife Darla, who is my best friend and soul mate, has been the foundation of this support. She has been patient and prayerful throughout the years as I buried myself in my office and my computer. My children and grandchildren have sacrificed time with their father and grandfather and I will never be able to repay them for their understanding. My two sisters and brother continued to be encouraging as they have been throughout my life. All of this love and support from my family is a reflection of the morals and Christian values of my parents, Paul and Lela Faye Ryan. We all miss them so much, but their strength and character continues to guide our lives.

I also extend my thanks to the many individuals that helped throughout this project with their patience, support and encouragement. I owe a special thanks to my campus staff and especially my assistant principal, Jacquelyn Jacobs and counselor, Betsy Hamilton. As I labored through this consuming process I appealed to their internal leadership abilities and they never faltered. I am equally appreciative of my Advisory Committee members, Dr. Jane Huffman and Dr. Martha Burger, for providing technical

assistance and professional expertise in evaluating the process and content of my work. More importantly however, I am especially thankful for the personal and professional support of Dr. Johnetta Hudson, my Advisory Committee chairman. She provided guidance and inspiration that continually prompted me to keep working and strive for excellence. Finally, I graciously thank God for putting all of these people in my life and for giving me the fortitude and character required to stay the course.

TABLE OF CONTENTS

	Page
ACKNOWLEDGMENTS.....	iii
LIST OF TABLES.....	viii
LIST OF ILLUSTRATIONS.....	ix
Chapter	
1. INTRODUCTION	1
Background of the Study	
Statement of the Problem	
Significance of the Study	
Research Questions and Correlating Hypotheses	
Overview of the Methodology	
Delimitations	
Limitations	
Definition of Key Terms	
Summary	
2. REVIEW OF THE LITERATURE	14
Theoretical Foundations	
Bandura’s Social Cognitive Learning Theory	
Leadership Theories	
Research	
Principal Leadership	
Principal Leadership and Teacher Efficacy	
Summary	
3. METHODOLOGY	59
Research Questions	
General Perspective	
Research Context	
Research Participants	

	Instrumentation and Data Collection	
	Data Analysis	
	Summary	
4.	STUDY FINDINGS	72
	Data Collection Procedures	
	Descriptive Statistics	
	Test Reliability	
	Means and Standard Deviations	
	Correlational Analysis	
	Qualitative Focus Group Responses	
	Summary	
5.	SUMMARY AND DISCUSSION.....	99
	Statement of the Problem	
	Review of the Methodology	
	Summary of the Results	
	Discussion of the Results	
	Recommendations for Practitioners	
	Suggestions for Additional Research	
	Conclusion	
	APPENDICES	131
	REFERENCES.....	148

LIST OF TABLES

	Page
1. School Demographic Data.....	61
2. TSES Subscale Factor Items.....	65
3. TSES Reliabilities.....	66
4. PLQ Dimension Item Distribution.....	67
5. PLQ Reliability.....	68
6. Survey Activity.....	74
7. Survey Reliability for TSES.....	76
8. Survey Reliability for PLQ.....	77
9. Teacher Sense of Efficacy Scale - Means and Standard Deviations.....	78
10. Principal Leadership Questionnaire – Means and Standard Deviations.....	80
11. TSES/PLQ Correlation Matrix – All Teachers.....	83
12. TSES/PLQ Correlations – Elementary Teachers.....	86
13. TSES/PLQ Correlations – Middle School Teachers.....	87
14. TSES/PLQ Correlations – High School Teachers.....	87

LIST OF ILLUSTRATIONS

	Page
1. TSES – Instructional Group Mean Scores	79
2. PLQ – Instructional Group Mean Scores	82
3. TSES/PLQ Correlations – All Teachers	85
4. Correlation Graph - Elementary	90
5. Correlation Graph – Middle School.....	90
6. Correlation Graph – High School.....	91
7. Focus Group Responses – Question 1: Student Engagement	92
8. Focus Group Responses – Question 1: Instructional Strategies	93
9. Focus Group Responses – Question 1: Classroom Management.....	93
10. Focus Group Responses – Summary of Leadership Strategies	94
11. Focus Group Responses – Question 2.....	95
12. Focus Group Responses – Question 3.....	96

CHAPTER 1

INTRODUCTION

The principal's role as campus leader is pivotal in fulfilling the task of leading teachers to accomplish a level of student achievement far beyond previous expectations. Fullan (2003) states, "It takes a dedicated, highly competent teaching force working together for the continuous betterment of schools to produce and sustain a vital public system; You cannot get teachers working like this without leaders at all levels guiding and supporting the process" (p.5).

Campus principals face tremendous obstacles in insuring the effectiveness of classroom teachers and the campus collectively. With ever-increasing expectations, principals are presented with many challenges in building an effective level of individual teacher and/or collective efficacy. It becomes critically important that they understand the relationship between the direction of their administrative efforts and its impact on instruction and learning.

Student achievement is the primary concern of educators at every level and most prominently that of classroom teachers. With considerable evidence that teacher efficacy is linked to student achievement, it is important to understand some factors of teacher efficacy that are relative to the classroom and achievement. Student achievement is impacted by the teacher's willingness to: (a) learn and implement new teaching strategies; (b) use classroom management approaches that stimulate student autonomy and reduce custodial control; (c) attend to the needs of lower ability students more closely; (d) emulate efficacious behavior as to influence student efficacy; and (e)

exemplify (Ross, 1994). Thus, teacher efficacy theoretically influences students' cognitive and affective development (Ross, 1994).

Over the years there has been significant discussion of the connection between principal's leadership qualities and teacher efficacy. Teachers are asked to teach a classroom full of students with a wide range of learning abilities, as well as a varied range of learning disabilities. Students come to the classroom from stable, traditional, supportive home environments as well as from unstable, broken, and homeless situations. Some students are ready to learn and others are resistant to learning. State and national accountability initiatives, such as the Texas Student Success Initiative and No Child Left Behind, require teachers to bring all students to a level of achievement greater than any time in our nation's history. The confidence to do this day after day, for the measure of a teacher's career, takes commitment and a strong sense of efficacy. The purpose of this study is to examine the relationship between teachers' sense of efficacy and the principal leadership qualities that enhance and/or diminish the teachers' sense of efficacy. This chapter will briefly establish the theoretical background of the study, introduce the questions to be examined, preview the methodology used to conduct the investigation and clarify the significance of the study.

Background of the Study

The understanding and definition of efficacy, for the most part, is grounded in Albert Bandura's cognitive social learning theory that addresses motivation based on appraisals of outcomes and feedback. Bandura (1986) defined self-efficacy as "peoples judgments of their capabilities to organize and execute courses of action required to

attain designated types of performances” (p. 391). Hipp (1996) suggested that Bandura treated efficacy as a multi-dimensional trait and differentiated between outcome and efficacy expectations. He further explained that Bandura implied people can believe certain actions will produce particular results, but if they do not feel capable of performing such actions, they may neither initiate nor persist in them.

Hipp (1996) expounds upon self-efficacy, relating it to teaching and instruction, as the extent to which a teacher believes that he/she can affect student performance. It is a teacher’s belief in his or her capability to organize and execute courses of action required to successfully accomplish a specific teaching task in a particular context.

Tschannen-Moran, Woolfolk Hoy, & Hoy (1998) state:

Teacher efficacy was first conceived by Bandura researchers as the extent to which teachers believed that they can control the reinforcement of their actions, that is, whether control of reinforcement lay with them or in the environment. Student motivation and performance were assumed to be significant reinforcers for teaching behaviors. Teachers with a high level of efficacy believe that they can control, or at least strongly influence, student achievement and motivation. (p. 2)

These beliefs influence how much effort teachers put forth, how long they persist in the face of obstacles, their resilience in dealing with failures, and how much stress or depression they experience in coping with demanding situations (Bandura, 1997).

Teachers with a high sense of efficacy are less likely to criticize students following incorrect responses, more likely to persist with students in a failure situation, and more likely to divide a class for small group instruction as opposed to instructing the class as a whole (Tschannen-Moran, Woolfolk Hoy & Hoy, 1998). A teacher’s sense of efficacy also predicts their willingness to work with students who are experiencing difficulties rather than referring the students to special education. Among regular education teachers, those with higher teaching efficacy are more likely to declare

regular education as the appropriate placement for students having a learning problem, a behavior problem, or both. The higher the teacher's teaching efficacy, the more they agree that low Socioeconomic Status (SES) students should be placed in regular education classrooms (Tschannen-Moran, Woolfolk Hoy, & Hoy; 1998).

Tschannen-Moran, Woolfolk Hoy, and Hoy (1998) linked teacher efficacy to a teacher's level of professional commitment, to instructional experimentation, to the desire to find better ways of teaching, and to the implementation of progressive and innovative methods. They related the concept to the level of organization, planning, and fairness a teacher displays, as well as clarity and enthusiasm in teaching. They included the effort teachers put into teaching, the goals they set and their level of aspiration. Finally, they submitted that teachers with a strong sense of efficacy exhibit greater enthusiasm for teaching, have greater commitment to the profession, and are more likely to remain in the classroom.

As teacher efficacy reportedly influences numerous aspects of teaching and teacher's careers, it is important to consider the impact that leadership has on the level of a teacher's sense of efficacy. Recent studies by Blasé and Blasé (2001), Bulach, Michael and Boothe (1999), and Ross and Gray (2004) have indicated notable relationships between leadership behaviors of principals and teachers' sense of efficacy. The studies reported significant influence of a wide variety of principal behaviors on individual teacher efficacy as well as collective efficacy.

In a study of 809 teachers from public elementary, middle, and high schools throughout the U.S. by Blasé and Blasé (2001), teachers described the characteristics of their principals that influence their classroom instruction. Blasé & Blasé (2001)

defined six characteristics of effective leaders that fell into two categories: Talking with teachers to promote reflection, and promoting professional growth. The defined characteristics are: “(1) avoids restrictive and intimidating approaches to teachers; (2) believes in teacher choice and discretion; (3) integrates collaboration, inquiry, and reflective discussions; (4) embraces growth and change; (5) respects teachers’ knowledge and abilities; (6) and are committed to enacting school improvement and reform” (p. 22).

Teachers in the Blasé and Blasé (2001) study proposed that principals who are effective leaders encourage interaction that promotes teacher reflection on learning and practice. As a result, teachers reflect more, use more diverse instructional strategies, and are risk-takers as well as better planners. Principals, additionally, enhance teacher’s reflective behavior and professional growth by providing literary resources, promoting more professional development opportunities, and encouraging reflection and organizational collaboration. (Blasé & Blasé, 2001)

Bulach, Michael and Boothe (1999) identified a number of behaviors principals practice that can negatively or positively affect teacher morale, teacher efficacy, and the climate of the school. The five factors they specifically noted were human relations, trust, instructional leadership, control, and conflict. Their research found that a principal’s human relations skills, level of trust, manner of making decisions, ability to control subordinates, and capacity to deal with conflict are often the reasons why principals are either successful or not successful as educational leaders. Their research stated that:

It is important that schools become places where teachers are engaged in school reform or renewal efforts for improving the schools and where supervisory

support encourages the entire staff to model behaviors that foster collegiality and a professional environment. The issue of teachers as a part of these professional communities must be addressed by supervisors who wish to improve their supervisory skill in building a more supportive climate for helping teachers reach their full potential. (p. 46)

Ross and Gray (2004), report that principals can influence teachers' capacity beliefs through persuasion of inspirational messages to the staff, and by addressing the low expectations of particular individuals. Principals can further strengthen teacher efficacy through vicarious experiences such as arrangements to observe master teachers and notably effective teams of teachers. Equally important is the principal's obligation to reduce teacher stress by guarding staff from district or state initiatives and excessive community expectations. The principal is uniquely placed to influence teachers' belief in their collective efficacy.

Ross and Gray's (2004) study of transformational leadership and teacher efficacy recommends three campus administrative actions. First, principals should overtly influence teacher interpretations of school and classroom achievement data. The critical leadership task is to help teachers identify cause-effect relationships that link their actions to desired outcomes. Teachers need to recognize which of their skills contribute to achievement, that they control the acquisition and exercise these skills, and that they need to take responsibility for the successes and failures of their students. Second, principals should help teachers set feasible, proximal goals to increase the likelihood of mastery experiences. And third, they need to provide teachers with access to high quality professional development and provide constructive feedback on their skill acquisition.

This study examined the relationship between principal leadership behaviors and teachers' sense of self-efficacy as perceived by teachers. It also distinguished perceptual differences among elementary, middle and high school teachers. And finally, I identified teachers with a strong measurable sense of efficacy and categorized principal leadership qualities that enhanced and/or diminished the teachers' sense of efficacy.

Statement of the Problem

In the last two decades the focus on the relationship between principal leadership traits and teacher performance has been enhanced by significant study and discussion. The impact of the actions and behaviors of the principal on the work that teachers do has become a topic of intrigue for many research scientists and school administrators. Also, studies of teachers' efficacy beliefs have examined how teachers' sense of efficacy relates to their performance both in and out of the classroom, to student achievement, and to teachers' receptivity to innovation (Elliott, 2000). This study surveyed teachers in eight districts and two private schools of Wichita, Archer and Clay counties in Texas to measure the relationship between teacher efficacy and teachers' perceptions of their principals' leadership behaviors. In addition, specific observable practices exhibited by the teachers' principals that impact teachers' efficacy were identified.

Significance of the Study

Principals face many daily challenges and responsibilities as they strive to

effectively manage their schools and enhance student achievement. Their time is taxed by important leadership responsibilities and excessive management demands. They must make wise choices as to how to spend their valuable time more efficiently. It is important for principals to understand the relationships between what they do and its impact on teachers' work and teacher efficacy (Hipp, 1995). The identification of critical principal leadership behaviors that influence teacher efficacy will provide principals, university certification/training programs, and local districts with valuable information related to the affect of principal leadership behaviors on teacher efficacy (Leithwood, Jantzi & Fernandez, 1993).

In the past ten years three studies were conducted to better understand how the principal affects a teacher's sense of efficacy. Each study examined different aspects of leadership and teacher components relative to efficacy, but each focused primarily on the general question of the relationship between principal behaviors and teacher efficacy using the teacher efficacy scale (TES) by Gibson and Dembo (1984) and the nature of leadership survey (NLS) by Leithwood (1997). The studies considered the effects of leadership on personal and general teacher efficacy. Hipp (1995) explored the relationship between principals' leadership behaviors and teachers' sense of efficacy in Wisconsin middle schools. Elliott (2000) studied the relationship between teacher efficacy and principal leadership behaviors and teacher background variables in elementary schools. Peagler (2003) examined teacher efficacy and transformational leadership behaviors of principals in urban middle schools. Each of these studies was conducted in specific elementary and middle schools of a given district, region or state.

The study used the teacher's sense of efficacy scale (TSES) by Tschannen-Moran and Woolfolk Hoy and the principal's leadership questionnaire (PLQ) by Jantzi & Leithwood. The participants were systematically, yet randomly, selected throughout a specific region and grouped as elementary, middle and high school teacher participants. The effects of principal leadership behaviors at each designated instructional level were examined and correlated to the three teacher efficacy constructs of the TSES: (a) student engagement, (b) instructional strategies, and (c) classroom management. Finally, the conclusive goal was to accumulate a list of observable principal practices that impacted teacher efficacy as determined by participant group teachers with the strongest measurable efficacy according to the TSES.

Research Questions and Correlating Hypotheses

The following research questions and hypotheses were examined in this study:

1. What is the relationship between teachers' sense of efficacy and teachers' perceptions of their principals' leadership behaviors?

Hypothesis: There is a positive correlation between teachers' sense of efficacy and their perceptions of their principal's leadership behavior.

2. Do teachers' perceptions of the relationship between teacher efficacy and their principals' leadership behaviors differ between elementary, middle, and high school teachers?

Hypothesis: The significance of the relationship between teachers' sense of efficacy and principal leadership behaviors diminishes from elementary to middle school to high school teachers.

3. What principal leadership practices significantly impact teachers' sense of efficacy in elementary, middle, and high schools?

Hypothesis: Teachers at each of the three designated instructional levels will identify common leadership practices that impact individual teacher efficacy, but strategies that more significantly impact collective efficacy and/or organizational

efficiency will grow in significance from elementary to middle school to high school.

Overview of the Methodology

This study utilized both quantitative and qualitative research methods to study the effects of leadership qualities on teacher efficacy. The study was conducted with teachers of school districts in Wichita, Archer, and Clay counties in Texas. Access to information and personnel was assured and acquired through the superintendent and executive administrators of each participating school and district. Electronic efficacy surveys were sent to 300 teachers with the hope of a 50% return rate. The identification of representative teachers with measurably strong teacher efficacy was accomplished through calculating the total scores from the teacher efficacy scale of the returned surveys and by developing a continuum of survey scores from least to greatest. Finally, five teachers from each designated instructional level indicating the strongest efficacy participated in a focus group to identify observable principal practices that significantly affected teachers' performance and efficacy. The five teachers from each designated instructional level that indicated the highest mean efficacy score on the TSES were invited to participate in the focus group. If any of the five highest scoring participants chose not to participate, the teacher with the next highest mean score was invited. The selection process was continued until five willing participants from each level were identified.

The instrument used to measure teacher efficacy was the long form of the TSES (Tschannen-Moran & Woolfolk Hoy, 2001) developed by Tschannen-Moran of the College of William and Mary and Woolfolk Hoy of Ohio State University. The leadership

qualities survey used was Jantzi & Leithwood's (1996) PLQ from the Centre for Leadership and Development in Toronto, Ontario, Canada. The focus group questionnaire was developed by the researcher and focused on specific, observable leadership activities and characteristics that impact teachers' efficacy.

Delimitations

The following delimitations applied to this study denoting possible boundaries and/ or ways in which the findings may lack generalizability:

1. The sample population was comprised of teachers within a specific region of North Texas and consisted primarily of rural and mid-urban school districts
2. The sample population consisted primarily of Caucasian teachers
3. The study examined the leadership behaviors of principals and the teacher efficacy construct in schools located in North Central Texas
4. No other demographic factors possibly affecting teacher efficacy were studied or considered
5. Small sample sizes were used in all phases of the study

Limitations

The methodology of this study was limited by the following factors:

1. Data was collected from randomly selected teachers from schools in Wichita, Archer, and Clay counties of Texas
2. Only the top 25% of teachers with the strongest sense of efficacy, as measured by the Teachers' Sense of Efficacy Scale participated in the Focus Group to determine specific observable leadership practices
3. The study was limited to teachers who were randomly selected and who return the initial electronic surveys

4. The study was limited by the measurement of leadership dimensions identified by Jantzi and Leithwood (1996) and the qualifications of the constructs of teacher efficacy as identified by Tschannen-Moran & Woolfolk Hoy (2001)

Definition of Key Terms

The following definitions were used for the purpose of this study:

- Efficacy, self-efficacy, and sense of efficacy – Used interchangeably to describe peoples’ judgments of their capabilities to organize and execute courses of action required to attain designated types of performances (Bandura, 1986). These terms though are all related to Bandura’s term of self-efficacy as defined in the social cognitive theory.
- General teaching efficacy – Refers to the teacher expectation that teaching in general can influence outcomes or student achievement.
- Personal teaching efficacy – An individual’s assessment of their own teaching competence. Teachers’ perceptions of their own teaching abilities influence their choice of classroom management and instructional strategies.
- Teacher efficacy – Defined as the extent to which a teacher believes that he/she can affect student performance (Hipp, 1996) or the capability to organize and execute courses of action required to successfully accomplish a specific teaching task in a particular context (Tschannen-Moran, Woolfolk Hoy, & Hoy; 1998).
- Collective efficacy – The measure of the extent to which a participant or participant believe(s) in the ability of the school/institution to achieve intended outcomes collectively.
- Principal leadership traits, behaviors, and qualities – Used interchangeably to identify those leadership characteristics measured in relation to teacher efficacy.
- Principal leadership dimensions – Identifying and articulating a vision, providing an appropriate model, fostering the acceptance of group goals, providing individualized support, providing intellectual stimulation, and establishing high performance expectations (Jantzi & Leithwood, 1996).
- Transformational leadership – Defined as the principal’s ability to guide the school toward a fundamental reconsideration of its work (Murphy & Seashore-Louis, 1999). It also entails not only a change in the purposes and resources of those involved in the leader-follower relationship, but also a change *for the better* (Leithwood & Duke, 1999).

Summary

This chapter provided a brief synopsis of the basis and direction of this study. It discussed the background of the study, stated the problem, distinguished its significance, and identified questions to be addressed and stated correlating hypotheses. A brief overview of the methodology was described along with possible delimitations, limitations, and the definitions of key terms. The next chapter presents a review of the literature to establish the background and determine the basis for this study.

CHAPTER 2

REVIEW OF THE LITERATURE

The purpose of this chapter is to examine the theoretical background and current literature related to the study of principal leadership effects on teacher efficacy. The chapter discusses theoretical foundations of efficacy and leadership establishing a basis for extended study of teacher efficacy and principal leadership. Following the declaration of the theoretical foundations, the review focuses on historical and developmental research of teacher efficacy and principal leadership. Next, descriptions and results of current studies of the relationship between teacher efficacy and principal leadership through multiple backgrounds and perspectives are presented. And finally, the summary briefly analyzes the literature, discerns literary deficiencies and distinguishes the significance of the current study.

Theoretical Foundations

The theoretical framework for this study was based on Bandura's social cognitive learning theory, which identified an important element previously missing from prevalent learning theories prior to 1977, that of self-beliefs (Pajares, 2002). Bandura revealed self-efficacy as the core factor affecting human functioning within the context of the social cognitive learning theory. The principal leadership models described within the study were mostly founded in various aspects of the classic organizational theories including the bureaucratic theory, the social systems theory, the open systems theory and the contingency theory.

Bandura's Social Cognitive Learning Theory

Miller and Dollard initiated a developmental change from the behaviorist ideas of associationism to a theory of social learning implicating drive reduction principles in the 1940s. Approximately twenty years later, Bandura and Walters expanded the boundaries of the social learning theory with the principles of observational learning and vicarious reinforcement (Pajares, 2002). In the next decade, Bandura realized the absence of the element of self-belief within his own version of the social learning theory (Bandura, 1977). With the publication of *Social Foundations of Thought and Action: A Social Cognitive Theory*, Bandura (1986) modified his label of the social learning theory to the social cognitive learning theory to distance it from prevalent social learning theories and to emphasize the critical role of cognition.

Bandura's social cognitive learning theory contrasts theories of human functioning that overemphasize the role that environmental factors play in the development of human behavior and learning as well as those same theories that overemphasize biological influence in human development and adaptation (Pajares, 2002). His evolutionary theory emphasizes the influence of individual's self-beliefs that enables them to exercise measurable control over thoughts, feelings, and actions. Bandura (1986) indicates that the beliefs that people have about themselves are critical elements in the exercise of control, stating "what people think, believe, and feel affects how they behave" (p. 25). Another component that runs contrary to previous behaviorist beliefs is that Bandura's social cognitive theory proposes that economic conditions, socioeconomic status, as well as educational and familial structures do not affect human behavior directly. Instead, these factors impact people's aspirations, self-efficacy

beliefs, personal standards, emotional states, and other self-regulatory influence (Pajares, 2002).

Fundamental human capabilities perceived by the social cognitive theory that are influential in determining the human destiny primarily are the ability to symbolize, plan alternative strategies (forethought), learn through vicarious experience, self-regulate and self-reflect. Symbolization is proposed as the vehicle of thought and through symbolization humans can provide their lives with structure, meaning and continuity. Through forethought people plan courses of action and anticipate the likely consequences of the actions. Vicarious learning, or learning by observing the behavior of others, enables people to acquire a learned behavior without actually experiencing the redundancy of the trial and error process. As well, people have self-regulatory mechanisms that enable self-directed behavioral changes inclusive of self-motivators that act as personal incentives for self-directed behavior (Pajares, 2002). The capability that is most “distinctly human” (Bandura, 1986, p. 21) is that of self-reflection which enables humans to make sense of their experiences and adjust their thinking and behavior accordingly.

Of all the factors discussed within Bandura’s social cognitive theory, self-efficacy beliefs provide the foundation for human motivation, well-being, and personal accomplishment. Unless a person believes that their actions can produce or influence outcomes, they have no motivation to initiate, proceed with, or complete a constructive task (Pajares, 2002). Although human functioning is influenced by many factors, Bandura (1997) contends that the primary role of self-efficacy beliefs in human functioning is that “people’s level of motivation, affective states, and actions are based

more on what they believe than on what is objectively true” (p.2). Therefore, human behavior can better be predicted by what they believe than what they are actually capable of. Since beliefs and ability are seldom perfectly matched, people’s accomplishments are better predicted by their self-efficacy beliefs than by their skills or ability. Although the acquisition of skills and knowledge can be significantly affected by an individuals’ self-efficacy, no amount of self-confidence can produce success in the absence of requisite skills and knowledge (Pajares, 2002).

Self-efficacy beliefs can influence human functioning in a vast number of ways. Beliefs affect choices people make, the relative plan of action initiated, and the magnitude of the incentive to pursue such actions. The level of effort a person expends on a particular action or activity is affected by self-efficacy beliefs along with the level of perseverance maintained when confronted with adversity. An individual’s thought patterns and emotional reactions are influenced by the strength or weakness of his/her efficacy beliefs often creating a self fulfilling prophecy as ones accomplishments mirror their beliefs (Pajares, 2002).

Numerous factors influence the strength of the relationship between self-efficacy beliefs and human action. Self-efficacy beliefs must be measured in relevance to the specific behavior in question otherwise ambiguity can occur (Pajares, 2002). Knowledge of requisite skills to accomplish a task is also critical as misjudging these skills can result in relational discrepancies. As well, awareness of the nature and difficulty of a task is important to a person’s efficacy judgments and if not accurate, judgments will be misleading (Pajares, 2002). Bandura (1986) states that these factors are especially relevant in situations where an individual’s “accomplishment is socially judged by ill

defined criteria so that one has to rely on others to find out how one is doing” (p.398). Thus, faulty self knowledge creates unpredictable results (Pajares, 2002).

