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**VALUES CONGRUENCE: ITS EFFECT ON PERCEPTIONS OF MONTANA
ELEMENTARY SCHOOL PRINCIPAL LEADERSHIP PRACTICES AND STUDENT
ACHIEVEMENT**

By

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Dissertation presented in partial fulfillment of the requirements
for the degree of
Doctor of Education in Educational Leadership

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Abstract Title: Values Congruence: Its Effect on Perceptions of Montana Elementary School Principal Leadership Practices and Student Achievement

Chairperson: William McCaw. Ed.D.

The purpose of this quantitative study was to examine the relationship between principal and teacher values congruence and perceived principal leadership practices. Additionally, this study considered the relationship between values congruence, leadership practices, and student achievement. The perceptions teachers hold regarding their principal's effectiveness have proven to be an important variable that influences the quality of the school, when quality is defined in terms of student achievement levels (Cotton, 2003; Marzano et. al., 2005). This study sought a better understanding of the factors that influence a teacher's perceptions of their principal's effectiveness to provide insight into the teacher/principal relationship and its subsequent association with student achievement.

The statistical analyses in this study revealed that values congruence between teachers and principals is not a variable that has a statistically significant relationship to teachers' perceptions of their principal's leadership practices. This study also revealed that teacher/principal values congruence has no statistically significant relationship to student achievement levels.

This study suggests that principals would be well served to focus their efforts on factors that have been shown to improve student achievement instead of seeking to affect the congruence between their work values and their staff's work values. The existing research base focuses the school leader on creating practices that are conducive to building professional teacher/principal relationships rooted in the examination of student data with a constant eye upon adjusting instruction that meets the diverse needs of each individual learner (DuFour & Eacker, 1998; Schmoker, 1999, 2006). A focus upon assuring teachers' utilization of instructional practices that have been found to impact student achievement is also essential (Marzano et al., 2003, 2005; Danielsen, 2002). It is advisable that principals focus their efforts in these areas rather than upon seeking to effect the level of values congruence that might exist between the principal and his/her staff.

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My father, Dr. Dale Zorn, has always provided a steady source of encouragement to me. As a child, I watched him and my mother, Marlene, persevere as he completed his doctoral program and research. Their example provided me the vision necessary to complete my research, while their love and guidance provided me with the impetus necessary to see this to its end. My only regret is that my mom did not get to see the conclusion of this work as she passed away last summer.

My children; Christina, Jaimee, John and Stephen are the reason I endeavored to complete my doctorate. I have felt a tremendous amount of pride in the fact that my dad completed his doctorate and wanted my children to feel that same sense of pride in me. I am so grateful that I have had the privilege of being their father. They have taught me so much and the love and patience they have shown me throughout this process is greatly appreciated.

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CHAPTER ONE – STATEMENT OF THE PROBLEM

Warren Bennis (1989), in his book entitled *On Becoming a Leader*, quoted Abigail Adams when she wrote to Thomas Jefferson, “These are the hard times in which genius would wish to live... Great necessity calls forth great leaders” (p. 189). The American public education system finds itself in such a time. Great leaders are needed. Effective educational leadership requires an ability to work collaboratively with teachers, while developing relationships that provide the environment for the improvement of education (Frase & Hetzel, 1990; Fullan, 2001; Hoerr, 2005; Sergiovanni, 2000).

In the first decade of the twenty-first century education in the United States is faced with many challenges. Throughout the history of American education the general public has placed increased expectations upon its educational system. As the public’s expectations have risen, the role played by the federal government has also increased (Burnes, 1978).

Until the 1980s, federal legislation pertaining to public education dealt primarily with assuring equal access for all students regardless of their economic, mental, or physical state. The federal government’s focus shifted in 1983 when the National Commission on Educational Excellence published its report, *A Nation at Risk*. *A Nation at Risk* cast a critical eye on the nation’s public school system by calling into question the level of student achievement in our nation’s schools (National Commission on Educational Excellence, 1983). This publication represented a shift in the federal government’s educational focus from the assurance of access and opportunity to the improvement of student achievement. *A Nation at Risk* and the subsequent discussion surrounding the concerns outlined in this report influenced the passage of the Goals 2000: Educate America Act (United States Department of Education Goals 2000: Educate America Act Update, 1996). This act was intended to improve learning and teaching by

providing a national framework for education reform. It included a focus upon providing funding to improve the equality of educational opportunities provided all students. The act also encouraged the creation of a national system of academic standards.

On the heels of the Goals 2000: Educate America Act came the bipartisan No Child Left Behind (NCLB) Act of 2002. A Nation at Risk, Goals 2000, and No Child Left Behind each played a role in refocusing America's public schools upon improving the academic achievement of its students. Consequently, schools would now be held to the expectation that all students would learn and that this learning would be demonstrated with clear, objective assessment data that measured students' progress towards meeting the grade level standards set at the state level (U.S Department of Education, 2004).

The implementation of the Federal No Child Left Behind legislation has brought unprecedented accountability measures to schools. This legislation requires all students to demonstrate Mathematics and Reading proficiency by the year 2014. The failure of a schools' students to reach the expected proficiency levels can result in diversion of funds to private sources, school staff restructuring, and ultimately school closures (U.S Department of Education, 2004). Dufour, Dufour, Eaker, and Karhank (2004) summarized these increased expectations stating, "Public school educators in the United States are now required to do something they have never before been asked to accomplish: ensure high levels of learning for all students" (p. 1). Improved achievement levels is now one of the primary focuses of the public school's mission. With NCLB the American public education system is in the midst of an era of accountability. The degree to which schools respond to this challenge will partially determine access to funding, control of staffing, the satisfaction of the public they serve, and ultimately their survival.

The response to these increased expectations has included focused efforts aimed at improving instructional practices (Danielson, 2002; Marzano, Pickering, & Pollock, 2005; Tomlinson, 2004). Improving the use of achievement data to guide instructional practice has received great consideration (Schmoker, 1999, 2006). Attention has also been given to the role that building principals play in influencing student achievement (Cotton, 2003; Marzano, Waters, & McNulty, 2005). Additionally, a number of researchers have studied the influencing role that values play in the success of the school principal (Beck, 1999; Begley, 1999; Hodgkinson, 1991; Law, Walker, & Dimmock, 2003; Leonard, 1999b; Sergiovanni, 2000; Willower & Licata, 1997).

Researchers such as Cotton (2003) and Marzano, Waters, and McNulty (2005) have conducted studies to determine the factors that lead to improved student achievement. The role that the building principal plays in influencing student achievement is one factor receiving consideration by educational researchers. The research conducted has shown that student achievement depends, in part, on the quality of the leadership in the school (Barker, 2001; Cotton, 2003; Hallinger & Heck, 1996; Leithwood, 1994; Waters & McNulty, 2005).

Local school boards demonstrate their understanding of the important role that the school principal plays in the success of their schools through their willingness to offer their highest salary and benefit packages to their district's leaders. Many researchers have come to conclusions that confirm the belief that quality leadership leads to better schools (Barker, 2001; Cotton, 2003; Hallinger & Heck, 1996; Leithwood, 1994; Waters & McNulty, 2005). In their review of the literature regarding this matter, Hallinger and Heck (1996) wrote, "The belief that principals have an impact on schools is long-standing in the folk wisdom of American educational history" (p. 5). Hallinger and Heck continued,

Research on change implementation conducted during the 1970s identified the important role principals play in school improvement efforts. Similarly, research on school effectiveness concluded that strong administrative leadership was among those factors within the school that make a difference in student learning. (p. 5)

Sergiovanni (2000) studied leadership practice and recognized that values play an essential role in determining the quality of leadership and subsequently the willingness of others to follow. He reasoned, “The source of authority for leadership practice is based upon goals, purposes, values, commitments, and other ideas that provide the basis for followership” (p. 168). An area of particular interest within the study of values is the issue of values congruence and the effect its existence has on interpersonal relationships and leadership. Researchers such as; Adkins, Russell, and Werbel (1994), Posner, Kouzes, and Schmidt (1985), Krishnan (2002), Leonard (1999), Meglino and Ravlin (1998), Meglino, Ravlin, and Adkins (1991) and Russel and Adkins (1997) have all considered the effect of values congruence on interpersonal relationships and have found that shared values result in interpersonal interactions of a higher quality than interactions among individuals with disparate values. This body of research reveals the influencing role that values play when considering the relationship between the leader and the follower.

Statement of the Problem

A cursory review of newspaper and magazine articles as well as Letters to the Editor over the past 10 years demonstrates the general public’s demand for increased levels of student achievement. This demand is manifest in the tenets of the federal No Child Left Behind (NCLB) legislation. These pressures have caused schools to examine processes, curriculum, and instructional practices that impact student achievement levels.

However, when examining the National Assessment of Educational Progress (NAEP) data, the majority of school efforts have resulted in only modest increases in student achievement. This is demonstrated when considering the progress of America's students on the NAEP assessment since the implementation of NCLB in 2002. The results of the 2007 testing of fourth graders in Mathematics and Reading show a mere 2% increase in reading proficiency levels while those for Mathematics yield a 7% increase since 2002. Modest gains are being made but the pressure to increase student achievement to higher levels remains.

According to the NCLB Act, schools will need to increase their student achievement levels to 100% proficiency by the spring of 2014. At the present rate of improvement only 43% of fourth grade readers will be proficient by 2014. This falls well short of the stated goal in the NCLB legislation. The outlook for fourth graders in Mathematics is a bit more positive but will also fall well short of the goals of NCLB. At the present rate of improvement only 50% of fourth graders will be proficient in Mathematics by 2014. Schools not meeting the achievement levels expected by NCLB are subject to the sanctions previously discussed. The modest achievement levels demonstrated on the NAEP must increase drastically in the future for the Reading and Math goals of 100% proficiency to be realized by 2014. Based upon the NAEP student achievement data, it is clear that present efforts focused upon improved student achievement will fall well short of the goals of the NCLB.

America's schools are being held accountable for increasing the levels of their student's academic achievement. At the current rate of improvement the expected levels of achievement will not be met for many years, extending well beyond the 2014 deadline set by the No Child Left Behind legislation.

Purpose of the Research

The purpose of this quantitative study was to examine the relationship between principal and teacher values congruence and perceived principal leadership practices. Additionally, this study considered the relationship between values congruence, leadership practices, and student achievement.

The perceptions teachers hold regarding their principal's effectiveness have proven to be an important variable that influences the quality of the school, when quality is defined in terms of student achievement levels (Cotton, 2003; Marzano et. al., 2005). A better understanding of the factors that influence a teacher's perceptions of their principal's effectiveness provides insight into the teacher/principal relationship and its subsequent association with student achievement. This study focused upon values congruence as one factor influencing the teacher/principal relationship. This study examined the relationship between teachers' perception of their principal's leadership practices and the values congruence between those principals and the teachers. This study also examined the relationship of values congruence between the principal and the teachers and the student achievement levels of the students in that school. Additionally, this study considered the relationship between teachers' perceptions of their principal's effectiveness and student achievement.

Research Questions

The research questions answered in this research were narrowed to three specific questions. The first is related to values congruence and principal leadership practices. The second is related to values congruence and student achievement and the third is focused upon the relationship between principal leadership practices and student achievement. The three research questions are:

- 1.) Is a congruence of values between a building principal and the teachers they

lead related to the teachers' perception of their building principal's leadership practices?

In the initial design of this study, if values congruence was found to be independent of principal leadership practices, then questions two and three were to be considered.

- 2.) Is there a difference in student achievement levels of schools with high teacher/principal values congruence when compared to those with low teacher/principal values congruence?
- 3.) Is there a difference in student achievement levels of schools with high ratings of their principal's leadership practices when compared to schools with low ratings of their principal's leadership practices?

Definitions of Terms

When considering the role that values congruence plays in principal leadership practices and its relationship to student achievement it is important that the definitions of the key terms be understood. For the purposes of this research the following definitions were applied:

Follower - "A person who acknowledges the focal leader as the primary source of guidance about the work" (Yukl, 2002, p. 8). This study concentrated on the teaching staff in the buildings being studied as the followers of the building principal.

Leader - "People who occupy positions in which they are expected to perform the leadership role" (Yukl, 2002, p. 8). This study concentrated on the building principal as leader.

Leadership - "Leadership is a relationship between those who aspire to lead and those who choose to follow" (Kouzes & Posner, 2002, p. 20). Kouzes and Posner identified leadership as an identifiable set of practices which are evident in the actions of exemplary leaders. They

also found that leadership is not confined to the highest level of an organization and society but can be found everywhere.

Leadership Practices - Kouzes and Posner (2002) have defined leadership within the confines of the five practices indicative of exemplary leaders. These practices are: (a) Challenge the Process, (b) Inspire a Shared Vision, (c) Enable Others to Act, (d) Model the Way, and (e) Encourage the Heart” (p. xiii). The leader’s use of exemplary leadership practices was measured using the Leadership Practices Inventory (Kouzes & Posner, 2003b) which collects data on the five practices through the surveying of individuals considered to be followers of the leader.

Leadership Practices Inventory (LPI) - The LPI, originally published in 1990, measures what Kouzes and Posner refer to as “exemplary leadership.” Kouzes and Posner (2003b) have defined, and measured, exemplary leadership within the confines of the five leadership practices. The LPI was used in this study to measure a principal’s leadership practices.

Ipsative Measures - An ipsative measure uses a ranking format that employs a forced choice procedure in which respondents are asked to rank two or more relatively desirable options. This method of data collection is espoused by Rokeach and Ball-Rokeach (1989) as appropriate when measuring people’s values. They explained, “People’s value priorities can be more directly inferred from value rankings than from value ratings” (Rokeach & Ball-Rokeach, 1989, p. 776).

The Comparative Emphasis Scale (CES) - An ipsative measure of four general work values that have been shown to be operative in the workplace. The four work values are: (a) achievement/working hard, (b) concern for others/helping others, (c) fairness, and (d) honesty/integrity. The CES was used in this study to determine values congruence between the building principal and his/her teaching staff.

Student Achievement – For the purposes of this research, student proficiency levels were used as the measure of student achievement. Proficiency was determined by the percentage of students who scored in the proficient or advanced range on Montana’s 2009 Criterion Referenced Test (CRT). Proficiency levels for both Mathematics and Reading were considered in this research.

Values - “A conception, explicit or implicit, distinctive of an individual or characteristic of a group, of the desirable which influences the selection from the available modes, means and ends of action” (Kluckhohn, 1951, p. 395).

Values congruence - “The extent of agreement between the leader’s values system and the followers values system” (Krishnan, 2002, p. 22). The Comparative Emphasis Scale (Meglino & Ravlin, 1986) was used to measure values congruence.

Delimitations

Only Montana public schools with grade configurations that include Fourth grades were invited to participate in this study. The sample was drawn from all schools of at least 10 certified staff members with a full time principal located in the state of Montana. There were four criteria for inclusion in the population. The four criteria are:

- 1.) Public elementary schools in Montana
- 2.) Schools that include fourth grade students
- 3.) Schools that include staffs with at least ten certified educators
- 4.) Schools with a fulltime principal.

Limitations

It is difficult to determine the climate in place during the administration of the surveys which were used for this study. Certain “issues” that may come and continue throughout a school year can impact staff members’ feelings at the time of the administration of the surveys.

As a result, there is potential that the rankings derived from the values congruence measure may not be necessarily indicative of those held by individuals the majority of the time.

Ravlin and Meglino (1987) acknowledged the impact that the social desirability response bias may have on the collection of data related to values measurement. They stated,

We recognize this (social desirability response bias) as a major problem in values measurement. Even when using ipsative measures, if some individuals feel they will appear to be more socially desirable if they rank one specific value over others, this value may be moved up the hierarchy from its “true” position. (p. 170)

Student achievement was determined by student proficiency levels as determined by the Mathematics and Reading portion of the Montana 2009 Criterion Referenced Test. Each section of this test is given in a single setting to students. Subsequently, it is possible that events, emotions, and other factors unique to the day of test administration aided in the misrepresentation of a student’s achievement.

The Comparative Emphasis Scale (Meglino & Ravlin, 1986) is the tool that was used to measure work values in this study. This tool was created by practitioners working in the University of South Carolina’s Business School and has primarily been used in a business setting. The work values it measures are not specific to an educational setting.

It is not intended for the results of this study to be generalized to high schools or to schools with grade configurations other than those that include 4th graders. Additionally, the sample for this study was derived from schools and individuals who volunteered to participate. The fact that the sampling procedure was voluntary rather than random impacts the generalizability of the findings.

Significance of the Study

Principal leadership practices and their effect on improved academic achievement is worthy of further study. A more thorough understanding of the factors that influence principal leadership practices holds the potential to positively impact the academic achievement of the students. A building principal holds the ability to impact, negatively or positively, the climate and culture of the building in which they lead. Barker (2001) wrote, "Motivation and behavior in the workplace are highly susceptible to influence by leaders and their conscious and unconscious behavior" (p. 75). This unconscious behavior contributes to the complexity of understanding leadership.

A more complete study of the intervening variables that impact the quality of the principal/teacher relationship and teachers' perceptions of their principal's leadership practices is helpful to better understand the variables that effect student achievement. These variables include values, (Beck, 1999; Deal, 1995; Hall, 1998; Hodgkinson, 1991, 1999; Leithwood & Steinbach, 1995; Leonard, 1999; Posner & Schmidt, 1992; Prilleltensky, 2000; Schein, 2004; Sergiovanni, 2000; Willower & Licata, 1997) mission, teacher expectations, school culture, and facets of the instructional organization (Hallinger & Heck, 1996).

Many researchers have called for continued study on the relationship between values congruence and leadership effectiveness (Adkins & Russell, 1997; Posner, Kouzes & Schmidt, 1985; Law, Walker, & Dimmock, 2003; Meglino, Ravlin, & Adkins, 1989; Winter, Newton, & Kirkpatrick, 1998). School improvement initiatives are missing an important component when these initiatives do not consider the effect of values congruence between teachers and their principals. Understanding the effect of values congruence on teacher perceptions of their principal's leadership practices provides promise in helping schools improve student achievement by providing a more complete basis from which the relationship between

principals and teachers can be improved. Martin Hall (1998) in his writing about systems thinking and human values stated,

If one can understand the pattern of decision making of the individuals and the organization, then the true goals of the organization can be made apparent. This is a very powerful concept for allowing organizations to understand themselves and become more effective. Values are the filter by which we make these decisions. Understanding values therefore is a key to unleashing the complexity and power of an organization. Systems thinking and human values are the context for the tools and methodologies used to unleash and hopefully harness the power in these organizations. (p. 1)

Since previous research, beginning with the Effective Schools Research of the 1980s (Association for Effective Schools, 1996) up to the Marzano et al. (2005) study highlighted the important role that the principal plays in a school, there is a continued need for studying leadership in our nation's schools. A greater understanding of the factors that lead to effective school leadership can aid in the efforts being made by schools to increase student achievement. One factor worthy of consideration is the values congruence between the principal and the teachers in a school. The ability to predict that a congruency of values between principals and their teaching staffs will result in positive teacher perceptions of their principal's leadership practices and increased student achievement would be of value as the American education system seeks to improve the education provided to its students.

Summary

The American public and its federal government are placing demands upon schools that are unprecedented in the history of American education. These expectations are evident in the demand for increased student achievement demonstrated through objective data in the form of

state mandated achievement tests. The modest achievement levels indicated on the NAEP clearly demonstrate that present efforts focused upon improved student achievement are progressing at a rate that will fall well short of the 100% proficiency goals that are required in the No Child Left Behind legislation by the end of the 2013-2014 school year.

Research has demonstrated the important role that principals play in effecting the achievement levels of the students under their care. The research from this study will add to the existing research by exploring the correlation of values congruence between principals and their staff and the staff's perceptions of their principal's leadership practices. A better understanding of the variables that impact teacher's perceptions of their principal's leadership practices provides a more complete understanding of the relationship between a school principal and their teaching staff. This research also explores the relationship between teacher/principal values congruence and the student achievement levels in the school. It also considers the relationship between teachers' perceptions of their principal's leadership practices and student achievement levels. A better understanding of the teacher and principal relationship provides insight that helps create circumstances in which a principal and their teachers are able to more effectively work together to improve upon the school's student achievement levels. The following chapter considers the available literature regarding values congruence, leadership practices, and student achievement. This literature review provides the basis for the research conducted.

CHAPTER TWO – REVIEW OF THE LITERATURE

The following literature review contains three major sections. The first section's focus is on exemplary leadership, the second considers principal effectiveness and its relationship to student achievement, and the third section deals with values and its relationship to leadership.

The first section is configured in a manner intended to initially consider the literature available on exemplary leadership. It begins with a historical look at the study of leadership and leads to the work originally published in 1987 by Kouzes and Posner regarding exemplary leadership. The third edition of their book entitled: *The Leadership Challenge* was subsequently published in 2002. The 2002 edition will be referenced in this literature review. The purpose of this first section is to provide a basis from which we can understand the meaning of exemplary leadership, a term specific to the work of Kouzes and Posner and measured by their Leadership Practice Inventory (2003b).

The second section narrows the review to literature specifically related to principal effectiveness, particularly the effect that principal effectiveness has on the achievement levels of students within the school. Studies that considered teachers perceptions of their principal's effectiveness are given particular attention. To provide a greater understanding of the dynamics inherent in the principal's leadership role the literature review shifts to an exploration of the relationship between the teacher and the principal and the subsequent effect this relationship has on the principal's effectiveness. To better understand the relationship between the principal and the teacher and its subsequent effect on principal effectiveness and student achievement, this review then explores the connection between teacher's perceptions of their principal's effectiveness and student achievement. The section on principal effectiveness concludes that the leader, in particular the principal, has a significant effect on the success of a school when this success is measured in terms of student achievement. The review of literature also articulates

that the perceptions teachers' hold regarding their principal's effectiveness is a valid manner in which to measure principal effectiveness.

The final section of this literature review considers work values and the effect these values have on the relationship between leaders and followers. Values are being considered for this study in order to bring a better understanding of the mitigating factors that impact the relationship between the leader and the follower in an organization. By understanding the effect values may or may not have on the leader/follower relationship one can more completely ascertain that factors that influence perceptions of leadership effectiveness.

The section on values begins with a historical review of the study of values and the impact values have on human interaction. Values and leadership relationships are then explored, followed by the consideration of the role that values play in the culture of an organization. This exploration leads to an in depth look at values and the school principal which is followed by a section on values measurement. To help further the understanding of the role that work values play in the principal/teacher relationship, this review then considers the role that values congruence plays in this relationship and the resulting effect when the work values of the leader and follower are of varying degrees of congruence. The work of Ravlin and Meglino (1987, 1998) at the University of South Carolina provides the foundation for the study of values congruence and organization and leadership success as addressed in this proposal. The Review of Literature, as previously noted, begins with the section on Leadership.

Leadership

Leadership is effectively carried out in as many different ways as there are leaders and situations requiring leadership. Many researchers have recognized the complexity of the leadership act and acknowledged the importance of the leader understanding the context in which they are leading while keeping an eye on the future in which their organization is heading

(Bennis, 1989; Bennis & Nanus, 1985; James, 1997; Jukes, 2001; Wilkins, 1999). The tenets of effective leadership are, in many ways, timeless yet the context in which the act of leadership is exercised has changed over the years. Kouzes and Posner (2002) referred to the changing context when they wrote, “The content of leadership has not changed, the context has and, in some cases, it has changed dramatically” (p. xviii). How the educational leader adapts to the changing contextual landscape will effect the success of the American educational system as it moves into a future which continues to be characterized by increased expectations and scrutiny.

Leadership Definition

There are many different definitions of leadership available in the research. Each of these definitions fall within the particular theory espoused by individual authors. Consequently, some definitions are more useful than others. Yukl (2002) summarized his thinking on this subject as follows, “Some definitions are more useful than others, but there is no single correct definition” (p. 7).