Pajares (2002) reports that self-efficacy beliefs are formed or created primarily by interpreting information from four sources. First and foremost is the result of previous performance called mastery experience. People judge their ability to perform on tasks based on their interpretation of the results of previous personal performances. Second, efficacy beliefs are established by the vicarious experiences of observing others in task performances. Although these experiences result in a more moderate effect, they are important when there is a lack of previous personal experience. The third source of influence in developing self-efficacy beliefs is social persuasions which involves verbal judgment imparted by others. Effective persuasion can culminate significant belief in one’s capabilities. Finally, somatic or emotional states provide influential information about efficacy beliefs. A person’s emotional state can influence the degree of confidence inflected as a person engages a task. And, as well, with positive or negative emotions, outcome success or failure can be relatively affected by either (Pajares, 2002). Based on an individual’s ability to control their own thinking and feeling, Bandura (1977) indicates that people live in psychic environments that are primarily of their own making. As Bandura purposes the impact of beliefs on performance, various types of leadership potentially influence the magnitude of those beliefs.

Leadership Theories

The study of the impact of principal leadership, or more broadly, educational leadership and its impact on teachers run parallel with theories of traditional organizational leadership and its effect on subordinates. Therefore, this chapter

includes the discussion of historical literature on leadership establishing a foundation for the relevant school leadership models. The body of knowledge and literature on leadership is infinite and hundreds of definitions of leadership exist. This review focused on four prominent theories of the previous century: (1) bureaucratic theory, (2) social systems theory, (3) open systems theory, and (4) contingency theory.

Bureaucratic Theory

The bureaucratic model, also known as the classic organizational theory, traditionally includes Weber's bureaucratic structure, the scientific management approach of Taylor, and the public administration account of scientific management by Gulick and Urwick (Hanson, 2003). Weber's theory of bureaucracy was published posthumously in 1921 where he defined authority as the probability that a command with a specific content will be obeyed by a given group of persons. It focused on dividing organizations into hierarchies, establishing strong lines of authority and control. He suggested organizations develop comprehensive and detailed standard operating procedures for all routinized tasks.

Taylor, an industrial engineer is the father of scientific management and believed that "he who has the gold makes the rules" (Hanson, 2003, p. 19). He believed in natural laws of work just as there are "natural laws of the physical sciences" and viewed organizations as mechanical devices (Hanson, 2003, p. 19). Gulick and Urwick advocated scientific management to the public domain through a formula for efficient administration. They popularized principles such as unity of command, use of special and general staff, departmentalization by purpose, delegation by authority, balance

between authority and responsibility and definition of span of control (Hanson, 2003, p. 20).

Hanson (2003) states: The bureaucratic theory proposed to organize and coordinate people for maximum efficiency while promoting rational, efficient and disciplined behavior to achieve goals. The bureaucratic principles of organization intended to achieve higher levels of maximum efficiency are hierarchical structure, division of labor, control by rules, impersonal relationships and career orientation. (p. 16)

Hanson (2003) indicates that Elwood P. Cubberley, one of America's most influential educators early in the 20th century, "characterized the school as a factory processing raw materials for social consumption" (p. 22). Schools follow a hierarchy from superintendent, to assistant superintendent, to principals, to assistant principals to teachers to students. There is scientific measurement of tasks and levels of performance as students are tested in subject areas, aptitude, and achievement.

Managers and workers have a unity of end in that the objective is to do what is best for kids. There is scientific order as one grade level prepares a student for the next. Labor is divided as distinct disciplines of English teachers, history teachers, coaches, aides, janitors, and administrators. There is a determination of arenas of control as the state has mandated the 22 to one student teacher ratio in elementary schools. There is a definite chain of command that aligns with the hierarchy of rules for behavior defining duties and responsibilities. Employees and students abide by the rules of the school and norms of conduct. Policies are developed to establish discipline. Credentials are required in the form of certification thus basing recruitment on ability and technical knowledge. And finally, schools are continually searching for ways to enhance efficiency and improve student learning (Hanson, 2003).

Social Systems Theory

In the 1920s Elton Mayo, a professor at the Harvard School of Business began his famous study at the Hawthorne Works of the Western Electric company in Chicago. Mayo and colleagues intended to study the effects of illumination on worker productivity, but unintentionally discovered the impact of social-psychological variables within the worker group on the processes of production. Hanson (2003) contends this “human relations philosophy” soon evolved, declaring that through “being considerate, using democratic procedures whenever possible and maintaining open lines of communication, management and workers could talk over their respective problems and resolve them in a friendly, congenial way” (p. 6). According to Hanson (2003), concepts of the social systems model “suggests that an organization consists of a collection of groups that collaborate to achieve system goals and/or accomplish the goals of their own informal groups” (p. 7). Hanson (2003) further suggests that the key to the success of an open system is “to work effectively and efficiently, to gather, process and utilize information” (p. 8). The human relations movement provided a springboard for other management and leadership approaches (McFarland, 2005).

Open Systems Theory

Prior to the 1960s organizations were viewed as closed systems, isolated from any surrounding environments. During that decade the open systems theory evolved, viewing an organization as a set of interrelated parts that interact with the environment almost as a living creature. The functioning of an organization involved a cycle of events

that are interdependent and reinforcing. These events are input, throughput, output, and feedback (Hanson, 2003).

Input can be classified as human, informational, and material. Students, teachers, administrators, and other personnel provide human input. Ideas regarding teaching, learning, content, and demands and supports from the environment provide informational input. Supplies and equipment provide material input (Hanson, 2003).

Throughput organizes input to accomplish the organizational intent. In schools the teaching-learning process and activities that support teaching and learning provide for the throughput. The process includes instructional technology, formal and informal subsystem roles, decision-making strategies, reward systems, evaluative strategies and a host of other subsystem variables (Hanson, 2003).

Hanson (2003) further explains that output comes in the form of products, ideas and intellectual changes in people. It includes such elements as learning gains, skill preparation, custodial control, critical thinking and behavioral changes. Informational and economic returns to the school which permit a rejuvenation of the cycle are society's continued contribution to a valuable service.

Feedback signals an organization about its functioning in relation to the environment. The most critical of these events is the feedback component. Without this information the organization may become static and not survive. In schools feedback is the evidence that society will accept the school as it is or evidence that society wants something else (Hanson, 2003).

Open systems theory concentrates on the dependency relationships and exchanges between the organization and its external environment. It is a recurring

patterned, self-reinforcing dynamic cycle of events. If one of these events ceases to exist the cycle breaks down. An open system gathers all necessary information from all relevant groups inside and outside the system then analyzes problems by looking for changes in the environment to see if the organization is responding (Katz and Kahn, 1978).

Contingency Theory

Lawrence and Lorsch (1967) are probably the prime movers behind the contingency theory which came about as a result of their empirical study of ten organizations with varying levels of economic performance. They stress that variability in environmental needs and demands requires variability in organizational responses. Therefore, standard operating procedures are not appropriate in the face of all types of demands.

Hanson (2003) reports the basic assumptions of the contingency theory are as follows:

- Middle ground – There is some middle ground between the existence of universal principles of management that fit all organizational types
- Goals – Although an organization may have a basic overarching goal, informal goals often govern the development of events
- Open systems – All organizations are open systems
- Performance – The level of performance is determined by the match between external requirements and internal states and processes
- Basic function – The basic function of administration appears to be co-alignment of institutionalized action
- Best way – There is no best way of organization and administration

- Approaches – Different approaches may be appropriate in sub-parts of the same organization
- Leadership style – Different leadership styles are appropriate for different problematic situations
- Initiation – Managers rarely have the opportunity to approach a problem at its beginning
- Information – Managers never know all that is going on within the organization

Educational leaders regularly deal with a variety of organizational problems from multiple levels of the organization. The administrator's ability to flexibly deal with each situation according to the maturity and personality of the people involved often determines the effectiveness of the solution. Principals deal with very young children from an infinite range of backgrounds, with parents and guardians from all economic and educational levels, and with educators from a plethora of personalities and emotional states. If school administrators are not capable of formulating solutions contingent upon the characteristics of each situation, they will be handicapped in their ability to effectively manage their campus or district.

Research

Teacher Efficacy

Bandura (1986) defined self-efficacy as “peoples judgments of their capabilities to organize and execute courses of action required to attain designated types of performances” (p. 7). Hipp (1995) transformed the definition to teaching as “the extent to which a teacher believes that he/she can affect student performance” (p. 5). Further, it is the teacher's belief in his or her capability to organize and execute courses of action

required to successfully accomplish a specific teaching task in a particular context (Tschannen-Moran, Woolfolk Hoy & Hoy; 1998).

For the last thirty years researchers have investigated teacher self-efficacy and its effect on numerous aspects of education and learning. For this study, the researcher will examine this research on teacher efficacy through five seminal studies, each which have made significant contributions to the understanding and measurement of the concept. These studies include: the Rand studies in 1976; Ashton, Webb, and Doda (1982); Gibson and Dembo (1984); Hoy and Woolfolk (1993); and Tschannen-Moran and Woolfolk Hoy (2001). Each of these studies contributed to the evolution and growth of teacher efficacy measures founded through the use and analysis of previous experiments.

The Rand Studies

Grounded in Rotter's social learning theory, the Rand Studies first addressed the concept of teacher efficacy in 1976. The teacher efficacy concept was described as "the extent to which teachers believed that they could control the reinforcement of their actions, that is, whether control of reinforcement lay within themselves or in the environment" (Tschannen-Moran, Woolfolk Hoy & Hoy; 1998, p. 2). The inspiration for the study came from two factors iterated in an article by Rotter (1966). First, teachers who believe that the student's environment overwhelms the teacher's ability to influence a student's learning maintain the belief that reinforcement of their instructional efforts lies outside their locus of control or is external to them. In addition, teachers who exhibit confidence in their ability to teach complacent and/or unmotivated learners maintain the

belief that the influence of teaching activities lies within the teacher's countenance and is internal. The Rand questionnaire asked teachers to respond to the following two items to indicate their level of agreement. The responses to the two items were summed and identified as the teacher's level of teacher efficacy (Tschannen-Moran & Woolfolk Hoy, 2001).

- "When it comes right down to it, a teacher really can't do much because most of a student's motivation and performance depends on his or her home environment." A teacher who maintains this belief proposes that environmental factors, such as drug abuse, violence or domestic upheaval, squelch any influence that teachers have in school.
- "If I really try hard, I can get through to even the most difficult or unmotivated students." This attitude indicates a teacher has the confidence in his/her own teaching ability to overcome external factors that make learning more difficult for students (p. 784).

The first Rand study attempted to link teacher efficacy with student achievement while evaluating the Title III Elementary and Secondary Education Act project in Los Angeles schools. Twenty elementary schools with over 400 students each, whose student bodies included predominately minority students from low income neighborhoods, participated in the study. The sixth grade students in these schools had shown consistent gains on the McGraw Hill Comprehensive Test of Basic Skills from 3rd through 6th grades (Elliott, 2000).

The results of the first study indicated a definite link between a teacher's sense of efficacy and the student's success in reading. Armor, Conroy-Oseguera, Cox, King, McDonnell and Pascal (1976) stated that a teacher's efficacy was "strongly and significantly" related to the students' success. It emphasized that "teachers matter for reading: their sense of being able to get through to students, their commitment and morale, help to determine how much children learn" (p. 38).

The second Rand study also identified teacher efficacy as an influential factor in teachers affecting student performance. The study examined the relationship between the implementation and the degree of maintaining new project strategies, student performance and teacher efficacy (Elliott, 2000). It concluded that teachers' confidence in their own teaching ability "appear to have major affects on what happens to projects and how effective they are" (Berman, McLaughlin, Bass, Pauly & Zellman, 1977, p. 137).

Interest following these two studies significantly increased and resulted in the development of numerous teacher efficacy measures. The limitations of the two item scale invoked concern among researchers and inspired them to develop more in-depth, comprehensive instruments. Some of those more extensive measures are identified in the studies to follow.

Gibson and Dembo

In 1984, Gibson and Dembo expanded research on the two dimensional Rand model in an attempt to design a new survey to measure teachers' sense of efficacy. The instrument, called the teacher efficacy scale (TES), was 30 items on a six point Likert scale ranging from *Strongly disagree* to *Strongly agree*. The instrument yielded two relevant factors with the first factor representing a teacher's personal sense of efficacy. This factor corresponds to Rand Item 2 that states, "If I try really hard I can get through to the most difficult or unmotivated students" (p. 5). The corresponding construct items all pertain to a teacher's sense of personal ownership of student learning.

The second factor corresponds to Rand Item 1 that states “When it comes right down to it, a teacher really can’t do much because most of a students’ motivation and performance depends on his or her home environment” (Tschannen-Moran, Woolfolk Hoy, & Hoy, 1998, p. 4). As well, all of the corresponding construct items relate to a teacher’s belief that teaching in general can overcome external influence (Elliott, 2000). Reliability analysis indicated that only 16 of the 30 items proved to produce acceptable reliability coefficients as indicated by Cronbach’s alpha, resulting in the development of a 16 item modified scale.

Gibson and Dembo’s (1984) study questioned the outcome differences of high and low efficacy teachers in relation to academic focus, feedback, and persistence in failure situations. The results of the study signified that a “teacher’s willingness to stay with a student in a failure situation is indicative of a teacher’s confidence in his or her teaching ability and/or the student’s ability to learn” (p. 51). The study found that generally teachers who expect students to learn communicate student expectations by providing less criticism and by persistently insisting on correct responses before continuing to another inquiry. The study’s outcome supported Bandura’s (1977) hypothesis that individuals with a high sense of efficacy should perform or work harder and persist longer than those who doubt their capabilities (Elliott, 2000).

The researchers found substantial differences in the actions of high and low efficacy teachers. High efficacy teachers spent more time in small group instruction, more time monitoring student’s work, more time with paperwork and class preparation, and were more effective in leading students to correct answers through effective questioning. Low efficacy teachers, on the other hand, were more critical than

constructive with student feedback and were less persistent with students who were struggling to respond correctly. They tended to quickly move on by giving the answer or by prematurely allowing another student to provide the answer. The study noted a reciprocal relationship between persistence, successful learning and efficacy (Gibson & Dembo, 1984).

As teacher efficacy has been defined as both subject matter and content specific researchers have modified Gibson and Dembo's (1984) survey to further investigate teachers' sense of efficacy within multiple curriculum areas and instructional venues. Riggs and Enochs (1990) have developed an instrument to measure the effects of efficacy on science teaching and learning. Emmer (1990) adapted the TES to classroom management resulting in a 36 item scale measuring efficacy for classroom management and discipline, external influences, and personal teaching efficacy. Coladarci and Breton (1997) reworded the 30 item scale to specifically apply to special education.

Ashton, Webb, and Doda

In 1982 Ashton, Webb, and Doda conducted a dual level study of teacher efficacy involving 49 middle school teachers and 48 high school teachers. In the phase of the study involving the middle school teachers, the two schools selected to participate, maintained substantially different organizational structures. Each school was similar in size, location, ethnic makeup, and socioeconomics, but differed in instructional organizational style. One school functioned as a traditional middle school utilizing multi-age grouping, team teaching with an exploratory curriculum. Their students were divided into teams with a group of multidisciplinary teachers responsible for the delivery

of the required instruction. The other school was more of a traditional junior high with multiple teachers of each instructional discipline assigned students of somewhat heterogeneous ability (Elliott, 2000).

Each of the 49 teachers was asked to complete a questionnaire to measure their perceptions of teaching based on the two Rand items. This data was analyzed to determine how differences in organizational structure affected teacher efficacy. Two teachers of similar subject discipline with high efficacy and two with low efficacy were selected from each school to allow observers into their classrooms for observation. The teachers were observed to identify relative teaching characteristics and interviewed to clarify observer interpretations. This qualitative data was utilized to describe and differentiate behaviors of high and low efficacy teachers (Ashton, Webb, & Doda, 1982; Elliott, 2000).

The high school component of the study examined the relationship between teacher efficacy and student achievement based on Metropolitan Standardized Test scores. Forty-eight basic skills teachers completed a questionnaire that included the two Rand statements along with other questions inquiring of their perceptions of teaching and instruction as well as participating in an hour long interview (Elliott, 2000). According to Ashton (1982) the students tested had experienced significant failure in math and language and their selection was, according to “more likely to make teachers’ sense of efficacy especially salient” (p. 9).

The study resulted in the confirmation of the positive relationship between a teacher’s sense of efficacy and student achievement with a positive correlation between both Rand components and the metropolitan standardized test. There was also the

indication that a teacher's sense of efficacy was related to teacher behaviors such as warmth, responsiveness to students and attention to low ability students (Elliott, 2000). Ashton discovered that teachers found it difficult to maintain a high sense of efficacy because of the isolation of the classroom, difficulty in assessing their effectiveness, the lack of teacher collegiality and diminished administrative support. Teachers also implied the feeling of powerlessness due to the lack of collegial decision-making (King, 2000).

Ashton also cited a difference in the perceived affect of instructional leadership on teacher efficacy. Schools where the principal viewed the teachers as professionals and themselves as part of the team exhibited generally higher level of teacher efficacy. On the contrary, principals who practiced paternal-type management, rarely solicited suggestions or opinions from the teachers, expected less from the faculty and doubted teachers' influence on learning managed schools with noticeably lower teacher efficacy (Ashton et al., 1982; King, 2000).

Also in 1982, Ashton described the development of the Webb scale as an attempt to extend the measure of teacher efficacy while maintaining a narrow conceptualization of the construct. Ashton indicated that Webb and his colleagues found that teachers who scored higher on their scale evidenced fewer angry or impatient interactions in their teaching. The measure failed to meet with wide industry acceptance and no studies were found that utilized the scale (Tschannen-Moran & Woolfolk Hoy, 2001).

Following this study, Ashton, Buhr, and Crocker (1984) developed a series of vignettes describing situations a teacher might encounter and asking teachers to make judgments as to their effectiveness in handling the situation. The teachers responded to

two situational instruments. One requested responses from *extremely ineffective* to *extremely effective* and the second from *much less effective than most teachers* to *much more effective than most teachers*. This measure met similar fate as the Webb Scale and found minimal acceptance with only one study indicating its use (Tschannen-Moran & Woolfolk Hoy, 2001)

Hoy and Woolfolk

Hoy and Woolfolk (1993) examined the relationship between organizational characteristics and teacher efficacy using an adapted version of the TES (Elliott, 2000) developed by Gibson and Dembo (1984) and an elementary school version of the organizational health inventory. Hoy and Woolfolk's adaptation of the TES distinguished two independent dimensions of teacher efficacy, that of general teaching efficacy and personal teaching efficacy. Each dimension was represented with five distinct survey items (Tschannen-Moran & Woolfolk Hoy, 2001). The organizational health inventory was a 39 item instrument that measured six elements of school health.

The researchers randomly selected 179 teachers from 37 elementary schools in New Jersey. According to the state of New Jersey over 70% of the schools were above average in wealth establishing a sample base more representative of more advantaged districts. Over 170 of the teachers completed the survey accomplishing over a 95% response rate. Hoy and Woolfolk (1993) reported the analysis of the data examined the independent effects of organizational health variables on each dimension of teacher efficacy, "as well as to determine the net effects of all the independent variables on the dependent variables of efficacy" (p. 363).

The results of the analysis revealed that only principal influence, academic emphasis and educational level had “unique, significant effects on teachers’ sense of personal efficacy” (Hoy & Woolfolk, 1993, p. 364). According to Hoy and Woolfolk (1993), this led the researchers to believe that:

Teachers who perceived their principals as exerting influence on their behalf (principal influence), who perceived that the teaching environment was academically oriented (academic emphasis), and who had taken extra graduate work (educational level) were likely to have stronger beliefs that they could motivate and reach even the most difficult students (personal teaching efficacy). (p. 363)

The organizational health variables that impacted general teaching efficacy was trust among colleagues and collegial support, institutional integrity and morale with only institutional integrity and morale having unique significant relationships. Hoy and Woolfolk (1993) stated that:

Teachers who perceive that the school protects them from unreasonable community demands and helps them maintain integrity in their instructional programs are more likely to believe that teaching can overcome the negative forces of the students’ home environment (general teaching efficacy) (p. 636).

The results of the study demonstrate an independence of personal and general teaching efficacy in relation to organizational variables. Personal variables including principal leadership behaviors influence teachers’ sense of general efficacy while morale (feelings of trust, confidence, friendship and warmth) do not influence teachers’ sense of personal efficacy. This may mean that teachers are more comfortable in their work environment, but it does not necessarily mean that they are more effective with the most challenging students. Also noted was that years of teaching experience is positively related to personal teaching efficacy and negatively related to general teaching efficacy. More experienced teachers felt strength in their ability to effectively

teach challenging learners, but questioned their ability to overcome the negative affects of the home environment. The study also cited the importance of distinguishing between the two types of teacher efficacy as well as signifying the value of identifying principal leadership behaviors and personal teaching characteristics as important variables when studying teacher efficacy (Elliott, 2000).

Tschannen-Moran and Woolfolk Hoy

Tschannen-Moran, Woolfolk Hoy and Hoy (1998) published a report that examined teacher efficacy and attempted to bring clearer understanding to the construct and its measurement. They explored the utilization of various instruments to identify patterns of consistency that would clarify the understanding of teacher efficacy. They furthered the research by introducing a model of teacher efficacy that integrates two novel factors that are related to the two most commonly known factors of general teaching efficacy and personal teaching efficacy. The model proposed the concept of teacher efficacy as more context-specific and introduced “teaching task and its context and self-perceptions of teaching competence” (p. 18) as components that lead to judgments about self-efficacy for the teaching task at hand.

Analysis of the teaching task and its context refers to the assessment required of teachers in the anticipated teaching situation. The difficulty of the task and the requirements for success are aspects of the analysis that must be considered in context-specific efficacy. Self-perceptions of teaching competence refer to perceptions of current functioning which contributes to prediction of future capability. In other words, the amount of confidence maintained in the teacher’s current level effectiveness will

impact how successful and/or efficacious the teacher will be in the future. (Tschannen-Moran, Woolfolk Hoy, & Hoy, 1998).

The report discusses the integrated model and its components in relation to efficacy beliefs of preservice teachers, novice teachers, and experienced teachers, as well as in relation to the implementation of innovations and teacher career stages. Suggestions for supporting and improving efficacy at various career levels are revealed and directions for future research are implied. The researchers indicate that their model should be thoroughly tested and the topics of collective efficacy and changing efficacy beliefs should be further investigated. In addition, the report suggests that refinement and development of new measures of efficacy should continue and that a valid measure of teacher efficacy would include both of the components of the new model (Tschannen-Moran, Woolfolk Hoy, & Hoy, 1998).

Soon after this report was published Tschannen-Moran and Woolfolk Hoy (2001) began work on a new measure to address their perceived deficiencies in other measures of teacher efficacy. Work on this new measure was conducted in a seminar on self-efficacy in teaching and learning in the College of Education at The Ohio State University. The two researchers and eight graduate students explored several possible formats for the new efficacy scale and settled on a measure based on Bandura's scale with additional items measuring an expanded list of teacher capabilities. It would initially be called the Ohio State Teachers Efficacy Scale, but would also be referred to as the TSES (Tschannen-Moran & Woolfolk Hoy, 2001).

The new TSES more accurately portrays the richness of teachers' work as well as the requirements of good teaching and includes five additional factors: (1)

assessment; (2) adjusting the lesson to individual student needs; (3) dealing with learning difficulties; (4) repairing student misconceptions; (5) and motivating student engagement and interest (Tschannen-Moran & Woolfolk Hoy & Hoy, 1998). It was examined and tested in three separate studies resulting in a long form of the instrument with 24 items and a short form with 12 items. Three factors emerged in the second study as the new group refined the items in the new instrument: (1) efficacy in student engagement; (2) efficacy in instructional strategies; and (3) efficacy in classroom management (Tschannen-Moran & Woolfolk Hoy, 2001). The addition of these more relevant factors and representative dimensions seems to more accurately employ the two components of Tschannen-Moran, Woolfolk Hoy, & Hoy's (1998) proposed integrated model of teacher efficacy.

Principal Leadership

Volumes have been written on the role of the principal and its impact on various aspects of the school. The principal's role has evolved from the bureaucratic manager focused on the building, equipment, and the budget; to the more humanitarian manager still primarily tending to physical and fiscal components with more of an employee minded demeanor; to the instructional leader tending more to the student and instruction; to the transformational leader building internal leadership capacity and employing change to meet global demands. At least a half dozen leadership models appear in educational leadership literature (Leithwood & Duke, 1999), however, two models currently vie for most of the attention among practicing educators – instructional and transformational models. Each model has an extensive and well developed body of

research about its nature and impact (Leithwood & Jantzi, 2000). Previous sections of this chapter have discussed the bureaucratic and human relations models. Therefore, the researcher now focuses on these more current models of principal leadership, that of instructional and transformational leadership.

Instructional Leadership

The emergence of instructional leadership began with the onset of school restructuring in the late 1970s. Prior to this, principals were considered effective if they took command and set clear expectations, administered firm discipline and maintained high standards. The principal's role was viewed as hierarchical with steady, direct authority over subordinate staff (Maciel, 2005). In the 1980s instructional leadership became the dominant paradigm for school leaders after researchers noticed that effective schools usually had principals who kept a lofty focus on curriculum and instruction (Lashway, 2002). In 1979 Ron Edmonds laid the groundwork for instructional leadership with his research on effective schools and the development of the effective schools correlates. The first correlate notably mentioned is that of the principal as an instructional leader. Edmonds implied that principal and teacher's collective behavior significantly influences teacher's interactions with children in the classroom and effects student learning (Edmonds, 1979). Leithwood & Jantzi (1999) confirms Edmonds implication by assuring that instructional leadership typically focuses on the leader's impact on the behaviors of teachers as they engage in activities directly affecting the growth of students.

The publication of *A Nation at Risk* (National Commission on Excellence in

Education (NCEE) and Gardner, 1983) continued the emphasis of instructional leadership as it aroused the education community and encouraged a new education reform movement. The report indicated that principals needed to develop and maintain new skills to become effective school leaders. The principal, as instructional leader, should be able to manage data, head the school improvement effort, be knowledgeable about curriculum and instruction, and have the expertise to guide teachers out of isolation into professional learning communities (NCEE & Gardner, 1983).

Most recently, the No Child Left Behind Act (NCLB) of 2001 put teeth into the movement by legally exhorting principals to become instructional leaders. The law establishes a clearly mandated link between instructional leadership and academic achievement in the name of Adequate Yearly Progress (AYP) requirements. The law specifically calls for the principal to have “instructional leadership skills to help teachers teach and students learn”, and “the instructional leadership skills necessary to help students meet challenging state student academic achievement standards” (Lockwood, 2005, p. 3). The NCLB Act emphasizes licensure, mentoring, professional development, improved pre-service programs and leadership development academies to insure principals succeed under the demands of the added accountability (Wright, Darr-Wright, & Whitney-Heath, 2004).

Instructional leadership was originally defined as involving traditional tasks such as setting clear goals, allocating resources to instruction, managing the curriculum, monitoring lesson plans and evaluating teachers. A more comprehensive definition currently applies that includes deeper endeavors into the science of teaching and learning, carries more extensive views of professional development, and prioritizes the

use of data to make decisions with a shift from an emphasis on teaching to learning (Lashay, 2002).

In 1996 the Interstate School Leaders Licensure Consortium (ISLLC) developed a set of standards for instructional leaders. The six ISLLC Standards for School Leaders are currently utilized in thirty-five states. Of the six standards, standard two specifically addresses instruction and learning. It states that “A school administrator is an instructional leader who promotes the success of all students by advocating, nurturing, and sustaining a school culture and instructional program conducive to student learning and staff professional growth” (ISLLC, 1996, p. 12). More currently, the National Association of Elementary School Principals (NAESP) views instructional leaders as having six roles: (1) making student and adult learning the priority; (2) setting high expectations for performance; (3) gearing content and instruction to standards; (4) creating a culture of continuous learning for adults; (5) using multiple sources of data to assess learning; and (6) activating the community’s support for school success (NAESP, 2001).

Thomas Sergiovanni describes how instructional leadership differs from earlier administrative expectations through a proposed model that identifies five leadership forces: (1) technical, (2) human, (3) educational, (4) symbolic, and (5) cultural (McEwan, 1994; Sergiovani, 1992). The technical aspects of instructional leadership encompass traditional management tasks such as planning, management, theory and organizational development. The human component involves the interpersonal elements of instructional leadership including communication, motivation and facilitation. The educational force includes the instructional factors of teaching, learning and

curriculum implementation. The symbolic aspect represents the principal's ability to model that which is important and purposeful and finally, the cultural force represents the values and beliefs of the organization.

Sergiovanni groups the technical and human leadership skills as those characteristic of most leadership models. He indicates, however, that the educational, symbolic, and cultural leadership forces are those distinct to schools and educational settings. Principals must be adept in instructional strategies, learning theory and curriculum as well as hold the ability to build an organizational culture that enhances an effective learning environment (McEwan, 1994).

The Principal Instructional Management Rating Scale (PIMRS), developed by Phillip Hallinger in 1982, was the first instrument utilized to assess and study instructional leadership (Hallinger, 1983). The instrument has been used in over 100 studies and is considered by many researchers to be the best developed and most utilized. The PIMRS defines the principal's role as inclusive of three dimensions of instructional leadership. It assesses (1) defining the school's mission, (2) managing the instructional program, and (3) promoting a positive school learning environment (Hallinger & Murphy, 1985). Maciel (2005) describes the three dimensions as follows.

Defining the school's mission is concerned with the principal's role in working with staff to ensure that the school has a clear mission and that the mission is focused on academic progress of its students. This dimension assumes that the principal's responsibility is to ensure that the mission exists and is communicated widely to staff. Managing the instructional program is the second dimension. This incorporates three leadership functions: (1) supervising and evaluating instruction; (2) coordinating the curriculum; and (3) monitoring student progress. The principal holds the key leadership responsibility. The third dimension, promoting a positive school learning climate, is a dimension that is broader in scope and intent. It confirms the notion that successful schools create an *academic press*, through the development of high standards and expectations and a culture of continuous improvement. (p. 31)

Hallinger (2003) reviewed the use of the PIMRS in studies on the relationship between instructional leadership and its impact on student achievement from three separate approaches. The first linked the PIMRS measurement of principals directly to student test scores. The second examined *whether principals make a difference* through studying the association between instructional leadership and school effectiveness. And, the third was a comparative group design that studied the link between instructional leadership and school success. Contrary to expectations, the review found varying levels of impact of the principal as instructional leader and was determined to be generally inconsistent across studies. Hallinger determined that the models and the statistical tests employed in most of these studies were inadequate to the task of explaining causal relationships (Maciel, 2005).

In a study of over 1200 principals Smith and Andrews (1989) conducted interviews, site visits and observations to develop their model of an instructional leader. Based on the perceptions of colleagues, the study surmised the instructional leader as: (1) providing the necessary resources so that the school's academic goals can be achieved; (2) possessing the knowledge and skill in curriculum and instructional matters so that teachers perceive that their interactions with the principal lead to improved instructional practice; (3) being a skilled communicator in one-on-one, small group, and large group settings; and (4) being a visionary who is out and around creating a visible presence. They found that teachers who viewed their principals as strong instructional leaders felt that their principal's leadership resulted in improved instructional practice in their classroom, helped them to understand the relationships between instructional practices and student achievement, provided a basis for clearly understanding

evaluative criteria, and established a clear sense of the direction for the school (Smith & Andrews, 1989).

The principal as an instructional leader appears throughout literature as one of the most common characteristics of effective schools. Effective instructional leaders impact student achievement, teacher attitudes, student behavior, and community support. Schools that make a difference in the life of the whole child are, for the most part, led by principals who make a significant and measurable contribution to the effectiveness of the staff and the learning of pupils in their charge (McFarland, 2005).

Transformational Leadership

In a time when accountability issues are impacting schools as they strive to satisfy expectations of state and national standards, change is eminent and time is of significant value. Leaders must find ways to raise the level of student and teacher performance to maintain pace with these rapidly changing ideals. Current instructional leaders have tended to think of their leadership responsibility as the capacity to take charge and get things done in a hierarchical, top down manner. This concept has served many schools and administrators well throughout the 1980s and 1990s, but has often inhibited an emphasis on teamwork and comprehensive school improvement (Liontos, 1992).

In light of current restructuring initiatives that have swept schools into the 21st century, some research indicates that instructional leadership may have served its time and is no longer the vehicle of choice for the necessary transformation. As practitioners cease to view leadership as an aggressive action and more so as a way of thinking

about us, our jobs and the nature of the educational process, some researchers are touting transformational leadership as the evolving model for school success. Leithwood (1992) evokes transformational leadership as a more appropriate range of practice; it ought to subsume instructional leadership as the dominant image of school administration.

The origin of transformational leadership dates back to 1978 when James MacGregor Burns developed the idea to describe the ideal situation between leaders and followers. Bass (1985) extended Burns concept to build a developmental model of leadership defining it as a person who possesses the fundamental qualities of charisma, vision, intellectual stimulation and inspiration. These individuals “reach the souls of others in a fashion that raises human consciousness, builds meaning, and inspires human intent” (p. 3). Burns defined leadership as leaders inducing followers to act for certain goals that represent the values and the motivations, the wants and needs, the aspirations and expectations of both leaders and followers. He declared that the leader is not merely wielding power, but appealing to the values of the follower. Burns insisted that for leaders to have the greatest impact on the led, they must motivate followers to action by appealing to shared values and by satisfying the higher order needs of the led (Burns, 1978).

In a paper titled, *Transformational Leadership*, written from a military perspective, Colonel Mark A. Homrig (n.d.) concluded that transformational leadership should fuse the leader’s vision so strongly in the follower, that both are motivated by high moral and ethical principles. He continues, indicating that the bonds necessary to make transformational leadership possible requires Bass’s (1985) four interrelated

components. To enable leaders to move followers into the transformational style involves (1) idealized influence, (2) inspirational motivation, (3) intellectual stimulation, and (4) individual consideration. Homrig (n.d.) determines the goal of transformational leaders is to inspire followers to share the leader's values and connect with the leader's vision. He states, "When leader and led values are in sync, followers don't have to be supervised. They will know what to do when the time comes, and isn't that the goal of good leadership?" (p. 8). Homrig (n.d, p. 7.) summarized his thoughts into ten tenets describing his view of transformational leadership:

1. Leaders have high moral and ethical values
2. Leaders express genuine interest in followers
3. Leaders have an inspirational vision
4. Genuine trust exists between leaders and led
5. Followers share leader's values and vision
6. Leaders and followers perform beyond self-interest
7. Participatory decision-making is the rule
8. Innovative thinking and action is expected
9. Motivation is to do the right thing
10. Leaders mentor

In the 1990s, transformational leadership became a subject of empirical inquiry in educational research. Researchers began to make systematic attempts to explore the meaning and use of the model in schools. Considerable evidence suggests that transformational leadership practices do contribute to the development and commitment in schools (Leithwood & Jantzi, 2000).

To date, Leithwood (1992) and colleagues have provided the most fully specified model of transformational school leadership that has been the object of several dozen studies from 1990 to the present (Leithwood & Jantzi, 2000). They completed three

studies in an ongoing series aimed at addressing the issues of transformational leadership. They studied schools initiating reforms of their own choice as well as schools responding to district and state initiatives. Their results suggested that transformational school leaders are in more or less continuous pursuit of three fundamental goals: (1) helping staff members develop and maintain a collaborative and professional school culture, (2) fostering teacher development, and (3) helping them solve problems together more effectively. Other studies by Leithwood and colleagues found sizeable influence of transformational practices on teacher collaboration and highly significant relationships between aspects of transformational leadership and teachers' own reports of changes in attitudes toward school improvement and altered instructional behavior. Their studies judged the effects of transformational educational leadership to be quite limited, but uniformly positive (Leithwood, 1992).

Leithwood (1994, p. 507) defined seven transformational leadership behaviors in later studies as follows:

1. Identifies and articulates a vision
2. Fosters the acceptance of group goals
3. Conveys high performance expectations
4. Provides appropriate models
5. Provides intellectual stimulation
6. Provides individualized support
7. Contingent reward

He then modified them somewhat by describing the dimensions of leadership in four categories. The categories described below formed the basis for *The Nature of Leadership Survey* (Leithwood, 1997) utilized in numerous leadership studies. The categories are:

1. Culture: shares power, supports collaboration, frequent communication, uses symbols and rituals to express values, provides resources
2. Structure: distributes power, shares decision making, allows for autonomy, allows for planning time to enable collaboration
3. People: provides individual support, models good practice, provides intellectual stimulation
4. Purposes: develops vision, builds consensus about group goals and priorities, and holds high expectations (Elliott, 2000, p. 68)

The instrument utilized in this study to measure principal leadership behaviors is the PLQ that was developed by (Jantzi & Leithwood, 1996) in a study to explain the variation of teachers' perceptions of transformational school leadership. The questionnaire includes 24 items representing six constructs: (1) provides vision or inspiration, (2) models behavior, (3) fosters commitment to group goals, (4) provides individual support, (5) provides intellectual stimulation, and (6) holds high performance expectations. This study resulted in three implications. First, doing good work on behalf of one's school, and being seen to do such work, is likely to be the most powerful strategy for positively influencing teachers' perception of one's leadership. Second, visibly contributing to the school's mission, vision, and goals; culture; programs and instruction; policies and organization; decision-making structures; and resources in ways that teachers find helpful is likely to be interpreted by teachers as a sign of leadership. And the third implication of the study concerns the role of unalterable variables in accounting for teachers' leader perceptions, particularly in the role of leader gender.

Leithwood and Jantzi (1999) replicated a study in a large district in Canada involving all teachers in 98 schools. The results of the replication were consistent with previous studies of transformational leadership. They confirmed that transformational

leadership practices have a modest, but statistically significant, effect on student engagement. The replication determined that family educational culture continued to explain very large proportions of student engagement and organizational conditions behaved as two variables rather than one as indicated in previous studies.

Transformational leadership had strong effects on organizational conditions as a whole in the earlier studies, but only on school conditions in the replication. There were implications of weak, but significant total effects on student identification in both studies, but substantial effects on participation only in the previous study. This study hints at a more complex set of interactions between leadership, school conditions and family educational culture in the production of student outcomes.

Transformational leadership focuses on the importance of teamwork and comprehensive school improvement as an alternative to other models. At issue is more than who makes the decisions, but more importantly, finding a way to be successful by collaboratively defining the essential purpose of teaching and learning. It entails empowering the entire school learning community to become focused and driven. In schools that maintain these components, teaching and learning become transformative for everyone (Liontos, 1992).

Principal Leadership and Teacher Efficacy

Hipp, 1995

In 1995 Kristine Hipp conducted a study involving 280 teachers and ten principals from ten middle schools in Wisconsin. The study addressed four major questions and one ancillary question.

1. Are selected leadership behaviors of principals related to teachers' general teaching efficacy (GTE) and personal teaching efficacy (PTE)?
2. Do principals and teachers perceive the leadership behaviors and intentions of principals similarly?
3. Are there personal factors related to teachers' sense of efficacy, i.e., (a) gender, (b) years of teaching experience, and (c) educational level?
4. Are there organizational factors related to teachers' sense of efficacy, i.e., (a) grade level, (b) grouping practices, and (c) academic emphasis?
5. Ancillary question: Is there empirical support for separating the construct of efficacy into general teaching efficacy and personal teaching efficacy?

The participants completed the Nature of Leadership portion of Leithwood's (1993) *The Change Process in Secondary Schools* (1993). In addition, teachers completed a personal data sheet and an adapted version of Gibson and Dembo's (1984) teacher efficacy scale (TES). Upon completing data analysis, three sites were selected for case study examination: (1) the school with the highest reported general teaching efficacy; (2) the school with the highest reported personal teaching efficacy; and (3) the school with the lowest average reported general and personal teaching efficacy. Interviews were conducted with thirty-four teachers from the three schools and the principals in all ten schools to identify the leadership behaviors of principals that strengthen teacher efficacy, to verify the constraints that limit the influence of those leadership behaviors, as well as to understand salient personal and organizational factors related to teachers' sense of efficacy. Multiple data sources were utilized involving quantitative survey data, telephone interviews with principals, structured interviews with teachers and principals, observational data, and researcher field notes (Hipp, 1995).

The findings of the study in relation to the five questions are:

Question 1: Significant relationships were found between general teaching efficacy and three of Leithwood's transformational leadership factors: models

behavior, provides contingent rewards, and inspires group purpose. Also, two leadership behaviors were significantly related to teachers' personal teaching efficacy: models behavior and provides contingent rewards.

Question 2: Principals' ratings of leadership behaviors were significantly higher than the ratings of teachers.

Question 3: Statistically significant relationships between personal teaching efficacy and gender were indicated. Female teachers reported a significantly higher level of PTE than did male teachers across the 10 schools.

Question 4: Statistically significant relationships between both general teaching efficacy and personal teaching efficacy were indicated as well as academic emphasis across schools. In addition, core teachers reported higher levels of GTE and PTE than were reported by their non-core counterparts.

Question 5: Reported scores on the teacher efficacy scale indicated that teachers' personal teaching efficacy was significantly higher than their general teaching efficacy.

The study revealed direct principal's behaviors, as well as indirect symbolic forms of instructional leadership that influence teachers' work and its outcomes. It identified ten leadership behaviors that impact teacher efficacy: (1) models behavior, (2) believes in teacher capacity, (3) inspires group purpose, (4) promotes teacher empowerment and shared decision making, (5) recognizes teacher efforts, (6) provides personal and professional support, (7) manages student behavior, (8) promotes a sense of community, (9) fosters teamwork and collaboration, and (10) encourages innovation and continual growth (Hipp, 1995). The principal is designated as the key to facilitating decisions that affect the working conditions of the school as well as the professionals who work in it. Hipp's (1996) study concludes:

If a strong sense of efficacy motivates teachers to higher levels of competence and success, then an increased focus on this teacher attribute is critical. Nonetheless, if school leaders continue to ignore teachers' sense of efficacy and environmental conditions affecting their work, then committed young teachers, as well as experienced teachers, will begin to question their potential to affect change in student behavior; and worse yet, may decide to leave the profession. (p. 31)

King, 2000

In 2000, Joseph King conducted a study examining the teacher principal relationship and teacher efficacy. He examined three hypotheses:

Hypothesis 1: There is no significant relationship between the dimensions of teacher-principal interpersonal relations and teachers efficacy.

Hypothesis 2: There is no significant relationship between the dimensions of teacher-principal interpersonal relations and general teacher efficacy.

Hypothesis 3: There is no significant relationship between dimensions of teacher-principal interpersonal relations and personal teacher efficacy.

The participants in the study were one elementary teacher from 124 elementary schools representing 21 school divisions in Region 5 of central Virginia. The teachers were asked to complete two questionnaires; the Barrett-Lennard Relationship Inventory and Gibson and Dembo's teacher efficacy scale. The Barrett-Lennard Relationship Inventory was used to measure the independent variable; interpersonal relations and Gibson and Dembo's TES was used to measure the independent variables; teacher efficacy, general teacher efficacy, and personal teacher efficacy (King, 2000).

The findings of Kings's (2000) study indicated:

- Hypothesis 1: No significant relationship was found between teacher perceptions of teacher-principal interpersonal relations and teacher efficacy, however, there was a statistically significant relationship between the congruence dimension of teacher-principal interpersonal relations and teacher efficacy. This indicates that teachers perceive their relationship with principals as being characterized by a consistency of trust, confidence, honesty, and sincerity.
- Hypothesis 2: No relationship was found between teacher perceptions of teacher-principal interpersonal relations and general teacher efficacy. Neither were there significant correlations between individual dimensions of GTE.
- Hypothesis 3: A statistically significant relationship was found between teacher perceptions of teacher-principal interpersonal relations and personal teacher efficacy. This indicates that teachers who perceive their principals as

having advanced interpersonal relationship skills also had high personal efficacy scores. (p. 64)

The findings of this study suggest the need for principals to focus on cultivating the interpersonal relationships with teachers to foster the growth of teachers general and personal efficacy beliefs. Principals should strive to develop more positive relationships with teachers because the promotion of the relationship influences teachers individual instructional skills and abilities. The researcher also concludes that principals can impact student achievement if teachers view them as being sensitive, trustworthy, consistent, and respectful in their relations towards teachers (King, 2000).

Elliott, 2000

Another study in 2002 from the University of Connecticut by Elliott examined the relationship between teacher efficacy and principal leadership behaviors and the extent to which the relationship is affected by teacher background variables of gender, years of experience and educational level in elementary schools. The study explored how a principal's day to day behavior relates to a teacher's sense of efficacy. Four questions were investigated.

Question 1: What is the relationship between teachers' sense of efficacy, both general and personal, and teachers' perceptions of their principals' leadership behaviors?

Question 2: Does the level of teachers' sense of efficacy, both general and personal, differ with respect to select background variables of gender, years of teaching experience, and educational level?

Question 3: What is the relationship between teachers' sense of efficacy, both general and personal, and teachers' perceptions of their principals' leadership behaviors after controlling for the effects of the background variables of gender, years of experience and educational level?

Question 4: How do principals foster teachers' sense of efficacy in their schools?
(p. 6)

In Phase 1 of the study participants consisted of teachers and principals in ten elementary schools in educational reference group B in Connecticut. The schools were classified by the state department of education in educational reference groups (ERG) to enable educators to fairly compare groups of districts with similar characteristics. Educational reference group schools were selected because they were rated as having high socioeconomic populations with ample resources available for education which created favorable working conditions for teaching and learning. All teachers in the ten schools received Gibson and Dembo's TES and NLS (Leithwood, 1997) along with a personal data form to identify teacher background information. The NLS was used to measure teachers' perceptions of their principals' leadership behaviors and the TES measured teachers' efficacy as general or personal teaching efficacy (Elliott, 2000).

In Phase 2 three schools with the highest aggregated efficacy scores were selected for follow-up interviews to answer the fourth research question. The researcher also interviewed teachers from one of the schools with the lowest efficacy scores. Teachers from each of the four schools were randomly selected from those that had indicated on their personal data sheet that they would be willing to participate in follow-up interviews (Elliott, 2000).

The quantitative findings related to the first three questions indicated a significant correlation was demonstrated between individual support and general teaching efficacy. No other leadership behaviors characterized in Leithwood's constructs were reported to have a significant relationship to teacher efficacy, either general or personal. Data analysis also indicated significant difference between gender and general teaching efficacy with a higher level demonstrated by female teachers as compared to male

teachers. However, no significant gender differences appeared for personal teaching efficacy. Neither were there significant differences between years of experience or educational level and general teaching efficacy or personal teaching efficacy (Elliott, 2000).

When combined effects of background variables and leadership behaviors on general and personal teaching efficacy were examined, only individualized support fosters vision and goals, and collaborative decision making were able to explain general teaching efficacy. The same combination of variables delivered no significant predictors of personal teaching efficacy (Elliott, 2000).

In the follow-up interviews of phase two, which addressed question four, the leadership category of individualized support was the category with the most identifiable input. Respondent teachers indicated that their principal's individual support was quite critical to their efficacy. Teachers also identified goals as being important road maps for instruction. Collaborative decision-making was described as being an important aspect of teacher efficacy in that it helped develop certainty of practice. The teachers viewed their principals as hard workers who modeled expected behavior and communicated reciprocal expectations for the staff. Also, three aspects of the principal's work were described as having a negative impact on the principal/teacher work relationship. Those being managerial aspects symbolized as central office responsibilities, the demand of time required in meetings for special needs students, and the principal's ability to foster respectful, trusting relationships with the staff (Elliott, 2000).

Staggs, 2002

Staggs (2002) conducted a study that considered the relationships among teacher perceptions of principal leadership, teacher efficacy and school health in schools at the end of a five year improvement program. The school improvement program was the Venture Capital Initiative Program from Ohio's Commitment to School Renewal project of 1993. The Ohio program encouraged systematic change and awarded grants to individual schools that chose to implement the program. To participate and receive the grant, the school had to document support of 80% of the professional staff.

The participants in the study were teachers from 103 schools who had participated in the Venture Capital Initiative Program for five years, whose principal had been with the school for all five years of participation and who chose to participate in the study. Each teacher was sent The Organizational Health Inventory and the TES to be completed at a planned faculty meeting. Two thousand five hundred fifteen surveys were received for analysis. Staggs (2002) study asked six questions:

1. How is teacher perception of school health related to teacher efficacy?
2. How is teacher perception of principal leadership related to teacher efficacy?
3. How is teacher perception of principal leadership related to teacher morale?
4. How is teacher perception of principal leadership related to academic emphasis?
5. How are teacher perceptions of institutional integrity, academic emphasis and morale related to teacher efficacy?
6. How is demographic information (gender, teaching experience, and educational level) related to teacher efficacy? (p. 5)

The results of the study generally indicated the principal leadership is significantly related to teacher efficacy at all academic levels. A task oriented focus by

the principal appeared to promote the sense of teaching, but other variables also contributed to the prediction of the magnitude of a teacher's level of efficacy (Staggs, 2002).

General efficacy at the high school level was the only area that did not appear to be related to teacher perceptions of school health. In addition, academic emphasis and institutional integrity were found to be significantly related to teacher efficacy at all school levels with the satisfaction of instrumental needs being a substantial predictor of teacher efficacy. Teaching experience at the middle and high school levels appeared to have a negative impact on teacher efficacy and elementary results reported a positive effect. Gender does not seem to be a critical connective component at the middle school level, but reportedly does so at the elementary and high school levels.

Teacher perceptions of principal leadership were reportedly correlated significantly with general teaching efficacy, but not personal teaching efficacy in the elementary schools. Middle school teacher perceptions of principal leadership were found to be positively correlated with both types of teaching efficacy. High school teacher perceptions of principal leadership indicated a significant correlation with personal teaching efficacy, but not to general teaching efficacy. Teacher perceptions of school health were correlated significantly with both types of teaching efficacy in the elementary, middle, and high schools.

Ross and Gray, 2004

Ross and Gray, from the University of Ontario, reported in a paper presented at the annual meeting of the American Educational Research Association in 2004 of a

study they conducted to examine transformational leadership and teacher commitment to organizational values in relation to the mediating effects of collective teacher efficacy. The study investigated the mediating effects of teacher efficacy by comparing two models derived from Bandura's social-cognitive learning theory. The first model hypothesized that transformational leadership would contribute to teacher commitment to organizational values exclusively through collective teacher efficacy. The second model predicted that leadership would have direct effects on teacher commitment and indirect effects through teacher efficacy (Ross & Gray, 2004).

Study participants were 3074 teachers from 218 elementary schools in two large school districts in Ontario, Canada. The teachers responded to a 46 item Likert-scale survey that acquired responses for five variables: (1) transformational leadership, (2) collective teacher efficacy, (3) teacher commitment to school mission, (4) teacher commitment to school as a professional learning community, and (5) teacher commitment to school-community partnerships (Ross & Gray, 2004).

The main finding of the study was that collective teacher efficacy is a partial mediator of the effects of transformational leadership on teacher commitment to organizational values. More specifically, Ross and Gray's (2004) study indicated three important findings.