In his work, Yukl (2002) chose to create a broad definition that took into account the many things that influence the quality of a collective effort by a group of individuals focused upon a shared purpose. Yukl defined leadership when he wrote, “The process of influencing others to understand and agree about what needs to be done and how it can be done effectively, and the process of facilitating individual and collective efforts to accomplish the shared objectives” (Yukl, 2002, p. 7).

Munitz (1998) attempted to describe the inherent difficulty in effective leadership. He stated, “Many scholars have defined it, and we all seem to know it when we experience it; but ‘leadership’ remains one of those illusive, abstract concepts, the practice of which frequently (and even simultaneously) elucidates and obfuscates theory” (p. 8). Munitz continued,

Virtually all forms of leadership are inspirational and involve facilitating change. Strong executives require courage, a willingness to take risks, an ability to dream about alternatives while weighing their consequences, and the capacity to engage colleagues from different perspectives toward common goals. (p. 9)

Leadership is not an easy task, but when successfully undertaken it can result in tremendous benefit to an organization and its people.

Warren Bennis (1989) conducted many qualitative studies in the 1980s that explored the leadership act and considered what attributes are present in effective leaders. His qualitative studies involved extensive interviews with many business and social leaders of this time. He summarized his definition of a leader in the following manner,

A leader is by definition, an innovator. He does things other people haven't done or don't do. He does things in advance of other people. He makes new things. He makes old things new. Having learned from the past, he lives in the present, with one eye on the future. And each leader puts it all together in a different way. (Bennis, p. 143)

Bennis and Nanus (1985) also wrote of the importance of the leader understanding themselves and found that through this understanding the leader is better able to be effective in their role. They quoted Theodore Friend III, the past president of Swarthout College, as defining leadership in this manner: "Leadership is heading into the wind with such knowledge of oneself and such collaborative energy as to move others to wish to follow" (p. 44). Jennifer James (1997) added the knowledge of myths to leadership when she wrote, "Knowing how myths-old and new-affect thought and behavior will improve your ability to make decisions based upon reality" (p. 77). These myths are grounded in our experiences, perceptions and values. The leader who is able to understand the source and result of these myths will better understand

themselves and, according to Bennis and Nanus (1985) and James (1997), have a greater opportunity to be effective in the leadership role.

Kouzes and Posner (2002) believe that leadership is rooted in relationships. They defined leadership as follows, “Leadership is a relationship between those who aspire to lead and those who choose to follow” (p. 20). They further identified leadership as an identifiable set of practices. The leadership practices identified by Kouzes and Posner are: (a) Challenge the Process, (b) Inspire a Shared Vision, (c) Enable Others to Act, (d) Model the Way, and (e) Encourage the Heart” (p. xiii). A more thorough treatment of these leadership practices is found later in this chapter. They also found that leadership is not confined to the highest level of an organization and society but can be found everywhere. Kouzes and Posner’s definition will guide this research.

History of Leadership Studies in the Second Half of the 20th Century

During the second half of the twentieth century increased attention was given to the study of leadership. This examination continues in earnest today. Inherent in these studies is an increased understanding of the importance of the leader/follower relationship and the effect the quality of this relationship has on the effectiveness of the leader. The following sections will provide an overview of the progression of thought in the study of leadership.

The Ohio State Leadership Studies

The Ohio State Leadership studies of the 1950s identified two broadly defined categories perceived by subordinates to be indicative of leadership behavior. These two categories were; consideration and initiating structure. Yukl (2002) described these two categories as follows:

Consideration – The leader acts in a friendly and supportive manner, shows concern for subordinates, and looks out for their welfare. Examples include doing personal favors for subordinates, finding time to listen to subordinate’s problems, backing up or going to war

for a subordinate, consulting with subordinates on important matters, being willing to accept subordinate suggestions, and treating a subordinate as an equal.

Initiating Structure – The leader defines and structures his or her own role and the roles of subordinates toward attainment of the group’s formal goals. Examples include criticizing poor work, emphasizing the importance of meeting deadlines, assigning subordinates to tasks, maintaining definite standards of performance, asking subordinates to follow standard procedures, offering new approaches to problems, and coordinating the activities of different subordinates. (p. 50)

These two areas, consideration and initiating, are independent of each other and represent distinct approaches to the act of leadership. Simply stated, consideration speaks to the role of the relationship between the leader and subordinate while, initiating structure speaks to the management of tasks within the organizational structure present. One of the major findings in the Ohio State leadership studies was that superiors tend to emphasize initiating structure while subordinates tend to be more concerned with consideration (Hoy & Miskel, 2008).

The University of Michigan Leadership Studies

While these studies were taking place, researchers at the University of Michigan were also engaged in extensive studies on leadership. The University of Michigan research identified three types of leadership behavior that separated effective and ineffective leaders. These three behaviors were; (a) task-oriented behavior, (b) relations-oriented behavior, and (c) participative leadership. The first two behaviors identified in the Michigan studies are similar to consideration and initiating as identified in the Ohio State studies. Unique to the Michigan studies was the identification of the “participative leadership” behavior category. Yukl (2002) summarized the Michigan findings in this area of leadership behavior,

Effective managers used more group supervision instead of supervising each subordinate separately. Group meetings facilitate subordinate participation in decision making, improve communication, promote cooperation, and facilitate conflict resolution. The role of the manager in group meetings should be primarily to guide the discussion and keep it supportive, constructive, and oriented toward problem solving. (p. 53)

The Michigan studies uniquely recognized the important role that subordinates play in the leadership act. Shared decision making and problem solving involving the follower and the leader was found to have an important impact on the quality of the leadership present.

Situational Leadership

Situational Leadership Theory was first espoused by Hersey and Blanchard in 1969 under the original name of the Life Cycle Theory of Leadership. Situational leadership is based upon the leader adjusting their approach contingent upon the follower's need for direction and their need for relationships. These two areas are based upon the initiating (direction) and consideration (relationships) structures that were indicative of the Ohio State Leadership studies reviewed earlier in this chapter. The Situational Leadership Theory advocates that the best leaders provide the amount and kind of direction and consideration which best fits the unique needs and developmental level of the follower.

Leadership Orientations

In his studies on leadership, Yukl (2002) summarized a three dimensional taxonomy espoused by Ekvall and Arvonen (1991) and Yukl (1999). This taxonomy viewed leadership as involving a mix of three concerns or objectives:

Task Oriented – This type of behavior is primarily concerned with accomplishing the task, utilizing personnel and resources efficiently, and maintaining orderly, reliable operations.

Relations Oriented – This type of behavior is primarily concerned with improving relationships and helping people, increasing cooperation and teamwork, increasing subordinate job satisfaction, and building identification with the organization.

Change Oriented – This type of behavior is primarily concerned with improving strategic decisions; adapting to change in the environment; increasing flexibility and innovation; making major changes in processes, products, or services; and gaining commitment to changes. (p. 65)

This taxonomy brought the importance of the change process into the equation of effective leadership. The inclusion of the change oriented concern as a part of the taxonomy acknowledged the need for a leader to adapt to change, to increase flexibility and innovation and to implement change (Yukl, 2002). This change component was not included in either the Ohio State, Michigan, or Hersey and Blanchard studies.

The Ohio State, Michigan, and Hersey and Blanchard studies and the work of Yukl represent a progression in leadership thought that demonstrates an increasing acknowledgement of the importance of the leader building relationships with his/her subordinates. This progression also brings to light the vital importance of the leader's understanding of the change process and the effect it has on his/her leadership effectiveness. Another area of interest in the study of leadership and motivation in the 1950s involved the different types of power that leaders used while leading their organizations.

Sources of Power

Primary among the researchers on power were French and Raven (1959) who identified a taxonomy that identified five different sources of power upon which leaders relied as they influenced their subordinates. These five areas included; (a) legitimate power, (b) reward power,

(c) coercive power, (d) referent power, and (e) expert power. Legitimate power involves compliance based upon the formal authority of the leader. Reward power involves compliance based upon the ability of the leader to provide incentives. With coercive power compliance is derived from the leader's ability to punish. The follower complies out of desire to avoid this punishment. Referent power relies upon the subordinates admiration or identification with the leader. Compliance is due to the followers desire to gain their leader's approval. The follower complies with a leader who exercises expert power when the leader has demonstrated to the subordinate that they have special knowledge about a particular subject.

Yukl (2002) credited Bass (1960) and Etzioni (1961) for grouping French and Raven's five sources of power into two larger sub groups; personal power and positional power sources. Legitimate, coercive and reward power were placed into the positional power source category as they were contingent upon the leader's position within in an organization. The other two sources of power, expert and referent power, were grouped into the personal power source category because of their reliance upon the personality and knowledge of the leader.

Social Exchange Theory

The Social Exchange Theory was originally proposed by Homans (1958) as a result of his survey of the small group research of his time. This theory surmises, "Social behavior is an exchange of goods, material goods but also non-material ones, such as the symbols of approval or prestige" (p. 606). This theory was expanded upon by Hollander (1958), and Jacobs (1970) who theorized that status and power are given a leader based upon the group's perception of their leader. These researchers believed that positive perceptions result in increased power and influence and that negative perceptions result in the loss of power and influence. According to this theory, leaders gain influence as they demonstrate expertise and loyalty within their

organization and will lose status and expert power when incompetence is displayed. According to Yukl (2002), “Social exchange theory emphasizes expert power and authority” (p. 154)

Distributed Leadership

Distributed leadership models received increasing attention toward the end of the 20th century. These models embraced leadership by teams and groups and involved the sharing of leadership responsibilities among multiple individuals and groups within the organization (Hoy & Miskel, 2008). Hoy and Miskel concluded that the distributed leadership model deserved important consideration within the administration of schools, “Distributed leadership is a pervasive, important and under-recognized phenomenon in the administration of schools” (p. 441).

Leadership as Relationship

Yukl’s (2002) review of leadership studies revealed that effective leaders rely more on personal power than upon positional power while Hersey and Blanchard’s (1969) work on situational leadership stressed the importance of the effective leader adjusting their leadership approach to meet the needs of followers. These thoughts point to the importance of the leader’s ability to interact with and influence those under his/her leadership. The development of interpersonal relationships is clearly an important factor that affects the quality of the leader/follower relationship and its subsequent influence on the quality of the leadership act. Many researchers have come to view the leadership act as dependent upon the quality of the relationships developed with those involved in any organization (Bennis, 1989; Bennis & Nanus, 1985; Deal, 1995; Kouzes & Posner, 2002; Marzano, Waters & McNulty, 2005; Rost, 1991; Segiovanni, 2000). The importance of building relationships was evident in the work of Burns (1978) in his model of transformational leadership. Bass (1985, 1996) expanded upon this work

in his theory which drew a distinction between the transactional and transformational leader. (Yukl, 2002)

In his studies on leadership, Bass (1998) identified a leadership continuum that included three types of leadership. This continuum included the following approaches to leadership, (a) laissez-faire leadership, (b) transactional leadership, and (c) transformational leadership. The laissez-faire leader takes a passive approach to the act of leadership. Hoy and Miskel (2008) summarized the essence of laissez-faire leadership in this manner, “It is essentially the avoidance or absence of leadership” (p. 445). The transactional leader relies upon the use of rewards to motivate followers. Yukl (2002) summarized the transactional approach as follows, “Transacting leadership motivates followers by appealing to their own self interest” (p. 241). In contrast, the transformational leader appeals to the moral values of those within the organization to help bring about change that result in reforms that are of benefit to the organization (Yukl, 2002). Burns (2003) explained the difference between the transactional and transformational leader in this manner, “Instead of exercising power over people, transforming leaders champion and inspire followers” (p. 26). The following section of this review will focus upon transformational leadership.

Transformational Leadership

The concept of transformational leadership was introduced by James McGregor Burns in his 1978 book entitled *Leadership*. Burns described the transforming leader in the following manner:

The transforming leader recognizes and exploits an existing need or demand of a potential follower. But, beyond that, the transforming leader looks for potential motives in followers, seeks to satisfy higher needs, and engages the full person of the follower.

The result of transforming leadership is a relationship of mutual stimulation and elevation that converts followers into leaders and may convert leaders into moral agents. (Burns, p. 4)

Burns (1978) chose to use the term “transforming” because he believed that transforming leadership had a transforming effect on both the leader and follower. Inherent in this transforming relationship is the importance of mutual interaction marked by meaningful engagement that leads toward shared purpose and high levels of motivation and morality.

Bernard Bass wrote extensively about the transformational theory of leadership. To help bring a greater understanding to what constitutes transformational leadership, Bass and Riggio (2006) grouped the characteristics of the transformational leader into four components. The Idealized Influence component acknowledges that transformational leaders serve as positive role models to those within the organization and as a result those within the organization seek to emulate the behavior of the leader. The Inspirational Motivation component refers to the transformational leader’s ability to motivate by helping to provide meaning and challenge to work. This is generally accomplished by involving individuals in envisioning the future of the organization. The third component is referred to as Intellectual Stimulation. This component acknowledges that transformational leaders involve all members of the organization in the problem solving process. Additionally, the transformational leader encourages followers to be creative and innovative in helping to determine the future of the organization. The final component is Individualized Consideration. This component speaks to the transformational leader’s focus upon the follower as an individual and speaks to their attention to meeting their unique social and emotional needs. Inherent in this component is the transformational leader’s role as a coach and mentor.

Hoy and Miskel (2008) summarized the approach of the transformational leader by stating, “Transformational leaders are proactive, raise the awareness levels of followers about inspirational collective interests, and help followers achieve unusually high performance outcomes” (p. 446). From 1983 to 1987, Kouzes and Posner were also extensively studying leadership and sought to better define what they referred to as the exemplary leader. These authors found that exemplary leadership could be grouped into five categories that are also indicative of the transformational leader. Kouzes and Posner (2002) concluded that exemplary leaders engage in the following actions: (a) Challenging the Process, (b) Inspiring a Shared Vision, (c) Enabling Others to Act, (d) Modeling the Way, and (e) Encouraging the Heart. A more thorough discussion of these actions is found in a later section entitled: *Exemplary Leadership*. The four components identified in Bass and Riggio’s (2006) work on transformational leadership are consistent with the five areas identified by Kouzes and Posner.

The four components identified by Bass and Riggio (2006) are also consistent with the seven guidelines for the transformational leader as outlined by Yukl (1999). These guidelines were based upon Yukl’s research outlined in his book entitled *Leadership in Organizations*. Yukl provided these seven guidelines to guide the transformational leader: (a) Articulate a clear and appealing vision, (b) Explain how the vision can be attained, (c) Act confidently and optimistically, (d) Express confidence in followers, (e) Use dramatic, symbolic actions to emphasize key values, (f) Lead by example, and (g) Empower people to achieve the vision.

Embedded in the philosophy of the transformational approach to leadership is a focus upon the process of change and the leadership required to be successful in a change environment. Bass and Riggio (2006) summarized this thought as follows, “Transformational leadership is, at

its core, about issues around the processes of transformation and change” (p. 224). The following section will further consider the relationship between leadership and change.

Leadership and Change

In Bennis’ (1989) research on leadership, he acknowledged that the leader, through their future focus, is intricately and constantly involved in the process of change. Cooper (2001), Jukes (2001), Wheatley (1999), and Wilkins (1999) as well as many other scholars of leadership have written of the difficulty found in the change process. They acknowledged the discomfort in this process and urged the leader to persevere and to forge ahead in spite of the unpleasantness that is certain to be present. Robert Cooper (2001) provided a biological explanation for the difficulty in the change process. He wrote about the role of the amygdala in the brain:

A powerful part of the brain, the amygdala, wants the world to run on routine, not change. Located within the limbic system, an ancient area of the mind that deals with the way you perceive and respond to the world, the amygdala relentlessly urges us to favor the familiar and routine. It craves control and safety, which at times can be vital. Yet the amygdala’s instincts tend to spill over into every aspect of life and promote a perpetual reluctance to embrace anything that involves risk, change or growth. Your amygdala wants you to be what you have been and stay just the way you are. (p. 67)

It has been suggested that leadership requires an individual who understands himself/herself (Bennis & Nanus, 1985) and the perceptions and values he/she brings to the act of leadership (James, 1997). It also requires one who keeps an eye on the future while acknowledging the present and past (Jukes, 2001). The future is wrought with obstacles to be navigated and is characterized by the inevitability of change (Cooper, 2001). The effective leader recognizes the complexity and discomfort found in the change process while forging into

the uncertainty that is indicative of the future (Fullan, 2001). This recognition is marked by an ability to work effectively with many diverse individuals helping to move them toward shared goals and purposes in spite of the differences in the personalities, values and perceptions of those within the organization (Sergiovanni, 2000). The ability of the leader to lead in a climate of change is one factor that will determine their effectiveness. The following section will delve more completely into what constitutes the effective leader. In their extensive research on this topic, Kouzes and Posner (2002) came to refer to effective leadership as exemplary leadership. Their body of research will serve as the focus of the section entitled, *Exemplary Leadership*.

Exemplary Leadership

As a result of their breadth of research on exemplary leadership, Kouzes and Posner (2002) created a leadership model that is greatly influenced by their belief that leadership is grounded in relationships and characterized by the ability to effectively manage change. What Kouzes and Posner referred to as exemplary leadership is often referred to as “leadership effectiveness” by other authors. Their work provides a basis for this research and their *Leadership Practice Inventory (LPI)* (2003b), is one of the primary tools of measurement that will be used in this study. According to Kouzes and Posner, the LPI measures exemplary leadership practices.

Kouzes and Posner began their research in 1983. Between 1983 and 1987 they surveyed 550 middle and senior managers in many different fields. Their qualitative study asked these leaders to reflect upon situations in which exemplary leadership was demonstrated. Since this initial phase of their study, they have conducted thousands of surveys with a diverse cross section of leaders. Through their many years of research, these authors identified five areas in which exemplary leaders excel. These five areas are: (a) Challenging the Process, (b) Inspiring a Shared Vision, (c) Enabling Others to Act, (d) Modeling the Way, and (e) Encouraging the

Heart. Following is a brief summary of each of the five areas identified by Kouzes and Posner to be indicative of the exemplary leader:

Challenging the Process - Exemplary leaders “Challenge the Process” through seeking innovative ways to change, grow and improve. They also demonstrate a willingness to take risks and use mistakes as a learning opportunity.

Inspiring a Shared Vision - When “Inspiring a Shared Vision,” exemplary leaders envision the future by imagining exciting possibilities while enlisting others in the creation of this vision by appealing to their shared aspirations.

Enabling Others to Act - This is demonstrated when leaders foster collaboration by promoting cooperative goals built upon trust. The exemplary leader also shares power and discretion with those he/she leads.

Modeling the Way - This area speaks to the leader’s understanding of, and clarification of their personal values. The exemplary leader aligns his/her actions with values that are shared by the organization.

Encouraging the Heart - The final area identified by Kouzes and Posner is “Encouraging the Heart.” Their theory surmises that exemplary leaders recognize contributions by showing appreciation for individual excellence. Special effort is made to celebrate the values and victories by creating a spirit of community within the organization.

Each of the leadership practice categories identified by Kouzes and Posner acknowledge the importance of the relationship between the leader and the follower. Joseph Rost (1991) conducted extensive research on leadership in the 1980s and also concluded that the act of leadership is grounded in relationships. In fact, Rost’s research led him to a view of leadership as a relationship. The importance of relationships has also been cited by researchers such as

Deal (1995), Hall (1998) and Sergiovanni (2000). A better understanding of the circumstances under which a positive leader-follower relationship develops is of paramount importance for the success of a leader working within a culture of change and accountability. To provide an objective basis from which one can ascertain the quality of leadership in an organization, Kouzes and Posner (2003b) developed the Leadership Practice Inventory tool which measures followers' perceptions of their leader's leadership practices. This tool was originally published in 1990 with subsequent editions published as recently as 2003.

The Leadership Practice Inventory

Originally published in 1990 with later versions published in 1997 and 2003, The Leadership Practice Inventory (LPI) measures what Kouzes and Posner (2002) refer to as "leadership practices." They defined and measured leadership within the confines of the five leadership practices indicative of exemplary leaders. As noted previously, these practices are: (a) Challenging the Process, (b) Inspiring a Shared Vision, (c) Enabling Others to Act, (d) Modeling the Way and (e) Encouraging the Heart. The LPI instrument is widely accepted in the field of leadership studies. In his review of the 1997 edition of the Leadership Practice Inventory, Enger (2001) stated, "Kouzes and Posner have developed a very usable and popular Leadership Practices Inventory that has stood the test of time and continues to hold a prominent place in the market of instruments used primarily for formative evaluation of leaders at various levels of an organization" (pp. 663-664). The LPI uses Likert scales to create interval data. This interval data is collected to determine the leader's use of the five leadership practices identified by Kouzes and Posner as being indicative of exemplary leadership. The internal reliability of the LPI is strong. All five leadership practices have internal reliability scores that are consistently above the .85 level on the 2003 version of the test that will be used in this study. Test-retest reliability scores are routinely in the .90+ range and the test has shown no significant social

desirability bias (Kouzes & Posner, 2003). In this study, the Leadership Practice Inventory will serve as the tool to measure principal leadership practices.

At this point in this review of the literature, the focus upon leadership will narrow to the consideration of leadership as it pertains to the school principal. Particular attention will be paid to the impact the principal has on student achievement and upon the importance of the teacher principal relationship in determining the success of the school when success is measured in terms of student achievement.

Principal and School Effectiveness

The public education system is undergoing a significant amount of change as it seeks to respond to the demands of federal legislation and an increasingly dissatisfied public. The American public is expecting increased levels of student achievement. This expectation is demonstrated through the No Child Left Behind legislation which articulates sanctions for schools that do not meet the required achievement targets.

The importance of the role of the school principal and the impact the principal has on school success is an established norm in the literature on school effectiveness (Barker, 2001; Cotton, 2003; Hall, 1998; Hallinger & Heck, 1996; Marzano, Waters, & McNulty, 2005). In their review of the literature regarding the relationship between principals and school effectiveness, Hallinger and Heck (1996) acknowledged the longstanding belief that principals have an impact on schools. Brookover and Lezotte (1979), Edmonds (1979), and Hallinger and Heck (1996) concluded that the principal plays an important role in school improvement efforts and student achievement. The next section of this review will focus upon the role the principal plays in influencing the achievement levels of the students within the school.

Principal Effectiveness and Student Achievement

In 1979, Brookover and Lezotte studied eight schools, six of which were experiencing student achievement gains and two who were experiencing declines. Among their findings was that the principal in the improving schools were more focused upon their role as the instructional leader, were more assertive, and were more apt to assume responsibility for the achievement of the academic objectives of the school. Edmonds (1979) studied urban schools in which poor kids were successful and found that one indicator of the success of these schools was the strength of the leadership in the school. Hallinger and Heck (1996) reported that studies in which the investigation of the principal's role in school effectiveness was approached comprehensively with regard for interactions across multiple levels of the school organization showed, "some statistically significant effect of principal leadership on school processes and, at least indirectly, on school achievement" (pp. 27-28). However, this effect is a very complex issue to understand (Hallinger & Heck, 1996; Willower, 1972). Hallinger and Heck concluded, "We must admit that this relationship is complex and not easily subject to empirical evidence" (p. 6).

Kathleen Cotton (2003) conducted a meta-analysis on principal effectiveness (primarily measured by teachers' perceptions of their principal) and its impact upon student achievement, attitudes, and behavior. She also considered teacher attitudes and behavior in her meta-analysis. Her research consisted of a review of 81 research articles primarily conducted after 1985. Through her research, she confirmed the important role that principals have in influencing student achievement levels. She found that schools with effective principals, primarily measured by teacher perceptions, have higher student achievement levels than schools in which principals were considered to be less effective. Cotton summarized the importance of the school principal, "Decades of research have consistently found positive relationships between principal behavior and student academic achievement" (p. 1).