1. Transformational leadership has a notable impact on the collective teacher efficacy of the school. The leadership/efficacy relationship matters because of the well established connection between collective teacher efficacy and student achievement
2. Collective teacher efficacy strongly predicted commitment to community partnerships. The influence of the principal on community partnerships was entirely mediated by collective teacher efficacy. The influence of leadership on teacher commitment to community partnership through collective efficacy matters because researchers have forged strong consistent links between

parent involvement in their children's education and higher student achievement

3. Transformational leadership had direct effects on teacher commitment, independent of agency beliefs. Commitment to school mission was the strongest outcome, one that is especially important given evidence that it is a strong predictor of group effectiveness. Commitment to professional community also matters because of the association of professional community with productive school change (p. 16)

The study concluded that the principal has the responsibility to offer a variety of opportunities to improve the collective beliefs of the campus staff. In conclusion the researchers recommend three administrative actions:

First principals should overtly influence teacher interpretations of school and classroom achievement data. The critical leadership task is to help teachers identify cause-effect relationships that link their actions to desired outcomes. Teachers need to recognize which of their skills contribute to achievement, that they control the acquisition and exercise these skills, and that they need to take responsibility for the successes and failures of their students;

Second, principals should help teachers set feasible, proximal goals to increase the likelihood of mastery experiences; and

Third, they need to provide teachers with access to high quality professional development and provide constructive feedback on their skill acquisition (Ross & Gray, 2004, p. 18).

Summary

In examining the relationship between teacher efficacy and teachers' perceptions of their principals' leadership behaviors, I based the theoretical foundation for the study on Bandura's social cognitive learning theory (SCLT) and four prominent leadership theories; bureaucratic, open, social, and contingency. The review of research consisted of investigations and studies on teacher efficacy and principal leadership as well as the relationship of teacher efficacy and principal leadership involving a variety of situational and experiential variables.

The general results of the research varies from study to study, but appears to indicate a consistent pattern of a confirmed relationships between the magnitude of teachers' sense of efficacy and their principals' leadership behavior. The impact differs with the influence of factors such as experience, instructional level, gender, and other various background variables. But regardless, whether personal or general, efficacy is often affected to some extent by the leadership behaviors of the principal.

The majority of recent studies measure the impact of administrative leadership on personal and general teaching efficacy. The research minimally emphasizes relevant classroom factors and representative dimensions of effective instruction. This study utilized Tschannen-Moran and Woolfolk Hoy's TES, which was designed to portray the richness of teachers' work by focusing specifically on three constructs of teacher efficacy that impacts effectiveness in the classroom: (1) efficacy in student engagement, (2) efficacy in instructional strategies, and (3) efficacy in classroom management. The correlation of principal leadership behaviors to these three factors will provide valuable information in determining the measure of principals' impact on important instructional facets of teacher efficacy. The following chapter presents the methodology utilized to investigate the current study of the relationship of teacher efficacy and teachers' perceptions of their principals' leadership behaviors.

CHAPTER 3

METHODOLOGY

This study examined the relationship between teacher efficacy and teachers' perceptions of their principals' leadership behaviors. Teacher's efficacy was measured; general leadership behaviors of participant teachers' efficacy, quantify general leadership behaviors of participant teachers' principals was quantified; correlations between teacher efficacy and principal leadership behaviors were determined; and leadership strategies that foster teacher efficacy were identified. The Web surveys were sent to teachers in eight public school districts and two private schools of Wichita, Archer and Clay counties in Texas followed by gathering a focus group of teachers with measurably strong efficacy, creating a set of practices that impact teacher efficacy.

Research Questions

1. What is the relationship between teachers' sense of efficacy and teachers' perceptions of their principals' leadership behaviors?

Hypothesis: There is a positive correlation between teachers' sense of efficacy and their perceptions of their principals' leadership behavior.

2. Do teachers' perceptions of the relationship between teacher efficacy and their principals' leadership behaviors differ between elementary, middle and high school teachers?

Hypothesis: The significance of the relationship between teachers' sense of efficacy and principal leadership behaviors diminishes from elementary to middle school to high school teachers.

3. What principal leadership practices significantly impact teachers' sense of efficacy in elementary, middle, and high schools?

Hypothesis: Teachers at each of the three designated instructional levels will identify common leadership practices that impact individual teacher efficacy, but strategies that more significantly impact collective efficacy and/or organizational

efficiency will grow in significance from elementary to middle school to high school.

General Perspective

The study was correlational in nature and employed both quantitative and qualitative methods to answer the three specified research questions. Question 1 was addressed through the teacher sense of efficacy scale (TSES) and the principal leadership questionnaire (PLQ) completed by teacher participants who were selected through systematic random sampling. The selected participants were sent both surveys to be completed and returned electronically. The survey data was sent, returned and quantified through a Web-based survey and questionnaire service. Analysis of the quantified data was achieved through SPSS™ (SPSS Inc., <http://www.SPSS.com>).

Question 2 proposes to distinguish its purpose by addressing the question of teachers' perceptual differences of elementary, middle and high school teachers. Participant data was gathered, quantified, and analyzed separately to qualify the distinct correlation between teacher efficacy and principal leadership behaviors as perceived by teachers of the three specified academic levels. Correlations in the range of 0.20 to 0.40 are the common expectation for explored relationships between educational variables and were the accepted standard for Questions 1 and 2.

Question 3 was accomplished through qualitative analysis of a focus group meeting where participants answered open-ended interview questions (Appendix A) in a predetermined sequence to determine principal leadership strategies and/or activities that impact teachers' sense of efficacy. Selected teachers in the focus group participated as three subgroups and compiled lists of transformational principal

leadership strategies. The focus group consisted of three elementary, five middle schools and three high school teachers whose teacher efficacy score on the teacher efficacy survey fell within the top 25% of efficacy surveys returned.

Research Context

The study utilized teacher participants from eight public school districts and two private schools in Wichita, Archer and Clay counties of Texas. The name of each school and district is identified as school PuA, PuB, PrA, PrB etc. to maintain anonymity and protect the privacy of the schools and teacher participants. The public schools range from student populations of 503 to 14,872 and the private schools range includes student populations of 167 to 271. Table 1 describes relative demographics of each of the participating schools and districts.

Table 1

School Demographic Data

	Pop	Elem	Mid	HS	Mid/ High	% Ethnicity			SocEC	
						W	H	B	Other	% ED
PuA	14872	19	4	3		56	23	18	3	52
PuB	3581	3	1	1		79	9	8	4	43
PuC	1824	2	1	1		94	4	0	2	35
PuD	1059	1			1	68	15	12	5	56
PuE	868	1	1	1		95	3	1	1	25
PuF	1032	1	1	1		93	4	2	1	29
PuG	538	1			1	95	4	1	0	27
PuH	503	1			1	78	2	0	0	46
PrA	262	1			1	88	7	5	0	0
PrB	167	1				96	2	1	1	0

Note. Public School data acquired from TEA Website, Accountability – District AEIS Reports; private school data also acquired from the TEA Website through the National Center for Educational Statistics link and the Private School Universe Survey.

The study began in fall 2006 when district superintendents and executive administrators will be contacted for written consent to authorize teacher participation. Random selection of teacher participants were conducted followed by acquisition of electronic addresses from district and private school technology personnel and/or school Websites. Systematic, yet randomly selected teachers were electronically mailed the TES (Tschannen-Moran & Woolfolk Hoy, 2001) and the PLQ (Jantzi & Leithwood, 1996) and were returned within two weeks of receipt. Survey data was quantified and analyzed for interpretation to answer Questions 1 and 2. Focus group participants were contacted immediately following the survey deadline to meet and compile qualitative data of relevance to strategies and activities that accomplished Question 3.

Research Participants

Study participants were teachers from public and private schools in Wichita, Archer and Clay counties of Texas. Teacher lists were developed for random selection of elementary, middle and high school teachers. Participant teachers were identified from school and district lists acquired from school Websites and district technology personnel.

Preliminary development of the teacher lists indicated that there are approximately 1,022 elementary, 331 middle and 582 high school teachers in the described schools and districts. With the intent of identifying 100 teacher participants from each academic level of instruction, I initially selected a total of 300 teachers. To systematically, yet randomly, select approximately 100 teachers from each list, I placed the districts and private schools in alphabetical order by name and maintained the

arbitrary order of the teacher lists as they were acquired. The teacher participants were identified by selecting every 10th elementary teacher, every 3rd middle school teacher and every 5th high school teacher from the compiled district and private school lists. Aiming for a goal of 50% return of the surveys, the study intended to utilize data from at least 50 elementary, 50 middle and 50 high school participant teachers to answer Questions 1 and 2.

Answering Question 3 required the development of a continuum of teacher efficacy scores from the lowest to the highest total score for elementary, middle and high school teachers from the returned teacher efficacy scales. Beginning with teachers with the highest efficacy score and graduating downward, I invited five teachers from each of the academic levels to meet at a common time and location to participate in a focus group session to address the requirements of answering the question. The results of each session were video recorded. The intent of the selection process and focus group was to identify effective principal leadership strategies among teachers exhibiting the highest self-efficacy of the randomly selected groups. Each of these teachers was in the top 25% of the study's participant sample.

Instrumentation and Data Collection

Instrumentation for the collection of data for this study included three questionnaires. First, the TSES developed by Tschannen-Moran and Woolfolk Hoy (2001) was utilized to establish teacher participant efficacy. Next, the PLQ developed by Jantzi & Leithwood (1996) was used to measure teachers' perceptions of their principals' leadership behaviors. These two survey tools were utilized as Web

questionnaires allowing participants to log on to a survey Web site, respond to each Likert-scale item and electronically submit the completed questionnaire. And last, I made a focus group questionnaire, (Appendix A) which was used to develop a list of transactional principal leadership strategies that positively impact teacher efficacy.

Written permission was requested and received to use the TSES from Dr. Tschannen-Moran, associate professor, at the School of Education of The College of William and Mary in Williamsburg, Virginia. (Appendix C & D) The same was accomplished for the PLQ from Dr. Jantzi, senior research officer, of the Department of Theory and Policy Studies at the Ontario Institute for Studies in Education of the University of Ontario in Ontario, Canada. (Appendix E & F) The author of each instrument forwarded written permission along with the requisite reference citation. Within this correspondence they each requested a copy of the data and research findings accomplished through the utilization of their instrument (Appendix B).

The development of the TSES, also known as the Ohio State teacher efficacy scale, was initiated by participants in a seminar on self-efficacy in teaching and learning in the College of Education at the Ohio State University. The seminar was an effort to develop a new instrument to measure teacher self-efficacy with an optimal level of specificity while maintaining an acceptable level of reliability and validity. The group decided to base the new measure on Bandura's teacher self-efficacy scale (n.d.) as well as to include a broader representation of the tasks of teaching not currently considered. The new scale more accurately portrays the richness of teachers' work as well as the requirements of good teaching and includes five additional factors: (1) assessment; (2)

adjusting the lesson to individual student needs; (3) dealing with learning difficulties; (4) repairing student misconceptions; (5) motivating student engagement and interest.

The new TSES was examined and tested in three separate studies resulting in a long form of the instrument with 24 items and a short form with 12 items. Three factors emerged in the second study as the new group refined the items in the new instrument: (1) efficacy in student engagement; (2) efficacy in instructional strategies; and (3) efficacy in classroom management. Each group used a factor analysis to test the instrument by computing an efficacy subscale score for each factor and calculating the mean of the responses to the individual items. The final analysis of the three subscales suggested that both the long form and the short form would reliably measure the construct of teacher efficacy. A total score, as well as three subscale scores can be calculated with the total score being the most likely means of gauging efficacy (Tschannen-Moran & Woolfolk Hoy, 2001).

Table 2

TSES Subscale Factor Items

Factor	Item #
Efficacy in Student Engagement	1, 2, 4, 6, 9, 12, 14, 22
Efficacy in Instructional Strategies	7, 10, 11, 17, 18, 20, 23, 24
Efficacy in Classroom Management	3, 5, 8, 13, 15, 16, 19, 21

The participants in study three examined the construct validity of both forms by correlating the TSES to other existing measures of teacher efficacy (Kerlinger, 1986). The total scores on the TSES were positively related to the other efficacy measures providing evidence for construct validity of the instrument. As teacher efficacy is

considered to be an elusive construct, the TSES is superior to previous measures as it assesses a broader range of factors considered important to good teaching (Tschannen-Moran & Woolfolk Hoy, 2001).

Table 3

TSES Reliabilities

	Long Form			Short Form		
	Mean	SD	alpha	Mean	SD	alpha
TSES	7.1	0.94	0.94	7.1	0.98	0.90
Engagement	7.3	1.1	0.87	7.2	1.2	0.86
Instruction	7.3	1.1	0.90	6.7	1.2	0.86
Management	6.7	1.1	0.90	6.7	1.2	0.86

Note. Scale – 9 point Likert from *None at all* to *A great deal*

The principal leadership questionnaire was used to measure teachers' perceptions of their principals' leadership behaviors. The PLQ was developed from a study by Jantzi & Leithwood (1996) titled, *Toward an Explanation of Variation in Teachers' Perceptions of Transformational School Leadership*. The study had two purposes: (1) to develop a theoretical account of how teachers' perceptions of transformational school leadership are formed, and (2) to provide an initial, empirical test of the theory. It cited the challenges of school restructuring as reasons for advocating a move from instructional to transformational forms of leadership (Leithwood, 1992). The conception of transformational leadership included in the study is the result of empirical research by (Leithwood, 1994) aimed at adapting models of transformational leadership for schools. Six dimensions of leadership practices encompass this adapted conception:

1. Provides Vision (PV) – behavior on the part of the leader aimed at identifying new opportunities for his or her school and developing, articulating, and inspiring others with his or her vision of the future
2. Fosters Commitment (FC) – behavior on the part of the leader aimed at promoting cooperation among staff members and assisting them to work together toward common goals
3. Provides Individual Support (IS) – behavior on the part of the leader that indicates respect for staff members and concern about their personal feelings and needs
4. Provides Intellectual Stimulation (NS) – behavior on the part of the leader that challenges staff members to reexamine some of the assumptions about their work and rethink how it can be performed
5. Models Behavior (MB) – behavior on the part of the leader that sets an example for staff members to follow consistent with the values the leader espouses
6. Holds High Performance Expectations (HE) – behavior that demonstrates the leader’s expectations for excellence, quality, and high performance on the part of the staff (Jantzi & Leithwood, 1996)

Table 4

PLQ Dimension Item Distribution

Dimension	Item #
Provides Vision (PV)	1, 2, 3, 4, 5
Models Behavior (MB)	6, 7, 8
Fosters Commitment (FC)	9, 10, 11, 12, 13
Provides Individual Support (IS)	14, 15, 16, 17, 18
Provides Intellectual Stimulation (NS)	19, 20, 21
Holds High Performance Expectations (HE)	22, 23, 24

Reliabilities for each dimension were measured as Cronbach’s alpha using SPSS. With the instrument utilizing a four point Likert scale from *Strongly agree* to *Strongly disagree*, the resulting reliabilities are as follows.

Table 5

PLQ Reliability

Leadership Dimension	Mean	SD	alpha
Provides Vision (PV)	3.0	0.48	0.91
Models Behavior (MB)	3.0	0.58	0.88
Fosters Commitment (FC)	3.1	0.54	0.80
Provides Individual Support (IS)	3.1	0.55	0.82
Provides Intellectual Stimulation (NS)	3.0	0.51	0.77
Holds High Performance Expectations (HE)	3.0	0.60	0.73

Construct validity of the model was measured with limited tests conducted by combining the responses to two surveys. These combined data resulted in no differences of theoretical or practical consequences among teachers perceptions of the six individual transformational leadership dimensions, with one exception being *expectations* (Jantzi & Leithwood, 1996).

The focus group questionnaire (Appendix A) addressed Question 3 by using standard open-ended interview questions in a predetermined sequence to minimize the possibility of bias. A 15-member focus group of teacher respondents in the top 25% of the returned teacher efficacy surveys answered three questions. The questions inquired about principal strategies that: (1) impact the three factors from the TSES; (2) affect teachers personal feelings about teaching; and (3) negatively impact teachers' ability to teach. The results are a list of principal strategies/behaviors that impact each distinct factor of the three questions. The questionnaire was field tested with at least two teachers from each of the designated levels of instruction for clarity and content.

Three sub-groups distinctly comprised of elementary, middle and high school teachers separately brainstormed the three questions. Each of the group sessions were video recorded and transcribed to control for researcher bias. Responses related to each question were listed and compared by level of instruction. Leadership behaviors common to each level were distinguished and emphasized in the findings. The list of strategies was reviewed by the peer reader for accuracy.

Data Analysis

Quantitative data gathered from all teacher participants were electronically submitted to SPSS to determine the correlation between teacher efficacy and principal leadership behaviors to address Question 1. SPSS computed the Pearson r to establish bivariate correlation coefficient values for the two variables determining both the magnitude and the direction of the relationship. Frequency and descriptive procedures were used to generate frequency data and descriptive statistics for comparison and interpretation.

Question 2 required that data be gathered from teacher participants of the three distinct groups to accomplish a correlation between the two variables with respect to the respondents' instructional level. SPSS utilized the Pearson r to determine the bivariate correlational coefficient for the same two variables. Results were analyzed to compare the distinct groups for similarities and differences in teachers' perceptions.

Qualitative data were derived from each focus sub-group by video recording the session to provide a complete verbal record. The data were thoroughly studied and analyzed to determine both distinct and common strategies/behaviors that notably relate

to the teachers' sense of efficacy. I categorized the responses by question and distinguished the lists by group. The three lists were then compared for strategies common to the three groups and/or common to more than one group. Each transcript and list was reviewed by the peer reader for accuracy.

Focus groups were a form of group interview that capitalizes on communication between research participants in order to generate data. The process used group interaction to ask questions, exchange anecdotes and comment on participant experiences and points of view. Focus groups were originally used in communication studies and are a popular method for assessing health and education issues (Kitzinger, 1995). Gibbs (1997) states in a review of focus group methodology that:

1. Focus group research involves organized discussion with a selected group of individuals to gain information about their views and experiences of a topic
2. Focus group interviewing is particularly suited for obtaining several perspectives about the same topic
3. The benefits of focus group research includes gaining insights into people's shared understandings of every day life and the ways in which individuals are influenced by other in a group situation (p. 1)

Focus groups can be utilized in the preliminary or exploratory stages of a study (Krueger, 1988). They are also beneficial in their own right or as a complement to other methods for triangulation and/or validity checks (Morgan, 1988).

Summary

This chapter explains the methodology that was used in this correlational study of the effects of principal leadership behaviors on teacher efficacy. Three research questions were addressed through both quantitative and qualitative methods involving two World Wide Web questionnaires and focus group interview questions. The study

participants were teachers systematically, yet randomly, selected from a distinct geographical area in north Texas utilizing lists acquired from district technology personnel and school Websites. The quantitative data was calculated and analyzed with the SPSS data analysis program using the Pearson r to establish a correlation coefficient. The qualitative data from the focus group resulted in a compilation of principal leadership strategies that impact teacher efficacy as perceived by teachers of measurably strong efficacy. The next chapter presents the results of the statistical data and analysis of each of the proposed methods.

Qualitative research is historically valuable to educational research in that it provides an additional avenue of support to traditional quantitative venues. It is grounded in the assumption that individuals construct social reality in the form of meanings and interpretations. The traditional manner of discover is studying variables in natural settings and subjecting the resulting data to analytic induction (Gall, Gall & Borg, 2003). The qualitative component of this study is the focus group which will acquire additional data from a specifically selected participant group.

CHAPTER 4

STUDY FINDINGS

This study examined the relationship between teacher efficacy and teachers' perceptions of their principals' leadership behaviors in eight public school districts and two private schools in north central Texas. Teachers' sense of efficacy was measured with the teacher's sense of efficacy scale (TSES) distinguishing three specific constructs or subscales: (1) student engagement (SE); (2) classroom management (CM); and (3) instructional strategies (IS).

Teachers' perceptions of their principals' leadership behaviors was determined by the principal leadership questionnaire (PLQ) with six distinct constructs: (1) provides vision (PV); (2) models behavior (MB); (3) fosters commitment (FC); (4) provides individual support (IS); (5) provides intellectual stimulation (NS); and (6) provides high expectations (HE).

The study was conducted in two phases using both quantitative and qualitative data. Quantitative data were collected and analyzed from teacher respondents who completed both surveys at three instructional levels: elementary schools, middle schools, and high schools. Qualitative information was gathered through a focus group of teachers whose total efficacy scores were in the top 25% of all respondents from each of the three designated instructional levels.

This chapter presents the study's findings in five sections. The first section describes the data collection procedures. The second section presents the descriptive statistics of the teacher sense of efficacy scale and the principal leadership questionnaire. The third section renders the correlational analysis for Questions 1 and

2. The fourth section exhibits the qualitative responses of the focus group participants to address Question 3. The last section includes a summary of the chapter as well as transition to the concluding chapter.

Data Collection Procedures

An electronic survey service was utilized for distribution and collection of the two surveys. Electronic mail (email) addresses were acquired for 328 systematically, yet randomly selected teachers from the eight public school districts and two private schools. Both surveys were sent to 109 elementary teachers, 108 middle school teachers and 111 high school teachers along with consent notification, completion and submission instructions and a submission deadline. A test message was sent to all participants one week prior to survey distribution to insure accuracy of email addresses. All returned undeliverable emails were followed up with a phone call to the school districts to correct email address errors. Due to the limitations of the survey service each survey had to be sent individually to teacher participants resulting in participants receiving two email messages. Two days prior to the survey completion deadline, all non-respondents were re-sent both surveys to encourage participation and improve survey response rate.

Primarily due to participant error in electronic submission efforts, a few respondents from each group completed or submitted only one of the two surveys. Upon conclusion of the response deadline, follow-up contacts with respondents indicated the rationale for the inconsistency in responses was predominately confusion

over survey service format and the receipt of two similar emails. This resulted in the number of respondents differing by survey and instructional level.

All responses were utilized for collection and analysis of descriptive data, but only participants responding to both surveys were employed for correlational analysis. Table 6 presents the number of surveys completed and returned for use in the study along with the response rate.

Table 6

Survey Activity

Survey Response	Instructional Level		Random Participants	Respondents %
TSES	Elementary	109	54	50%
PLQ	Elementary	109	51	47%
TSES	Middle School	108	61	56%
PLQ	Middle School	108	53	49%
TSES	High School	111	53	48%
PLQ	High School	111	55	50%
TSES	All Levels	328	168	51%
PLQ	All Levels	328	159	48%
Both Surveys	All Levels	656	327	50%

Raw survey data was collected and quantified by the electronic survey service and exported to a spreadsheet to establish descriptive data including sums, means and standard deviation. Descriptive statistics were developed and organized by survey, instructional level and all survey constructs for consideration of impact on research questions and relevant hypothesis. SPSS software analyzed survey responses for survey reliability and correlational measurement. Univariate correlational analysis was conducted to determine a correlation coefficient to establish statistical significance for all

applicable relationships for consideration in addressing Questions 1 and 2.

Total efficacy scores for teachers in each instructional level were compiled to identify teachers in the top 25% of respondents in terms of strength of efficacy. Each of these teachers was invited to participate in the Focus Group meeting intended to identify principal leadership strategies that impact teacher efficacy. Twenty-seven teachers were invited to participate in the Focus Group with 11 communicating their intention to attend. Of the 11 teachers that actually attended the meeting; three were elementary teachers, five were middle school teachers and three were high school teachers. The participants were separated by groups to brainstorm their responses to each question on the focus group questionnaire (Appendix A). After approximately 60 minutes of discussion each group presented their consensus responses to each question. The presentations were scripted on a chart tablet and video recorded for the purpose of transcription and presentation as qualitative data to address Question 3 and the relative hypothesis.

Descriptive Statistics

Descriptive statistics are mathematical techniques for organizing, summarizing, explaining and displaying numerical data. Test reliability, mean scores and standard deviations are the categories of descriptive data presented here. Mean and standard deviations of participant responses are organized by study variable and survey instrument to establish support for the study's correlational data. The total data is then distinguished as each separate instructional group.

Test Reliability

Establishing test and subtest reliability was necessary to determine how much measurement error was present in the scores determined by a test. Estimating the measurement error of the test required the computation of a reliability coefficient, in this case Cronbach's coefficient alpha (α). The reliability of the test was essential to validate the outcomes of the research. Reliability measure of 0.8 or higher is considered sufficiently reliable for research purposes (Gall, Gall, & Borg, 2003). Tables 7 and 8 presents the reliability data for both surveys in relation to all survey constructs and each instructional level of the respondents. As reflected in Tables 7 and 8 survey reliability appeared sufficient in most areas with elementary teacher responses indicating the most significant reliability in both surveys. Responses from the TSES were most significantly reliable in classroom management (CM) and the least significantly reliable in student expectations (SE). The PLQ responses showed the most significant reliability in fosters commitment (FC) and holds high performance expectations (HE) with the least significant reliability in models behavior (MB) and provides intellectual stimulation (NS).

Table 7

Survey Reliability for TSES

Instructional Level	Total	Construct		
		SE	CM	IS
Elementary	0.951	0.876	0.898	0.910
Middle School	0.917	0.785	0.879	0.857
High School	0.943	0.865	0.905	0.891
All Levels	0.939	0.856	0.893	0.886

Table 8

Survey Reliability for PLQ

Instructional Level	Total	PV	MB	FC	IS	NS	HE
Elementary	0.977	0.853	0.891	0.948	0.923	0.894	0.950
Middle School	0.969	0.871	0.873	0.935	0.850	0.795	0.940
High School	0.953	0.886	0.799	0.891	0.816	0.718	0.875
All Levels	0.856	0.869	0.856	0.928	0.868	0.822	0.924

Means and Standard Deviations

Teacher Efficacy

As defined in Chapter 2, teacher efficacy is the extent to which a teacher believes that he/she can affect student performance (Hipp, 1995). It is the teacher's belief in his or her capability to organize and execute courses of action required to successfully accomplish a specific teaching task in a particular context (Tschannen-Moran, Woolfolk Hoy & Hoy; 1998). The TSES utilized a nine point Likert scale ranging from *None at all* to *A great deal* to determine the teacher respondent's sense of efficacy. Each respondent is categorized by instructional level and the study reports the results in terms of total efficacy; efficacy in student engagement (SE), efficacy in instructional strategies (IS), and efficacy in classroom management (CM). Table 9 presents the means and standard deviations of the responses for the 168 respondents by instructional level and survey construct.

Table 9

Teacher Sense of Efficacy Scale - Means and Standard Deviations

Instructional Level	Total		SE		IS		CM	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Elementary	7.19	1.32	6.77	1.33	7.37	1.24	7.38	1.33
Middle School	7.00	1.35	6.35	1.27	7.20	1.23	7.46	1.30
High School	6.96	1.48	6.34	1.39	7.14	1.41	7.38	1.57
All Levels	7.05	1.39	6.50	1.40	7.23	1.29	7.41	1.31

The data indicates that total efficacy diminishes from a mean of 7.19 for elementary teachers to a mean of 6.96 for high school teachers with middle school teachers falling in between at 7.00. Efficacy in student engagement reports the lowest construct efficacy at 6.77 and follows the pattern of total efficacy with elementary teachers showing the highest efficacy scores. Middle and high school teachers maintained very comparable mean scores of 6.35 and 6.34 respectively. Efficacy in instructional strategies continues the pattern of the other constructs, but reveals a larger difference between middle school and high school teachers. The anomaly of the group, however, appears to be efficacy in classroom management. The responses indicated a mean score of 7.46 for middle school teachers and 7.38 for both elementary school and high school teachers, breaking the pattern set by the other constructs.

Figure 1 presents a clearer picture of the strength of total and construct efficacy for each of the three instructional levels. All three groups signify classroom management as the construct of which they feel most efficacious with diminishing mean scores for instructional strategies and student engagement. The composite of all instructional levels continues this same graduated pattern.

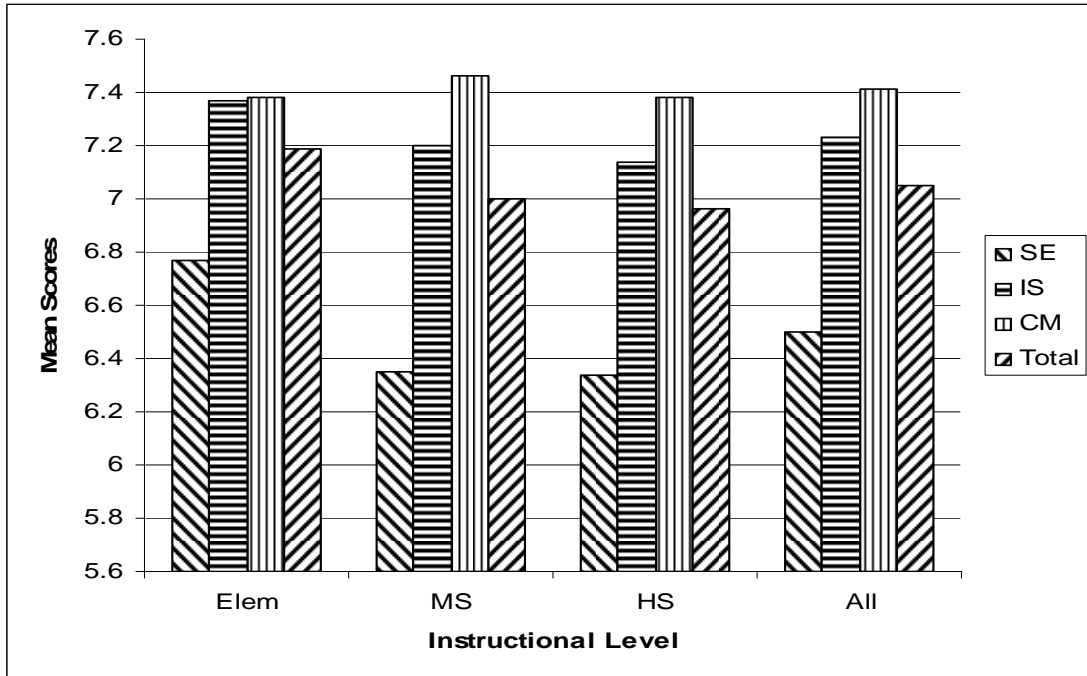


Figure 1. TSES – Instructional group mean scores.

Principal Leadership

Fullan (2003) states, “It takes a dedicated, highly competent teaching force working together for the continuous betterment of schools to produce and sustain a vital public system. You cannot get teachers working like this without leaders at all levels guiding and supporting the process” (p. 5). Understanding teachers' perceptions of this guidance and support is measured in this study by the principal leadership questionnaire (PLQ). The PLQ utilized a four point Likert scale ranging from *Strongly disagree* to *Strongly agree* to measure teachers' perceptions of their principals' leadership behaviors. Each respondent is categorized by instructional level and the study reports the results in terms of total leadership as well as each of the previously stated leadership constructs. Table 10 presents the means and standard deviations of the responses for the 159 respondents by instructional level and survey construct.

Table 10

Principal Leadership Questionnaire – Means and Standard Deviations

		Instructional Level			
		Elementary	Middle School	High School	All Levels
Total	Mean	3.18	3.15	3.03	3.12
	SD	0.79	0.69	0.72	0.73
PV	Mean	3.09	3.15	2.93	3.06
	SD	0.79	0.68	0.73	0.74
MB	Mean	3.11	3.18	2.99	3.09
	SD	0.79	0.67	0.73	0.73
FC	Mean	3.18	3.14	3.07	3.13
	SD	0.78	0.67	0.63	0.70
IS	Mean	3.24	3.20	3.10	3.18
	SD	0.79	0.72	0.76	0.76
NS	Mean	3.18	3.08	2.93	3.06
	SD	0.76	0.65	0.66	0.70
HE	Mean	3.38	3.16	3.15	3.19
	SD	0.78	0.76	0.75	0.76

The data indicates that holds high expectations with an overall mean of 3.19 and provides individual support with 3.18 were perceived to be the most prominent leadership behaviors exhibited by the respondents' principals. Elementary and high school teachers ranked High Expectations, with provides individual support standing second for the same groups and first for middle school teachers. The leadership constructs found to be least significant within the three instructional groups was provides vision and provides intellectual stimulation. The position of these least significant constructs was a bit less consistent than those at the top of the significance

scale. Provides vision placed fifth with elementary and high school teachers and fourth for middle school teachers with providing intellectual stimulation falling sixth for middle school, fifth for high school and third for elementary school teachers. Each of these constructs had a mean score of 3.06 for all instructional levels combined. Models behavior and fosters commitment fell within the mid-range of the mean scores at 3.09 and 3.13 respectively.

Figure 2 portrays the spectrum of the principal leadership constructs within the different instructional groups more clearly. It clarifies the similarity in construct pattern exhibited by elementary and high school teachers as well as the distinctness of the middle school group. The order of significance for elementary and high school teachers is closely the same with holds high expectations as the most significant leadership characteristic. However, the overall mean scores of high school teachers stands noticeably below that of both elementary and middle school teachers.

As Table 10 and Figure 2 both signify, middle school teachers differ from the other two instructional groups with a smaller range within their construct mean scores as well as a lower standard deviation. Middle school teachers also perceive the significance of the principals' leadership constructs in a completely different order than that of the other two groups. Provides individual support is reportedly the most significant trait middle school principals demonstrate and provides intellectual stimulation is the least. Figure 2 also conveys the pattern of the composite means for all levels which closely mirrors that of elementary and high school teachers.

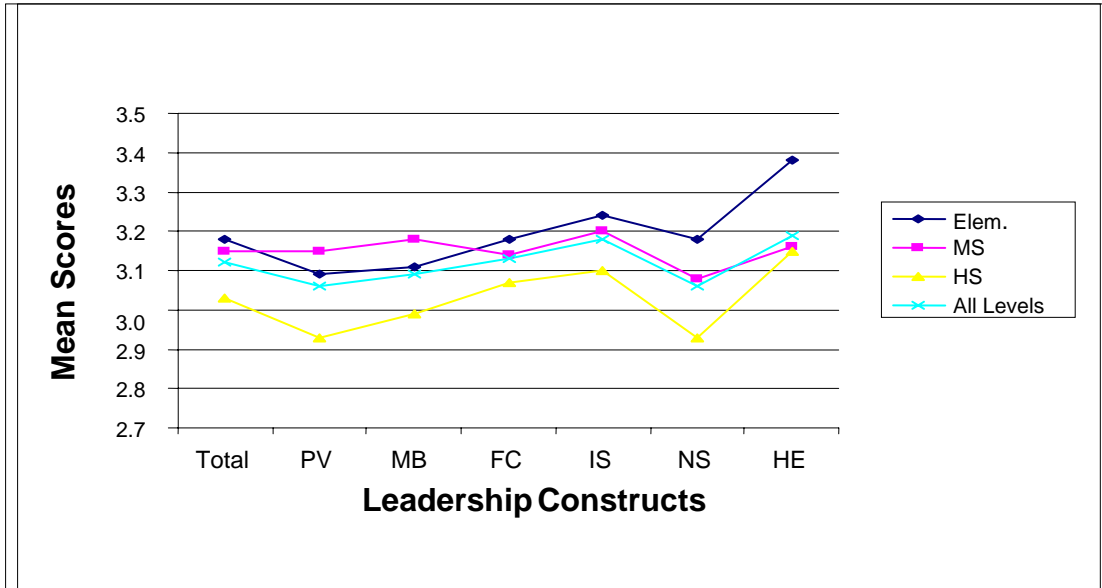


Figure 2. PLQ – Instructional group mean scores.

Correlational Analysis

The data gathered from the two surveys was utilized to establish a correlation between teacher efficacy and principal leadership behaviors to address Questions 1 and 2 as presented in Chapter 1. Statistical significance was measured between both main variables and constructs within each main variable for elementary, middle and high school teachers. A univariate correlation coefficient was used to determine the magnitude of the relationships using Pearson r for statistical computation. The level of statistical significance considered acceptable for the study was $p < .05$ which is generally the acceptable measure for educational research (Gall, Gall & Borg, 2003). Correlational results are presented by question in relation to each question's distinct variables and respondent's instructional level.

Question 1: What is the relationship between teachers' sense of efficacy and teachers' perceptions of their principals' leadership behaviors?

Question 1 examined the relationship between teachers' sense of efficacy and teachers' perceptions of their principals' leadership behaviors. To address this question, data from respondent's at all three instructional levels were combined and correlated by total survey results as well as by each construct within each survey. Table 11 displays the results of the correlational analysis of all respondents by presenting the correlation coefficient and statistical significance of each applicable relationship. Statistics are distinguished as significant by an asterisk at the 0.05 level and a double asterisk at the 0.01 level. In addition, the correlation coefficient implies the strength of the designate relationship.

Of the 28 relationships considered, 22 are reported to be statistically significant. Ten indicate significance at the 0.05 level and eleven are significant at the higher level of 0.01. The six correlations that fall beyond the 0.05 level signify that four range within 0.05 and 0.10, with only two extending beyond the 0.10 level. When comparing all efficacy responses to all leadership responses the data indicates a statistically significant relationship with a significance level of 0.003. The overall result of the analysis indicates that 79% of the relationships measured from all teachers at each instructional level have a statistically significant relationship between teacher efficacy and teachers' perceptions of their principals' leadership behaviors.

Table 11

TSES/PLQ Correlation Matrix – All Teachers (N = 147)

	Statistical Measure	PLQ	PLQ PV	PLQ MB	PLQ FC	PLQ IS	PLQ NS	PLQ HE
TSES	Pearson Corr.	0.241*	0.232**	0.225**	0.233**	0.148	0.290**	0.176*
	Significance	0.003	0.005	0.006	0.004	0.074	0.000	0.033
TSES SE	Pearson Corr.	0.275**	0.295**	0.247**	0.244**	0.128	0.329**	0.261**
	Significance	0.001	0.000	0.003	0.003	0.121	0.000	0.001
TSES IS	Pearson Corr.	0.198*	0.166*	0.176*	0.202*	0.137	0.250*	0.140
	Significance	0.016	0.044	0.033	0.014	0.097	0.002	0.092
TSES CM	Pearson Corr.	0.211*	0.207*	0.211*	0.210*	0.140	0.246**	0.124
	Significance	0.010	0.012	0.010	0.011	0.090	0.003	0.136

Note: Pearson Corr. = Pearson Correlation; **Correlation is significant at the 0.01 level; *Correlation is significant at the 0.05 level

Figure 3 utilizes the correlation coefficient to picture the strength of each measured relationship in a line graph. As the legend indicates, the TSES and its constructs are represented by the distinct lines and geometric shapes with the PLQ and its constructs presented as the X axis. The nature of the line graph more clearly specifies the distinctness of each correlation in relation to all others.

As the figure clearly shows, provides intellectual stimulation (NS) is the leadership construct that exhibits the strongest relationship with all components of teacher efficacy. On the other hand, student engagement (SE) is the efficacy construct that maintains the strongest relationship with each area of principal leadership. In terms of the weakest relationships, there are two leadership constructs that consistently appear statistically lower than the others. Provides individual support (IS) exhibits correlation coefficients ranging from 0.128 to 0.148 and three of the four efficacy constructs relating to holds high expectations (HE) fall below 0.20. The efficacy

construct with the lowest comparative relationships is instructional strategies (IS) with a low coefficient of 0.137 to a high of 0.250. Figure 3 shows that most relationships follow a somewhat consistent linear pattern with correlation coefficients ranging from approximately 0.124 to 0.329.

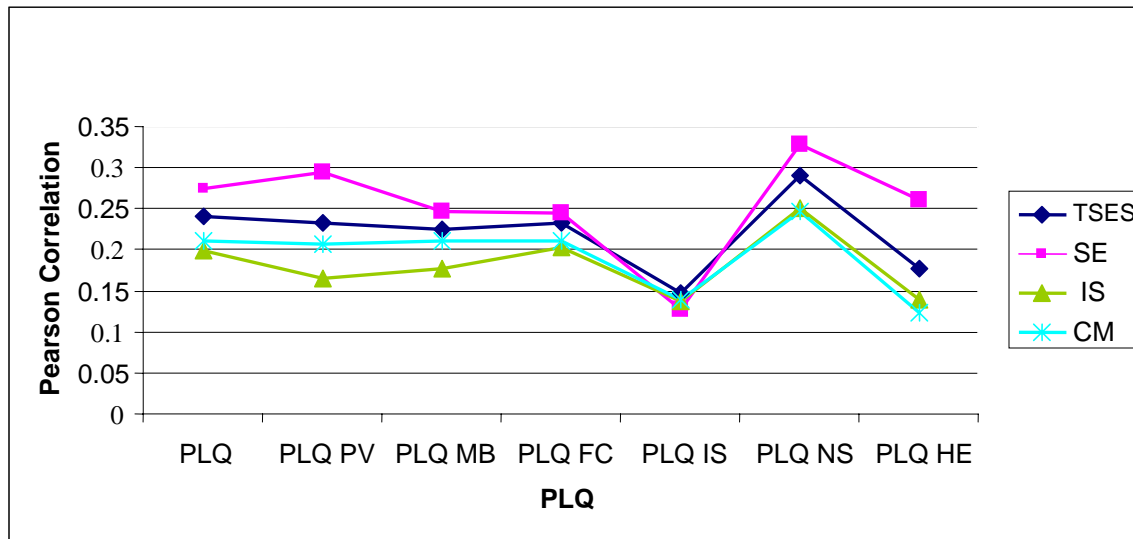


Figure 3. TSES/PLQ correlation - all teachers.

Question 2: Do teachers' perceptions of the relationship between teacher efficacy and their principals' leadership behaviors differ between elementary, middle and high school teachers?

The next question further explores the relationship between teacher efficacy and principal leadership by examining the differences between elementary, middle and high school teachers. In contrast to Question 1, respondent data was examined and analyzed distinctly by instructional level with the significance and strength of the same relationships previously measured. Tables 12, 13, and 14 display the results of the correlational analysis of respondents from each level by presenting the correlation coefficient and statistical significance of each specified relationship. As previously stated, statistics are distinguished as significant by an asterisk at the 0.05 level and a

double asterisk at the 0.01 level. The correlation coefficient, as well, implies the strength of the measured relationship.

As respondent scores were analyzed by instructional group, statistical significance of measured relationships diminished. Elementary teacher responses indicated statistical significance at the 0.05 level for 18 of the 28 relationships and four at the 0.01 level. Middle school teachers exhibited a completely different perspective in relation to statistical significance. No middle school relationships reported statistical significance and by far were the group with least significant statistical data. High school teachers, however, reflected statistical significance in six of the 28 relationships with three at 0.05 and three at 0.01.

Table 12

TSES/PLQ Correlations – Elementary Teachers (n = 48)

	Statistical Measure	PLQ	PLQ PV	PLQ MB	PLQ FC	PLQ IS	PLQ NS	PLQ HE
TSES	Pearson Corr.	0.339*	0.380**	0.315*	0.390**	0.153	0.329*	0.301*
	Significance	0.018	0.008	0.029	0.006	0.301	0.022	0.037
TSES SE	Pearson Corr.	0.349*	0.412**	0.319*	0.349*	0.187	0.318*	0.336*
	Significance	0.015	0.004	0.027	0.015	0.202	0.028	0.019
TSES CM	Pearson Corr.	0.309*	0.338*	0.279	0.379*	0.132	0.321*	0.249
	Significance	0.018	0.019	0.055	0.008	0.371	0.026	0.087

Note: Pearson Corr. = Pearson Correlation; **Correlation is significant at the 0.01 level; *Correlation is significant at the 0.05 level

Table 13

TSES/PLQ Correlations – Middle School Teachers (n = 50)

	Statistical Measure	PLQ	PLQ PV	PLQ MB	PLQ FC	PLQ IS	PLQ NS	PLQ HE
TSES	Pearson Corr.	0.068	0.059	0.079	0.022	0.138	0.054	0.012
	Significance	0.638	0.589	0.586	0.879	0.337	0.711	0.936
TSES SE	Pearson Corr.	0.151	0.143	0.217	0.094	0.110	0.161	0.131
	Significance	0.296	0.323	0.130	0.516	0.445	0.265	0.366
TSES IS	Pearson Corr.	-0.017	-0.034	-0.029	-0.050	0.086	-0.001	-0.073
	Significance	0.907	0.816	0.841	0.728	0.551	0.996	0.616
TSES CM	Pearson Corr.	0.080	0.078	0.077	0.041	0.162	0.031	0.018
	Significance	0.582	0.589	0.593	0.778	0.260	0.832	0.904

Note: Pearson Corr. = Pearson Correlation; **Correlation is significant at the 0.01 level; *Correlation is significant at the 0.05 level

Table 14

TSES/PLQ Correlations – High School Teachers (n = 49)

	Statistical Measure	PLQ	PLQ PV	PLQ MB	PLQ FC	PLQ IS	PLQ NS	PLQ HE
TSES	Pearson Corr.	0.256	0.206	0.237	0.221	0.139	0.393**	0.171
	Significance	0.075	0.156	0.101	0.127	0.342	0.005	0.240
TSES SE	Pearson Corr.	0.286*	0.306*	0.216	0.245	0.059	0.413**	0.276
	Significance	0.046	0.033	0.135	0.090	0.686	0.003	0.055
TSES IS	Pearson Corr.	0.234	0.130	0.196	0.221	0.178	0.365**	0.155
	Significance	0.106	0.373	0.178	0.126	0.220	0.010	0.287
TSES CM	Pearson Corr.	0.211	0.172	0.242	0.166	0.128	0.333*	0.089
	Significance	0.146	0.237	0.094	0.256	0.382	0.019	0.543

Note: Pearson Corr. = Pearson Correlation; **Correlation is significant at the 0.01 level; *Correlation is significant at the 0.05 level

Figures 4, 5 and 6 follow the same pattern as previously described by utilizing the correlation coefficient to picture the strength of each measured relationship in line graphs. The graph legend indicates the TSES and its constructs as represented by the distinct lines and geometric shapes with the PLQ and its constructs presented as the X axis. As before, the nature of the line graph more clearly specifies the distinctness of each correlation as compared to all others.

When comparing the overall responses of the TSES to the responses of the PLQ, elementary teachers indicated the highest relational strength with a correlation coefficient of 0.339 followed by high school teachers at 0.256 with middle school teachers measuring the lowest at 0.068. Respondent's at all instructional levels exhibited the strongest relationships between teacher efficacy in student engagement (SE) and the PLQ as well as all constructs of the PLQ. The lowest relational strength came in the area of efficacy in classroom management (CM) and the PLQ and its constructs. The overall strongest relationship of a PLQ construct at all instructional levels and the TSES and all constructs was in fosters commitment (FC) with the weakest relationship being holds high expectations (HE).

As the group reporting the strongest correlation between teacher efficacy and principal leadership, elementary teachers also had the strongest relationships in a very large majority of all TSES/PLQ constructs as can be visualized in comparing the linear representations in Figures 4, 5 and 6. Figure 4 also characterizes fosters commitment (FC) and promotes vision (PV) as the strongest relationships with teacher efficacy for elementary teachers with holds high expectations (HE) and provided individual support (IS) representing the weakest relationships.

Figure 5 paints a picture of the extraordinary difference between teacher efficacy and principal leadership relationships reported by middle school teachers when compared to the other two instructional levels. Not only did middle school participants exhibit weaker overall positive relationships, but actually have reported marginally negative relationships with TSES instructional strategies (IS) and the PLQ constructs. Provides individual support (IS) and models behavior (MB) maintains the strongest positive relationships with TSES and relevant constructs with fosters commitment (FC) and holds high expectations (HE) harboring the weakest positive relationships. The correlation between TSES instructional strategies (IS) and PLQ provides individual support (IS) is the only positive relationship within the measures of TSES instructional strategies and PLQ constructs with holds high expectations maintaining the strongest negative relationship between the two measures.

High school respondents present a more comparable portrait of correlations to *All Teachers* than either elementary or middle school teachers as indicated by Figures 3 and 6. Continuing with the pattern created by the other two instructional levels, high school teachers hold TSES student engagement (SE) as the construct with the strongest relationship with the overall PLQ and the PLQ constructs. As was indicated by the data from *All Teachers*, high school teachers also found provides intellectual stimulation (IS) and models behavior (MB) as the PLQ constructs most strongly related to the TSES as well as finding holds high expectations (HE) and provides individual support (NS) as the PLQ constructs least related. Figures 5 and 6 also signify the interesting fact that the PLQ construct of provides individual support was determined to

be most strongly related to the TSES for middle school teachers and the weakest relationship implied by high school teachers.

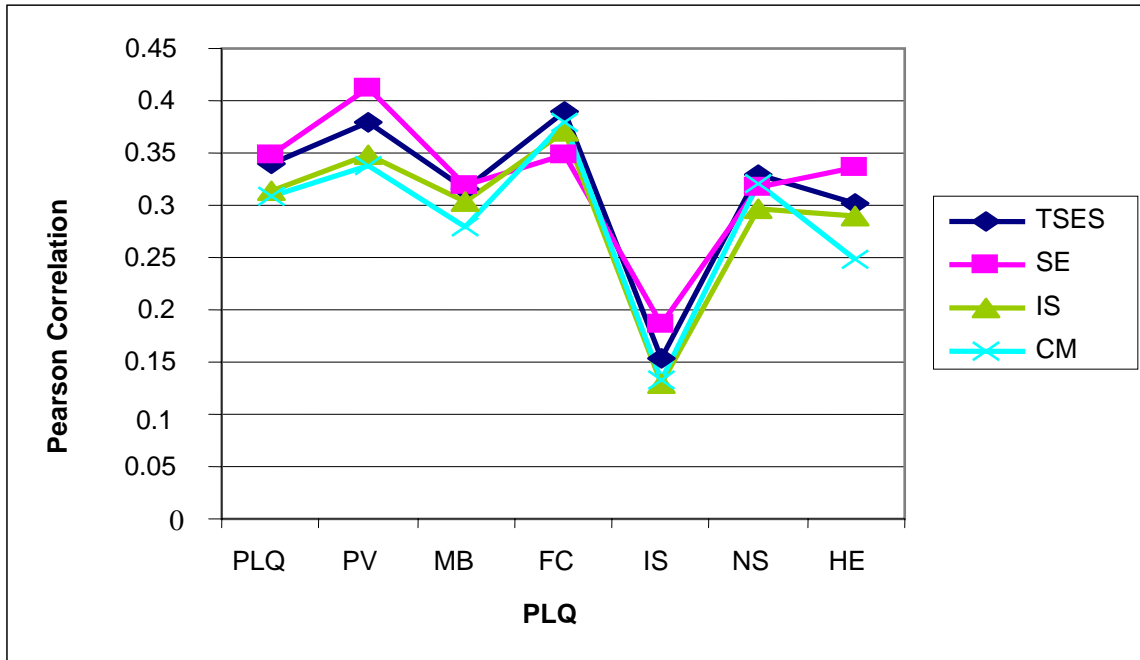


Figure 4. Correlation graph – elementary.

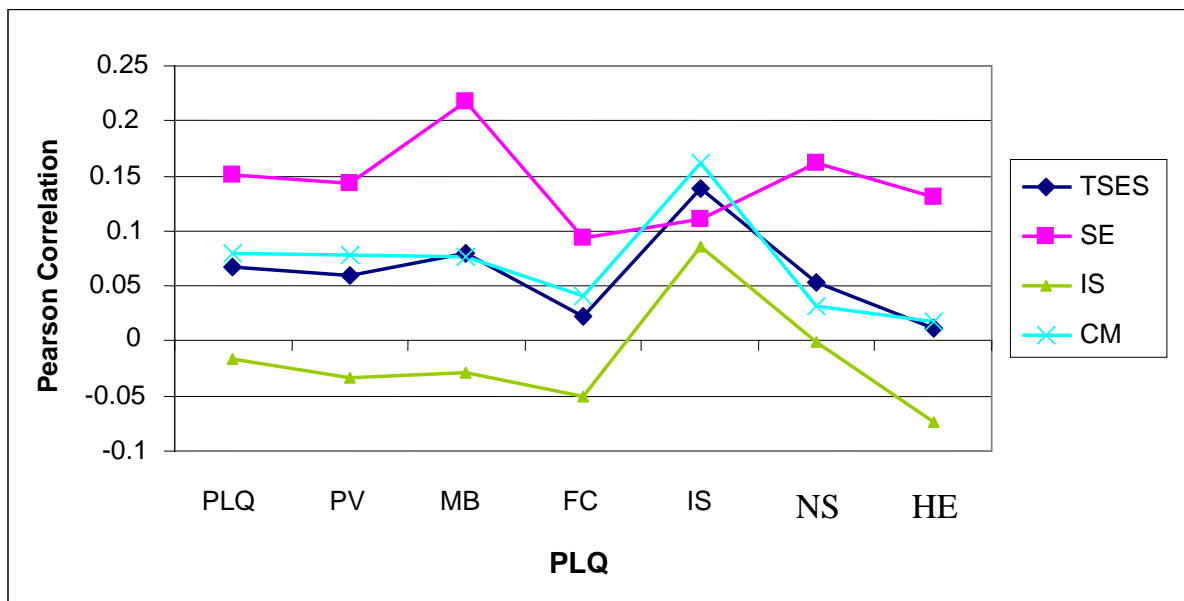


Figure 5. Correlation graph – middle school.