Following the work of Cotton (2003), Marzano, Waters, and McNulty (2005) conducted a meta-analysis of 35 years of research on the impact of the building principal in relation to student achievement. They found that the quality of school leadership, as determined by teacher's perceptions of their principal's effectiveness, has a significant impact on student achievement levels. Marzano, Waters, and McNulty were able to locate 69 studies that examined the quantitative relationship between school leadership and student academic achievement. In their meta-analysis they found an average positive correlation of .25 with regards to the relationship between general leadership behavior and student academic achievement. To bring a more complete understanding of the impact of a .25 correlation Marzano, Waters, and McNulty explained,

This correlation indicates that an increase in principal leadership behavior from the 50th to the 84th percentile (as measured by teachers' perceptions) is associated with a gain in overall achievement of the school from the 50th percentile to the 60th percentile (on standardized achievement tests). (p. 30)

The research noted in this section points to the important role that principal leadership plays in influencing student achievement in the school. The work of Cotton (2003) and Marzano et. al. (2005) has confirmed the influence of principal leadership on student achievement through their meta-analysis of existing research addressing the effect of principal leadership on student achievement. The next section will explore the importance of the principal-teacher relationship in influencing the effectiveness of the building principal.

Principal Effectiveness and the Teacher-Principal Relationship

The relationship between the principal and others in the school has been gaining the attention of researchers since the mid 1990s. These researchers considered the factors that lead

to improved student learning (Hallinger & Heck, 1996; Leithwood, 1994; Marks & Printy, 2003; Whitaker, 1995). Hallinger and Heck (1996) reviewed the empirical research on the principal's role in school effectiveness and stated, "Although it is theoretically possible that principals do exert some direct effect on students' learning, the linkage between principal leadership and student learning (as measured by school outcomes) is inextricably tied to the actions of others in the schools" (p. 28). Leithwood's (1994) research on transformational leadership and K-12 school restructuring was confirmed by Hallinger and Heck's (1996) conclusion that the effect of leadership is mitigated by other people and processes within a school setting. These findings bring further credence to the important role that relationships plays in the effectiveness of a school leader.

In their research on principal leadership and school performance, Marks and Printy (2003) found,

When the principal elicits high levels of commitment and professionalism from teachers and works interactively with teachers in a shared instructional leadership capacity, schools have the benefit of integrated leadership; they are organizations that learn and perform at high levels. (p. 393)

Whitaker (1995) explored the valuable role played by teacher leaders in successful schools. He concluded,

More effective principals have key teachers whom they regularly go to for input at all levels of decision making. The less effective principals, in addition to not having teachers whom they go to for input before making decisions, were not able to identify the informal leaders in their schools. (p. 365)

Whitaker also found an important link between teacher leadership and the success of change processes in a school setting,

About the only constant in education is change. Developing and implementing strategies to enable schools to address change is therefore crucial. Administrators who are able to identify and use the abilities of the teacher leaders in their school will be able to effectively meet the challenges ahead. (p. 366)

Wheelan and Kesserling (2005) studied the link between faculty group development and student achievement. From their study these scholars concluded, “The results of this study suggest that if faculty members work to become more trusting, cooperative, and work oriented as a group, student learning and performance will improve” (p. 329). From the research of Hallinger and Heck (1996), Leithwood (1994), Marks and Printy (2003), Whitaker (1995), and Wheelan and Kesserling (2005) it is clear that the desired role of the principal is one in which principals facilitate and participate in processes that allow the faculty to cooperatively make decisions and design actions that meet the needs of their students.

A review of existing literature revealed that the role of the school principal is a factor that influences the quality of the educational experience when quality is determined by student achievement levels. The role of the principal is complex and their leadership success is dependent upon their ability to interact effectively with other individuals who are in the school environment. With regard to future research on principal leadership and student learning Hallinger and Heck (1996) suggested,

Researchers should focus greater attention on uncovering the relationship between principal leadership and those mediating variables that we now believe influence student achievement. School mission, teacher expectations, school culture, and facets of the

instructional organization are among the intervening alterable variables identified in these studies. (p. 36)

Even though Hallinger and Heck's call for future research was made in 1996, the mediating variables they speak of have yet to be fully explored and consequently they continue to warrant further study. Later in this review the consideration of values as one of these intervening variables will be examined.

The following section explores the manner in which a principal's leadership practices can be most effectively ascertained. This section will consider teachers' perceptions of their principal and the validity of using perceptions of teachers as an indicator of principal effectiveness.

Principal Effectiveness, Teacher Perceptions, and Student Achievement

The Social Exchange Theory espoused by Hollander (1958), Homans (1958), and Jacobs (1970) theorized that status and power are given a leader based upon the group's perception of their leader. Positive perceptions result in increased power and influence, negative perceptions result in the converse. With regard to the expectations of the leader within the Social Exchange model Yukl (2002) explained, "Innovation is not only accepted but expected of leaders when necessary to deal with serious problems and obstacles" (p. 154). According to this theory, leaders gain influence as they demonstrate expertise and loyalty within their organization. Consequently, the Social Exchange Theory illuminates the importance of considering the perceptions of followers regarding their leader.

In their meta-analyses of the body of research regarding the principal's impact on student achievement Cotton (2003), and Marzano et al. (2005) found that principal effectiveness, as measured by teachers' perceptions of their principal, had a positive correlation to student

achievement levels. In considering the research designs present in her meta-analysis, Cotton explained, “Most research designs surveyed teachers from high-achieving schools about the behavior of their principals, surveyed principals of high achieving schools about their own behavior, or relied on researcher observations or analyses” (p. 6).

Marzano et al. (2005) narrowed their meta-analysis to only studies in which teachers were surveyed about their principal’s effectiveness. They measured effectiveness through analyzing studies in which the perceptions of the teachers under the leadership of the principal were measured. Effectiveness was determined by the achievement levels of the students they served. Their research revealed that teachers’ perceptions of their principal’s effectiveness were a more accurate measure than principal’s perceptions of themselves or even the perceptions of the principals’ superiors.

Through the research of Marzano et al. (2005), and Cotton (2003) it appears that teacher perceptions of their principal’s effectiveness are an important factor to consider when attempting to bring a greater understanding to principal effectiveness. These authors’ research has shown that schools in which teachers perceive their principals to be effective also have higher student achievement levels than schools in which the teachers perceive their principal to be less effective.

Hoy and Miskel (2008) identified leadership effectiveness in the school setting as having one objective dimension and two subjective dimensions. They described this relationship in the following manner, “Leadership effectiveness, then can be defined as having a more objective dimension – accomplishment of organizational goals – and two subjective dimensions – perceptual evaluations of significant reference groups and overall job satisfaction of subordinates” (p. 432). Hoy and Miskel’s conclusion regarding the value of considering the

perceptions of subordinates supports the reliance that Marzano and Cotton place upon teachers' perceptions when determining the effectiveness of the school principal.

When studying the leadership function and the variables that influence the effectiveness of leadership, Beck (1999), Deal (1995), Hall (1998), Hodgkinson (1991, 1999), Leithwood and Steinbach (1995), Leonard (1999), Posner and Schmidt (1992), Prilleltensky (2000), Schein (2004), Sergiovanni (2000), and Willower and Licata (1997) determined that values act as one of the intervening variables that affect the quality of leadership in a leader-follower relationship. Therefore, the role that values play in determining the followers' perceptions of their leader is worthy of consideration. The following section will explore values and their influencing role in the leader-follower relationship.

Values

In his book entitled *The Nature of Human Values*, Rokeach (1973) stated,

The concept of values, more than any other, is the core concept across all the social sciences. It is the main dependent variable in the study of culture, society, and personality and the main independent variable in the study of social attitude and behavior. It is difficult for me to conceive of any problem a social scientist might be interested in that would not deeply implicate human values. (p. IX)

Clyde Kluckhohn (1951) defined values as, "A conception, explicit or implicit, distinctive of an individual or characteristic of a group, of the desirable which influences the selection from the available modes, means and ends of action" (p. 395). He further explained the conceptual nature of values when he wrote, "Values are not directly observable any more than culture is. Both values and culture are based upon what is said and done by individuals but represent inferences and abstractions from the immediate sense data" (p. 396). Kluckhohn's

work provided the basis for much of the subsequent study of values. His definitions and understandings had a tremendous influence on the work of Hodgkinson (1991, 1999), Meglino and Ravlin (1987, 1998), Rokeach (1973, 1979), Rokeach and Ball-Rokeach (1989), and Willower (1973, 1997) as each of these researchers has referred to the work of Kluckhohn when describing the research they have conducted.

The study of values has proven to be a very complex endeavor. This complexity has been acknowledged by Meglino and Ravlin (1987, 1998), Rokeach (1973), and Rokeach and Ball-Rokeach (1989). Regarding this complexity, Rokeach (1973) concluded,

If values were completely stable, individual and social change would be impossible. If values were completely unstable, continuity of human personality and society would be impossible. Any conception of human values, if it is to be fruitful, must be able to account for the enduring character of values as well as for their changing character. Paradoxically, however, there is also a relative quality of values that must be made explicit if we are to come to grips with the problem of value change. (pp. 5-6)

Ravlin and Meglino (1987) recognized the inherent challenge found in the study of values. They stated, “Lack of a unified definition of values, unique problems in the measurement of values, and the subtlety and complexity of their effects have made research in this area especially challenging” (p. 153). In spite of this challenge, a body of research has emerged which provides the social sciences with a sound basis on which to study human values.

One area in which values research has focused is the manner in which values impact the quality of interpersonal relationships. Leonard (1999), Rokeach (1973, 1979), Rokeach and Ball-Rokeach (1989), Schein (2004), and Willower (1973) are among those that have recognized the importance of values when considering the intricacies of interpersonal relationships.

Willower articulated the importance of values when considering their influence on the social and philosophical systems of society when he wrote, “Values, or conceptions of the desirable, play a vital part in philosophic thought in matters of ends and means, ethics and moral judgment. They also underlie norms and other structural components of social systems” (p. 5). Rokeach and Ball-Rokeach (1989) acknowledged the influencing role that values play within the social sciences when they concluded, “The concepts of values and value systems are among the very few social psychological concepts that have been successfully employed across all social science disciplines” (p. 775). In their extensive research on values, Rokeach and Ball-Rokeach found that, “Values have also been shown to be significant predictors of many social attitudes and behaviors” (p. 776). This predictive nature of values is of particular importance when considering the role that values play in influencing the relationships between individuals.

In the following sections, the study of values will be considered with a particular eye on the role that values play in effecting an organization’s culture. Also receiving considerable attention will be the role that values play in the leader-follower relationship, specifically, the role that values play in the principal-teacher relationship. Ultimately, the impact this relationship has on principal effectiveness will be considered.

Values and Culture

Schein (2004) and Leonard (1999) studied organizational culture and found that values play an integral role in determining the culture in any organization. In his study of culture and leadership, Edgar Schein (2004) recognized the importance of leadership and values in building strong organizational cultures when he wrote, “I believe that strong cultures begin with leaders who impose their own values and assumptions on a group” (p. 2). Schein expanded on the importance of values and leadership in determining culture later in this work,

We can think of this imposition [of values] as a primary act of leadership, but it does not automatically produce culture. All it produces is compliance in the followers to do what the leader asks of them. Only if the resulting behavior leads to “success”—in the sense that the group accomplishes its task and the members feel good about their relationships to each other—will the founder’s beliefs and values be confirmed and reinforced, and, most important, come to be recognized as shared. (p. 16)

Schein (2004) understood the significance of understanding values if a leader is to subsequently understand the culture of an organization. He also recognized cultural understanding as essential for effective leadership, “The bottom line for leaders is that if they do not become conscious of the cultures in which they are embedded, those cultures will manage them. Cultural understanding is desirable for all of us, but it is essential to leaders if they are to lead” (p. 23).

Pauline Leonard (1999) studied the adoption and implementation of collaborative cultures in one urban, multicultural elementary school. This was a qualitative study enacted to provide insight into the effect of collaboration. The collaborative structures given special attention were team teaching and committees. Through this research she recognized the essential role that values play in the success of creating collaborative communities. From the onset Leonard understood the impact that values can have when individuals seek to work together. She explained this importance as follows,

Exploring significant values and value conflicts as they emerge when a group of people are engaged in teaming relationships and interactions on committees can contribute to our understanding of the collaborative process. Understanding how to facilitate the process of collaboration means understanding the role of values in school organizations and understanding how to promote a culture where values may be negotiated. (p. 85)

It can be concluded from the work of Schein (2004) and Leonard (1999) that understanding values helps to create cultures in which positive relationships are allowed to develop. It is these relationships between individuals within in an organization that provide the basis on which the success of the organization can be built (Deal, 1995; Hall, 1998; Rost, 1991; Sergiovanni, 2000). The relationship between the leader and the followers provides the leader access to the shared intelligence, creativity, and problem solving capability of the entire organization allowing greater access to the success sought by the organization. The following section entitled *Values and Leadership* will specifically explore the effect of values upon the act of leadership.

Values and Leadership

Lucas, Komives, and McMahon (1998) considered personal philosophies and how they effect leadership. With regard to the role that values play in determining one's personal philosophies they concluded, "Leadership can best be understood as philosophy. At its core, understanding philosophy means understanding values" (p. 1). Values determine the decisions we make by coloring the lens through which we view each situation. Law, Walker, and Dimmock (2003) acknowledged the influence that values have on decision making when they wrote, "Values act as the powerful motivators or filters, which predispose principals toward seeing situations in certain ways and taking certain courses of actions" (p. 505).

Christopher Hodgkinson (1991) studied values and the art of administration. His twenty years of research led him to the belief that values constitute the essential problem of leadership and that the educational institution is special because it both forms and is formed by values. In his later work Hodgkinson (1999) wrote of the complex nature of educational leadership and values,

It follows that administration is a form of life in which wills enter into a complex domain of conflict, reconciliation and resolution. In other words, administration is politics: the creating, organizing, managing, monitoring, and resolving of value conflicts, where values are defined as concepts of the desirable. (p. 7)

Burns (1978) echoed a similar thought regarding the complexity of leadership, particularly in an environment in which values can conflict. He described the essence of leadership as including the exploration of the often contradictory values held by the individuals within an organization. He explained,

The essence of leadership in any polity is the recognition of real need, the uncovering and exploring of contradictions among values and between values and practice, the realigning of values, the reorganization of institutions where necessary, and the governance of change. (p. 43)

Prilleltensky (2000) introduced a model of value-based leadership. This model was based upon tensions among values, interests, and power (VIP) and tensions that take place within and among citizens, workers and leaders (CWL). Through this model he formulated recommendations for value-based leadership. Through his research based upon this model Prilleltensky concluded,

Ultimately, values-based leadership is a series of balancing acts. The first balancing act is between personal and collective wellness. This dance is mediated by values for relational wellness. Balancing act number two is between pulls to help others and to help ourselves. This conflict is mediated by the amount of power we have to advance personal well-being and the welfare of others. The next balancing act is between the values and interests of the public, workers and leaders. Harmony among these three groups is

fostered in safe spaces for dialogue and in meaningful partnerships. These intrapersonal, interpersonal, and group balancing acts require practice. Just like any other dance, the dance of VIP (values, interests and power) requires practice and coordination among dancers. Like good dancers, all players in value-based practice are interdependent. Like good choreographers, leaders are to model value-based practice. (p. 155)

From the aforementioned studies, the exemplary leader recognizes the importance of understanding values and the role that values play in shaping the lens through which individuals view a given situation. Through his research on values and leadership, Hodgkinson (1991) commented upon the integral role that values play in the act of leadership, “Administration or leadership in its fullest sense is more concerned with values than with facts” (p. 89). Leithwood and Steinbach (1995) came to a similar conclusion as a result of their studies about the nature and development of expert administrative thinking and problem solving. Their research on effective school leadership practices began in the early 1980s and continued well into the 1990s. With regard to the role that values can play in the role of the school administrator they concluded,

Values are sufficiently fundamental as guides to action so that they may be viewed as among the more powerful instruments available to administrators in shaping the big picture, in developing an integrative vision and purpose basic to the leadership which they provide to their organizations. Moreover, the value of values increase as administrators gain experience, become more expert, and assume positions of increased responsibility. (p. 169)

Previous research has illuminated the fact that values have an effect upon the leadership act. To better understand this effect, this review will now focus upon the manner in which values effect

the leader/follower relationship.

Values and the Leader-Follower Relationship

Many researchers have identified the important role that values play in determining the effectiveness of the leader-follower relationship (Adkins & Russell, 1997; Ashkanasy & O'Connor, 1997; Leonard, 1999; Lucas, Komives & McMahon, 1998; Meglino, Ravlin & Adkins, 1991; Schein, 2004; Sergiovanni, 2000). A more complete understanding of the role that values play in this relationship provides an opportunity to better understand the circumstances in which teacher's hold positive perceptions of their principal's effectiveness.

Understanding the role that values play in the life of schools may help the principal to better serve the children for whom they are responsible. In *Leading With Soul*, Deal (1995) wrote, "Effective leadership is a relationship rooted in community. Successful leaders embody their group's most precious values and beliefs. Their ability to lead emerges from the strength and sustenance of those around them" (pp. 56-57). The creation of a school community in which positive relationships form the basis for the improvement of the educational experience provided requires great sensitivity. This sensitivity is partially based upon the understanding of the values held by the individuals that make up the school community. Furthermore, the understanding of the manner in which these differing value perspectives intermingle among members, while influencing the relationships present, may help a leader to become more effective in the eyes of those he/she leads. Hall (1998) spoke of the importance of values in the forming of meaningful relationships when he wrote, "It is our values and its link to consciousness that allows us to build and hold relationships" (p. 2).

Posner and Schmidt (1992) conducted two separate studies, one in 1981 and the other in 1991 in which they considered American managers' values, ethical pressures and strategies for

aligning personal and organizational values. The 1991 study was a replication of the earlier study conducted in 1981. Both studies confirmed the importance of the relationship between the leader and the follower in the organization. Posner and Schmidt (1992) wrote,

It is becoming increasingly clear that leadership is a relationship between those who lead and their constituents. Building this relationship requires an appreciation for the personal values and traits important to those who would be willing to give their energy and talents to accomplish shared objectives. (p. 85)

Their research also revealed the important role that values play in determining the personality and interests of the individuals that make up an organization. Understanding this allows the leader to maximize the potential inherent in the human capital found within an organization. Posner and Schmidt concluded, “Values form the very core of personality, and they influence the choices people make, the appeals they respond to, and the way they invest their time and energy” (p. 81).

Values have an effect upon the relationship among the individuals within an organization. This effect extends to the leader/follower relationship. To understand this relationship requires an understanding of the effect that values have upon the leader. The following section will explore the role that values play in determining the approach and effectiveness of the leader.

Values and the Leader

The research regarding values and leadership also addresses the role that values play in the life of the leader. The recognition and clarity of the leader’s own values has proven to be an important intervening variable when considering the effectiveness of the leader and the leadership act. In their research on leadership and values, Posner and Schmidt (1993) found,

Managers who felt clear (consonant) about their personal values and organizational values reported positive attitudes about their work and the ethical practices of their

colleagues and firms. And managers who experience contention (ambiguity or lack of clarity) about both personal and organizational values reported comparably unfavorable work attitudes and beliefs about the ethical practices of their colleagues and firms. Both understanding and being comfortable with one's personal values seems to mitigate against the potentially negative consequences of conflicts between personal and organizational values. (p. 346)

Values and Leadership Summary

Leadership is indeed a complex endeavor, made more difficult by the unique value perspectives of the many personalities that make up any organization. The success of the leader is, at least partly, dependent upon their ability to create positive relationships that honor and acknowledge values diversity while creating a culture in which the organization is able to meet the many challenges with which they are faced. The next section will narrow its focus from that upon values and leadership to a focus upon values and the school principal.

Values and the School Principal

The important role that values play in the leadership act and in the creation of positive work environments has been confirmed by the research of Adkins and Russell (1997), Ashkanasy and O'Connor (1997), Leonard (1999), Lucas, Komives and McMahon (1998), Meglino, Ravlin and Adkins (1991), Schein (2004), and Sergiovanni (2000). Inherent in the results of this research is the integral and influencing role that values play in the quality of the relationships that are present between the leader and follower. It is reasonable to expect that in an organizational culture that is incredibly dependent upon teamwork and shared decision making, such as a school, the importance of values is heightened. School communities are organizations in which teamwork and shared decision making are common place and expected as evidenced in school reform movements like site-based decision making, participatory leadership

(teachers and leaders), and professional learning communities. The success of the principal is, at least partly, dependent upon their ability to effectively manage a culture where individuals are working together and making decisions together. Beck (1999), Begley (1999), Hodgkinson (1991), Law, Walker, and Dimmock (2003), Leonard (1999), Sergiovanni (2000), and Willower and Licata (1997) are among the researchers who have confirmed the influencing role that values play in the success of the school principal.

Clive Beck (1999) wrote about values and the role they play in educational leadership. He clarified the importance of values and leadership when he wrote,

Our purpose then in considering values in educational leadership is not to introduce values into educational leadership for the first time, but rather to find ways to help administrators assess and enhance their approach to values in the school context. (p. 223)

Beck's work considered values within the context of how they interplay to produce the well-being of the school, its children and its staff. Beck was particularly concerned with the relevance of many values in different situations and how it is that the leader can effectively weigh these different values while seeking a conclusion that is of most benefit to the individuals involved in the situation. He recognized that this is not the sole role of the school leader but that the effective leader steps back and allows others within the school to engage in this process of weighing. With regard to the school leader's role in understanding the impact of values within a school he concluded,

They [school leaders] must see to it, in one way or another, that extensive value learning (including their own) takes place in schools and that the well-being of students, teachers, administrators, parents and others affected by schooling is promoted to a significant degree in and through the school. (p. 230)

Pauline Leonard (1999b) considered the writings of the authors found in *The Values of Educational Administration* (1999) when she challenged traditional organizational theory, especially those theories that ignore the role that values play in an organization. She wrote,

The chapters that comprise this volume stand as testimony to the substantial and increasing number of critics of traditional organizational theories; particularly those either explicitly or implicitly promoting conceptualizations of leadership, decision making, and policy as value-free. (p. 246)

Leonard was cognizant of the divergent values that are represented within the staff, students and community of a school. She recognized the sensitivity the school leader must bring to this realization. She wrote, “There are potentially – and indeed probably – disparate value orientations among educational stakeholders. Educational leaders need to be aware of this disparity” (p. 250).

In his exploration of the complexity of school administration and the importance of understanding the role that values play in this complexity, Hodgkinson (1991) concluded his book about values and the art of administration by writing,

I have attempted to show how educational administration is a special case within the general profession of administration. Its leaders find themselves in what might be called an arena of ethical excitement – often politicized but always humane, always intimately connected to the evolution of society, sometimes invested with Type 1 values of the culture. Besides, education is both an institution in the sociological sense and a vested interest in the political science sense. It embodies a heritage of value, on the one hand, and is a massive industry on the other, in which social, economic, and political forces are

locked together in a complex equilibrium of power. All of this calls for extraordinary value sensitivity on the part of the educational leader. (p. 164)

When Hodgkinson refers to Type 1 values in the quote above, he is referring to values of principle. More specifically, he is referring to values that take the form of, “Ethical codes, injunctions or commandments” (p. 99). In speaking of the need to more completely consider the role that values plays in the leader-follower relationship, Ashkanasy and O’Connor (1997) stated, “Future researchers should focus on defining further the nature and dimensions of leader-member value compatibility, with a view to identifying and reducing the obstacles to more effective leader-member exchanges” (p. 659).