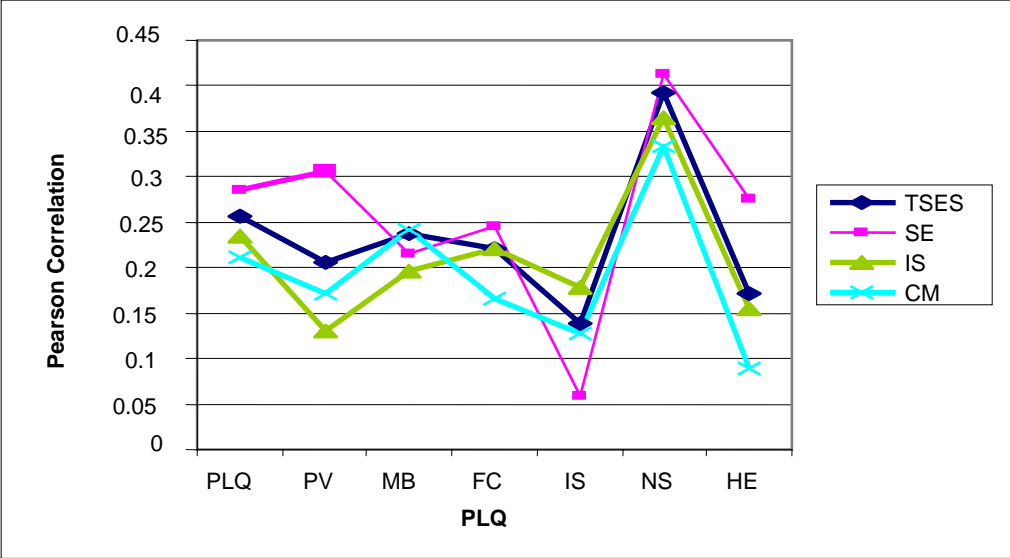


Figure 6. Correlation graph – high school.

Qualitative Focus Group Responses

The Focus Group format was utilized to accomplish qualitative data in identifying principal leadership practices that significantly impacted teacher efficacy as determined by teachers with strong measurable teacher efficacy relative to the respondent group.

The result of the previously described Focus Group meeting was a list of teacher responses to each question on the focus group questionnaire (Appendix A) from each of the three designated instructional levels. A representative from each group verbally presented the group’s responses from written documentation prepared during their brainstorming session. The Focus Group Responses (Appendix B) presents the results of their work in its pure unaltered form and Figures 7 through 12 more clearly specifies categorical results.

The data was distinguished by question or sub-question and the responses were categorized for clarity and understanding. Figures 7 through 9 addressed Question 1 by sub-question and subjectively categorized the responses within the six identified

leadership constructs of the principal leadership questionnaire. Elementary teachers submitted the most strategies overall with middle school and high school teachers following with noticeably fewer.

Figure 7 presents the results of the first sub-question and addressed efficacy in student engagement, identifying high expectations as the leadership category most often distinguished with strategies impacting efficacy in student engagement. High expectations was most often characterized in the responses with strategies encouraging and recognizing student effort and achievement. Fosters commitment was also identified as having substantial effect, but realized 50% fewer responses.

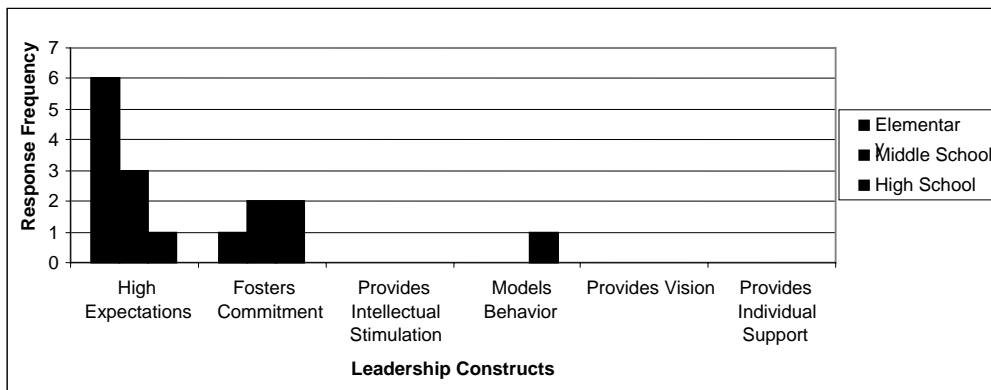


Figure 7. Focus group responses – Question 1: Student engagement.

Figure 8 shows a more noticeable distribution of responses across the spectrum of leadership constructs for efficacy in instructional strategies with fosters commitment appearing again as having significant impact and indicating slightly more responses than other constructs. Provides intellectual stimulation appears more often within middle school teacher’s responses with elementary teachers identifying no strategies in this area and high school teachers identifying two. There were no strategies presented that

could be categorized as High Expectations for efficacy in instructional strategies, which was significantly contrary to the results in Figure 7 for efficacy in student engagement.

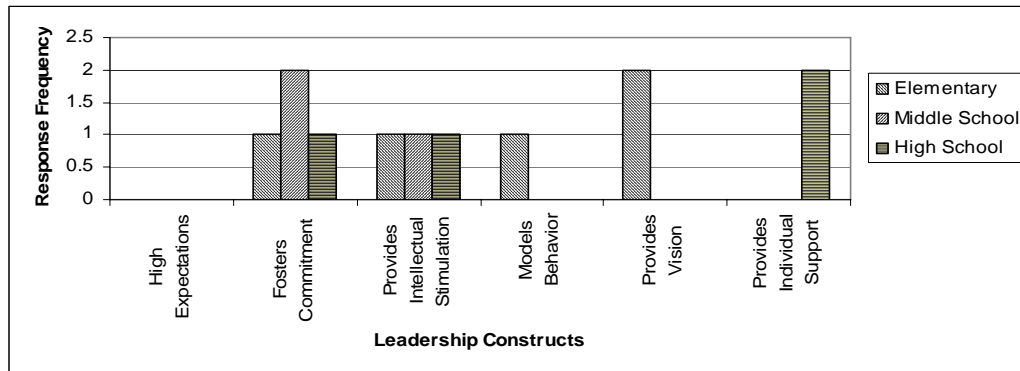


Figure 8. Focus group responses – Question 1: Instructional strategies.

Figure 9 presents a balanced distribution, but points to models behavior as the construct most often emphasized. Strategies categorized within provides vision were absent in efficacy in classroom management as was also the case for efficacy in student engagement in Figure 7. The total responses for efficacy in classroom management were somewhat less than the previous two categories strangely indicating the possible minimization of the need for administrative influence.

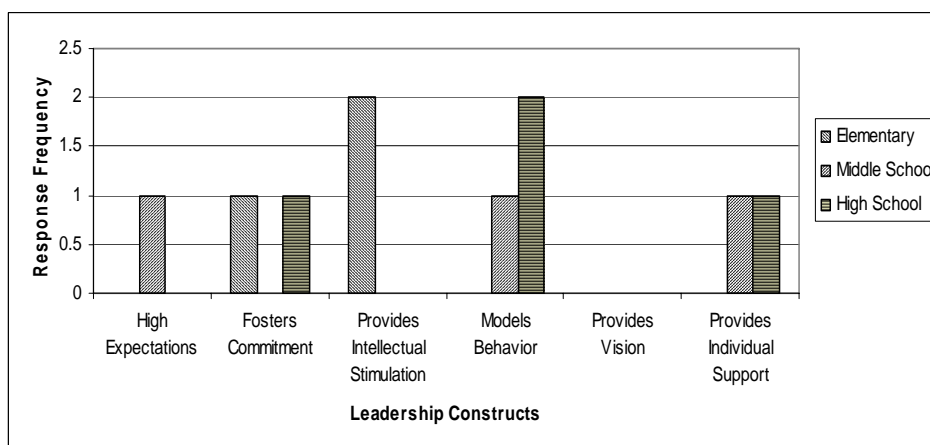


Figure 9. Focus group responses – Question 1: Classroom management.

Figure 10 summarizes all responses from all three instructional levels and distinguishes them by efficacy construct as well as leadership construct. Strategies categorized as fosters commitment and holds high expectations dominates the total number of responses from all participating teachers. Twenty-three of the thirty-nine total responses were subjectively determined to be within these two categories with the largest single number of responses being holds high expectations impacting efficacy in student engagement. The efficacy construct of student engagement realized the largest number of responses with 41% of the total. Classroom management experienced the least number of responses with only 25% reinforcing the data in Figure 9.

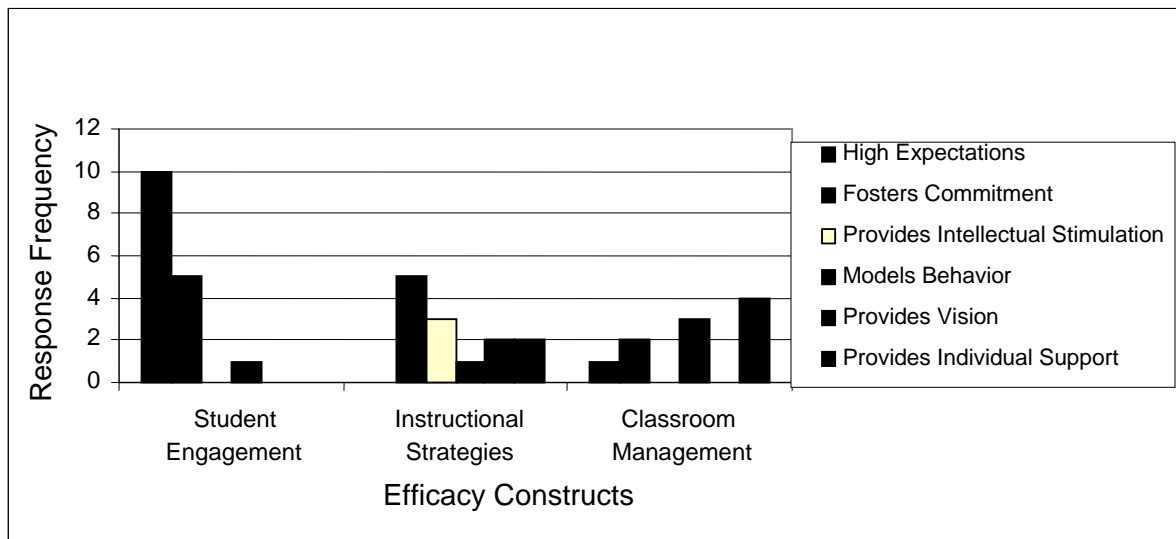


Figure 10. Focus group responses – summary of leadership strategies.

Figure 11 demonstrates the participant’s responses to Question 2 which inquires of strategies that make teachers feel good about teaching. The responses are again categorized as the six constructs of the principal leadership questionnaire. All but one of the six leadership constructs is represented by at least one strategy response. Provides vision remains unrepresented, which is somewhat common not only to feeling good

about teaching, but also in relation to designated constructs of efficacy as is represented in Question 1. The majority of the overall responses were categorized predominately as providing individual support and fostering commitment with the two constructs together totaling 77%. The dominant representation of these two constructs possibly represents a connection between feeling individually supported as motivation to invest in committing to the goals and direction of the organization.

The significant representation of the individual support construct is somewhat contrary to responses in Question 1 which inquires of strategies that affect teacher efficacy. The construct was only 15% of the qualitative responses related to efficacy as opposed to 44% related to feeling good about teaching. This appears to state that feeling individually supported is important to *feeling good about teaching*, but not necessarily an integral component of building or maintaining efficacy.

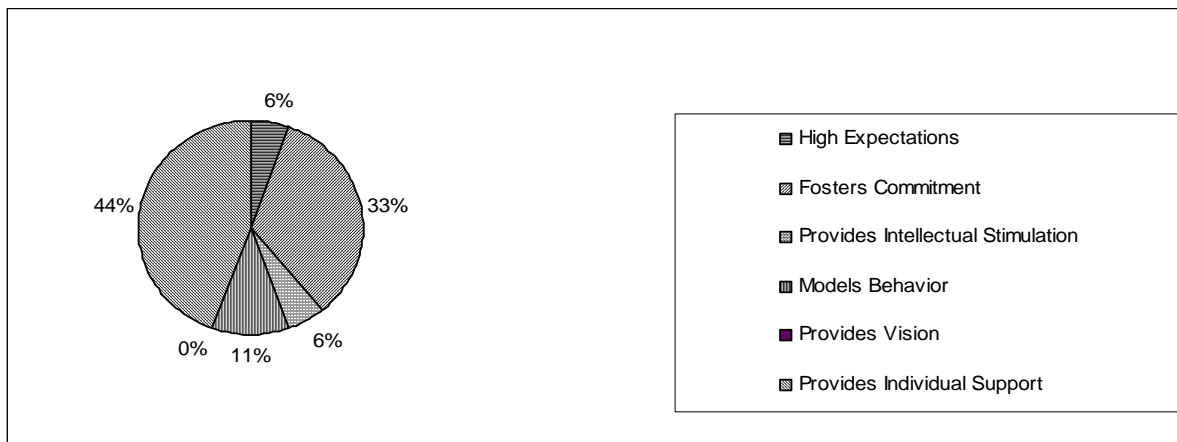


Figure 11. Focus group responses – Question 2.

Question 3 inquires of principal leadership characteristics that inhibit or negatively impact a teacher’s sense of efficacy. The responses to this question are categorized to the same six leadership constructs except as an inverse relationship

such as Lack of High Expectations as opposed to Holding High Expectations. Figure 12 portrays participant teachers as presenting a large majority of principal behaviors that negatively affect their efficacy as those that counter organizational commitment rather than Foster Commitment. Fifty-eight percent of the responses were categorized within this construct followed by 21% indicating a failure to Provide Individual Support and 21% alleging failure to Model Appropriate Behavior.

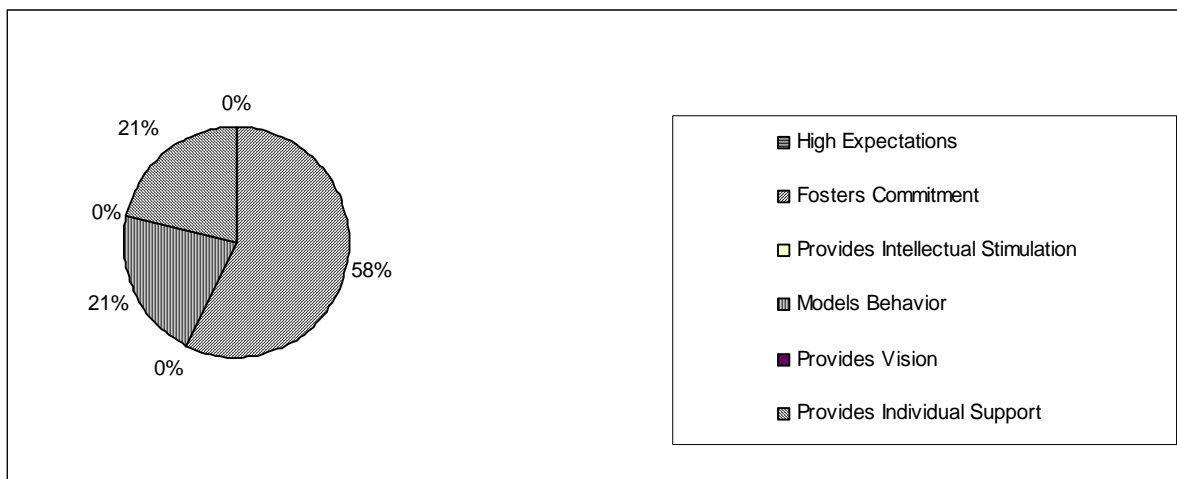


Figure 12. Focus group responses – Question 3.

Summary

The purpose of the chapter was to present the data and statistical analysis with respect to the relationship between teacher efficacy and teachers' perceptions of their principals' leadership behaviors. Data was presented and analyzed to address the three research questions presented in the previous chapters. Quantitative data was analyzed to establish correlations for Questions 1 and 2 while qualitative data was categorized for Question 3. A correlation coefficient was calculated to measure the strength of each relationship and the level of confidence for the data was set at $p > .05$ for statistical significance.

The relationship between teacher efficacy and teachers' perception of their principals' leadership behaviors for all teacher participants was determined to be statistically significant with a p value of 0.003 providing support for the stated hypothesis. When comparing the correlations between the same variables separately by instructional group, the data varies and statistical significance diminishes. The relationship for elementary teachers was also statistically significant with a p value of 0.018. Neither middle school nor high school teachers, however, were found to have a statistically significant relationship with p values of 0.638 and 0.075 respectively. Therefore, the data fails to completely support the hypothesis of a diminishing relationship from elementary to middle to high school.

The qualitative data collected to address Question 3 was categorized for analysis to compare responses by teacher instructional level. Due to the nature of the responses, most could not reasonably be related to individual or collective efficacy, therefore, there is no support for the hypothesis indicating a growing impact on collective efficacy from elementary to middle to high school teachers. The responses do indicate, however, more specific activities by elementary teachers as opposed to somewhat general concepts by middle and high school teachers. The overall result of the collection of strategies indicates that teachers desire more motivational strategies rather than hygiene related support as described by Herzberg's two-factor motivational theory (Frase, 1982).

As this chapter has presented the findings of the study, the next chapter will summarize and discuss the findings. The discussion will present the significance of the relationship between teacher efficacy and principal leadership and the implications for

educational practice. In conclusion, the final chapter will present recommendations for further research to enhance the study's outcomes.

CHAPTER 5

SUMMARY AND DISCUSSION

The purpose of this chapter is to present a summary of the study and discussion of the findings. The summary includes a statement of the problem, a review of the methodology, and a summary of the results. The discussion will be based on the responses to the three research questions that explored the relationship between teachers' sense of efficacy and teachers' perceptions of their principals' leadership behaviors. Included in the discussion is interpretation of the findings, relationship of the study to previous research, recommendations for practitioners and suggestions for additional research.

Statement of the Problem

In the last two decades the focus on the relationship between principal leadership traits and teacher performance has been enhanced by significant study and discussion. The impact of the actions and behaviors of the principal on the work that teachers do has become a topic of intrigue for many research scientists and school administrators. In addition, studies of teachers' efficacy beliefs have examined how teachers' sense of efficacy relates to their performance both in and out of the classroom, to student achievement, and to teachers' receptivity to innovation (Elliott, 2000). This study randomly surveyed teachers in elementary, middle and high schools to measure the relationship between teacher efficacy and teachers' perceptions of their principals' leadership behaviors. In addition, specific observable practices exhibited by the

teachers' principals that impact teachers' efficacy were identified. The methods utilized to address the study of this problem are presented.

Review of the Methodology

This study utilized both quantitative and qualitative research methods to study the effects of leadership qualities on teacher efficacy. The study involved teachers of public and private schools in Wichita, Archer, and Clay counties in Texas. Consent to access personnel and information was assured and acquired through the superintendent and executive administrators of each participating school and district. Quantitative data was acquired utilizing electronic efficacy surveys and principal leadership surveys sent to 328 teachers with an accomplished return rate of approximately 50%. The survey data was collected and quantified by the survey service then analyzed using a univariate correlational analysis in SPSS.

Qualitative data was gathered through a focus group meeting of teachers with measurably strong efficacy. The identification of representative teachers from elementary, middle and high schools was accomplished through calculating the total scores from the teacher efficacy scale of the returned surveys and developing a continuum of survey scores from least to greatest. Teachers from the top 25% of each designated instructional level indicating the strongest efficacy participated in a focus group meeting to identify observable principal practices that significantly affect teachers' performance and efficacy. Twenty seven teachers were invited to the focus group meeting with eleven responding in the affirmative and participating.

The instrument used to measure teacher efficacy was the long form of the Teachers' Sense of Efficacy Scale (TSES) developed by Tschannen-Moran of the College of William and Mary and Woolfolk Hoy of Ohio State University. The TSES measured total efficacy as well as efficacy constructs of student engagement, classroom management and instructional strategies. The leadership qualities survey used was Jantzi and Leithwood's, principal leadership questionnaire (PLQ) from the Centre for Leadership and Development in Toronto, Ontario, Canada. The PLQ measured principal leadership along with the leadership constructs of provides vision, models behavior, fosters commitment, provides individual support, provides intellectual stimulation and holds high expectations. The focus group questionnaire was developed by the researcher and focused on specific, observable principal practices that impact teachers' sense of efficacy. The following is a brief summary of the study's results.

Summary of the Results

Descriptive Statistics

Teacher Efficacy

Analysis of the data from the TSES presented in Table 9 of Chapter 4 reveals mean scores for teacher efficacy that were significantly strong with a total mean for all teachers of 7.05 out of a total possible score of nine. Elementary teachers measured highest of the three designated instructional groups with a mean of 7.19 followed by middle school teachers measuring 7.00 and high school teachers measuring 6.96. Measured means of the three efficacy constructs followed this same linear pattern within the instructional groups with only one exception.

Efficacy in classroom management carried the highest mean scores within each of the three instructional groups with a total construct mean of 7.41. Efficacy in instructional strategies maintained the next highest mean at 7.23, followed by efficacy in student engagement with a mean score of 6.5.

Principal Leadership

Results of the data analysis from the PLQ presented in Table 10 revealed a total mean of 3.12 out of a total possible score of four for all teacher respondents indicating teachers' overall perception of their principals' leadership skills as moderately strong. Following the same pattern as the strength of efficacy measured by the TSES, elementary teachers perceived their principals' leadership behaviors stronger than their middle and high school teacher colleagues with a mean score of 3.18. Middle school teachers indicated a principal leadership mean of 3.15 followed by high school teachers indicating a mean of 3.03.

In terms of teachers' perceptions of the six PLQ leadership constructs, holds high expectations and provides individual support maintained the highest means with scores averaging 3.19 and 3.18 respectively. Provides vision and provides intellectual stimulation were the two leadership constructs participant teachers determined to be the weakest characteristics their principals exhibited with both indicating a mean of 3.06.

Correlational Analysis

Question 1: What is the relationship between teachers' sense of efficacy and teachers' perceptions of their principals' leadership behaviors?

Question 1 examined the relationship between teachers' sense of efficacy and

teachers' perceptions of their principals' leadership behaviors for all teacher respondents. The analysis indicated strong statistical significance between total teacher efficacy and total principal leadership with a correlation coefficient of 0.241 and statistical significance of 0.003. In considering relationships between all TSES constructs and all PLQ constructs for all teachers, 79% of the relationships were statistically significant with significant coefficients ranging from 0.166 to 0.329. TSES student engagement was the efficacy construct that maintained the strongest relationship with all areas of principal leadership and PLQ provides intellectual stimulation was the leadership construct that exhibited the strongest relationship with all components of teacher efficacy.

The strongest, most significant relationship within the matrix of coefficients was between TSES student engagement and PLQ provides intellectual stimulation with a coefficient of 0.329 and statistical significance of 0.000. The weakest relationship of the construct variables was between TSES student engagement and PLQ provides individual support with a coefficient of 0.128 and statistical significance of 0.121. Even though six of the construct variable relationships were determined not to be statistically significant, the difference between the lowest relational coefficient and the lowest statistically significant coefficient was only 0.038 signifying all relationships as relatively close to being statistically significant.

Question 2: Do teachers' perceptions of the relationship between teacher efficacy and their principals' leadership behaviors differ between elementary, middle and high school teachers?

Question 2 continued the exploration of the relationship between teacher efficacy

and teachers' perceptions of their principals' leadership behaviors by examining the perceptual differences of elementary, middle and high school teachers. Statistical significance of respondent scores diminished significantly when analyzed by instructional level. Elementary teachers exhibited the most statistically significant construct relationships as well the strongest relationship between total efficacy and total leadership. Elementary teacher responses measured a correlation coefficient of 0.339 with statistical significance of 0.018 followed by high school teachers measuring a correlation coefficient of 0.256 with a lack of statistical significance at 0.075. Middle school teachers measured the lowest correlation coefficient at 0.068 and failed to achieve statistical significance with a p value of 0.638.

Considering each of the instructional groups separately portrays a substantially different picture for each distinct group in some ways and similar in others. TSES student engagement maintained the strongest and most statistically significant relationships within all three instructional levels. Classroom management, however, realized the weakest for elementary and high school teachers, but fell between the other two constructs for middle school teachers. Although the TSES constructs for middle school teachers followed a somewhat similar linear pattern as the other two groups, five of the six leadership constructs related to TSES instructional strategies were found to be negative relationships running contrary to all other measured relationships regardless of instructional level.

The PLQ construct relationship patterns were different for each level on the strength end of the spectrum, yet somewhat similar in terms of weak relationships. Provides vision was the strongest construct in terms of relationships with TSES for

elementary teachers with provides individual support proving to be the strongest relationships for middle school teachers and provides intellectual stimulation was the strength leader for high school teachers. At the weakness end of the spectrum, provides individual support was reportedly the weakest relationships with efficacy constructs for elementary teachers and high school teachers with holds high expectations as the weakest for middle school teachers. However, holds high expectations was also next to the weakest category for high school teachers.