Law, Walker, and Dimmock (2003) studied Hong Kong secondary school principals and considered the role that values play in determining their perception and management of their schools. In their study of Hong Kong principals, they found that values play a crucial role in determining the principals’ approach to problem solving. This finding confirms the need to explore the role that values play in the life of the school principal and the teaching staff with whom they work. From their research emerged what they called the “Values Based Congruency Theory.” This theory implies that values influence how principals perceive and manage problems. It also implies that the principal’s personal value orientations correspond with their perceptions, problem solving strategies and outcomes.

In their book entitled, *Values and Valuation in the Practice of Educational Administration*, Willower and Licata (1997) acknowledged the role that values play in educational leadership. Willower and Licata recognized that educational administration is always concerned with and dealing with values, “There is no question that values have become more salient in recent years in the literature of educational administration, but the field has been

oriented to values virtually from its inception” (p. 8). Willower and Licata articulated the complex nature of leadership and values as it pertains to the educational setting. The purpose of their writing was to present a practical approach to educational administration. Inherent in their approach was the understanding that exemplary educational leaders possess the ability to make informed choices between competing values. They believed this skill to be essential when working in an environment of many diverse and often competing personal value systems. In speaking of the difficulty of leading when values do compete these authors wrote,

Administrative practice is full of complexities, special contingencies, individual peculiarities, nuances, examples of goodness and chicanery... The values inherent in an effort to improve a curriculum or that pertain to a problem of diminishing teacher effectiveness are relatively easy to understand and to accept... The difficulties begin with implementation of a desirable change or when values clash. (p. 41)

Thomas Sergiovanni (2000) noted how leadership can help to create a covenantal community, “Covenantal communities have at their center shared ideas, principles, and purposes that provide a powerful source of authority for leadership practice” (p. 167). He recognized that school leadership can influence the culture of the educational environment and create an atmosphere in which the local school can enact positive and lasting change that improves upon the educational experience of its students. Sergiovanni acknowledged the role that values play in the life of the educational leader when he quoted Harry Broudy,

The educator, however deals with nothing but values – human beings who are clusters and constellations of value potentials. Nothing human is really alien to the educational enterprise and there is, therefore, something incongruous about educational

administrators evading fundamental value conflicts... (as cited in Sergiovanni, 2000, p. 166)

A leader's values are found in their actions and it is these actions that have the greatest impact upon the students and staffs they serve. Boeckman and Dickinson (2001) studied the impact of the development of administrative standards on leadership practice. They concluded their article, noting the important role of values, with a challenge to those designing school leadership programs, "Those responsible for preparation programs should ensure prospective leaders have sufficient understanding of the teaching and learning and the links between beliefs, values and practice" (p. 497).

Winter, Newton, and Kirkpatrick (1998) wrote of the influence that values have on a school principal's decision making,

As is the case with other professionals, it appears that school principals may possess internal values hierarchies that influence behavior and decisions... work values are a key component of principal normative frameworks, which may impact teacher selection and other administrative practices related to teaching and learning. (p. 398)

In writing about the importance of values when considering administrative theory Hodgkinson (1991) concluded, "The central problems of administrative theory are not scientific at all, but philosophical. That is, the central questions of administration deal not so much with what is, but with what ought to be, they deal with values and morality" (p. 7).

The research noted in this section, *Values and the School Principal*, confirms the important role that values play in determining the approach and practice of the school leader. Reflecting back on the reported research in previous sections of this review confirms the influencing role that values play in determining the quality of the relationship between the leader

and the follower. Efforts have been undertaken by Rokeach (1973) and Meglino and Ravlin (1987) to create a manner in which values could be measured. These researchers recognized that a better understanding of the effect that values play in human interactions required the ability to measure values. The following section summarizes the values measurement efforts of Rokeach (1973) and subsequently, Meglino and Ravlin (1987).

Values Measurement

The efforts to effectively measure values were begun in the 1970s by Milton Rokeach. Through his work, Rokeach (1973) developed the Values Measurement Instrument (VMI). This instrument resulted from his extensive research on values. Rokeach was able to narrow the number of values to eighteen terminal and eighteen instrumental values that his research deemed to be universal in nature. Terminal values refer to values that are desirable end states of existence. The eighteen terminal values identified by Rokeach are: (a) a comfortable life, (b) an exciting life, (c) a sense of accomplishment, (d) a world at peace, (e) a world of beauty, (f) equality, (g) family security, (h) freedom, (i) happiness, (j) inner harmony, (k) mature love, (l) national security, (m) pleasure, (n) salvation, (o) self respect, (p) social recognition, (q) true friendship, and (r) wisdom. Instrumental values refer to beliefs that are desirable modes of conduct. The eighteen instrumental values identified by Rokeach are: (a) ambitious, (b) broadminded, (c) capable, (d) cheerful, (e) clean, (f) courageous, (g) forgiving, (h) helpful, (i) honest, (j) imaginative, (k) independent, (l) intellectual, (m) logical, (n) loving, (o) obedient, (p) polite, (q) responsible, and (r) self-controlled. The Values Measurement Instrument asked respondents to rank order each of the eighteen terminal values and each of the eighteen instrumental values based upon what is most important to them. Through Rokeach's use of this instrument he found that it was now possible to quantitatively measure the values of individuals

and groups and that because of this ability it was feasible to track value priority changes over time (Rokeach, 1973).

Fourteen years later, Meglino and Ravlin (1987) sought to develop a method to measure the four work values that they identified through their research as being operative in the workplace. The four work values they found to be present in the workplace are:

(a) achievement/working hard, (b) concern for others/helping others, (c) fairness, and (d) honesty/integrity. They believed, as did Rokeach, that in spite of the difficulties of measuring values it was most effectively accomplished in a ranking format also referred to as ipsative rankings. Meglino and Ravlin explained the importance of using an ipsative ranking format, “Despite the fact that all values tend to be highly socially desirable, individuals are able to distinguish between them in importance given the appropriate measurement instrument” (p. 179).

As a result of their research on work values measurement, Meglino and Ravlin developed the Comparative Emphasis Scale (CES). A thorough review of the CES will be undertaken later in this Review of Literature and will be given additional consideration in Chapter Three. The VMI and the CES are both examples of ipsative measures which have been found to be effective in measuring values. Rokeach (1973), Ravlin and Meglino (1987), and Rokeach and Rokeach-Ball (1989) each believed that the use of ipsative rankings was the best way to accurately measure values.

Ipsative Measures

As a result of the work done by Rokeach (1973), Ravlin and Meglino (1987), and Rokeach and Rokeach-Ball (1989) the measurement of values is now primarily done using ipsative rankings. An ipsative ranking employs a forced choice procedure in which respondents are asked to rank two or more relatively desirable options.

This method of data collection is espoused by Rokeach and Ball-Rokeach (1989) who argued, "People's value priorities can be more directly inferred from value rankings than from value ratings" (p. 776). Through their review of research on values measurement, Rokeach and Ball-Rokeach (1989) concluded, "Data based upon methodologically purer value ratings are more prone to social desirability effects and are no more superior (and, in fact, on the whole somewhat inferior) in predictive validity than data based on ipsative value rankings" (p. 776). Rokeach first advocated for a ranking approach in his book entitled *The Nature of Human Values* (1973). He advocated for the use of a ranking format in his Value Survey which he created as a result of his extensive study on the concept of human values. Rokeach (1973) explained a part of his rationale for the use of a ranking format as follows, "The ranking method assumes that it is not the absolute presence or absence of value that is of interest but their relative ordering" (p. 27).

Meglino and Ravlin (1998) advocated for the use of an ipsative measure as well. Their rationale for the use of ipsative measures included their conclusion that an ipsative format helps to mitigate the social desirability bias. Social desirability bias can be a concern when measuring values. Meglino and Ravlin explained,

Values are socially desirable phenomena. Ipsative scores are less prone to social desirability bias because values are assessed in comparison to each other. Thus, ipsatively rated values scores are likely to remain relatively stable despite changes in the desire for social approval. (p. 359)

Meglino and Ravlin also believed that the rank ordering that is indicative of an ipsative format provided valuable information when attempting to determine the presence of values congruence between respondents. They explained,

If one is interested in assessing similarity in behavioral choices, then a respondent's rank ordering would seem to be the appropriate measure of values, and the similarity of rank orderings would, therefore, be an appropriate measure of value congruence. Here one is primarily interested in the shape of the relevant profiles, rather than the distance between the profiles. (p. 362)

Adkins and Russell (1997) also recognized the value of the ipsative format when measuring values. "The ipsative format adds considerable value to the research in that it controls for social desirability bias in subject's ratings of work values" (p. 210).

The research in this dissertation used the Comparative Emphasis Scale as the ipsative measure of the work values of those involved in the study. The following section provides a description of this values measurement tool.

The Comparative Emphasis Scale

Meglino and Ravlin (1986) created the Comparative Emphasis Scale (CES) to measure the four general work values they found to be operative in the workplace. These four general work values are: (a) achievement/working hard, (b) concern for others/helping others, (c) fairness, and (d) honesty/integrity. The CES requires respondents to choose between pairs of single phrases, each describing behaviors that reflect a different value. An example of two items from which an individual will have to choose when taking this survey follows:

- a) Refusing to do something you think is wrong
- b) Providing fair treatment for all employees

Statement a) is reflective of the honesty/integrity value, and statement b) is reflective of the fairness value. There are twenty four items in the CES in which respondents are asked to choose which statement they feel they should most emphasize at work. The data generated by this tool

is collected in an ipsative ranking format. From these responses, one is able to ascertain a rank ordering of the four work values being measured.

Internal consistency procedures yielded consistencies of .94 or greater for all four subscales (general work values) of the Comparative Emphasis Scale (Meglino & Ravlin, 1986). The Comparative Emphasis Scale has been successfully used in many studies by researchers interested in exploring the role that work values play in human interaction (Adkins, Russell, & Werbel, 1994; Meglino & Ravlin, 1998; Meglino, Ravlin, & Adkins, 1991; Russell & Adkins, 1997). The Comparative Emphasis Scale has been particularly useful when these researchers have measured work values congruence among individuals and organizations.

Values Congruence

Ravlin and Meglino (1987) wrote of the predictive nature of shared values, “To the extent that they are shared, values allow individuals to predict the behavior of others” (p. 157). Ravlin and Meglino also found that when individuals are in contact with others who share similar values, the interactions tend to be more satisfying (p. 178). Ravlin and Meglino paid much attention to the work of Clyde Kluckhohn as they conducted their research on values. In referring to the predictive nature of values in personal and social interactions Kluckhohn (1951) wrote, “Values add an element of predictability to social life” (p. 400).

Pauline Leonard (1999b) wrote about the importance of studying shared values in a collaborative environment. Through her research she found it necessary to further consider shared values and the possibility they might help to mitigate the conflict that is inherent in the decision making process.

Krishnan (2002) studied the relationship between transformational leadership and three types of value system congruence – (a) leader-organization congruence, (b) leader-follower congruence and (c) follower-organization congruence. To measure the values of those included

in his study he chose to use Rokeach's (1973) Values Measurement Instrument. Krishnan's findings indicated that those followers whose values were congruent with the values of their leader viewed the leader as more transformational than those who did not share this values congruence.

In his book entitled *Organizational Culture and Leadership*, originally published in 1985, Edgar Schein (2004) wrote of the important role of shared values in the creation of effective organizations. Adkins and Russell (1997) also recognized the positive effect that shared values can have upon an organization.

Shared values: 1) influence employees to behave in ways that facilitate the survival of the organization, a function which he labeled external adaptation; and 2) facilitate coordination and communication among employees through shared elements of cognitive processing, a function he labeled internal integration. Thus, we expect that shared values between supervisors and subordinates will enhance performance. (p. 206)

Adkins, Russell, and Werbel (1994) relied upon earlier work done by Schein (1985) when they stated, "Schein argued that functions necessary to the survival of the organization are enhanced by employees sharing core organizational values" (p. 605). The premise of Edgar Schein (2004) regarding the importance of shared values within organizations has led to much research on values congruence and its relationship to work place performance. Meglino and Ravlin (1998) conducted a review of existing research on values. In their review they wrote about values congruence and how it can have a positive impact on interpersonal outcomes. In their section on Values Congruence they concluded,

Because values affect perceptions and behavior, they also have implications for interpersonal interactions. That is, when persons share similar value systems (i.e.

interpersonal value congruence), they tend to perceive external stimuli in similar ways. Among other things, this similarity in interpreting and classifying environmental events serves to clarify their interpersonal communications. Individuals with similar value systems also behave in similar ways. This enables them to better predict the behavior of others and, thus, more efficiently coordinate their actions. In effect, value similarity produces a social system or culture that facilitates the interactions necessary for individuals to achieve their common goals. (p. 356)

The research of Adkins, Russell, and Werbel (1994), Posner, Kouzes, and Schmidt (1985), Krishnan (2002), Leonard (1999), Meglino and Ravlin (1998), Meglino, Ravlin, and Adkins (1991), and Russel and Adkins (1997) confirms that values congruence is a factor worthy of consideration when exploring the role that values play in organizational excellence and leader effectiveness, or what Kouzes and Posner (2002) refer to as exemplary leadership. However this research base also acknowledges the fact that the research on values congruence is incomplete; particularly if one is to better understand the influencing role of values in human interactions and organizational effectiveness.

Employee/Organization Values Congruence

The study of employee and organization values congruence, as it relates to employee satisfaction and performance, is prevalent in the literature addressing values congruence. This research provides a basis upon which the study of values congruence can grow. In general, the body of research available leads to the understanding that employees who hold values that are consistent with the values of the organization for which they work are more satisfied and content with their employment than employees whose values conflict with those held by the organization

(Adkins, Ravlin, & Meglino, 1996; Chatman, 1991; Chatman, 1999; Meglino & Ravlin, 1998; Posner, 1992; Posner & Schmidt, 1993; Posner, Kouzes, & Schmidt, 1985).

Posner, Kouzes, and Schmidt (1985), in their study of corporate culture, found that managers reported greater feelings of success when their values matched those of the organization in which they worked. They also found that this congruence of values between the individual and the organization led to more confidence regarding their ability to meet their personal goals and ambitions. Posner, Kouzes, and Schmidt's (1985) research also revealed that managers who held values congruent with those of their organization experienced a greater understanding of the values of their superiors, colleagues, and subordinates. In summarizing their study these authors concluded,

What all of this underscores is that people whose values are more congruent with the company's values will be more likely to work hard to help the company achieve its goals. Clarity and consensus on values accordingly leads to greater goal achievement. (p. 302)

Jennifer A. Chatman (1991) studied 171 entry-level auditors in eight of the largest US public accounting firms and assessed the congruence of their values with those of the organizations they served. In defining what she meant by person-organization fit she said, "Person-organization fit is defined as the congruence between patterns of organizational values and patterns of personal values, defined here as what an individual values in an organization..." (p. 459). In her study Chatman uncovered three general findings,

First, recruits whose values, when they enter, match those of the firm adjust to it more quickly; second those who experience the most vigorous socialization fit the firm's values better than those who do not; and third, recruits whose values most closely match the firm's feel most satisfied and intend to and actually remain with it longer. (p. 459)

Posner, Kouzes, and Schmidt (1985) studied the role that values congruence plays when considering people and the organizations they serve. In referring to their 1985 study they wrote, “The data from this nationwide survey of American managers lends empirical evidence to the claim that efforts to understand and improve the congruence between the values of an organization and its employees is well worth the effort” (p. 303). They conclude their 1985 article by reiterating the importance of paying attention to the values of the individuals within an organization. Posner, Kouzes, and Schmidt (1985) wrote, “By keeping watch on values, HR managers remain alert to the critical task of aligning individual and organizational hopes and dreams” (p. 308). Adkins, Ravlin, and Meglino (1996) came to a similar conclusion as they noted an increased interest in considering the congruence of employee’s values with those of their organization.

The research examined in this section on Employee/Organization Values Congruence confirms that values congruence between individuals and organizations leads to greater employee satisfaction. A further examination of values congruence leads to the next section in which consideration will be given to the implications of values congruence between leaders and subordinates.

Leader/Follower Values Congruence

Another area of interest within this body of research on values congruence has been the study of the impact that values congruence has on the relationship between followers and their leader. This is important for this proposed study as schools are made up of leaders and followers in the roles of principal and teacher. Researchers have found that congruence between a subject’s values and the rated values of a leader is associated with greater anticipated satisfaction with the leader (Adkins, Russell, & Werbel, 1994; Ashkansy & O’Connor, 1997; Meglino &

Ravlin, 1998; Meglino, Ravlin, & Adkins, 1989; Meglino, Ravlin, & Adkins, 1991; Weiss, 1978).

Meglino, Ravlin, and Adkins (1989) conducted a field test of values congruence processes in which production workers, supervisors and managers completed questionnaires containing measures of job satisfaction, organizational commitment, and work values. The results showed that workers were more satisfied and committed when their work values were congruent with the work values of their supervisor. Meglino, Ravlin, and Adkins (1989) explained their conclusion by clarifying the importance of values congruence between the worker and their supervisor,

This study provides support for the relationship between value congruence and both job satisfaction and organizational commitment. The object of congruence, however, did not appear to be the cultural values of the organization, but the values of each worker's supervisor. (p. 431)

Meglino's, Ravlin's, and Adkins' research also revealed that satisfaction and commitment were higher when production workers' values were closer to those of their supervisors.

In a later study, Meglino, Ravlin, and Adkins (1991) studied individual responses to video-taped presentations of leadership behavior. Bank executives, MBA students, and full-time undergraduate students completed a work values survey and then were asked to respond to the video-taped presentations on leadership behavior. They found that congruence between a subject's work values and the rated work values of a leader was associated with greater anticipated satisfaction with the leader.

Krishnan (2002) conducted a study in which he explored the relationship between transformational leadership and three types of values congruence, (a) leader-organization

congruence, (b) leader-follower congruence, and (c) follower-organization congruence.

Krishnan expressed agreement with the work of Adkins, Russell, and Werbel (1994), Ashkanasy and O'Connor (1997), Meglino and Ravlin (1998), Meglino, Ravlin, and Adkins (1989), Meglino, Ravlin, and Adkins (1991), and Weiss (1978) when he concluded, "Values congruence indicates a harmonious relationship between leader and subordinate, and should therefore result in greater satisfaction over time. Values congruence also indicates a strong identification of the subordinate with the leader" (p. 22).

In their study on Values Congruence in Leader-Member Exchange, Ashkanasy and O'Connor (1997) studied 160 individuals in 30 different work groups in Australian organizations. The hypothesis of their study noted that the quality of leader member exchanges depends on congruity of values between leader and member. Ashkanasy and O'Connor concluded, "Overall, the ANOVA results were in the predicted direction, supporting the hypothesis that leader-member exchange quality is associated with leader – member – value similarity" (p. 655). They also recognized the complexity of this relationship and that other factors most certainly come into play when they summarized,

Our results indicate that value congruity may play a role in the relationships between leaders and subordinates, but the process encompasses more than simple similarity of values. Thus, although high-quality exchange relationships were expected to be associated directly with leader-member value similarity, the picture that emerged suggested that compatibility of authority, affiliation, and achievement values between leaders and members leads to more positive outcomes in leader-member exchanges. (p. 657)

In their study of the relationship of superior-subordinate work value congruence to subordinate work performance in a retail setting, Adkins and Russell (1997) uncovered a variable that appears to impact the effect of leader-follower values congruence. Adkins and Russell also referred to a 1992 study conducted by Meglino, Ravlin, and Adkins in which they examined a number of issues involving the conceptualization and measurement of work value congruence using interpersonal value comparisons. Based upon what they found in their 1997 research and found in Meglino, Ravlin, and Adkins' 1992 research, Adkins and Russell concluded,

For individuals whose jobs required them to work closely with others, work habits were rated higher for individuals with high value congruence than for individuals with low value congruence. However, for individuals whose jobs did not require them to work closely with others, work habits were rated somewhat higher for individuals with low value congruence than for those with high value congruence. They [Meglino, Ravlin, and Adkins] speculated that for individuals whose jobs did not require them to work closely with others, high value congruence led to socialization with others with similar values at the expense of work performance. (p. 207)

This finding has particular importance when considering values congruence among individuals working in a school setting. The job of the teacher often requires much autonomy. However, the teacher is increasingly being asked to work as a member of a team of educators to create instructional practices that will increase student achievement. The professional learning community espoused by DuFour and Eaker (1998) requires team processes with well defined and shared goals. The Professional Learning Community is an example of the interdependent approach that is becoming more prevalent in today's schools.

In an era of increased accountability and focus on improved student learning, the principal is expected to be the instructional leader of the building. Within this expectation is the requirement that he/she lead a collaborative team of educators through regular school improvement process. In Montana this is articulated in the Five Year Plans required by the Montana Office of Public Instruction. As a result of the common vision, purpose and approach that are required in the Five Year Planning process, it is no longer feasible for the principal to allow the level of autonomy once common for teachers. To allow an independent, autonomous approach from the teacher would require that the principal ignore the importance of collaborative teams in improving student achievement levels. DuFour and Eaker (1998) supported collaboration when they wrote, "It is difficult to overstate the importance of collaborative teams in the improvement process" (p. 3). Consequently, the autonomy teachers once enjoyed may no longer be the norm, which may lessen the effect of Adkins' and Russell's finding which concluded that individuals with high values congruence, who are not required to work closely together, result in lower levels of work performance .

Howard Weiss (1978) studied 141 pairs of subordinates and their direct superiors. In his research he asked each individual to describe his or her work values. The level of values similarity was then related to the subordinate's perception of their leader's consideration, competence and success within the organization. Supervisor consideration was found to be positively correlated to values congruence. The correlation coefficient calculated was .29. A positive correlation was not found in the area of competence and success. However, a positive correlation was found with low self esteem subordinates when related to supervisor consideration, competence and success. These correlation coefficients ranged from .27 to .38.

Weiss (1978) unearthed a trend in his study related to supervisor success and competence when related to the similarity of leader-subordinate values. In his research, Weiss found that supervisor success was greater when values congruence was present with subordinates with low self esteem than with subordinates with high self esteem. He explained, “Although supervisor success and competence were significantly and positively correlated with total value similarity for pairs with low self-esteem subordinates the correlations were significant and in the opposite direction for those with high self-esteem subordinates” (p. 715). Because teachers work in a relatively autonomous environment in which they are asked to work independently, this finding holds particular interest when considering the same effect in an educational setting with regard to the principal and teacher relationship.

Researchers have found that congruency between a subject’s values and their rated values of a leader is associated with greater anticipated satisfaction with the leader (Adkins, Russell, & Werbel, 1994; Ashkanasy & O’Connor, 1997; Meglino & Ravlin, 1998; Meglino, Ravlin, & Adkins, 1989, 1991; Weiss, 1978). From the research of Krishnan (2002), Meglino and Ravlin (1998), Ashkanasy and O’Connor (1997), Adkins, Russell, and Werbel (1994), Meglino, Ravlin, and Adkins (1989, 1991), Posner, Kouzes, and Schmidt (1985), and Weiss (1978) it appears that a congruence of values can contribute to a follower’s positive perceptions of their leader. However, the studies noted above are primarily from a business perspective and are therefore limited in their utility to the educational setting. This brings additional credence to the importance of studying leader–follower values congruence in an educational setting. The findings of Weiss (1978) regarding high self esteem subordinates and Adkins and Russell (1997) findings related to subordinates who work closely with each other bring to light factors that may impact the results when values congruence is considered in an educational setting. This review

will now consider the congruence of values and the subsequent subordinate perception of their leader's effectiveness within the principal/teacher relationship.

Teacher/Principal Values Congruence

Limited research has been done on values congruence and its effect on the principal/teacher relationship. Ingle and Munsterman (1977) are one of the few researchers who have explored this important relationship. In their 1977 study on the relationship of values to group satisfaction in an educational setting, Ingle and Munsterman (1977) found that congruence between the principal and his staff had no predicting effect on organizational satisfaction. They stated,

Instead of high morale schools being depicted as having a greater principal-teacher value congruence, the opposite occurred. Those schools with a high degree of group satisfaction were found to have a greater degree of principal-teacher values dispersion rather than value congruence. (p. 7)

These authors went on to state,

Elementary school principals should be hired and placed according to their administrative skill rather than whether they fit the value configuration of a community or staff. The overall finding that staff value divergence is related to high group satisfaction is consistent with the concept of selecting professionals for their qualifications and skills rather than for their personal beliefs. (p. 12)

These findings appear to conflict with much of the subsequent research noted in this section regarding the affect of values congruence and the leader/follower relationship in a non-educational setting yet are consistent with the findings from the research outlined in this dissertation. When considering the findings of Ingle and Munsterman (1977) in light of Weiss'

finding regarding high self esteem subordinates it brings credence to the need for further research on the role that values congruence may or may not play in the principal/teacher relationship. Weiss' findings suggested that values congruence between leaders and followers was a less significant factor when the subordinates had higher self esteem. One might assume that the independence and autonomy afforded teachers attracts individuals of higher self esteem than in roles that require less independence and autonomy. Additional research may help to bring a better understanding of the role that values congruence plays when considering the perceptions teachers hold regarding their principal's effectiveness.

The Call for Further Research

The study of values congruence and leadership effectiveness has received much attention over the last 30 years. However, the role that it plays in the educational leader's leadership practices is incomplete and inconclusive. In speaking of the need for future research on the role that values play in educational leadership, Leonard (1999) wrote, "As the nature and importance of fundamental value orientations as an influence on administrative decision making receives increasing attention in the literature, there is an emerging contingent need to clarify aspects of this discussion" (p. 251).

Adkins and Russell (1997) also recognized the need for additional research on leadership and values congruence. These authors wrote, "Clearly, the relationship between work value congruence at various levels (i.e. supervisor-subordinate, co-workers) and performance needs additional study" (p. 207). Adkins, Ravlin, and Meglino (1996) previously recognized the need for continued research on the organizational impact of values congruence when they concluded, "It is important that we examine value congruence and work performance over a broader range of tasks" (p. 455). The principal/teacher relationship in the school setting

represents an area that has been incompletely explored when considering the organizational impact of values congruence studied by Adkins, Ravlin, and Meglino. Further study in the educational setting will help to satisfy their call for the examination of the affect of values congruence “over a broader range of tasks” (p. 455).

In spite of these calls for continued research on values congruence little research has actually been conducted in educational settings over the past 10 years. Pertinent research on values congruence and principal effectiveness was conducted 30 years ago by Ingle and Munsterman (1977). They referred to the conflicting conclusions of Lupini (1965) and Hodgkinson (1969) who had previously studied values congruence in an educational setting,

Lupini (1965) found value congruence between teachers and administrators to be significantly related to overall school climate. However, his findings were not confirmed in a later study by Hodgkinson (1969). Hodgkinson found a relationship between staff values and some dimensions of school climate, but did not find any evidence of value congruence between administrator and teacher in relation to the organizational climate of the school. From these studies it continues to remain unclear as to what relationship, if any, exists between teacher-administrator values and the overall group satisfaction of a teaching staff. (p. 3)

Other than the Lupini (1965), Hodgkinson (1969), and Ingle and Munsterman (1977) studies, little research is available that has focused the question of values congruence in the principal/teacher relationship. The incomplete, outdated and somewhat conflicting results found in the educational setting confirm the need for further study on values congruence and its influence on teachers’ perceptions of their principal’s leadership practices. In their study on the

influence of principal's values, Law, Walker and Dimmock (2003) suggested the need for additional study to help in the selection of principals,

Since no one "type" of principal was identified in this study to be definitely superior to others, the concept of "principal fit", that is, the matching of values between principals and the school contexts, seems an important consideration when recruiting new principals. (p. 521)

Summary

This review of the literature was broken into three major sections. The first section, *Leadership*, provided a brief review of the literature on leadership with a specific focus upon leadership effectiveness. Particular attention was given to the history of leadership studies in the second half of the 20th century. Also receiving focus was the consideration of transformational leadership and the relationship between leadership and change within an organization. Leadership practices, as defined by Kouzes and Posner (2002) was investigated with specific attention given the Leadership Practice Inventory, a tool originally created by Kouzes and Posner in 1990 to measure exemplary leadership practices.

This literature review was then narrowed to focus upon leadership effectiveness as it relates to the school principal, which constituted the second section of the review. The positive impact that an effective principal can have on the academic achievement levels of the students in the school was explored. To further understand the factors that lead to principal effectiveness this review then focused upon the important role that the teacher/principal relationship has on principal effectiveness. The importance of this role is demonstrated in the final topic of Section One which identified a clear connection between teachers' perceptions of their principal's leadership practices and student achievement levels.

The third and final section, *Values*, focused attention upon the role that values play in influencing the leader and follower relationship, ultimately focusing upon the principal and teacher relationship. This section began with a review of the history of values research and then explored the role that values play in the leadership act. To further understand the relationship between values and leadership, attention was paid to the impact that values have on one's perceptions of individuals and situations. This section also explored the role that values play in determining the approach of the leader.

The exploration of values then narrowed to a focus upon values and the effect they have on organizational culture. The reviewed research clearly revealed that values play a significant role in establishing the culture of an organization. The review was then narrowed to consider the role that values play in the life of the school leader. This exploration revealed that the effective school leader recognizes the influence of values upon the school. The effective school leader recognizes the competing values held by each individual within the school and takes action with a sensitive understanding of the difficulty that is inherent when the values of those within the school conflict.

The manner in which researchers have measured values was then explored with a particular emphasis on Rokeach's (1973) Values Measurement Instrument and Meglino's and Ravlin's (1986) Comparative Emphasis Scale. Each of these tools are ipsative measures in which respondents are asked to choose from two or more desirable options. This forced choice methodology has proven to be most effective in values measurement. Through their research on ipsative measures and their use in measuring values congruence Meglino and Ravlin (1989) concluded that, because values are thought to be less than totally conscious, they are believed to be most evident in choice situations.

The remainder of the *Values* section focused upon values congruence. Consideration was first given to employee/organization values congruence. This research revealed that employees who have values congruent with those of their organization report greater satisfaction with their work environment and demonstrate greater levels of success within the organization. The next focus was upon values congruence between followers and leaders. This review revealed that individuals who share values with their supervisor report more satisfaction with their leaders than those who do not share similar values with their leader. However, this effect was mitigated when considering values congruence among supervisors and subordinates with high self esteem and subordinates who were relatively autonomous in the work environment. The final section on values congruence considered the research on principal and teacher values congruence. This section revealed that little research has been done on this subject and that which has been conducted, is over 30 years old and inconclusive.

Schools are complex organizations historically made up of many diverse, autonomous members striving to meet the needs of a tremendously diverse student population. A leader's ability to build effective relationships is at the core of leadership effectiveness. Understanding relationships requires an awareness of the values held by followers as well as an awareness of personally held values. The study of values congruence among principals and their staffs provides an opportunity to consider a factor that may impact the quality of the teacher and principal relationship when evidenced by teachers' perceptions of their principal's leadership effectiveness. Teachers' perceptions of their principals are an important consideration due to the fact that these perceptions are reported to be positively correlated to student achievement levels.

In the following chapter, the methodology that will be used to study the effect of values congruence among principals and teachers in Montana elementary schools will be outlined. Also

receiving consideration will be the effect values congruence has upon student achievement in Montana's elementary schools.

CHAPTER THREE - METHODOLOGY

The role of the school principal in impacting the achievement levels of the students they serve has received attention from researchers during the past thirteen years (Barker, 2001; Cotton, 2003; Hall, 1998; Hallinger & Heck, 1996; Marzano, Waters, & McNulty, 2005). From previous research, it appears that the relationship between the principal and his/her teachers is an important variable to consider in determining the effectiveness of the principal's leadership practices. To better understand the complexity of this relationship, numerous researchers have called for continued study on the relationship between values congruence and leadership effectiveness (Adkins & Russell, 1997; Posner, Kouzes, & Schmidt, 1985; Law, Walker, & Dimmock, 2003; Meglino, Ravlin, & Adkins, 1989; Winter, Newton, & Kirkpatrick, 1998). The connection between teachers' perceptions of their principal's effectiveness and student achievement is also well established in the existing literature (Cotton, 2003; Marzano, Waters, & McNulty, 2005).

This quantitative study examined the relationship between teachers' perceptions of their principal's leadership practices and the values congruence between principals and their teachers. Values congruence was found to be independent of teachers' perceptions of their principal's leadership practices, subsequently, this study examined the difference in student achievement levels between schools with high values congruence and those with low values congruence. The difference in student achievement levels between schools with high ratings of their principal's leadership practices and schools with low ratings of their principal's leadership practices were also examined. Student achievement levels (percentage of Fourth graders scoring in the proficient and advanced range on Montana's 2009 State Criterion Referenced Test) in Mathematics and Reading were analyzed.

In this chapter, the three sets of the data collected will be described, as will the independent and dependent variables explored. These descriptions are followed by an explanation of the primary measurement tools that were used in this research. These instruments allowed an accepted manner in which values congruence and principal leadership practices can be measured. The research questions and hypotheses are then stated. A description of the population and sample studied in this research is also provided which is followed by a thorough treatment of the data analysis procedures. The chapter is completed with a summary in which the research design is reviewed.

Research Questions

The research questions answered in this study have been narrowed to three specific questions. The first is related to values congruence and principal leadership practices. The second is related to values congruence and student achievement and the third is focused upon the relationship between principal leadership practices and student achievement. The three research questions guiding this study are:

- 1.) Is a congruence of values between a building principal and the teachers they lead related to the teachers' perception of their building principal's leadership practices?

In the initial design of this study, if values congruence was found to be independent of principal leadership practices, then questions two and three were to be considered.

- 2.) Is there a difference in the student achievement levels of schools with high teacher/principal values congruence when compared to those with low teacher/principal values congruence?

3.) Is there a difference in the student achievement levels of schools with high ratings of their principal's leadership practices when compared to schools with low ratings of their principal's leadership practices?

The research hypotheses that are related to these three research questions are included in the following section.

Research Hypotheses

The hypotheses for this study have been grouped into three sets. The sets are each related to one of the three research questions mentioned above. The first set of research hypotheses (hypotheses one through five) concern the relationship between values congruence and principal leadership practices:

The first research hypothesis is:

H₁ The presence of values congruence between a principal and his/her teaching staff is positively correlated to teachers' perceptions of their principal's leadership practices in the area of Modeling the Way.

The second research hypothesis is:

H₁ The presence of values congruence between a principal and his/her teaching staff is correlated to teachers' perceptions of their principal's leadership practices in the area of Inspiring a Shared Vision.

The third research hypothesis is:

H₁ The presence of values congruence between a principal and his/her teaching staff is positively correlated to teachers' perceptions of their principal's leadership practices in the area of Challenging the Process.

The fourth research hypothesis is:

H₁ The presence of values congruence between a principal and his/her teaching staff is positively correlated to teachers' perceptions of their principal's leadership practices in the area of Enabling Others to Act.

The fifth research hypothesis is:

H₁ The presence of values congruence between a principal and his/her teaching staff is positively correlated to teachers' perceptions of their principal's leadership practices in the area of Encouraging the Heart.

The second set of research hypotheses (hypotheses six and seven) are related to values congruence and student achievement levels:

The sixth research hypothesis is:

H₁ There will be a difference in the Mathematics student achievement levels of schools with high values congruence when compared to those with low values congruence.

The seventh research hypothesis is:

H₁ There will be a difference in the Reading student achievement levels of schools with high values congruence when compared to those with low values congruence.

The third set of research hypotheses (hypotheses eight through twelve) explored the relationship between the five principal leadership practice areas and student achievement:

The eighth research hypothesis is:

H₁ There will be a difference in student achievement levels of schools with high ratings of their principal's leadership practices in the area of Modeling the

Way when compared to schools with low ratings of their principal's leadership practices in the area of Modeling the Way.

The ninth research hypothesis is:

H₁ There will be a difference in student achievement levels of schools with high ratings of their principal's leadership practices in the area of Inspiring a Shared Vision when compared to schools with low ratings of their principal's leadership practices in the area of Inspiring a Shared Vision.

The tenth research hypothesis is:

H₁ There will be a difference in student achievement levels of schools with high ratings of their principal's leadership practices in the area of Challenging the Process when compared to schools with low ratings of their principal's leadership practices in the area of Challenging the Process.

The eleventh research hypothesis is:

H₁ There will be a difference in student achievement levels of schools with high ratings of their principal's leadership practices in the area of Enabling Others to Act when compared to schools with low ratings of their principal's leadership practices in the area of Enabling Others to Act.

The twelfth research hypothesis is:

H₁ There will be a difference in student achievement levels of schools with high ratings of their principal's leadership practices in the area of Encouraging the Heart when compared to schools with low ratings of their principal's leadership practices in the area of Encouraging the Heart.

Null Hypotheses

The null hypotheses for this study have also been grouped into three sets. The sets are each related to one of the three research questions noted above. The first set of null hypotheses (null hypotheses one through five) concerned the relationship between values congruence and principal leadership practices:

The first null hypothesis is:

H₀ There will be no statistically significant relationship between the values congruence of a building principal and his/her teaching staff when correlated to the teachers' perception of the principal's leadership practices within the area of Modeling the Way.

The second null hypothesis is:

H₀ There will be no statistically significant relationship between the values congruence of a building principal and his/her teaching staff when correlated to the teachers' perception of the principal's leadership practices within the area of Inspiring a Shared Vision.

The third null hypothesis is:

H₀ There will be no statistically significant relationship between the values congruence of a building principal and his/her teaching staff when correlated to the teachers' perception of the principal's leadership practices within the area of Challenging the Process.

The fourth null hypothesis is:

H₀ There will be no statistically significant relationship between the values congruence of a building principal and his/her teaching staff when correlated to

the teachers' perception of the principal's leadership practices within the area of Enabling Others to Act.

The fifth null hypothesis is:

H_0 There will be no statistically significant relationship between the values congruence of a building principal and his/her teaching staff when correlated to the teachers' perception of the principal's leadership practices within the area of Encouraging the Heart.

The second set of null hypotheses (null hypotheses six and seven) are related to values congruence and student achievement levels:

The sixth null hypothesis is:

H_0 There will be no statistically significant difference in the Mathematics student achievement levels of schools with high values congruence when compared to those with low values congruence.

The seventh null hypothesis is:

H_0 There will be no statistically significant difference in the Reading student achievement levels of schools with high values congruence when compared to those with low values congruence.

The third set of null hypotheses (null hypotheses eight through twelve) considered the relationship between principal leadership practices and student achievement:

The eighth null hypothesis is:

H_0 There will be no statistically significant difference in student achievement levels of schools with high ratings of their principal's leadership practices in the

area of Modeling the Way when compared to schools with low ratings of their principal's leadership practices in the area of Modeling the Way.

The ninth null hypothesis is:

H_0 There will be no statistically significant difference in student achievement levels of schools with high ratings of their principal's leadership practices in the area of Inspiring a Shared Vision when compared to schools with low ratings of their principal's leadership practices in the area of Inspiring a Shared Vision.

The tenth null hypothesis is:

H_0 There will be no statistically significant difference in student achievement levels of schools with high ratings of their principal's leadership practices in the area of Challenging the Process when compared to schools with low ratings of their principal's leadership practices in the area of Challenging the Process.

The eleventh null hypothesis is:

H_0 There will be no statistically significant difference in student achievement levels of schools with high ratings of their principal's leadership practices in the area of Enabling Others to Act when compared to schools with low ratings of their principal's leadership practices in the area of Enabling Others to Act.

The twelfth null hypothesis is:

H_0 There will be no statistically significant difference in student achievement levels of schools with high ratings of their principal's leadership practices in the area of Encouraging the Heart when compared to schools with low ratings of their principal's leadership practices in the area of Encouraging the Heart.

Population and Sample

This study examined building principals and their teaching staffs in Montana. Public schools with grade configurations that include fourth grades comprised the population for this research. The sample was drawn from all schools of at least 10 certified staff members with a full time principal located in the state of Montana. There are 260 schools that met the requirements of inclusion in this study. With a margin of error set at 10% and a confidence interval of 90% the sample size is 54 schools. All schools that fit the criteria were invited to be involved in the study. The Montana Office of Public Instruction's data regarding staff full-time equivalency (FTE) and administrative staff FTE was accessed to determine the schools that fit the criteria for inclusion in this study.

An attempt was made to involve all of the 260 schools who met the criteria to be included in the population. The sample was made up of the schools in which at least six teachers and the principal responded to the survey. This is within the requirements for inclusion used by Hoy and Clover (1986) in their study on elementary school culture. These authors also required that schools have at least ten teachers if the schools were to be included in their study. This research is also consistent with the requirement that schools have at least ten teachers if the schools were to be included in their study.

Data Collection

The data was collected in three separate sets. The first set of data determined the level of values congruence between the building principals being studied and the teachers under their supervision. The Comparative Emphasis Scale was used to measure work values congruence. The second set involved the collection of data regarding the principal's leadership practices. The Leadership Practice Inventory was the instrument used to measure principal leadership practices.

And the third set of data included the collection of the 2009 student achievement levels of the school's fourth graders. Achievement levels were determined by the percentage of fourth graders scoring in the proficient and advanced range on the Mathematics and Reading sections of the Montana 2009 State Criterion Referenced Test.

All information provided by the principal and teachers was confidential with no individual information that allowed anyone to identify who completed the survey. To assure this confidentiality, all of the surveys were coded without any overt identifiers of the individual, the school, or the principal. This researcher and the Institutional Review Board at The University of Montana were the only individuals who had access to the key to the codes. After the completion of the data collection phase, all keys that connect the codes to any district, schools or individuals were destroyed. Additionally, findings of this research will not be reported in a manner that would allow any specific school district, school, principal, or teacher to be identified. The purpose of this research is to provide an overview based upon data retrieved from throughout the state of Montana and will not be used to provide information on any individual district or school.

Data Collection Procedures

The values congruence and leadership practice surveys were given to participants in an electronic format using the commercially available surveying website called Survey Monkey (www.surveymonkey.com). The researcher first secured permission to conduct the study from the superintendent of the schools that met the criteria for inclusion in the population. The letter that was sent to superintendents is in Appendix C. Upon receiving permission from the superintendent, a phone call was made to each building principal explaining the process that the researcher asked them to follow for the data collection. This contact was followed by a letter to the principal and the teachers of the school inviting them to participate in the study. The letters

to the principal and teacher are also included in Appendix C. Included in the letter to the principal and teachers was a consent form that included a place for respondents to provide their e-mail address. A stamped, addressed envelope was included for respondents to return the consent forms. Upon receipt of these consent forms the researcher e-mailed the instructions and web link for the completion of the surveys required. This e-mail included general instructions on how to access the link to the survey. The instructions for completing the survey were in the introduction to the survey itself. It is anticipated that each section of the survey took approximately ten minutes to complete. Upon completion of the survey, the data was compiled via the Survey Monkey software that is being used. The data was then analyzed by the researcher as outlined in the *Data Analysis Procedures* section found later in this chapter.

Variables

The three sets of data (congruence of values, principal leadership practices, and student achievement) collected were compared to determine the correlation that exists between the level of congruence, the perception of principal leadership practices in each of the five leadership practices outlined by Kouzes and Posner, and the achievement levels of the students in each of the schools involved in the study. This study considered three separate variables. One of the independent variables in this study is the values congruence that exists between the principal and teachers from his/her staff. This was measured through the use of the Comparative Emphasis Scale. The second independent variable is the principal's leadership practices, as measured by the Leadership Practices Inventory, in each of the five leadership practices described earlier. The dependent variable is the Mathematics and Reading student achievement levels as determined by the percentage of fourth grade students scoring in the proficient and advanced range on the

Montana Criterion Referenced Test. Data from the Spring of 2009 for students in grade four were utilized.

Instruments for Data Collection

Data collection for this study involved the use of two instruments and accessed of existing student achievement data from the state of Montana. To measure the work values of the participants in this study, the *Comparative Emphasis Scale* (Meglino and Ravlin, 1986) was used. The *Leadership Practice Inventory* (2003b) provided the data for determining principal leadership practices and the student achievement levels (the percentage of fourth graders scoring in the proficient and advanced range) derived from the *Montana Criterion Reference Test* were used as the measure of student achievement. A more thorough explanation of each of these measures follows.

The Comparative Emphasis Scale

The Comparative Emphasis Scale (Meglino and Ravlin, 1986) collects ordinal data that is used to quantify the work values held by the building principals and their respective staffs. The Comparative Emphasis Scale (CES) is an ipsative measure of the following four work values that have been shown to be operative in the workplace: (a) achievement/working hard, (b) concern for others/helping others, (c) fairness, and (d) honesty/integrity. It utilizes a forced choice or ipsative format (for a more complete discussion of the ipsative format, refer to Chapter Two). The CES requires respondents to choose between pairs of single phrases, each describing behaviors that reflect a different value. Each value is compared to every other value four times, with each replication consisting of different behavioral statements. The statements used in the Comparative Emphasis Scale are matched for social desirability, with male/female differences taken into account.

A statistically acceptable representation of the teaching staff was surveyed using the Comparative Emphasis Scale. A more thorough description of the sampling procedures is found earlier in Chapter Three under the *Population and Sample* section. The values congruence data was collected in a manner that allowed the rank ordering of the four work values to be considered collectively, representing the shared work values of the staff. This was done by computing the mean of the scores that were collected for each of the work values measured by the instrument. These means were then used to determine the staff's collective rank ordering of their work values. The principal's rank ordering of the four work values was correlated to the rank ordering of the teachers using a Spearman *rho* rank order correlation which determined the strength of the values congruence between the principals and their staffs.

Reliability and validity of the Comparative Emphasis Scale.

The four work values measured in the Comparative Emphasis Scale were chosen as a result of research conducted by Cornelius, Ullman, Meglino, Czajka, and Neely (1985). In their research these authors conducted a study that utilized an open-ended survey administered to almost one thousand employees in forty organizations across the United States. This survey had each employee identify incidences in which values were displayed by individuals within these organizations. Multiple groups of independent judges, then sorted these particular "critical" behavioral incidences into common sets of value categories. The final result was a set of four values that were found to be significantly related to the behavior in the occupational setting. The four work values categories identified were: (a) achievement/working hard, (b) concern for others/helping others, (c) fairness, and (d) honesty/integrity. An analysis for reliability was performed for each subscale using Cronbach's alpha test which measures the reliability of an instrument. This procedure revealed extremely high interitem reliabilities. The Cronbach's

alpha coefficient equaled .959, .950, .946, and .952 for achievement, fairness, honesty and helping respectively (Ravlin & Meglino, 1987b).

The Leadership Practice Inventory

The Leadership Practices Inventory (Kouzes & Posner, 2003b) was also used in this study. The type of data collected with the Leadership Practices Inventory (LPI) is interval data. The Leadership Practices Inventory uses Likert scales to create interval data. This instrument consists of 30 questions in which each question is scored on a 10 point scale. A score is generated for each of the five areas that Kouzes and Posner (2002) identified as being indicative of exemplary leadership practices. These areas of Exemplary Leadership are: (a) Modeling the Way, (b) Inspiring a Shared Vision, (c) Challenging the Process, (d) Enabling Others to Act, and (e) Encouraging the Heart. A more complete discussion on the tenets of each of these areas is found in Chapter Two.