Focus Group Responses

A focus group was convened utilizing teachers with the strongest efficacy within each instructional level. The group formulated and reported consensus responses to three questions from the focus group questionnaire (Appendix A). As summarized in Figure 10 of Chapter 4, Question 1 inquired of principal leadership practices that impacted teacher efficacy in the areas of student engagement, instructional strategies and classroom management. The responses were categorized within the six leadership constructs of the principal leadership questionnaire. The results indicated that 59% of the responses were subjectively categorized as fosters commitment and holds high expectations. The efficacy category realizing the largest number of leadership strategies was student engagement with 41% of the total. Of the three identified areas of efficacy, classroom management was the area of which the fewest leadership strategies were identified accumulating only 25% of the total strategy responses.

The responses to Question 2 are summarized in Figure 11. The question inquired of strategies reported by efficacious teachers that make them feel good about teaching.

The responses are again categorized within the six constructs of the PLQ. Seventy-seven percent of the responses were categorized as provides individual support and fosters commitment. The other twenty-three percent of the responses were distributed somewhat evenly between three of the four remaining categories. The report failed to materialize any strategies that make teachers feel good about teaching for the category of provides vision. This absence of respondent strategies is similar to the minimal number responses in the same leadership category from Question 1 that relates to impacting teacher efficacy.

Question 3 asked the teachers to describe principal leadership characteristics that have a negative impact on teacher efficacy. Figure 12 in chapter four presents a graphic of the responses also categorized as PLQ constructs, yet reflecting an inverse relationship. Fifty-eight percent of the responses inversely affecting teacher efficacy were categorized as failing to foster commitment. The remaining 42% of the inhibitive strategies were evenly distributed between lack of individual support and failure to model behavior. The categories of high expectations, provides intellectual stimulation and provides vision were left unrepresented within the area of negative leadership strategies. The following discussion of these results provides interpretations and recommendations for research and practice.

Discussion of the Results

The discussion of the findings will include interpretation of the statistical outcomes of the study in terms of each of the three research questions and relative hypothesis. The results of the study will then be discussed in relation to previous

research followed by recommendations and applications for current and future practitioners. In conclusion, recommendations for further research relative to the study's results will be offered.

Interpretation of the Findings

In interpreting these findings it is important to point out that even though the correlation coefficients appear quite low in this study, it is common in educational practice to find the influence of individual factors to be quite minimal. Correlations in the range of 0.20 to 0.40 as found here are often all that can be expected for many relationships between explored educational variables (Gall, Gall, & Borg, 2003).

Question 1: What is the relationship between teachers' sense of efficacy and teachers' perceptions of their principals' leadership behaviors?

The first question in the study examined the relationship between teachers' sense of efficacy and teachers' perception of their principals' leadership behaviors. The study hypothesized that there is a positive correlation between the two variables. The study probed further into the questions by measuring three efficacy factors in relation to six leadership factors.

The data from this study indicates a positive correlation between teacher efficacy and teachers' perception of their principal's leadership behaviors which supports the corresponding hypothesis. Although the coefficient of 0.241 does not indicate such a notably strong relationship, it carries a statistical significance of 0.003 indicating the dynamics of the relationship between a teacher's efficacy and their perceptions of their principal's leadership. The results provide support for the corresponding relationship

between teacher efficacy and principal leadership. Evidence of the implications of a principal's influence on the level of a teacher's confidence in their ability to have a coveted effect in the classroom is certainly a desirable outcome.

The efficacy construct with the strongest relationship to principal leadership is efficacy in student engagement. Based on the eight questions from the TSES related to student engagement, it appears this construct is most closely related to the Rand measure of internal control (Rotter, 1966). These questions reflect a teacher's level of confidence in their ability to teach difficult or challenging students regardless of external influences. The positive correlation between principal leadership behaviors and efficacy in student engagement signifies the level of the principal's influence on teachers' ability to influence the most difficult students in areas such as understanding the value of learning, thinking critically, and fostering their own creativity (Tschannen-Moran & Woolfolk Hoy, 2001).

Although efficacy in classroom management was determined to have a weaker relationship to principal leadership than student engagement, it was also measured to be statistically significant. Factors of this construct that ultimately affect student learning are the teacher's capacity to establish an effective classroom management system, the ability to maintain routines that keep activities running smoothly and the faculty to control disruptive behavior (Tschannen-Moran & Woolfolk Hoy, 2001). The absence of a well structured and managed classroom may diminish the level of learning for students with distinct learning style needs. Therefore, the studies results provide evidence to support the principal's leadership need to model effective campus and classroom management strategies.

Although all of the efficacy construct correlations were statistically significant, efficacy in instructional strategies presented the weakest relationships with the leadership constructs of the PLQ. This area of efficacy involves a teacher's willingness and ability to provide a variety of assessments, to incorporate alternative strategies and explanations as well as to develop appropriate lessons and challenges for all levels of individual student needs. With the data analyzed to be statistically significant, administrative attention in this area should be of significant importance in guiding teachers to meet the needs of the varied levels of learners encountered in our classrooms (Tschannen-Moran & Woolfolk Hoy, 2001).

Research on school leadership has strived to discover behaviors and practices that contribute to valued outcomes such as teacher efficacy (Hallinger & Heck, 1996). Participant responses to the relationship between teacher efficacy and the individual PLQ constructs varies with the PLC construct provides intellectual stimulation holding the strongest relationship to teacher efficacy. This relationship maintains the implications of leadership behaviors that challenge teachers to reexamine their theoretical and educational assumptions as well as rethink the relationship of their instructional methods to the schools mission and goals (Jantzi & Leithwood, 1996). Principal strategies of this nature should enhance teachers' intellect while in turn challenging them to formulate and implement more comprehensive and diverse teaching methods.

Other leadership constructs maintaining statistically significant relationships with teacher efficacy were fosters commitment, provides vision, models behavior and holds high expectations presented here in order of strength respectively. The influence of

these leadership characteristics impact the organization's effectiveness through the encouragement to work toward school goals, the feeling of an overall sense of purpose, the symbolization of the success of the profession, and the maintenance of high expectations of the faculty (Jantzi & Leithwood, 1996) . With their measured relationship to teacher efficacy, the knowledge and provision of strategies related to these constructs would be of benefit to principals in leading their teachers to experience higher levels of learning in their classrooms.

The only construct identified in this study as not statistically significant in relation to teacher efficacy is that of provides individual support. Although respondent mean scores indicate that teachers perceived their principals' skills in this area to be sufficient, the lack of statistical significance reports a limited connection between the two variables. Regardless of the reported limitation or lack of strength within the relationship for this one particular construct variable, the overall relationship of principal leadership to teacher efficacy signifies the value of principals providing individual support for teachers by allocating necessary instructional resources, taking their opinion into consideration, treating them as individuals and behaving in a thoughtful manner to their personal needs (Jantzi & Leithwood, 1996). The failure to provide individual support will most likely affect teachers' willingness to embrace the direction of leadership or endorse leadership initiatives for improvement, potentially derailing the principal's ability to lead.

In the recent past, teachers have indicated a marked increase in student apathy and diminishing parent support. Students have become so involved in electronic entertainment and after school activities that curricular focus has noticeably declined in priority. Many more parents are working two or three jobs and struggle to find the time

and energy to support their child's academic needs. These factors have diminished the intrinsic motivational influences that have historically motivated students to achieve.

This alarming change gives rise to the need for teachers and principals to become more skillful in inciting students to take more ownership in their own learning and prioritize the education and skills needed to reach their goals in life.

Another phenomenon that is challenging educators is the increasing demand of the new global economy for schools to produce workers with superior problem solving and higher order thinking skills. When those attributes are absent, it's not parents who are cited as failing to develop a quality workforce. It's teachers, principals and the public education system that carries that burden. For the public education system to survive it must respond to the input of its stakeholders with the main customer being this high tech, ever growing world economy.

These dramatic shifts in outcome expectations increase the demands on teachers and principals to transform their classrooms and campuses into flexible models of diverse learning opportunities. The responsibility of the principal to fashion their leadership style to accomplish a supportive campus environment characterized by stakeholder influenced programs and strategies is significantly augmented by these shifts in conditions and expectations. In addition, the pressure on teachers to think outside the box and transform their classrooms into a learning milieu that meets the ever expanding needs of students has come to be consuming; Thus, supporting the need for transformational leadership components that enhance the development of teacher efficacy in all aspects of teaching emphasized in this study. The statistical significance and relative strength of the relationship between these two variables should

communicate to principals that teachers want to be successful, they expect to be held accountable and they will follow the direction of a leader who strives to help them grow and supports their efforts which in turn strengthens their self-efficacy.

Question 2: Do teachers' perceptions of the relationship between teacher efficacy and their principals' leadership behaviors differ between elementary, middle and high school teachers?

Differences in teachers' perceptions of the relationship between teacher efficacy and principal leadership behaviors of elementary, middle and high school teachers is the subject of the study's second question. Participant responses were distinguished and analyzed by instructional level to determine the correlational differences. The study hypothesized a diminishing relationship in significance from elementary to middle school to high school teachers. The results of the analysis specifically identified a decline in significance from elementary to middle school and from elementary to high school. High school teachers, however, presented more significant correlations than that of middle school teachers. Therefore, the hypothesis relative to Question 2 was only partially fulfilled with middle school teachers responding contrary to the study's prediction.

In this study, as in many quantitative studies, the primary respondent group is divided into subgroups for further statistical analysis. This subgroup analysis often results in the unfortunate consequence of diminishing statistical power due to smaller sample size (Gall, Gall & Borg, 2003). Although the study meets the minimum recommended subgroup size for survey research of 20 to 50 cited by Gall, Gall and Borg (2003), the statistical analysis of subgroup data appears to experience this diminished result. Subsequent correlations from Tables 10 through 13 in Chapter 4

evidence this fact as smaller correlations within the primary respondent group prove to be statistically significant while larger correlations within the subgroups are not.

All three instructional levels of teachers in this study indicated that efficacy in student engagement maintained the strongest relationships with principal leadership. With the exception of the responses from middle school teachers, the most noticeable difference in teachers perceptions of principals' impact on efficacy is that both elementary and high school teachers consistently ranked efficacy in instructional strategies as stronger than efficacy in classroom management. As was previously stated, these perceptual differences are contrary to the analysis of the total group. Middle school teachers, on the other hand, followed the pattern of all respondents by reporting efficacy in classroom management the stronger of the two constructs.

The only similarities between the total group responses and subgroup responses in terms of principal leadership constructs, is that elementary teachers indicated individual leadership construct strength in a relatively comparable order of influence with provides intellectual stimulation reporting the strongest correlational strength. Figures 4, 5 and 6 in chapter 4 provide visual evidence of the noticeable differences in how teachers in each instructional subgroup perceived their principals' leadership characteristics in a significantly different order of influence upon their efficacy.

It should also be noted the extremely low relational strength in all areas reported by middle school teachers. No relationships were identified as statistically significant with the strongest positive correlation coefficient being 0.217 with an overall average of 0.091. Although not always statistically significant, all measured relationships in the total respondent group as well as the subgroups were found to be positive in strength with

the exception of middle school teacher responses of the leadership constructs to efficacy in instructional strategies. Five of the six PLQ constructs measured negative correlations with teacher efficacy in instructional strategies indicating the strength of teacher efficacy responding contrary to the perception of principal leadership. Previous research fails to advocate the extraordinary differences reported by middle school teachers in this study. Therefore, I believe that random sampling identified and utilized an exceptional participant group with responses possibly contrary to that of their representative population.

Although there is minimal research that implies differences in teacher attitudes and beliefs within the distinct instructional levels identified in this study, practitioner opinion certainly suggests obvious differences. The level of statistical significance within the study's subgroups reportedly diminished and middle school teachers submitted unusually different responses, however many of the correlational measures increased in relational strength possibly indicating a level of practical significance relative to administrative practice. The larger correlational coefficients within many of the subgroup relationships indicates an elevated level of importance of the two variables to the teacher respondents, giving administrators important data to enhance their efforts toward improved classroom learning environments.

The overall relative strength of the relationships supports the results of the total group responses providing evidence of the practical impact of principal leadership behaviors on teacher efficacy. Principals at all instructional levels, therefore, should be knowledgeable of the critical components of effective leadership previously described by Jantzi and Leithwood (1996) and mindful of the impact of their leadership behaviors

on specific classroom related components of teacher efficacy that portrays the richness of teachers' work as well as the requirements of good teaching (Tschannen-Moran & Woolfolk Hoy, 2001).

Historically elementary teachers have been perceived as more pedagogically minded and secondary teachers more content oriented. Elementary classrooms appear more learner centered, while secondary settings project an instructional emphasis. Elementary teachers tend to follow the principal's lead out of respect of the position and a natural desire to be compliant. Secondary teachers, on the other hand, require more documented cause for following an administrative lead and tend to measure their willingness to follow on their level of respect for the individual rather than the position; Therefore, justifying the study's hypothesis for a diminishing correlation between teacher efficacy and principal leadership from elementary to middle school to high school.

Although the study's findings did not exactly support the relative hypothesis, the general result was diminished relational strength from elementary to secondary. Principals at the specified instructional levels face the challenge of building teacher efficacy and improving instructional effectiveness from different perspectives. With elementary principals inherently maintaining a higher level subordinate respect and followership, they can focus more on classroom level intervention with a more personal approach to individual needs. While secondary principals must fashion their leadership efforts primarily toward gaining subordinate respect to then follow with more individual oriented strategies and interventions. With this knowledge, principals of all instructional

levels can effectively lead while distinctively building organizational effectiveness and teacher efficacy.

Question 3: What principal leadership practices significantly impact teachers' sense of efficacy in elementary, middle, and high schools?

The focus group format was utilized for Question 3 to accomplish qualitative data in identifying principal leadership practices that significantly impact teacher efficacy as determined by teachers with strong measurable teacher efficacy relative to the respondent group. Teachers from each distinct instructional level responded to three questions on the focus group questionnaire (Appendix A) by developing lists of principal leadership strategies. In remaining consistent with the quantitative dimension of the study the suggested strategies were subjectively categorized by PLQ leadership constructs previously described.

With the respondent selection process involving teachers particularly identified with relatively common levels of teacher efficacy, the context of the study was changed to reflect a more theory-based participant sample (Gall, Gall & Borg, 2003). The purpose of this type of sample group was to acquire empirical leadership strategies from teachers who theoretically exemplify more desirable pedagogical characteristics. The intent, of course, was to enhance the credibility of the recommended strategies.

As was revealed in Chapter 4, the study hypothesized that teachers at each of the three designated instructional levels will identify common leadership practices that impact individual teacher efficacy, but strategies that more significantly impact collective efficacy and/or organizational efficiency will grow in significance from elementary to middle school to high school. However, due to the nature of the responses, most could

not reasonably be related to individual or collective efficacy, but only subjectively determined to more specific in nature from elementary teachers and more general from secondary teachers.

The categorization of the responses did, however, successfully address Question 3 through the compilation of observed leadership practices that impact teachers' efficacy. The number of responses reportedly affecting teacher efficacy in each of the three distinct efficacy constructs as indicated in the first question of the questionnaire was somewhat balanced as was divulged in Figure 10 of Chapter 4. Participant teachers produced responses indicating that their principals utilize leadership strategies that affect student engagement slightly more than instructional strategies and classroom management which coincides with the study's quantitative results. With previous research suggesting that teachers with strong self-efficacy provide more diverse instructional strategies to address the comprehensive needs of various learners (Tschannen-Moran, Woolfolk Hoy & Hoy, 1998), the emphasis of these results signifies the importance of the principal's influence on teachers' ability to successfully impact the most difficult students in areas such as understanding the value of learning, thinking critically, and fostering their own creativity (Tschannen-Moran & Woolfolk Hoy, 2001). The relative balance of the leadership strategies presented, however, stresses the teachers' level of cognizance of meaningful leadership methods that promote teacher efficacy of any nature.

A significant majority of the leadership strategies presented were categorized as holds high expectations and fosters commitment. These two leadership constructs describe the participant teachers' emphasis on the importance of administrative efforts

that enhance teachers' ability to work toward specified organizational goals as well as maintain levels of learning expectations proportionate to local, state and national standards. The indications appear to convey that teachers with higher levels of efficacy value their principals' efforts in holding them accountable for the expected level of organizational success. These results were also comparable to the quantitative analysis in that both of these leadership constructs maintained higher levels of correlational significance and strength in relation to teacher efficacy.

In terms of human nature, these two components of leadership run parallel in terms of subordinate response. Teachers as individuals want guidance, they want to be successful and they want to be part of a thriving organization. Although teachers don't always agree with the manner in which principals choose to establish and maintain high expectations, they normally appreciate the consistency and governance provided. With established standards determining the school's direction and administrative consistency of re-directive actions, teachers tend to willingly collaborate to fulfill the school's mission. Teachers with strong efficacy want to be responsible for their student's success, they expect their leaders to have high instructional standards and they willingly follow an honorable lead.

The second question was more simplistic in nature as it inquired of leadership practices that made teachers feel good about teaching. Figure 11 in Chapter 4 showed that 77% of the responses were categorized as fosters commitment and provides individual support. The responses suggest that the more efficacious teachers identified by the study believe that principal behaviors related to these two constructs were intrinsically important to their emotional and psychological needs. The characteristics of

these leadership categories include encouraging teacher efforts to achieve campus and district goals, allocating necessary instructional resources, taking teachers' opinions into consideration, treating teachers as individuals and behaving in a thoughtful manner to teachers' personal needs (Jantzi & Leithwood, 1996). As was previously stated efficacious teachers expect to be held accountable for their performance, but they also want and expect to be supported by the administrators.

Principals who aspire to be effective transformational leaders understand the importance of providing individual support to teachers and strive to establish a more intimate professional relationship with campus staff. Teachers need to feel that campus leadership genuinely cares about their professional effectiveness while also being mindful and considerate of their personal and family needs. Teaching is a career, not life itself. Teachers who remain effective for the length of their career generally have family and interests beyond the campus and principals who recognize teachers' need to distinguish these different aspects of their lives are more generally respected and supported. Providing this manner of professional and personal support encourages teachers to more willingly do whatever it takes to achieve campus goals and intimately embrace student success.

The last question of the focus group questionnaire (Appendix A) asked participant teachers to describe principals' actions that invoke a negative impact on teacher efficacy. The largest majority of the responses to this question were categorized as strategies that fail to foster commitment with the remainder classified as contrary to provides individual support and models behavior.

Inhibitive behaviors within each of these categories are sometimes perceived as questionable professional integrity on the principal's behalf. It is often easier to take a global approach to a solution to avoid confrontation, but doing so often alienates those unrelated to the problem. Being ever mindful of the reaching effects of administrative actions is imperative for principals to model the type of behavior that makes teachers feel supported and encourages them to be committed to campus goals. Thoughtful and reflective planning of solutions frequently leads to more specific and individually intended remedies, where as reactive, generic administrative responses often fail to be received by the targeted participants. Teachers with confidence in the integrity and fortitude of their principal are more prideful in their representation as a member of the campus staff and traditionally work harder to improve or maintain the school's status of success.

The feeling that principal efforts intently inhibit teachers' commitment to organizational direction potentially destroys a faculty's sense of purpose. Teachers will perceive administration as a barrier and feel a general lack of guidance. Modeling unprofessional leadership behavior will give license to unethical teacher conduct while hampering intentions to effectively manage student behavior. The lack of support for teachers creates an atmosphere analogous to fighting a modern day war with medieval weapons. Without administrative support even the best teachers will feel alone in their efforts, they will lack the energy and fortitude to endure the enormous instructional challenges they face, will often gravitate to mediocrity and eventually surrender to the pressure and leave the profession (Hipp, 1995).

The overall result of this study provides evidence of a positive relationship between classroom related components of teacher efficacy that portrays the richness of teachers' work and principal leadership behaviors characteristic of effective transformational leaders. The study's descriptive statistics, correlational analysis and qualitative strategies all, in various contexts, support administrative efforts that enhance skillful student engagement, efficacious instructional strategies and masterful classroom management. The following section will discuss the relationship of the current study to previous research.

Relationship of the Current Study to Previous Research

Tschannen-Moran and Woolfolk Hoy (2001) described measuring efficacy as "capturing an elusive construct" (p. 783). Their article reported that efficacy was powerfully related to numerous educational outcomes including effective student engagement, instructional strategies and classroom management. They found that researchers consistently experienced persistent measurement problems that plagued their efforts to study teacher efficacy. The construct was determined to be more context-specific as results varied from previous studies. The result of this study appears to indicate that, like efficacy, the relationship between teacher efficacy and principal leadership can also be considered somewhat context-specific and challenging to correlate. The varied structural context of each of the three ways efficacy and leadership were measured produced somewhat different results. Results from each question revealed similarities to certain aspects of previous research as well as relative differences to prior studies.

Virtually all previous research distinguishes teacher efficacy as general teaching efficacy (GTE) or personal teaching efficacy (PTE). This study measured teacher efficacy in terms of the three TSES constructs of student engagement, instructional strategies and classroom management. Each of these three constructs can be reasonably applied to personal or general teaching efficacy, therefore, both historical aspects of efficacy will be discussed as relative to the current study.

Hipp (1995) compared both GTE and PTE to Leithwood's transformational leadership factors in middle schools in Wisconsin. The study found that leadership behaviors characterized as fosters commitment, models behavior and provides individual support were related to teacher efficacy. The report also found a statistically significant relationship between GTE and PTE and total leadership behavior. These results compare to the current study with fosters commitment and models behavior maintaining statistically significant relationships to teacher efficacy, but relates in a contrary manner as provides individual support was not statistically significant. Hipp (1995) conclusively stated:

If a strong sense of efficacy motivates teachers to higher levels of competence and success, then an increased focus on this teacher attribute is critical. Nonetheless, if school leaders continue to ignore teachers' sense of efficacy and environmental conditions affecting their work, then committed young teachers, as well as experienced teachers, will begin to question their potential to affect change in student behavior; and worse yet, may decide to leave the profession. (p. 265)

In 2000, King conducted a study examining the teacher principal relationship and teacher efficacy with 124 elementary schools in Virginia. The study found statistical significance between the congruence dimension of teacher-principal interpersonal relations and teacher efficacy indicating that teachers perceive their relationship with

principals as being characterized by consistency of trust, confidence, honesty and sincerity. The above mentioned characteristics are related to several of the current studies leadership characteristics such as: models behavior, fosters commitment, provides individual support and high expectations. King's (2000) study suggested the need for principals to focus on cultivating the interpersonal relationships with teachers to foster growth of teachers' GTE and PTE beliefs ultimately influencing instructional skills and abilities.

Further evidence of the elusiveness of the measurement of the correlation between teacher efficacy and principal leadership was provided by Elliott (2002) from the University of Connecticut. The study, conducted in ten elementary schools in Connecticut, found a statistically significant correlation was demonstrated between provides individual support and GTE. No other leadership behaviors characterized in Leithwood's constructs were reported to have a significant relationship to teacher efficacy. Of course these results run completely contrary to the correlational analysis of the current study, with provides individual support as the only leadership construct found not to be statistically significant.

Through follow up interviews in another phase of the study, Elliott (2002) found that provides individual support was again deemed critical to teachers' efficacy. The interviews also suggested leadership behaviors characterized as fosters commitment, models behavior and holds high expectations were viewed by teachers as important leadership aspects that promote teacher efficacy. Each of these leadership constructs also appeared in the qualitative component of the current study as having similar affect. fosters commitment and holds high expectations were reportedly relevant to teacher

efficacy through responses from the focus group questionnaire (Appendix A) and fosters commitment and provides individual support represented 77% of the focus group responses to strategies that make teachers feel good about teaching.

Elliott (2002) also identified three aspects of principal's work described as having a negative impact on the principal/teacher relationship. These were described as managerial requirements symbolized as central office responsibilities, the demand of time required in meetings for special needs students, and the principal's ability to foster respectful, trusting relationships with the staff. The current study categorized all focus group responses having a negative impact on teacher efficacy as failure to Provide Individual Support, Model Behavior or Foster Commitment. The three aspects of principal's work presented by Elliott (2002) can understandably be related to these same three leadership constructs.

One of the six questions investigated by Staggs (2002) in a study of 103 Ohio schools asked how teacher perceptions of principal leadership related to teacher efficacy which comparatively applies to the first question in the current study. Staggs (2002) presented results to this particular question indicating that principal leadership is significantly related to teacher efficacy at all academic levels. Each of the three distinct instructional levels was found to have statistically significant relationship between teacher efficacy and principal leadership, but in different ways. Positive correlations to GTE were reported by elementary respondents and to PTE by high school respondents. Middle school teacher responses, however, were positively correlated to both types of teaching efficacy. This particular result of middle school responses supports the current

researcher's opinion that the present study's middle school sample group was extraordinary, resulting in responses uncommon to the representative population.

The last findings to compare came from a study by Ross and Gray (2004) conducted in elementary schools in Ontario, Canada. The most relative finding of the study proposed that transformational leadership has a notable impact on the collective teacher efficacy of a school. The results implied that the leadership/efficacy relationship matters because of the well established connection between collective teacher efficacy and student achievement. The study concluded that for principals to improve the collective beliefs of the campus they should influence teacher interpretations of school and classroom achievement data, help teachers set feasible goals, and provide teachers with access to high quality professional development. These three recommendations connect sufficiently to the present study's leadership constructs of provides intellectual stimulation, promotes vision, and holds high expectations which were all found to be positively correlated to teachers' efficacy by the total respondent group.

In general, previous research supports the overall outcomes of the present study by providing relevant examples of positive correlations between teacher efficacy and principal leadership in various contexts. On the other hand, historical examples indicate evidence of quantitative results that render findings contrary to those presented here. These disparate results further support the difficulty of acquiring consistent correlational results for these two variables as well as reinforce the theory of context specificity. The following section will propose potential recommendations for educational practitioners as a result of the study's findings.