The shared perceptions of the staff were determined by calculating the average scores in each of the five areas considered to be indicative of exemplary leadership practices. The results of the Leadership Practice Inventory were then correlated to the data collected relative to the strength of the presence of values congruence as measured by the Comparative Emphasis Scale. Its relationship to a principal's leadership practices within each of the five areas was then determined.

Reliability and validity of the Leadership Practice Inventory.

The LPI is widely accepted in the field of leader effectiveness measurement. In his review of the Leadership Practice Inventory (LPI) Enger (2001) stated, "Kouzes and Posner have developed a very usable and popular Leadership Practices Inventory that has stood the test of time and continues to hold a prominent place in the market of instruments used primarily for formative evaluation of leaders at various levels of an organization" (pp. 663-664).

Internal consistency procedures for the Leadership Practice Inventory reveal that all five leadership practices have internal reliability scores that are consistently above the .85 level on the 2003 version of the test that will be used in this study. The Cronbach's alpha coefficient equaled .89, .92, .88, .88 and .92 for the respective five practices; challenging, inspiring, enabling, modeling, and encouraging. Test-retest reliability scores are routinely in the .90+ range and the test has shown no significant social desirability bias (Kouzes and Posner, 2003).

The Montana Criterion Referenced Test

The Montana Criterion Referenced Test (CRT) was the measure from which student achievement levels were derived. This test has been given to Montana's third through eighth graders in the Spring since 2006. Students are tested to determine their proficiency in meeting the standards set by the state of Montana in the areas of Mathematics and Reading. This test is given in March of each year to all of Montana's students who are in the grades three through eight and ten. This nominal data is represented by students' standard scores which fall between a score of 200 to 300. These scores are based upon their success on multiple choice, short answer, and constructed response items. Students scores are then classified into one of four levels of proficiency; (a) novice, (b) nearing proficient, (c) proficient, and (d) advanced. For the purpose of this study, the percentage of Fourth grade students scoring in the proficient and advanced levels were used as the measure of student achievement.

The Montana CRT is the measure used to determine a school's Adequate Yearly Progress (AYP) status required in the nation's No Child Left Behind legislation. This data is made available to the general public and is easily accessible on Montana's Office of Public Instruction website (<http://www.opi.mt.gov/>). The Montana Criterion Referenced Test data was collected for each school included in this study through the Montana Office of Public Instruction website.

This study considered the percentage of students in the Fourth grade who have scored proficient or advanced in the Mathematics section and those who have scored proficient or advanced in the Reading section of the 2009 administration of the exam. This data is accessible to the general public and since no data that would identify an individual student's scores are needed for this study the ease of access was assured.

Data Analysis Procedures

To determine the strength of values congruence between the building principals and their respective staffs in the first set of data, a correlation between the teachers' collective rank order and their principal's rank order was taken as the index of teacher-principal work value congruence. A Spearman *rho* correlation coefficient was calculated to determine the strength of the congruence between the rank orders derived. A greater Spearman *rho* correlation coefficient was an index of stronger values congruence. Similar procedures have also been successfully used by Adkins, Russell and Werbel (1994) and by Adkins and Russell (1997).

To determine the strength of the relationship between values congruence and the principal's leadership practices as perceived by his/her teaching staff, the Spearman *rho* correlation coefficient was correlated to the score derived from each of the five leadership practice areas measured by the Leadership Practice Inventory. A simple Pearson product moment correlation coefficient was calculated to determine the strength of the relationship between the level of values congruence and the perceived leadership practices in each of the five leadership practice areas identified by Kouzes and Posner.

Values congruence was found to be independent of principal leadership practices, subsequently, a one way Analysis of Variance (ANOVA) procedure was used in the analysis of the second and third sets of data. This procedure was used to determine if there was a difference between the Reading and Mathematics achievement levels of high values congruence schools

and low values congruence schools. The procedure also determined if there was a difference between the Reading and Mathematics achievement levels of schools with high ratings of their principal's leadership practices and schools with low ratings of their principal's leadership practices in each of the five leadership practice areas. In this portion of the analysis, the independent variables were values congruence and principal leadership practices in each of the five identified principal leadership areas. The dependent variables were student achievement levels in Mathematics and student achievement levels in Reading.

For this analysis, schools were grouped into high values congruence and low values congruence categories by performing a median split. In this procedure, the median values congruence score of all schools involved in the study was determined. Those one standard deviation above the median were grouped into the high values congruence group while those one standard deviation below were grouped into the low values congruence group. A similar procedure was followed regarding principal leadership practices. Each school was grouped into a high principal leadership practice and low principal leadership practice category using the same median split procedure. Additionally, this was done for each of the five leadership practice areas to determine if there is a difference between the Mathematics and Reading achievement levels of students based upon each of the areas of leadership practices being measured. Through these ANOVA procedures it was determined if an interaction existed between the independent variables. A p-value was derived and a p-value of less than .05 determined the existence of a statistically significant difference.

Summary

Researchers continue to call for further study on the relationship between values congruence and exemplary leadership practices. (Adkins & Russell, 1997; Posner, Kouzes, &

Schmidt, 1985; Law, Walker, & Dimmock, 2003; Meglino, Ravlin, & Adkins, 1989; Winter, Newton, & Kirkpatrick, 1998). Understanding the effect of values congruence on teacher perceptions of their principal's leadership practices may help schools improve by providing a more complete basis from which the relationship between the teacher and principal can be understood. This more complete understanding of the principal/teacher relationship holds promise in helping to provide processes and circumstances in which teachers' perceptions of their principal's leadership practices can be improved.

Montana Public schools with grade configurations that include Fourth graders comprised the population for this research. The sample was drawn from all schools of at least 10 certified staff members with a full time principal.

To provide the necessary information, this study first utilized the Comparative Emphasis Scale to measure the congruence of work values between teaching staffs and their principal. The statistical procedure calculated a Spearman *rho* correlation coefficient which served as the index of teacher/principal values congruence. The principal's leadership practices were then measured through the use of the Leadership Practices Inventory (LPI). A simple Pearson product moment correlation coefficient was calculated to determine the strength of the relationship between the index of values congruence and the principal's leadership practices (as perceived by teachers) in each of the five areas measured by the LPI. Through this processes it was possible to garner a quantitative measure of the relationship between teacher/principal values congruence and principal leadership practices as perceived by the teachers in the principal's school.

There has also been significant interest in the relationship between principal leadership and student achievement levels (Barker, 2001; Cotton, 2003; Hallinger & Heck, 1996; Leithwood, 1994; Marzano, Waters, & McNulty, 2005). This study also sought information that

will be valuable as a greater understanding of the link between principal leadership and student achievement is ascertained.

A One-way Analysis of Variance (ANOVA) was conducted in this study to determine whether significant differences existed in the mean student achievement levels between students in schools with high teacher/principal values congruence and students in schools with low teacher/principal values congruence. To conduct this statistical analysis teacher/principal values congruence scores that fall one standard deviation above and one standard deviation below the mean values congruence score were determined. Schools with values congruence scores one standard deviation above the mean were considered high congruence schools. Schools with values congruence scores one standard deviation below the mean were considered low congruence schools.

Additionally, A One-way Analysis of Variance (ANOVA) was conducted to determine whether significant differences exist between the mean of Fourth grade Math and Reading achievement levels of students in schools where teachers perceive their principal's leadership practices to be high when compared to the mean of Fourth grade Math and Reading achievement levels of students in schools where teachers perceive their principal's leadership practices to be low. To determine schools that are considered to have high ratings of their principal's leadership practices, a statistical analysis was conducted that considers Leadership Practice Inventory (Kouzes & Posner, 2003b) scores one standard deviation above and one standard deviation below the mean score in each of the five leadership practice areas measured. Schools in which the principal's leadership practices scores (as perceived by the teachers in the school) were one standard deviation above the mean were classified as high leadership practice schools. Schools in which the principal's leadership practices scores (as perceived by the teachers in the school)

were one standard deviation below the mean were classified as low leadership practice schools. This process was used to determine high and low leadership practice schools in each of the five areas measured by the Leadership Practice Inventory (Kouzes and Posner, 2003b). Statistical significance was determined *a priori* as being a p-value of $<.05$. The Math and Reading achievement levels were based upon the percentage of students who scored in the proficient or advanced range on the Montana 2009 Criterion Referenced Test (CRT).

The Analysis of Variance (ANOVA) statistical procedures provide insight into the relationship between teacher/principal values congruence, principal leadership practices, and student achievement levels.

The statistical analyses outlined in Chapter Three provided the quantitative data necessary to determine the existence of a relationship between values congruence, principal leadership practices and student achievement. These analyses also provided the data that determined the statistical significance of any relationships that existed. This information provided an objective basis from which some of the factors that influence student achievement can be ascertained. The data collected was used to answer the three research questions guiding this study.

CHAPTER FOUR - RESULTS

The purpose of this quantitative study was to examine the relationship between principal and teacher values congruence and perceived principal leadership practices. Additionally, this study considered the relationship between values congruence, principal leadership practices, and student achievement. The three research questions posed in this study were:

- 1.) Is a congruence of values between a building principal and the teachers they lead related to the teachers' perception of their building principal's leadership practices?

In the initial design of this study, if values congruence was found to be independent of principal leadership practices, then questions two and three were to be considered. These additional research questions are:

- 2.) Is there a difference in student achievement levels of schools with high teacher/principal values congruence when compared to those with low teacher/principal values congruence?
- 3.) Is there a difference in student achievement levels of schools with high ratings of their principal's leadership practices when compared to schools with low ratings of their principal's leadership practices?

The twelve hypotheses for this study have been grouped into three sets. The sets are each related to one of the three research questions noted above. The first set of five hypotheses are related to Research Question One which considers the relationship between principal and teacher values congruence and teachers' perceptions of their principal's leadership practices.

Research Question One Hypotheses:

Hypothesis 1.1: The presence of values congruence between a principal and his/her teaching staff is positively correlated to teachers' perceptions of their principal's leadership practices in the area of Modeling the Way.

Hypothesis 1.2: The presence of values congruence between a principal and his/her teaching staff is positively correlated to teachers' perceptions of their principal's leadership practices in the area of Inspiring a Shared Vision.

Hypothesis 1.3: The presence of values congruence between a principal and his/her teaching staff is positively correlated to teachers' perceptions of their principal's leadership practices in the area of Challenging the Process.

Hypothesis 1.4: The presence of values congruence between a principal and his/her teaching staff is positively correlated to teachers' perceptions of their principal's leadership practices in the area of Enabling Others to Act.

Hypothesis 1.5: The presence of values congruence between a principal and his/her teaching staff is positively correlated to teachers' perceptions of their principal's leadership practices in the area of Encouraging the Heart.

The sixth and seventh hypotheses are related to Research Question Two which considers the relationship between teacher/principal values congruence and student achievement levels.

Research Question Two Hypotheses:

Hypothesis 2.1: There will be a difference in the Mathematics student achievement levels of schools with high values congruence when compared to those with low values congruence.

Hypothesis 2.2: There will be a difference in the Reading student achievement levels of schools with high values congruence when compared to those with low values congruence.

The final set of research hypotheses (hypotheses eight through twelve) are related to Research Question Three which explores the relationship between principal leadership practices and student achievement.

Research Question Three Hypotheses:

Hypothesis 3.1: There will be a difference in student achievement levels of schools with high ratings of their principal's leadership practices in the area of Modeling the Way when compared to schools with low ratings of their principal's leadership practices in the area of Modeling the Way.

Hypothesis 3.2: There will be a difference in student achievement levels of schools with high ratings of their principal's leadership practices in the area of Inspiring a Shared Vision when compared to schools with low ratings of their principal's leadership practices in the area of Inspiring a Shared Vision.

Hypothesis 3.3: There will be a difference in student achievement levels of schools with high ratings of their principal's leadership practices in the area of Challenging the Process when compared to schools with low ratings of their principal's leadership practices in the area of Challenging the Process.

Hypothesis 3.4: There will be a difference in student achievement levels of schools with high ratings of their principal's leadership practices in the area of Enabling Others to Act when compared to schools with low ratings of their principal's leadership practices in the area of Enabling Others to Act.

Hypothesis 3.5: There will be a difference in student achievement levels of schools with high ratings of their principal's leadership practices in the area of Encouraging the Heart when

compared to schools with low ratings of their principal's leadership practices in the area of Encouraging the Heart.

This chapter continues with a description of the data collection procedures used in this study. Additionally, the results from the statistical analyses related to each of the research questions and hypotheses noted above are described in detail. Finally, the results from additional analyses that considered values congruence between individual teachers and their principals are described.

Data Collection

There were 265 schools that fit the criteria for inclusion in the population for this study. However, five of the schools that fit the criteria were elementary schools in the district in which the researcher is employed. Because of the potential for researcher influence, these five schools were eliminated from the population. There were four criteria for inclusion in the population.

The four criteria were:

- 1.) Public elementary schools in Montana
- 2.) Schools that include fourth grade students
- 3.) Schools that include staffs with at least ten certified educators
- 4.) Schools with a fulltime principal.

All superintendents overseeing the elementary schools that met the criteria were contacted between April 1 and May 6 of 2009. These contacts were made via letter, e-mail or phone to seek the superintendent's permission to contact their elementary principal/s regarding the possibility of the principal's staff being included in the study.

Table 1 contains the data related to the population for this study.

Table 1 <i>Data Collection Summary for Schools Included in the Population</i>					
Number of Schools that fit the criteria for inclusion in the population	Number of Permissions granted from superintendent and principal to contact the staffs of the schools that fit the criteria for inclusion in the population	Number of Teacher Survey requests sent	Number of Teacher Surveys completed	Number of Schools that had at least 1 teacher complete the survey	Number of Schools that had the principal complete the survey
260	184	3691	838	173	155

Contact was unsuccessful with 17 of the 192 superintendents who represented the 260 schools in the population. This eliminated 17 of the possible schools that could be included in the sample. Permission for participation in the study was denied by the superintendents representing 38 out of the 260 schools. Eventually, permission was granted to contact 205 principals by the superintendent of the districts in which these principal's schools reside. Of the 205 principals contacted, 21 denied the researcher permission to contact their staffs.

In summary, of the 260 schools that fit the criteria for inclusion in the population, permission was given to contact the teaching staff in 184 of these schools. A total of 3,691 teacher survey requests were mailed to the teachers in the 184 schools. Teachers willing to participate in the study returned their consent form to the researcher in a stamped, self-addressed envelope which was provided in each mailing. Once the Consent to Participate form was received, an e-mail was sent to the teacher that included instructions for completing the survey. An internet link was included in this e-mail directing the teacher to the on-line survey being used for the study. Within one week of the initial e-mail being sent, a reminder e-mail was sent to

individuals who had not yet responded to the survey. Those who did not respond within one week of this reminder received an additional e-mail encouraging them to complete the survey.

As a result of these efforts, 838 teachers subsequently completed the on-line surveys. Of the 184 schools contacted, 173 had at least one teacher complete the survey. Additionally, a total of 184 principal survey requests were sent. The procedure used for principal e-mails and reminders was the same as that used for the teacher contacts. Of the 184 principals who received the e-mail requests to participate in the survey, 155 completed the survey.

Table 2 contains the data related to the schools that were included in the sample.

Table 2 <i>Data Collection Summary for Schools Included in the Sample</i>				
Number of Schools that had at least 6 teachers and the principal complete the survey. This was required for the data to be included in the sample	Number of Teacher Survey requests sent to the 62 schools that had the requisite responses to be included in the sample	Number of Teacher Surveys completed from the schools that met the requirements for inclusion in the sample.	Percentage of Schools in the population that had the requisite teacher and principal responses to be included in the sample	Percentage of teachers responding from the schools that had the requisite teacher and principal responses to be included in the sample
62	1456	514	23.85%	35.30%

At least 6 teachers and their principal responded from 62 of the 260 schools in the population. These 62 schools met the requirements to be included in the sample and represent 23.85% of the schools in the population. These 62 schools composed the sample. Using the Raosoft Sample Size Calculator found at <http://www.raosoft.com/samplesize.html>, a sample size of 62 provided a 92.75% confidence interval and a 9.97% margin of error. The data from these 62 schools were used in the statistical analysis. Of the 1,456 teacher survey requests that were

sent to these 62 schools, 514 teachers completed the surveys. This represents a return rate of 35.30% of the teachers that were a part of the sample used in the statistical analysis.

Data were collected by asking teachers to complete two electronic surveys using the Survey Monkey on-line survey tool (Finley, 1999-2010). The first survey was the Comparative Emphasis Scale (Meglino & Ravlin, 1986) which measured the dominant work values of the participants. The second survey was the Leadership Practice Inventory (Kouzes & Posner, 2003b) which measured the teacher's perceptions of their principal's leadership practices. Principals were asked to complete the Comparative Emphasis Scale (Meglino & Ravlin, 1986) to measure their dominant work values.

The following section contains the statistical analyses of the data generated by the surveys. The statistical analysis section of this chapter is arranged in a manner allowing for each of the research questions to be answered in order.

Statistical Analysis

The statistical analysis section of Chapter Four includes the results of the data analysis related to each of the three questions asked in this study. Also included in this section are additional data analyses that further explore the relationship between values congruence, perceived principal leadership practices and student achievement levels in Mathematics and reading. The data analyzed for this study are found in Appendix E.

Research Question One

Research Question 1: Is a congruence of values between a building principal and the teachers they lead related to the teachers' perception of their building principal's leadership practices?

The values congruence data derived from the teachers' responses on the Comparative Emphasis Scale (Meglino & Ravlin, 1986) were collected in a manner that allowed the rank ordering of the four work values to be considered collectively, thereby representing the shared work values of the staff. This was accomplished by computing the mean of the scores collected for each of the four work values measured by the Comparative Emphasis Scale. These means were used to determine the staff's collective rank ordering of their work values. In order to calculate a rank order correlation, each principal's rank ordering of the four work values was correlated to the corresponding rank ordering of the teachers. A Spearman *rho* correlation coefficient was calculated to determine the strength of the values congruence between the principals and their staffs. These procedures are similar to those used in the values congruence research conducted by Meglino and Ravlin (1989, 1991). The Spearman *rho* correlation coefficients calculated ranged from -1.0 to 1.0 while the average correlation coefficient was .123. The standard deviation of these scores was .571.

The principal leadership practices data were derived from the teachers' responses on the Leadership Practice Inventory (Kouzes & Posner, 2003b). These data were collected in a manner that considered the teachers' average scores in each of the five leadership practice areas that were measured. A summary of the scores derived from the Leadership Practice Inventory are found in Table 3.

Table 3			
<i>Leadership Practice Inventory Data Summary</i>			
Leadership Practice Area	Range of Scores	Average Score	Standard Deviation
Modeling the Way	2.190 - 8.972	6.415	1.438
Inspiring a Shared Vision	1.619 – 8.241	6.326	1.435
Challenging the Process	1.921 – 8.241	6.212	1.437
Enabling Others to Act	4.583 -9.194	7.401	1.233
Encouraging the Heart	2.286 – 8.796	6.495	1.446

A Pearson product-moment (Pearson r) correlation coefficient between teacher/principal values congruence (as measured by a Spearman ρ correlation coefficient) and the principal's leadership practice scores in each of the five sub-categories was calculated to determine the strength of the relationship. A two-tailed test of significance was also calculated. A statistically significant relationship was determined *a priori* as being a p-value of $<.05$.

The results of the statistical analyses regarding the relationship between teacher/principal values congruence and teachers' perceptions of their principal's leadership practices are included in the remainder of the section related to Research Question One. The results for each of the five hypotheses related to question one are presented. Table 4 contains the results of the statistical analyses related to each of the hypotheses within Research Question One.

Table 4					
<i>Correlation Coefficients and Significance Levels of Values Congruence and the Five Leadership Practices</i>					
	Values Congruence and Modeling the Way	Values Congruence and Inspiring a Shared Vision	Values Congruence and Challenging the Process	Values Congruence and Enabling Others to Act	Values Congruence and Encouraging the Heart
Pearson <i>r</i> Correlation Coefficient	.001	-.102	-.066	-.020	-.018
Two-tailed test of significance (p-value)	.993	.432	.609	.875	.890

Hypothesis 1.1: The presence of values congruence between a principal and his/her teaching staff is positively correlated to teachers' perceptions of their principal's leadership practices in the area of Modeling the Way.

Statistical analysis of the relationship between teacher/principal values congruence and teachers' perceptions of their principal's use of the Modeling the Way leadership practice produced a Pearson *r* correlation coefficient of .001. A two tailed test of significance revealed a p-value of .993 which did not meet the alpha level for statistical significance. Therefore, the null hypothesis was not rejected. Hypothesis 1.1 was not supported.

Hypothesis 1.2: The presence of values congruence between a principal and his/her teaching staff is positively correlated to teachers' perceptions of their principal's leadership practices in the area of Inspiring a Shared Vision.

Statistical analysis of the relationship between teacher/principal values congruence and teachers' perceptions of their principal's use of the Inspiring a Shared Vision leadership practice produced a Pearson *r* correlation coefficient of -.102. A two tailed test of significance revealed a

p-value of .432 which did not meet the alpha level for statistical significance. Therefore, the null hypothesis was not rejected. Hypothesis 1.2 was not supported.

Hypothesis 1.3: The presence of values congruence between a principal and his/her teaching staff is positively correlated to teachers' perceptions of their principal's leadership practices in the area of Challenging the Process.

Statistical analysis of the relationship between teacher/principal values congruence and teachers' perceptions of their principal's use of the Challenging the Process leadership practice produced a Pearson r correlation coefficient of $-.066$. A two tailed test of significance revealed a p-value of $.609$ which did not meet the alpha level for statistical significance. Therefore, the null hypothesis was not rejected. Hypothesis 1.3 was not supported.

Hypothesis 1.4: The presence of values congruence between a principal and his/her teaching staff is positively correlated to teachers' perceptions of their principal's leadership practices in the area of Enabling Others to Act.

Statistical analysis of the relationship between teacher/principal values congruence and teachers' perceptions of their principal's use of the Enabling Others to Act leadership practice produced a Pearson r correlation coefficient of $-.020$. A two tailed test of significance revealed a p-value of $.875$ which did not meet the alpha level for statistical significance. Therefore, the null hypothesis was not rejected. Hypothesis 1.4 was not supported.

Hypothesis 1.5: The presence of values congruence between a principal and his/her teaching staff is positively correlated to teachers' perceptions of their principal's leadership practices in the area of Encouraging the Heart.

Statistical analysis of the relationship between teacher/principal values congruence and teachers' perceptions of their principal's use of the Encouraging the Heart leadership practice

produced a Pearson r correlation coefficient of $-.018$. A two tailed test of significance revealed a p-value of $.890$ which did not meet the alpha level for statistical significance. Therefore, the null hypothesis was not rejected. Hypothesis 1.5 was not supported. The following section will consider Research Question Two which explores the relationship between values congruence and student achievement.

Research Question Two

Research Question 2: Is there a difference in student achievement levels of schools with high values congruence when compared to those with low values congruence?

A statistical analysis was conducted that determined teacher/principal values congruence scores that fell one standard deviation above and one standard deviation below the mean values congruence score. Schools with values congruence scores one standard deviation above the mean were considered high congruence schools. Of the 62 schools in this study, 15 were considered to be high congruence schools. Schools with values congruence scores one standard deviation below the mean were considered low congruence schools. Of the 62 schools in this study, 8 were considered to be low congruence schools. A One-way Analysis of Variance (ANOVA) was conducted to determine whether significant differences existed in the mean student achievement levels between students in schools with high teacher/principal values congruence and students in schools with low teacher/principal values congruence. Statistical significance was determined *a priori* as being a p-value of $<.05$. The Mathematics and Reading achievement levels were based upon the percentage of students who scored in the proficient or advanced range on Montana's 2009 Criterion Referenced Test (CRT). Schools' Mathematics achievement levels ranged from 34% proficient and advanced to 100% proficient and advanced. The average school had 68.933% of its students scoring in the proficient and advanced range.

Schools' Reading achievement levels ranged from 43% proficient and advanced to 100% proficient and advanced. The average school had 81.116% of its students scoring in the proficient and advanced range. The achievement data used for this portion of the data analysis were obtained through Montana's Office of Public Instruction website at: www.opi.mt.gov.

The results related to the difference of students' Mathematics and Reading achievement levels in low congruence and high congruence schools are in the remainder of the section related to Research Question Two. The statistical analysis for this portion of the study was done using a one-way ANOVA. Table 5 contains the results of the statistical analyses related to each of the hypotheses within Research Question Two.

Table 5		
<i>Difference between the Mathematics and Reading Achievement Levels of Low Values Congruence and High Values Congruence Schools.</i>		
	Mathematics	Reading
Low Congruence schools mean achievement levels (% of students scoring proficient and advanced)	65.63%	78.25%
High Congruence schools mean achievement levels (% of students scoring proficient and advanced)	67.44%	83.50%
Difference between the Achievement Levels of Low Values Congruence and High Values Congruence Schools as determined by a One-way ANOVA (p-value)	p = .760	p = .316

Hypothesis 2.1: There will be a difference in the Mathematics student achievement levels of schools with high values congruence when compared to those with low values congruence.

The mean percentage of students from low congruence schools who scored in the proficient and advanced range in Mathematics was 65.63 %. The mean percentage of students from high congruence schools who scored in the proficient and advanced range in Mathematics

was 67.44 %. The results of the one-way ANOVA yielded a p-value of .760 when performing the high low split analysis that considered the difference between the mean of the Mathematics achievement levels of schools with high teacher/principal values congruence when compared to the mean of the Mathematics achievement levels of those with low teacher/principal values congruence. The .760 p-value did not reach the *a priori* level of $<.05$. The statistical analysis revealed that there was no statistically significant difference between the Mathematics achievement levels of students in schools with high teacher/principal values congruence when compared to the Mathematics achievement levels of students in schools with low teacher/principal values congruence. Therefore, the null hypothesis was not rejected. Hypothesis 2.1 was not supported.

Hypothesis 2.2: There will be a difference in the Reading student achievement levels of schools with high values congruence when compared to those with low values congruence.

The mean percentage of students from low congruence schools who scored in the proficient and advanced range in Reading was 78.25 %. The mean percentage of students from high congruence schools who scored in the proficient and advanced range in Reading was 83.50%. The results of the one-way ANOVA yielded a p-value of .316 when performing the high low split analysis that considered the difference between the mean of the Reading achievement levels of schools with high teacher/principal values congruence when compared to the mean of the Reading achievement levels of those with low teacher/principal values congruence. The .316 p-value did not reach the *a priori* level of $<.05$. The statistical analysis revealed that there was no statistically significant difference between the Reading achievement levels of students in schools with high teacher/principal values congruence when compared to the Reading achievement levels of students in schools with low teacher/principal values

congruence. Therefore, the null hypothesis was not rejected. Hypothesis 2.2 was not supported. The following section will consider Research Question Three which explores the relationship between principal leadership practices and student achievement.

Research Question Three

Research Question 3: Is there a difference in student achievement levels of schools with high ratings of their principal's leadership practices when compared to schools with low ratings of their principal's leadership practices?

To determine schools that were considered to have high ratings of their principal's leadership practices, a statistical analysis was conducted that considered Leadership Practice Inventory (Kouzes & Posner, 2003b) scores one standard deviation above and one standard deviation below the mean score in each of the five leadership practice areas measured. Schools in which the principal's leadership practices scores (as perceived by the teachers in the school) were one standard deviation above the mean were classified as high leadership practice schools. Of the 62 schools in this study, 10 were classified as high leadership practice schools in the Modeling the Way area, 8 were classified as high leadership practice schools in the Inspiring a Shared Vision Area, 11 were classified as high leadership practice schools in the Challenging the Process area, 9 were classified as high leadership practice schools in the Enabling Others to Act area, and 8 were classified as high leadership practice schools in the Encouraging the Heart area. Schools in which the principal's leadership practices scores (as perceived by the teachers in the school) were one standard deviation below the mean were classified as low leadership practice schools. Of the 62 schools in this study, 11 were classified as low leadership practice schools in the Modeling the Way area, 9 were classified as low leadership practice schools in the Inspiring a Shared Vision Area, 8 were classified as low leadership practice schools in the Challenging the

Process area, 10 were classified as low leadership practice schools in the Enabling Others to Act area, and 10 were classified as low leadership practice schools in the Encouraging the Heart area. This process was used to determine high and low leadership practice schools in each of the five areas measured by the Leadership Practice Inventory (Kouzes and Posner, 2003b). A One-way Analysis of Variance (ANOVA) was conducted to determine whether significant differences existed between the mean of fourth grade Math and Reading achievement levels of students in high leadership practice schools when compared to the mean of fourth grade Math and Reading achievement levels of students in low leadership practice schools. Statistical significance was determined *a priori* as being a p-value of $<.05$. The Math and Reading achievement levels were based upon the percentage of students who scored in the proficient or advanced range on the Montana 2009 Criterion Referenced Test (CRT). The achievement data used for this portion of the data analysis were obtained through Montana's Office of Public Instruction website at: www.opi.mt.gov.

Following is a summary of the findings within each of the five leadership practice areas when considering high leadership practice schools and low leadership practice schools and the Mathematics and Reading Achievement levels in those schools. The results related to Mathematics achievement are described first. The Reading results are then described. Table 6 contains the results of the statistical analyses of each hypotheses within Research Question Three which are related to Mathematics achievement and the five leadership practices.

Table 6					
<i>Difference Between the Mathematics Achievement levels of Low Leadership Practice Schools and High Leadership Practice Schools in each of the Five Leadership Practice Areas</i>					
	Modeling the Way	Inspiring a Shared Vision	Challenging the Process	Enabling Others to Act	Encouraging the Heart
Low Leadership practice schools' mean Mathematics achievement levels (% of students scoring proficient and advanced)	72.45%	70.56%	70.13%	69.30%	71.40%
High Leadership practice schools' mean Mathematics achievement levels (% of students scoring proficient and advanced)	76.30%	77.50%	74.00%	67.67%	77.50%
Difference Between the Mathematics Achievement Levels of Low Leadership Practice Schools and High Leadership Practice Schools in each of the Five Leadership Practice Areas as determined by a One-way ANOVA (p-value)	p = .462	p = .235	p = .519	p = .789	p = .227

Table 7 contains the results of the statistical analyses of each hypotheses within Research Question Three which are related to Reading achievement and the five leadership practices.

	Modeling the Way	Inspiring a Shared Vision	Challenging the Process	Enabling Others to Act	Encouraging the Heart
Low Leadership practice schools' mean Reading achievement levels (% of students scoring proficient and advanced)	83.18%	83.22%	86.38%	82.60%	82.20%
High Leadership practice schools' mean Reading achievement levels (% of students scoring proficient and advanced)	85.90%	87.25%	85.55%	82.78%	86.50%
Difference Between the Reading Achievement Levels of Low Leadership Practice Schools and High Leadership Practice Schools in each of the Five Leadership Practice Areas as determined by a One-way ANOVA (p-value)	p = .472	p = .342	p = .806	p = .966	p = .259

Hypothesis 3.1: There will be a difference in student achievement levels of schools with high ratings of their principal's leadership practices in the area of Modeling the Way when compared to schools with low ratings of their principal's leadership practices in the area of Modeling the Way.

The mean percentage of students from low leadership practice schools in the Modeling the Way area who scored in the proficient and advanced range in Mathematics was 72.45%. The mean percentage of students from high leadership practice schools in the Modeling the Way area who scored in the proficient and advanced range in Mathematics was 76.30%. The one-way ANOVA yielded a p-value of .462 when performing the principal leadership practice high low

split analysis that considered the difference between the Mathematics achievement levels of high leadership practice schools in the Modeling the Way area and the Mathematics achievement levels of low leadership practice schools in this leadership area. The .462 p-value did not reach the *a priori* level of $<.05$. The statistical analysis revealed that there was no statistically significant difference between the Mathematics achievement levels of the students in schools with high ratings of their principal's leadership practices in the area of Modeling the Way when compared to the Mathematics achievement levels of the students in schools with low ratings of their principal's leadership practices in the area of Modeling the Way. Therefore, the null hypothesis was not rejected. Hypothesis 3.1, as it relates to Mathematics achievement levels, was not supported.

The mean percentage of students from low leadership practice schools in the Modeling the Way area who scored in the proficient and advanced range in Reading was 83.18%. The mean percentage of students from high leadership practice schools in the Modeling the Way area who scored in the proficient and advanced range in Reading was 85.90%. The one-way ANOVA yielded a p-value of .472 when performing the principal leadership practice high low split analysis that considered the difference between the Reading achievement levels of high leadership practice schools in the Modeling the Way area and the Reading achievement levels of low leadership practice schools in this leadership area. The .472 p-value did not reach the *a priori* level of $<.05$. The statistical analysis revealed that there was no statistically significant difference between the Reading achievement levels of the students in schools with high ratings of their principal's leadership practices in the area of Modeling the Way when compared to the Reading achievement levels of the students in schools with low ratings of their principal's

leadership practices in the area of Modeling the Way. Therefore, the null hypothesis was not rejected. Hypothesis 3.1, as it relates to Reading achievement levels, was not supported.

Hypothesis 3.2: There will be a difference in student achievement levels of schools with high ratings of their principal's leadership practices in the area of Inspiring a Shared Vision when compared to schools with low ratings of their principal's leadership practices in the area of Inspiring a Shared Vision.

The mean percentage of students from low leadership practice schools in the Inspiring a Shared Vision area who scored in the proficient and advanced range in Mathematics was 70.56%. The mean percentage of students from high leadership practice schools in the Inspiring a Shared Vision area who scored in the proficient and advanced range in Mathematics was 77.50%. The one-way ANOVA yielded a p-value of .235 when performing the principal leadership practice high low split analysis that considered the difference between the Mathematics achievement levels of high leadership practice schools in the Inspiring a Shared Vision area and the Mathematics achievement levels of low leadership practice schools in this leadership area. The .235 p-value did not reach the *a priori* level of $<.05$. The statistical analysis revealed that there was no statistically significant difference between the Mathematics achievement levels of the students in schools with high ratings of their principal's leadership practices in the area of Inspiring a Shared Vision when compared to the Mathematics achievement levels of the students in schools with low ratings of their principal's leadership practices in the area of Inspiring a Shared Vision. Therefore, the null hypothesis was not rejected. Hypothesis 3.2, as it relates to Mathematics achievement levels, was not supported.

The mean percentage of students from low leadership practice schools in the Inspiring a Shared Vision area who scored in the proficient and advanced range in Reading was 83.22%.

The mean percentage of students from high leadership practice schools in the Inspiring a Shared Vision area who scored in the proficient and advanced range in Reading was 87.25%. The one-way ANOVA yielded a p-value of .342 when performing the principal leadership practice high low split analysis that considered the difference between the Reading achievement levels of high leadership practice schools in the Inspiring a Shared Vision area and the Reading achievement levels of low leadership practice schools in this leadership area. The .342 p-value did not reach the *a priori* level of $<.05$. The statistical analysis revealed that there was no statistically significant difference between the Reading achievement levels of the students in schools with high ratings of their principal's leadership practices in the area of Inspiring a Shared Vision when compared to the Reading achievement levels of the students in schools with low ratings of their principal's leadership practices in the area of Inspiring a Shared Vision. Therefore, the null hypothesis was not rejected. Hypothesis 3.2, as it relates to Reading achievement levels, was not supported.

Hypothesis 3.3: There will be a difference in student achievement levels of schools with high ratings of their principal's leadership practices in the area of Challenging the Process when compared to schools with low ratings of their principal's leadership practices in the area of Challenging the Process.

The mean percentage of students from low leadership practice schools in the Challenging the Process area who scored in the proficient and advanced range in Mathematics was 70.13%. The mean percentage of students from high leadership practice schools in the Challenging the Process area who scored in the proficient and advanced range in Mathematics was 74.00%. The one-way ANOVA yielded a p-value of .519 when performing the principal leadership practice high low split analysis that considered the difference between the Mathematics achievement

levels of high leadership practice schools in the Challenging the Process area and the Mathematics achievement levels of low leadership practice schools in this leadership area. The .519 p-value did not reach the *a priori* level of $<.05$. The statistical analysis revealed that there was no statistically significant difference between the Mathematics achievement levels of the students in schools with high ratings of their principal's leadership practices in the area of Challenging the Process when compared to the Mathematics achievement levels of the students in schools with low ratings of their principal's leadership practices in the area of Challenging the Process. Therefore, the null hypothesis was not rejected. Hypothesis 3.3, as it relates to Mathematics achievement levels, was not supported.

The mean percentage of students from low leadership practice schools in the Challenging the Process area who scored in the proficient and advanced range in Reading was 86.38%. The mean percentage of students from high leadership practice schools in the Challenging the Process area who scored in the proficient and advanced range in Reading was 85.55%. The one-way ANOVA yielded a p-value of .806 when performing the principal leadership practice high low split analysis that considered the difference between the Reading achievement levels of high leadership practice schools in the Challenging the Process area and the Reading achievement levels of low leadership practice schools in this leadership area. The .806 p-value did not reach the *a priori* level of $<.05$. The statistical analysis revealed that there was no statistically significant difference between the Reading achievement levels of the students in schools with high ratings of their principal's leadership practices in the area of Challenging the Process when compared to the Reading achievement levels of the students in schools with low ratings of their principal's leadership practices in the area of Challenging the Process. Therefore, the null

hypothesis was not rejected. Hypothesis 3.3, as it relates to Mathematics achievement levels, was not supported.

Hypothesis 3.4: There will be a difference in student achievement levels of schools with high ratings of their principal's leadership practices in the area of Enabling Others to Act when compared to schools with low ratings of their principal's leadership practices in the area of Enabling Others to Act.

The mean percentage of students from low leadership practice schools in the Enabling Others to Act area who scored in the proficient and advanced range in Mathematics was 69.30%. The mean percentage of students from high leadership practice schools in the Enabling Others to Act area who scored in the proficient and advanced range in Mathematics was 67.67%. The one-way ANOVA yielded a p-value of .789 when performing the principal leadership practice high low split analysis that considered the difference between the Mathematics achievement levels of high leadership practice schools in the Enabling Others to Act area and the Mathematics achievement levels of low leadership practice schools in this leadership area. The .789 p-value did not reach the *a priori* level of $<.05$. The statistical analysis revealed that there was no statistically significant difference between the Mathematics achievement levels of the students in schools with high ratings of their principal's leadership practices in the area of Enabling Others to Act when compared to the Mathematics achievement levels of the students in schools with low ratings of their principal's leadership practices in the area of Enabling Others to Act. Therefore, the null hypothesis was not rejected. Hypothesis 3.4, as it relates to Mathematics achievement levels, was not supported.

The mean percentage of students from low leadership practice schools in the Enabling Others to Act area who scored in the proficient and advanced range in Reading was 82.60%.

The mean percentage of students from high leadership practice schools in the Enabling Others to Act area who scored in the proficient and advanced range in Reading was 82.78%. The one-way ANOVA yielded a p-value of .966 when performing the principal leadership practice high low split analysis that considered the difference between the Reading achievement levels of high leadership practice schools in the Enabling Others to Act area and the Reading achievement levels of low leadership practice schools in this leadership area. The .966 p-value did not reach the *a priori* level of $<.05$. The statistical analysis revealed that there was no statistically significant difference between the Reading achievement levels of the students in schools with high ratings of their principal's leadership practices in the area of Enabling Others to Act when compared to the Reading achievement levels of the students in schools with low ratings of their principal's leadership practices in the area of Enabling Others to Act. Therefore, the null hypothesis was not rejected. Hypothesis 3.4, as it relates to Reading achievement levels, was not supported.

Hypothesis 3.5: There will be a difference in student achievement levels of schools with high ratings of their principal's leadership practices in the area of Encouraging the Heart when compared to schools with low ratings of their principal's leadership practices in the area of Encouraging the Heart.

The mean percentage of students from low leadership practice schools in the Encouraging the Heart area who scored in the proficient and advanced range in Mathematics was 71.40%. The mean percentage of students from high leadership practice schools in the Encouraging the Heart area who scored in the proficient and advanced range in Mathematics was 77.50%. The one-way ANOVA yielded a p-value of .227 when performing the principal leadership practice high low split analysis that considered the difference between the Mathematics achievement

levels of high leadership practice schools in the Encouraging the Heart area and the Mathematics achievement levels of low leadership practice schools in this leadership area. The .227 p-value did not reach the *a priori* level of $<.05$. The statistical analysis revealed that there was no statistically significant difference between the Mathematics achievement levels of the students in schools with high ratings of their principal's leadership practices in the area of Encouraging the Heart when compared to the Mathematics achievement levels of the students in schools with low ratings of their principal's leadership practices in the area of Encouraging the Heart. Therefore, the null hypothesis was not rejected. Hypothesis 3.5, as it relates to Mathematics achievement levels, was not supported.

The mean percentage of students from low leadership practice schools in the Encouraging the Heart area who scored in the proficient and advanced range in Reading was 82.20%. The mean percentage of students from high leadership practice schools in the Encouraging the Heart area who scored in the proficient and advanced range in Reading was 86.50%. The one-way ANOVA yielded a p-value of .259 when performing the principal leadership practice high low split analysis that considered the difference between the Reading achievement levels of high leadership practice schools in the Encouraging the Heart area and the Reading achievement levels of low leadership practice schools in this leadership area. The .259 p-value did not reach the *a priori* level of $<.05$. The statistical analysis revealed that there was no statistically significant difference between the Reading achievement levels of the students in schools with high ratings of their principal's leadership practices in the area of Encouraging the Heart when compared to the Reading achievement levels of the students in schools with low ratings of their principal's leadership practices in the area of Encouraging the Heart. Therefore, the null hypothesis was not rejected. Hypothesis 3.5, as it relates to Reading achievement levels, was not

supported. The following section considers additional information garnered from the data collected on values congruence, principal leadership practices and student achievement.

Individual Teacher/Principal Values Congruence and Principal Leadership Practices

Additional analyses of the data led to the consideration of values congruence between individual teachers and their principal and the relationship between this individual congruence and individual teacher's perceptions of their principal's leadership practices. Each teacher who was a part of the 62 schools that had at least six teachers respond to the survey was included in the sample. This additional analysis was done to compare the correlation coefficients of individual teacher/principal values congruence and teacher's individual perceptions of their principal's leadership practices with the previous correlation coefficients which were calculated to determine the existence of a relationship between the collective work values of the teaching staff and their collective perceptions of their principal's leadership practices. A total of 514 teachers were included in this sample.

Individual teacher value rankings were correlated to their principal's value ranking by calculating a Spearman *rho* correlation coefficient which determined the strength of values congruence between the individual teacher and his/her principal. The principal leadership practices data was derived from the teacher's responses on the Leadership Practice Inventory (Kouzes & Posner, 2003b) in each of the five leadership practices that were measured.

A Pearson product-moment (Pearson *r*) correlation coefficient between teacher/principal values congruence (as measured by a Spearman *rho* correlation coefficient) and the principal's leadership practice scores in each of the five areas was calculated to determine the existence of a relationship. A two-tailed test of significance was also calculated to determine the statistical significance of the relationship. A statistically significant relationship was determined *a priori*

as being a p-value of $<.05$. The results of this statistical analysis between individual values congruence and individual teacher's perceptions of their principal's leadership practice within each of the five leadership areas are discussed in the next sections. Also included is a comparison between the correlation coefficients of individual teacher/principal values congruence and teacher's individual perceptions of their principal's leadership practices and the previous correlation coefficients which were calculated to determine the existence of the relationship between the collective work values of the teaching staff and their collective perceptions of their principal's leadership practices. Table 8 contains the data related to the comparison of the results of this statistical analysis.

Table 8

Comparison of Correlations of Individual Teacher/Principal Values Congruence and Collective Teaching Staff/Principal Values Congruence and the Five Leadership Practices

	Values Congruence and Modeling the Way	Values Congruence and Inspiring a Shared Vision	Values Congruence and Challenging the Process	Values Congruence and Enabling Others to Act	Values Congruence and Encouraging the Heart
Pearson <i>r</i> correlation coefficient of individual teacher/principal values congruence and individual teacher perception of their principal's leadership practices.	.022	.000	.008	.009	.069
P-value of individual teacher/principal values congruence and individual teacher perception of their principal's leadership practices.	.621	.988	.855	.842	.116
Pearson <i>r</i> correlation coefficient of collective teaching staff/principal values congruence and collective teaching staff perception of their principal's leadership practices.	.001	-.102	-.066	-.020	-.018
P-Value of collective teaching staff/principal values congruence and collective teaching staff perception of their principal's leadership practices. (p-value)	.993	.432	.609	.875	.890

Individual Teacher/Principal Values Congruence and Modeling the Way

The statistical analysis of the relationship between individual teacher/principal values congruence and the individual teacher's perception of their principal's leadership practice in the Modeling the Way area demonstrated a .022 Pearson *r* correlation coefficient. A two tailed test of significance produced a p-value of .621 which did not meet the *a priori* level of <.05.

Therefore, the relationship between individual teacher/principal values congruence and the

individual teacher's perception of their principal's leadership practices in the Modeling the Way area was not statistically significant.

Previous statistical analyses between values congruence and the Modeling the Way leadership practice, when considering the collective work values and perceptions of entire staffs, also demonstrated a lack of statistical significance. These analyses revealed a .001 Pearson r correlation coefficient while the two tailed test of significance produced a p-value of .993 which did not meet the *a priori* level of $<.05$.

Individual Teacher/Principal Values Congruence and Inspiring a Shared Vision

The statistical analysis of the relationship between individual teacher/principal values congruence and the individual teacher's perception of their principal's leadership practice in the Inspiring a Shared Vision area demonstrated a .000 Pearson r correlation coefficient. A two tailed test of significance produced a p-value of .988 which did not meet the *a priori* level of $<.05$. Therefore, the relationship between individual teacher/principal values congruence and the individual teacher's perception of their principal's leadership practices in the Inspiring a Shared Vision area was not statistically significant.

Previous statistical analyses between values congruence and the Inspiring a Shared Vision leadership practice, when considering the collective work values and perceptions of entire staffs, also demonstrated a lack of statistical significance. These analyses revealed a -.102 Pearson r correlation coefficient while the two tailed test of significance produced a p-value of .432 which did not meet the *a priori* level of $<.05$.

Individual Teacher/Principal Values Congruence and Challenging the Process

The statistical analysis of the relationship between individual teacher/principal values congruence and the individual teacher's perception of their principal's leadership practice in the Challenging the Process area demonstrated a .008 Pearson *r* correlation coefficient. A two tailed test of significance produced a p-value of .855 which did not meet the *a priori* level of <.05. Therefore, the relationship between individual teacher/principal values congruence and the individual teacher's perception of their principal's leadership practices in the Challenging the Process area was not statistically significant.

Previous statistical analyses between values congruence and the Challenging the Way leadership practice, when considering the collective work values and perceptions of entire staffs, also demonstrated a lack of statistical significance. These analyses revealed a -.066 Pearson *r* correlation coefficient while the two tailed test of significance produced a p-value of .609 which did not meet the *a priori* level of <.05.