Recommendations for Practitioners

Fullan (1991) suggests that teacher development depends not only on individuals, but also on the relationship of teachers and principals with whom they work. Principals face enormous challenges in their efforts to lead teachers to accomplish unprecedented levels of student achievement. Teachers are required to expect students from a wide spectrum of learning abilities to achieve at higher levels than ever before. This study and others imply that there is a positive relationship between principals' leadership practices and teachers' ability to have this desired effect with findings that should be considered to have practical implications for administrative practice as well as administrative preparation.

Quantitative analysis of responses from the total group of respondent teachers indicate a positive relationship between all measured efficacy constructs and most categories of transformational leadership. With student achievement as the ultimate goal and previous research reporting positive relationships between teacher efficacy and student achievement, it would behoove principals and administrators to be especially knowledgeable of the six components of transformational leadership as well as the three aspects of teacher efficacy examined in this study. Being mindful of how daily leadership decisions not only fit within the transformational leadership constructs, but more importantly affect good classroom teaching practices, should help principals plan and initiate strategies and programs that create a campus atmosphere more conducive to comprehensive learning.

The study also distinctly reports that quantitative data proposes that there is a particularly notable relationship between efficacy in student engagement and principals

providing intellectual stimulation. Keeping students efficiently engaged involves getting students to believe they can do well in schoolwork, motivating students with learning challenges to show greater interest in achievement, and understanding students who are failing (Tschannen-Moran & Woolfolk Hoy, 2001). Providing intellectual stimulation involves principals affording teachers with information that causes them to reexamine their basic pedagogical assumptions and helps them think of more intuitive ways to implement instructional strategies. Deliberate emphasis on best practices, allowing opportunities for professional growth and encouraging instructional experimentation should be an integral part of a principal's campus improvement plan and professional persona. To accomplish these challenges, teachers and principals alike should focus their efforts on stimulating their instructional intellect.

Discounting the extraordinary correlational data from middle school respondents, high school teachers indicated diminishing relationships of teacher efficacy and principal leadership except for the leadership area of provides intellectual stimulation. As high school teachers apparently perceive this as a seminal aspect of principal leadership, it would be advantageous for high school principals to invigorate teachers thinking with intellectual stimulation related to other transformational leadership constructs. Teachers increased awareness of these leadership characteristics and principals' attention to this awareness level should improve the overall effect on teacher efficacy and enhance a collective teacher/principal relationship.

One hundred percent of the qualitative responses indicating principal leadership characteristics or strategies that negatively impact teacher efficacy were subjectively categorized as inhibitive to fosters commitment, provides individual support and models

behavior. These transformational leadership constructs involve behavior on the part of the principal aimed at promoting cooperation among staff members, addressing the unique needs of individuals, symbolizing success and accomplishment while assisting teachers to work together toward common goals (Jantzi & Leithwood, 1996). Most of the specific characteristics described by teachers with relatively strong efficacy involved principals creating barriers to eminent teacher performance with inhibitive management behavior such as overemphasizing *small stuff*, micromanaging, blanket criticism, and erratic responses. Principals too often fail to think how their manner of handling challenging situations affects collective teaching efforts. Addressing situations with specificity in a professional, considerate and thoughtful manner will encourage teachers to support the united efforts of the school.

Suggestions for Additional Research

As with most studies, this study revealed some unexplainable results as well as outcomes contrary to comparable research. Therefore, it is suggested that further study in identified areas would be beneficial in completing the study's comprehensive outcomes.

As an administrative practitioner, it is puzzling that the transformational leadership characteristic of provides individual support was the only leadership factor measured to be not statistically significant. The indication that there is an insignificant relationship between a teacher feeling supported and the impact on their teaching efficacy seems quite unusual. Elliott (2000) found this construct to be the only one of the

six to be significantly related to teacher efficacy. Therefore, further examination of this particular leadership construct's relationship to teacher efficacy would be beneficial.

A second recommendation for future research would be to address the extraordinary results presented by middle school respondents in this study. As has been previously emphasized, the correlations achieved by middle school teacher responses appear unusual and contrary to previous research. The value of understanding the efficacious differences in teachers from various instructional levels would be of significant benefit to principals, leadership preparation programs and human resource administrators. The knowledge of what instructional level a teacher appears to be most efficacious would be invaluable in appropriately placing teachers to insure their success. In addition, the cognizance of principal self-efficacy would improve their ability to find the position of best fit as well as improve central office administration's effectiveness in efficient campus placement. Further research in this area would enhance instructional success through more scientific teacher and principal placement.

The final recommendation for further study is in the relationship between a principal's effort in promoting a vision for the campus and teacher efficacy. Even though the quantitative analysis of this relationship revealed statistical significance, descriptive mean scores were noticeably low and relative qualitative responses were nonexistent. Even though establishing a common vision is promoted as one of the premier responsibilities of an effective leader within virtually all leadership theories, it seems to be perceived as insignificant by teachers. It is intriguing that teachers seem oblivious to the theoretical knowledge that the direction and purpose of an organization should be

guided by its mission and vision. Further study in this area is needed to clarify this lack of understanding and importance of the relational value.

Conclusion

This study examined the relationship between teacher efficacy and teachers' perceptions of their principals' leadership behaviors in several contexts. It explored and compared three specific aspects of teacher efficacy and six components of transformational leadership. The study's outcomes have reported that total respondent data indicates a generally positive relationship between these two variables. Subgroup analysis by instructional level revealed varying results with somewhat diminishing relationships measured from elementary to secondary teachers. Qualitative information gathered from teachers with strong measurable efficacy reported identifiable strategies that foster teacher efficacy, make teachers feel good about teaching and inhibit the development of teacher efficacy. Previous studies generally support this study's findings, but also present contradictory results in certain contexts.

The importance of effective leadership skills in fostering teacher efficacy is supported in these findings and should be enhanced by further research and practical application. The difficult role of teachers to accomplish increased levels of student achievement is either improved or stalled by the quality of principal leadership strategies. Principals should be encouraged by these results to strive to improve campus environmental conditions affecting teachers' work, to enhance teachers' ability to achieve ultimate levels of learning and to strengthen the desire for good teachers to remain in the profession.

APPENDIX A
FOCUS GROUP QUESTIONNAIRE

“How do principals enhance teachers' sense of efficacy in elementary, middle, and high schools?”

1. What principal initiated strategies/activities positively affect your teaching efficacy in the following areas?
 - Student Engagement

 - Instructional Strategies

 - Classroom Management

2. What does your principal do to make you feel good about teaching?

3. What principal characteristics or behaviors negatively affect your ability to effectively teach?

APPENDIX B
FOCUS GROUP RESPONSES

Question 1: What principal initiated strategies/activities positively affect your teaching in the following areas?

Elementary

<u>Question</u>	<u>Sub-Question</u>	<u>Response</u>	<u>PLQ Category</u>
Question 1	Student Engagement	Student of the Month	HE
		Cool Conduct "behavior" Awards	HE
		Recognizing Student Accomplishments	HE
		Parent Involvement	FC
		Positive Incentives	HE
		Student Award Assemblies	HE
		Student Celebrations	HE
	Instructional Strategies	Cross Grade Level Meetings	FC
		Staff Development	NS
		Best Practices	MB
		P L C Meetings	PV
		Book Studies	PV
		Mentors	FC
	Classroom Management	Assist with severe problems	IS
		Supports Teacher Decisions	IS
		Allows for Personal Teaching Styles	FC

Middle School

Question	Sub-Question	Response	PLQ Category
Question 1	Student Engagement	Annual Awards Ceremonies	HE
		Physically Welcoming Environment	FC
		Daily Recognition for Academic and Moral Accomplishments	HE
		Team Parties, Honor Roll Parties, Silver Star Parties (conduct)	HE
		Numerous Opportunities for Involvement in Clubs, Activities, Academics, Sports, Etc	FC
	Instructional Strategies	Open Mindedness to All Teachers to be Creative Facilitators	FC
		Awareness of Current Instructional Strategies (research-based)	NS
		Allows Time for Subject Area Collaboration	FC
	Classroom Management	Weekly Memos from Principal	MB
		Supportive of Individual Teacher's Classroom Policies	IS
		High Expectations of Students and Teachers Communicated	HE

High School

Question	Sub-Question	Response	PLQ Category
Question 1	Student Engagement	Encourages Student Participation in Classes or Activities Other Than Core Classes	FC
		Visibility in the Halls, Classrooms, at Extra-curricular Activities	MB
		Open-door Policy for Students	FC
		Seeks Student Input on Student Related Issues	FC
		Rewards and Celebrates Successes	HE
	Instructional Strategies	Encourages Teachers to Take Risks	FC
		No Micromanagement	IS
		Supportive of Continuing Education	NS
		Doesn't Overload Teachers With Extra Meetings or Paper Work	IS
	Classroom Management	Becomes Involved When Necessary	MB
		Supportive of Staff in Parent-Teacher or Student-Teacher Conferences	IS
		Shows Respect to Teachers in Front of Students	MB
		Asks Teachers for Solutions to Discipline Issues	FC

Question 2: What does your principal do to make you feel good about teaching?

Elementary School

Question	Response	PLQ Category
Question 2	Notes of Encouragement	IS
	Positive Comments	IS
	Personal Stories	MB
	Trust Judgment and Ability	IS
	Celebrations	HE
	Voice	IS
	Treated with Respect	IS
	Equitable Treatment	

Middle School

Question	Response	PLQ Category
Question 2	Highlights Effective Teaching Strategies	NS
	Specific Praise / Individual Accomplishments	IS
	Requesting Teacher Input/Feedback	FC
	Publicizes Letters/Phone Calls from Outsiders	FC
	Welcoming/ Supporting New Staff on a Continual Basis	IS

High School

Question	Response	PLQ Category
Question 2	Flexibility	MB
	Empowers Teachers	FC
	Various Teacher Groups to Address Campus Policy	FC
	Supportive of New Ideas	IS
	Advocate for Teachers with Central Office	FC

Question 3: What principal characteristics or behaviors negatively affect your ability to effectively teach?

Elementary School

Question	Response	PLQ Category
Question 3	Overemphasizing “small stuff”	FC
	Control Freak	FC
	“My Way or No Way” attitude	IS
	Addressing whole group for Individual problems	FC
	Unapproachable demeanor	MB
	Favorites	MB

Middle School

<u>Question</u>	<u>Response</u>	<u>PLQ Category</u>
Question 3	Lack of Visible Presence in Halls, Building, Classrooms and Cafeteria	MB
	Blanket Criticisms	FC
	Lack of Support/Backing in front of a Parent	IS
	Too Many Mandatory evening meetings	FC

High School

<u>Question</u>	<u>Response</u>	<u>PLQ Category</u>
Question 3	Micromanaging	FC
	Too Rigid or Too Lax	FC
	Addresses Problems in front of Students	IS
	Addresses Problems that apply to a Few with the entire staff	FC

APPENDIX C
TSES PERMISSION REQUEST

Harry D. Ryan
Wichita Falls, TX 76308

June 1, 2006

Megan Tschannen-Moran
College of William and Mary
School of Education
P.O. Box 8795
Williamsburg, VA 23187-8795

Dr. Tschannen-Moran,

I am a doctoral student at the University of North Texas working on a degree in Educational Leadership. I plan to begin a study in the fall of 2006 exploring the relationship between principal leadership behaviors and teacher efficacy as perceived by teachers with strong measurable efficacy. I would like to use the Teachers' Sense of Efficacy Scale developed by you and Dr. Hoy to identify teacher subjects with measurably strong teacher efficacy. I have seen the instrument used in several other studies and see it as a reliable tool. I have a copy of the instrument along with Directions for scoring and reliabilities. I am requesting your permission to use the instrument and would appreciate a written electronic response indicating such for the appendix of my dissertation. For electronic reply I can be contacted at

Thank you for your time and consideration of this request.

Sincerely,

Harry D. Ryan

APPENDIX D
TSES PERMISSION RECEIPT



The College Of
WILLIAM & MARY

School of Education
Megan Tschannen-Moran, Ph.D.
Post Office Box 8795
Williamsburg, Virginia 23187-8795
Fax: (757) 221-2988

Associate Professor
e-mail mxtsch@wm.edu
(757) 221-2187

June 22, 2006

Harry Ryan
University of North Texas

Harry Ryan:

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

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

You may download a copy of the instrument and directions for administration from my Website at <http://www.MeganTM.com>.

I would like to receive a brief summary of your results when you are finished.

Sincerely,

Megan Tschannen-Moran

APPENDIX E
PLQ PERMISSION REQUEST

Harry D. Ryan
Wichita Falls, TX 76308

November 22, 2005

Dr. Kenneth Leithwood
Ontario Institute for Studies in Education
University of Toronto
252 Bloor Street
West Toronto, Ontario M5S 1 V6

Dr. Leithwood,

I am a doctoral student at the University of North Texas working on a degree in Educational Leadership. I plan to begin a study in the fall of 2006 exploring the relationship between principal leadership behaviors and teacher efficacy as perceived by teachers with strong measurable efficacy. I am searching for a survey to qualify principal leadership behaviors as measured by teachers of strong self-efficacy.

In my search I have found the principal leadership questionnaire (PLQ) on the MLLC Website and am curious as to its application in this situation. I have also read of your Nature of Leadership Survey in several other references and have considered it as a possible instrument. I am asking your opinion as to which of these surveys would be most appropriate as well as permission to use them. How can I acquire copies of the surveys, administering and scoring information, and reliability data? For electronic reply I can be contacted at.... Thank you for your time and consideration of this request.

Sincerely,

Harry D. Ryan

APPENDIX F
PLQ PERMISSION RECEIPT

Doris Jantzi <djantzi@oise.utoronto.ca> wrote:

Professor Leithwood passed on a letter from you in which you requested one of our instruments. You will find it attached as well as a document that provides reliability measures for scales used in the instrument.

Good luck with your research.

Doris

Doris Jantzi, Senior Research Officer
Dept. of Theory & Policy Studies, Room 6-187
Ontario Institute for Studies in Education
of the University of Ontario
252 Bloor Street West
Toronto ON CA M5S 1V6
Telephone: 416-923-6641 ext. 2465
Fax: 416-926-4752

REFERENCES

- Armor, D., Conroy-Oseguera, P., Cox, M., King, N., McDonnell, L., Pascal, A. (1976). *Analysis of the school preferred reading programs in selected Los Angeles minority schools* (Report NO. R-2007-LAUSD). Santa Monica, CA: Rand Corporation.
- Ashton, P., Buhr, D., & Crocker, L. (1984). Teachers' sense of efficacy: A self- or norm-referenced construct? *Florida Journal of Educational Research* 26(1), 29-41.
- Ashton, P.T., & Webb, R.B. (1986). *Teacher efficacy and student achievement*. New York: Longman.
- Ashton, P.T., Webb, R.B., & Doda, N. (1982). A study of teachers' sense of efficacy. *Final Report*. Washington, DC: National Institute of Education.
- Bandura, A. (undated). *Teacher Self-efficacy Scale*. Retrieved January 23, 2007 from <http://www.coe.ohio-state.edu/ahoy>.
- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, 84, 191-215.
- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, New Jersey: Prentice Hall.
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: W. H. Freeman and Company.
- Bass, B. M. (1985). *Leadership and performance beyond expectation*. New York: Free Press.
- Berman, P., McLaughlin, M., Bass, G., Pauly, E., & Zellman, G. (1977). Factors affecting implementation and continuation. *Federal programs supporting educational change, Volume 7*. Santa Monica, CA: The Rand Corporation.
- Blase', J., & Blase', J. R. (2001). The teacher's principal: Collegiality instead of control is one thing teachers appreciate in a leader. *Journal of Staff Development*, 22(1).
- Bulach, C. R., Michael, P., & Booth, D. (1999, December). *Analyzing the leadership behavior of school principals*. Paper presented at the Association for the Advancement of Educational Research conference, Pointe Vedra, Florida.
- Burns, J.M. (1978). *Leadership*. New York: Harper and Row.
- Coladarci, T., & Breton, W. (1997). Teacher efficacy, supervision, and the special education resource-room teacher, *Journal of Educational Research*, 90, 230-239.

- Edmonds, R. (1979). Effective schools for the urban poor. *Educational Leadership*, 37(9), 15-27.
- Edmonds, R. (1979). Some schools work and more can. *Social Policy*, 9(5), 28-32.
- Elliott, S. (2000). The relationship between teacher efficacy and principal leadership behaviors and teacher background variables in elementary schools. Doctoral dissertation, *University of Connecticut*, 2000. Retrieved January 28, 2007 from <http://wwwlib.umi.com/dissertations/fullcit/9977490>
- Emmer, E. (1990). *A scale for measuring teacher efficacy in classroom management and discipline*. Paper presented at the annual meeting of the American Educational Research Association, Boston, MA (Revised, June, 1990).
- Frase, Larry E. (1982). Promoting instructional excellence through a teacher reward system: Herzberg's theory applied. *Planning and Changing*, 13(2), 67 – 76. Retrieved January 24, 2007 from http://eric.ed.gov/ERICWebPortal/Home.portal?_nfpb=true&_pageLabel=RecordDetails&ERICExtSearch_SearchValue_0=EJ268289&ERICExtSearch_SearchType_0=eric_accno&objectId=0900000b80082e79.
- Fullan, M.G. (1991). *The new meaning of educational change* (2nd ed.). New York: Teachers College Press.
- Fullan, M. (2003). *The moral imperative of school leadership*. Thousand Oaks, CA: Corwin Press.
- Gall, G. D., Gall, J. P., Borg, W. R. (2003). *Educational research, an introduction*, (7th ed.). Boston: Allyn and Bacon.
- Gibbs, A. (1997). Focus groups. *Social Research Update*, 19: 1-7. Retrieved February 15, 2007 from: <http://E:\Social%20Research%20Update%2019%20Focus%20Groups.mht>.
- Gibson, S., & Dembo, M. (1984). Teacher efficacy: A construct validation. *Journal of Educational Psychology*, 76(4), 569-582.
- Hallinger, P. (1983). Assessing the instructional management behavior of principals. *Stanford University, Stanford, CA*.
- Hallinger, P. (2003). *Reshaping the landscape of school leadership development*. The Netherlands: Swets and Zeitlinger.
- Hallinger, P., & Heck, R. (1996). Exploring the impact of principal leadership. *School Effectiveness and School Improvement*, 5(3), 206-218.
- Hallinger, P., & Murphy, J. (1985). Assessing the instructional management behavior of principals. *Elementary School Journal*, 86, 217-247.

- Hallinger, P., & Murphy, J.F. (1987). Assessing and developing principal instructional leadership. *Educational Leadership*, (September), 54-61.
- Hanson, M.E. (2003). *Educational administration and organization behavior* (5th ed.). Boston: Allyn and Bacon.
- Hipp, K. (1995, April). *Exploring the relationship between principals' leadership behaviors and teachers' sense of efficacy in Wisconsin middle schools*. Paper presented at the annual meeting of the American Educational Research Association, New York.
- Hipp, K. (1996, April). *Teacher efficacy: Influence of principal leadership behavior*. Paper presented at the annual meeting of the American Educational Research Association, New York.
- Hipp, K. (1997, March). *Documenting the effects of transformational leadership behavior on teacher efficacy*. Paper presented at the annual meeting of the American Educational Research Association, Chicago, IL.
- Homrig, M.A. (n.d.). *Transformational leadership*. Retrieved July, 26, 2006, from <http://leadership.au.af.mil/documents/homrig.htm>.
- Hoy, W. K. & Woolfolk, A. E. (1993). Teachers' sense of efficacy and the organizational health of schools. *Elementary School Journal*, 93, 356-372.
- Interstate School Leaders Licensure Consortium (ISLLC). (1996). *Council of Chief State School Officers Web site*. Retrieved July 26, 2006, from <http://www.ccsso.org/isllc.html>.
- Jantzi, D. & Leithwood, K. (1996, October). Toward an explanation of variation in teachers' perceptions of transformational school leadership. *Educational Administration Quarterly*, 32(4), 512-538.
- Kerlinger, F.N. (1986). *Foundations of behavioral research*. New York: Holt, Rinehart & Winston.
- King, J. A. (2000). *The teacher-principal relationship and teacher efficacy*. Richmond, VA: University of Virginia Press.
- Kitzinger, J. (1995). Qualitative research: Introducing focus groups. *BMJ*, 311, 299-302. Retrieved February 14, 2007, from <http://www.bmj.com/cgi/content/full/311/7000/299>.
- Kreuger, R.A. (1988). *Focus groups: A practical guide for applied research*. London: Sage.

- Lashway, L. (2002, July). Developing instructional leaders. *Clearinghouse on educational policy management*. Retrieved July 26, 2006, from <http://eric.uoregon.edu/publications/digests/digest160.html>: ERIC Clearinghouse
- Lawrence, P. & Lorsch, J. (1967). Differentiation and integration in complex organizations. *Administrative Science Quarterly*, 12, 1-30.
- Leithwood, K. (1992). The move toward transformational leadership. *Educational Leadership*, 49(5), 8-12.
- Leithwood, K. (1994). Leadership for school restructuring. *Educational Administration Quarterly*, 30, 498-518.
- Leithwood, K. (1997). *The nature of leadership survey*. Unpublished manuscript. Ontario Institute Studies in Educational/University of Toronto, Toronto, Canada.
- Leithwood, K., & Duke, D. (1999). *Handbook of research on educational administration* (2nd ed.). San Francisco: Jossey-Bass Inc.
- Leithwood, K., & Jantzi, D. (1999). Transformational school leadership effects: A replication. *School Effectiveness and School Improvement*, 10(4), 451-479.
- Leithwood, K., & Jantzi, D. (2000). The effects of transformational leadership on organizational conditions and student engagement with school. *Journal of Educational Administration*, 38(2), 112-126.
- Leithwood, K., Jantzi, D., & Fernandez, A. (1993, April). *Secondary school teachers' commitment to change: The contributions of transformational leadership*. Paper presented at the annual meeting of the American Educational Research Association, San Diego.
- Leithwood, K., Jantzi, D., & Steinbeck, R. (1999). *Changing leadership for changing times*. Buckingham, Philadelphia: Open University Press.
- Leithwood, K.A. (1993). The nature of leadership: The change in secondary schools. *Year 2000 Research Project*. Ministry of Education and Ministry Responsible for Multiculturalism and Human Right.
- Liontos, L.B. (1992). *Transformational leadership*. Retrieved July 26, 2006, from <http://www.vtaide.com/phn/ERIC/Transformational-Leadership.htm>: ERIC Clearinghouse
- Lockwood, A.T. (2005, June). *Principal leadership for accountability: Optimizing the use of Title II resources*. Northwest Regional Educational Laboratory. Retrieved July 26, 2006, from <http://www.nwrel.org/planning/reports/accountability>.

- Maciel, R.G. (2005). *Do principals make a difference? An analysis of leadership behaviors of elementary principals in effective schools*. University of Texas-Pan American.
- McEwan, E.K. (1994). *Seven steps to effective instructional leadership*. New York: Scholastic.
- McFarland, M. (2005). *Leadership practices of principals in high performing, high poverty high schools in Texas*. Waco, TX: Baylor University.
- Mitchell, D. E., & Tucker, S. (1992, February). Leadership as a way of thinking. *Educational Leadership*, 49(5), 30-35.
- Morgan, D.L. (1988). *Focus groups as qualitative research*. London: Sage.
- Murphy, J., & Seashore-Lewis, K. (1999). *Handbook of research on educational administration* (2nd ed.). San Francisco: Jossey-Bass Inc.
- National Association of Elementary School Principals (NAESP). (2001). *Leading learning communities: Standards for what principals should know and be able to do*. Retrieved July 26, 2006, from www.naesp.org.
- National Commission on Excellence in Education (NCEE), & Gardner, D.P. (Chairman). (1983, April). *A nation at risk: The imperative for educational reform*. Washington, DC: U.S. Department of Education.
- Pajares, F. (2002). *Overview of social cognitive theory and of self-efficacy*. Retrieved July 15, 2006, from <http://www.des.emory.edu/mfp/eff.html>.
- Peagler, P. (2003). *An examination of teacher efficacy and transformational leadership behaviors of principals in urban middle schools*. Unpublished manuscript. Howard University.
- Poplin, M. S. (1992, February). The leader's new role: Looking to the growth of teachers. *Educational Leadership*, 49(5), 10-11.
- Riggs, I., & Enochs, L. (1990). Toward the development of an elementary teacher's science teaching efficacy belief instrument. *Science Education*, 74, 625-638.
- Ross, J. (1994, June). *Beliefs that make a difference: The origins and impacts of teacher efficacy*. Paper presented at the annual meeting of the Canadian Association for Curriculum Studies, Calgary.
- Ross, J. A., & Gray, P. (2004, April). *Transformational leadership and teacher commitment to organizational values: The mediating effects of collective teacher efficacy*. Paper presented at the annual meeting of the American Educational Research Association, San Diego.

- Rotter, J.B. (1966). Generalized expectancies for internal versus external control of reinforcement. *Psychological Monographs*, 80, 1-28.
- Sergiovanni, T. (1992). *Moral leadership: Getting to the heart of school improvement*. San Francisco: Jossey-Bass Inc.
- Smith, W., & Andrews, R.L. (1989). *Instructional leadership: How principals make a difference*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Staggs, J. D., (2002). *The relationships among teacher perceptions of principal leadership, teacher efficacy in a school improvement program*. Unpublished manuscript. Ohio State University.
- Tschannen-Moran, M, & Woolfolk Hoy, A. (2001). Teacher efficacy: Capturing an elusive construct. *Teaching and Teacher Education*, 17, 783 – 805.
- Tschannen-Moran, M., Woolfolk Hoy, A., & Hoy, W. (1998). Teacher efficacy: Its meaning and measure. *Review of Educational Research*, 68, 202-248.
- Wright, P., Darr-Wright, P., & Whitney-Heath, S. (2004, February). *Wrights law: No child left behind* (1st ed.). Hartfield, VA: Harbor House Law Press, Inc.