Individual Teacher/Principal Values Congruence and Enabling Others to Act

The statistical analysis of the relationship between individual teacher/principal values congruence and the individual teacher's perception of their principal's leadership practice in the Enabling Others to Act area demonstrated a .009 Pearson *r* correlation coefficient. A two tailed test of significance produced a p-value of .842 which did not meet the *a priori* level of <.05. Therefore, the relationship between individual teacher/principal values congruence and the individual teacher's perception of their principal's leadership practices in the Enabling Others to Act area was not statistically significant.

Previous statistical analyses between values congruence and the Enabling Others to Act leadership practice, when considering the collective work values and perceptions of entire staffs,

also demonstrated a lack of statistical significance. These analyses revealed a $-.020$ Pearson r correlation coefficient while the two tailed test of significance produced a p-value of $.875$ which did not meet the *a priori* level of $<.05$.

Individual Teacher/Principal Values Congruence and Encouraging the Heart

The statistical analysis of the relationship between individual teacher/principal values congruence and the individual teacher's perception of their principal's leadership practice in the Encouraging the Heart area demonstrated a $.069$ Pearson r correlation coefficient. A two tailed test of significance produced a p-value of $.116$ which did not meet the *a priori* level of $<.05$. Therefore, the relationship between individual teacher/principal values congruence and the individual teacher's perception of their principal's leadership practices in the Encouraging the Heart area was not statistically significant.

Previous statistical analyses between values congruence and the Encouraging the Heart leadership practice, when considering the collective work values and perceptions of entire staffs, also demonstrated a lack of statistical significance. These analyses revealed a $-.018$ Pearson r correlation coefficient while the two tailed test of significance produced a p-value of $.890$ which did not meet the *a priori* level of $<.05$.

Summary of the results related to Individual Teacher/ Principal Values Congruence and Principal Leadership Practices

Values congruence was independent of principal leadership practices in each of the five areas when considering this relationship as it related to individual teachers and their principals. This independence was also present when considering the collective work values of teaching staffs and their collective perceptions of their principal's leadership practices in each of the five areas. That is, the relationship between teacher/principal values congruence and teacher

perceptions of their principal's leadership practices was not statistically significant when considering both individual and collective results.

Values Congruence and Student Achievement

Research Question Two examined the relationship between teacher/principal values congruence and student achievement levels. The research design required the determination of schools that were considered to be high congruence schools and those that were considered to be low congruence schools. To make this determination, an analysis was conducted that identified teacher/principal values congruence scores that fell one standard deviation above and one standard deviation below the mean values congruence score. Schools with values congruence scores one standard deviation above the mean were considered high congruence schools. Schools with values congruence scores one standard deviation below the mean were considered low congruence schools. A One-way Analysis of Variance (ANOVA) was conducted to determine whether significant differences existed in the mean percentages of fourth grade Math and Reading achievement levels of the students in those schools. The Math and Reading achievement levels were based upon the percentage of students who scored in the proficient or advanced range on Montana's 2009 Criterion Referenced Test (CRT). The achievement data used for this portion of the data analysis were obtained through Montana's Office of Public Instruction website at: www.opi.mt.gov.

Further exploration of the data collected related to question number two led to an additional analysis of the available data which considered the relationship between teacher/principal values congruence and student achievement levels using a Pearson r correlation. A Pearson r correlation coefficient was calculated to determine the existence of a relationship between teacher/principal values congruence and student achievement levels. A

two-tailed test of significance was also run to determine the statistical significance of the relationship. A significant relationship was determined *a priori* as being a p-value of $<.05$. The results of this additional statistical analysis are provided in the section entitled: *Values Congruence and Student Achievement in Mathematics and Reading*. Table 9 contains the data resulting from the statistical analysis related to the correlation of values congruence and student Reading and Mathematics achievement levels.

Table 9		
<i>Correlation of Teacher/Principal Values Congruence and Mathematics and Reading Achievement Levels</i>		
	Values Congruence and 4 th Grade Student Mathematics Achievement Levels	Values Congruence and 4 th Grade Student Reading Achievement Levels
Pearson <i>r</i> Correlation Coefficient	.028	.183
Two-tailed test of Significance (p-value)	.835	.166

Values Congruence and Student Achievement in Mathematics and Reading

The results of the statistical analysis related to the relationship between values congruence and student mathematics achievement levels demonstrated a Pearson *r* correlation coefficient of .028. A p-value of .835 was produced when considering the relationship between teacher/principal values congruence and students' Mathematics achievement levels. The p-value of .835 did not meet the *a priori* level of $<.05$. Therefore, the relationship between teacher/principal values congruence and students' Mathematics achievement levels was not statistically significant.

A Pearson *r* correlation coefficient of .183 with a p-value of .166 was calculated when considering the relationship between teacher/principal values congruence and students' Reading

achievement levels. The p-value of .183 did not meet the *a priori* level of $<.05$. Therefore, the relationship between teacher/principal values congruence and students' Reading achievement levels was also not statistically significant.

Summary of the Results Related to the Correlation of Values Congruence and Student Achievement in Reading and Mathematics

These results revealed that values congruence is independent of student achievement levels in Mathematics and Reading. That is, the relationship between values congruence and student achievement was slight and statistically non-significant.

Summary of Chapter Four

This chapter began with a description of each of the research questions answered in this study. This section included each of the hypotheses related to each of the research questions. Chapter Four continued with a description of the data collection procedures used in this study.

The results of the statistical analyses regarding the relationship between teacher/principal values congruence and teachers' perceptions of their principal's leadership practices were included in the section related to Research Question One. The correlation statistics and significance levels calculated for each of the five hypotheses related to Research Question One were presented. The Pearson *r* correlation coefficients calculated ranged from $-.102$ to $.001$. The p-values calculated in the tests of significance ranged from $.432$ to $.993$.

The results related to the difference of students' Mathematics and Reading achievement levels in low congruence and high congruence schools were included in the section related to Research Question Two. The statistical analyses for this portion of the study were conducted using a one-way Analysis of Variance (ANOVA). The p-values calculated were $.760$ for Mathematics achievement and $.316$ for Reading achievement.

The results related to the difference between the Mathematics and Reading achievement levels of low leadership practice schools and high leadership practice schools in each of the five leadership areas were presented in the section on Research Question Three. The statistical analyses for this portion of the study were conducted using a one-way ANOVA. The p-values calculated ranged from .227 to .789 for Mathematics and from .259 to .966 for Reading.

Additional analyses of the data led to the consideration of values congruence between individual teachers and their principal and the relationship between this individual congruence and individual teacher's perceptions of their principal's leadership practices. The correlation statistics and significance levels calculated for each of the five leadership practices were presented. The Pearson *r* correlation coefficients calculated ranged from .000 to .069. The p-values calculated in the test of significance ranged from .116 to .988. These individual correlation coefficients and significance levels were then compared to the results of the previous statistical analyses which considered the collective values of teaching staffs and their collective perceptions of their principal's leadership practices. The relationships between teacher/principal values congruence and teacher perceptions of their principal leadership practice when considering both individual and collective results were similar.

Finally, further exploration of the data led to an additional statistical analysis which considered the relationship between teacher/principal values congruence and student achievement levels using a Pearson *r* correlation. A Pearson *r* correlation coefficient was calculated to determine the existence of a relationship between teacher/principal values congruence and student achievement levels. The Pearson *r* correlation coefficients calculated were .028 for Mathematics achievement and .183 for Reading achievement. The p-values

calculated in the tests of significance were .835 for Mathematics achievement and .166 for Reading achievement.

Chapter Five presents conclusions which are based upon the results of the statistical analyses found in Chapter Four. The conclusions related to Research Questions One, Two and Three are presented. These research questions explored: (a) values congruence and teachers' perceptions of their principal's leadership practices, (b) values congruence and student Mathematics and Reading achievement levels, and (c) teachers' perceptions of their principal's leadership practices and student Mathematics and Reading achievement levels. Conclusions related to the additional data analyses with regard to individual teacher/principal values congruence and individual teacher's perceptions of their principal's leadership practices are also shared. Additionally, conclusions related to the correlational analysis of values congruence and student achievement are delineated. The final chapter also provides recommendations for additional research and finally, recommendations for practitioners.

CHAPTER FIVE - CONCLUSIONS

The purpose of this quantitative study was to examine the relationship between principal and teacher values congruence and perceived principal leadership practices. Additionally, this study considered the relationship between values congruence, principal leadership practices, and student achievement.

The following chapter provides conclusions from the data analyses that took place subsequent to the collection of the data outlined in the research design. The chapter contains the findings related to each of the three research questions and also provides information on additional data analyses. Recommendations for additional research and recommendations for practitioners are also included in this chapter.

Research Question One

The first research question explored in this study considered the relationship between teacher/principal values congruence and teachers' perceptions of their principal's leadership practices. The data analyses included a correlational analysis and a test of statistical significance. Research Question One is stated below and is followed by an explanation of the conclusions from the statistical analyses related to this question. A summary of the conclusions specific to the five null hypotheses related to Research Question One are also included.

Research Question One: Is a congruence of values between a building principal and the teachers they lead related to the teachers' perception of their building principal's leadership practices?

The statistical analysis of the data revealed that teacher/principal values congruence was independent of principal leadership practices when considering this relationship as it relates to teaching staffs' perceptions of their principal's leadership practices. That is, the relationship

between values congruence and teachers' perceptions of the building principal's leadership practices were slight and statistically not significant. This independence was clearly evident in each of the five leadership practice areas measured in this study: (a) Modeling the Way, (b) Inspiring a Shared Vision, (c) Challenging the Process, (d) Enabling Others to Act, and (e) Encouraging the Heart. Therefore, the answer to research question one: "Is a congruence of values between a building principal and the teachers they lead related to the teachers' perception of their building principal's leadership practices?" is that there is not a statistically significant relationship between values congruence and any of the five leadership practices.

Null Hypotheses Related to Research Question One

The first through fifth null hypotheses related to Research Question One explored the relationship between teacher/principal values congruence and teachers' perceptions of their principal's leadership practices. Each null hypothesis explored one of the five leadership practice areas measured by the Leadership Practice (Kouzes & Posner, 2003b). A Pearson product-moment correlation statistical analysis was conducted to reject or not reject the five null hypotheses related to Research Question One. A Pearson r correlation coefficient between teacher/principal values congruence and the principal's leadership practice scores in each of the five leadership practice areas was calculated to determine the existence of a relationship. A two-tailed test of significance was also run to determine the statistical significance of the relationship between teacher/principal values congruence and teachers' perceptions of their principal's leadership practices in each of the five areas. A significance level of $<.05$ was determined *a priori* as the level required to determine statistical significance.

The statistical analyses produced Pearson r correlation coefficients that ranged from $-.102$ to $.001$. The two tailed tests of significance yielded p-values that ranged from $.432$ to $.993$ which

did not reach the a prior level of $<.05$. There is no statistically significant relationship between teacher/principal values congruence and each of the five principal leadership practices.

Therefore, each of the five null hypotheses related to Research Question One were not rejected.

Research Question Two

The second research question explored in this study considered whether or not there was a difference in the student achievement levels of students in schools with high teacher/principal values congruence when compared to schools with low teacher/principal values congruence.

The data analyses included a one-way analysis of variance (ANOVA). Research Question Two is stated below and is followed by an explanation of the conclusions from the statistical analyses related to this question. A summary of the conclusions specific to the two null hypotheses related to Research Question Two are also included.

Research Question Two: Is there a difference in the student achievement levels of schools with high teacher/principal values congruence when compared to those with low values congruence?

The results related to Research Question Two demonstrate that there was a slight but not statistically significant difference in student Reading and Mathematics achievement levels in schools with high teacher/principal values congruence when compared to schools with low teacher/principal values congruence. That is, there was no statistically significant difference in the Math and Reading achievement levels between high and low congruence schools. Therefore, the answer to Research Question Two: “Is there a difference in student achievement levels of schools with high values congruence when compared to those with low values congruence?” is yes, there is a difference. However, the difference did not rise to the level of statistical

significance. A statistically significant difference was set *a priori* as being a p-value of $<.05$ as calculated by an Analysis of Variance (ANOVA).

Null Hypotheses Related to Research Question Two

The sixth and seventh null hypotheses are related to Research Question Two. The sixth null hypothesis considered the difference in the Mathematics achievement levels of fourth graders in schools identified as having high teacher/principal values congruence when compared to the Mathematics achievement levels of students in schools identified as having low teacher/principal values congruence. The seventh null hypothesis considered the difference in the Reading achievement levels of fourth graders in schools identified as having high teacher/principal values congruence when compared to the Reading achievement levels of students in schools identified as having low teacher/principal values congruence.

The statistical analyses that were conducted first determined schools with teacher/principal values congruence scores that fell one standard deviation above and one standard deviation below the mean values congruence score. Schools with values congruence scores one standard deviation above the mean were considered high congruence schools. Schools with values congruence scores one standard deviation below the mean were considered low congruence schools. A One-way Analysis of Variance (ANOVA) was then conducted to determine if there was a statistically significant difference in fourth grade Mathematics and Reading student achievement levels in schools with high teacher/principal values congruence when compared to those with low teacher/principal values congruence. A statistically significant difference was set *a priori* as $<.05$.

The ANOVA produced a p-value of .760 when calculated for Mathematics achievement levels and produced a p-value of .316 when calculated for Reading achievement levels. Neither

of these p-values met the *a priori* level of $<.05$. There is no statistically significant difference in the Mathematics or Reading student achievement levels of schools with high teacher/principal values congruence when compared to those with low teacher/principal values congruence. Therefore, the two null hypotheses related to Research Question Two were not rejected.

Research Question Three

The third research question explored in this study considered whether or not there was a difference in the student achievement levels of students in schools with high ratings of their principal's leadership practices when compared to schools with low ratings of their principal's leadership practices. The data analyses included a one-way analysis of variance (ANOVA). Research Question Three is stated below and is followed by an explanation of the conclusions from the statistical analyses related to this question. A summary of the conclusions specific to the five null hypotheses related to Research Question Three are also included.

Research Question Three: Is there a difference in the student achievement levels of schools with high ratings of their principal's leadership practices when compared to schools with low ratings of their principal's leadership practices?

A statistical analysis of the data revealed that student Mathematics and Reading achievement levels were independent of teacher's ratings of their principal's leadership practices. The data analysis clearly demonstrated that schools with high teacher ratings of their principal's leadership practices did not have statistically significantly different Mathematics and Reading student achievement levels than schools with low teacher ratings of their principal's leadership practices. Therefore, the answer to research question three: "Is there a difference in student achievement levels of schools with high ratings of their principal's leadership practices when compared to schools with low ratings of their principal's leadership practices?" is yes, there is a

slight difference. However, the difference did not rise to the level of statistical significance. A statistically significant difference was set *a priori* as a p-value of $<.05$ as calculated by a one-way Analysis of Variance (ANOVA).

Null Hypotheses Related to Research Question Three

The eight through twelfth null hypotheses are related to Research Question Three. Each of these null hypotheses considered the difference in the Mathematics and Reading achievement levels of fourth graders in schools identified as having high teacher ratings of their principal's leadership practices when compared to the Mathematics and Reading achievement levels of students in schools identified as having low teacher ratings of their principal's leadership practices. Each null hypothesis explored one of the five leadership practice areas measured by the Leadership Practice Inventory (Kouzes & Posner, 2003b).

A statistical analysis was conducted that determined principal leadership practice scores in each of the five areas that fell one standard deviation above and one standard deviation below the mean principal leadership practice score in each of the five areas. Schools with principal leadership practice scores one standard deviation above the mean were considered to be high leadership practice schools. Schools with principal leadership practice scores one standard deviation below the mean were considered to be low leadership practice schools. This determination was made within each of the five leadership practice areas. A One-way Analysis of Variance (ANOVA) was conducted to determine the existence of a statistically significant difference in student achievement levels in high leadership practice schools when compared to low leadership practice schools. A statistically significant difference was set *a priori* as being a p-value of $<.05$.

The ANOVA produced p-values between .227 and .789 when calculated for Mathematics achievement levels and each of the five leadership practice areas. The ANOVA produced p-values between .259 and .966 when calculated for Reading achievement levels and each of the five leadership practice areas. None of the p-values calculated met the *a priori* level of $<.05$. There was no statistically significant difference in the Mathematics or Reading student achievement levels of high leadership practice schools when compared to the Mathematics or Reading student achievement levels of low leadership practice schools. Therefore, the five null hypotheses related to Research Question Three were not rejected.

Other Findings

Other results gathered from additional analysis of the data suggest that values congruence was independent of principal leadership practices even when considering this relationship as it relates to individual teachers and their perceptions of their principal's leadership practices. The statistical analysis between individual teacher/principal values congruence and individual teacher's perception of his/her principal's leadership practice of Modeling the Way produced a Pearson *r* correlation coefficient of .022 with a significance level of .621. The statistical analysis between individual teacher/principal values congruence and individual teacher's perception of his/her principal's leadership practice of Inspiring a Shared Vision produced a Pearson *r* correlation coefficient of .000 with a significance level of .988. The statistical analysis between individual teacher/principal values congruence and individual teacher's perception of his/her principal's leadership practice of Challenging the Process produced a Pearson *r* correlation coefficient of .008 with a significance level of .855. The statistical analysis between individual teacher/principal values congruence and individual teacher's perception of his/her principal's leadership practice of Enabling Others to Act produced a Pearson *r* correlation coefficient of

.009 with a significance level of .842. The statistical analysis between individual teacher/principal values congruence and individual teacher's perception of his/her principal's leadership practice of Encouraging the Heart produced a Pearson r correlation coefficient of .069 with a significance level of .116. The relationship between values congruence and individual teachers perceptions of their building principal's leadership practices in each of the five leadership categories were slight and not statistically significant. When comparing these individual results to the cumulative results garnered from entire staffs, there were only small differences in the correlation coefficients. The differences between the correlation coefficients in each of the five leadership practice areas ranged from .021 to .102.

Further statistical analysis revealed no statistically significant relationship between principal/teacher values congruence and Mathematics achievement levels. The statistical analysis between teacher/principal values congruence and Mathematics achievement levels produced a Pearson r correlation coefficient of .028 with a significance level of .835. The statistical analysis also revealed no statistically significant relationship between principal/teacher values congruence and Reading achievement levels. The statistical analysis between teacher/principal values congruence and reading achievement levels produced a Pearson r correlation coefficient of .183 with a significance level of .166.

Summary of Conclusions

The analysis of the data revealed that teacher/principal values congruence is independent of principal leadership practices. The relationship between teacher/principal values congruence and teacher perceptions of their building principal's leadership practices were slight and not statistically significant.

Analyses of the data also revealed that teacher/principal values congruence was independent of the Mathematics and Reading achievement levels of the Fourth grade students attending the schools included in the data analysis. There was no statistically significant difference in student Mathematics and Reading achievement scores in schools where there is high teacher/principal values congruence when compared to schools in which there is low teacher/principal values congruence.

A similar conclusion can be drawn when considering the relationship between teacher's perceptions of their principal's leadership practices and the Reading and Mathematics achievement levels of the Fourth grade students in the schools included in the analyses. There were no statistically significant differences in the student achievement levels of students attending schools in which the teachers' perceive their principals leadership practices to be high when compared to those in which the teachers' perceive their principal's leadership practices to be low.

The results of this study suggest that a principal who is working with a staff that may hold work values divergent from the principal's can still create circumstances in which teachers rate their leadership practices highly. The results of the data analyses revealed that even when values congruence between the principal and the teacher is absent, the principal still has opportunity to build a professional relationship that is conducive to an environment in which teachers' perceptions of their leadership practices are high.

It is also evident that student achievement is not dependent upon values congruence between teachers and their principal. The data analyses suggest that there is no statistically significant relationship between teachers' perceptions of their principal's leadership practices and student achievement levels. Other factors have a greater impact upon the success of the

school when this success is measured by student achievement levels. These factors are found in a subsequent section entitled: Recommendations for Practitioners.

Findings Linked to the Literature

On the surface it appears that the findings of this study conflict with some of the research noted in Chapter Two. After reviewing and reflecting upon this literature base, it appears that the majority of the reviewed research pertaining to education revealed the importance of the principal understanding the values held by their staff. Additionally, there has been very little written on values congruence in an educational setting and therefore, the bulk of the existing values congruence research reviewed was related to a business setting.

Specifically related to education, Leonard (1999b) was cognizant of the divergent values that are represented within the staff, students, and community of a school. She recognized the sensitivity the school leader must bring to this realization. Hodgkinson (1999) also wrote of the complex nature of educational leadership and values and the importance of the administrator understanding and reacting to the divergent values among his/her staff.

The findings of the research presented in this dissertation are somewhat consistent with the findings of Weiss (1979) who studied subordinate/leader values similarity and its relation to the subordinate's perception of their leader's behavior in three areas; (a) Consideration, (b) Competence, and (c) Success within the organization. In his study, he found supervisor consideration to be the only area, of the three, that was positively correlated to values congruence. The correlation coefficient calculated for the Consideration area was .29. The Competence area produced a correlation coefficient of -.01 while the Success area produced a correlation coefficient of .00. These results reflect little and no correlation. These results are similar to those found in this study's statistical analyses of the relationship between

teacher/principal values congruence and teacher perceptions of their principal's leadership practices.

The findings of this study are also partly consistent with the findings of Ingle and Munsterman (1977). In their 1977 study on the relationship of values to group satisfaction in an educational setting, Ingle and Munsterman (1977) found that congruence between the principal and his staff had no predicting effect on organizational satisfaction. Ingle and Munsterman were not exploring teachers' perceptions of their principal's leadership practices as it relates to values congruence. Rather, they were considering the relationship between values congruence and school morale. The following section contains recommendations for the further study of values in an educational setting.

Recommendations for Further Study

Future studies should consider the researcher's choice of the Comparative Emphasis Scale as the values measurement tool. This tool was created by practitioners working in the University of South Carolina's Business School and has been used primarily in a business setting. This tool measured the four work values that Meglino and Ravlin (1986) identified in their research as being operative in the workplace. The identification and measurement of educational values specific to the role and purpose of the educator may provide more appropriate information that is more precisely related to an educational setting.

Additionally, the Leadership Practice Inventory is a tool in which general leadership practices are measured. The use of a tool that is more specific to the leadership practices of the school leader will be of additional benefit to the educational researcher.

It will also be of worth to consider values congruence among a principal and his/her superintendent to determine if there is a relationship between principal/superintendent values

congruence and school and district effectiveness. The exploration of superintendent and school board values congruence and its relationship to district effectiveness will also provide additional insight as districts seek to improve upon the education provided its students.

The results of this research related to principal leadership practices and student achievement levels revealed the absence of a relationship between student achievement levels and teachers' perceptions of their principal's leadership practices. This contradicts the findings of Marzano et al. (2005) and Cotton (2003) who conducted separate meta-analyses and concluded that teachers' perceptions of their principal's leadership effectiveness are related to student achievement levels. The conflicting results suggest that this portion of the research pertaining to the relationship between the leader's effectiveness and student achievement requires further, in depth, study which might include a research design that includes: (a) student achievement data from multiple assessment sources, (b) student achievement data from multiple grade levels, and (c) student achievement data that spans a longer period of time than was required in this study.

Future studies that consider other factors that affect the teacher/principal relationship will also be valuable to the educational researcher. With regard to future research on principal leadership and student learning, Hallinger and Heck (1996) suggested that educational researchers focus upon areas such as: school mission, teacher expectations, and school culture.

Recommendations for Practitioners

The statistical analyses in this study revealed that values congruence between teachers and principals is not an area that has a statistically significant relationship to teachers' perceptions of their principal's leadership practices. These analyses also revealed that teacher/principal values congruence has no statistically significant relationship to student

achievement levels. Therefore, it is best for principals to focus their efforts on practices that research has revealed to have a significant impact upon student achievement levels. Numerous studies (e.g. Brookover & Lezotte, 1979; Cotton , 2003; Danielsen, 2002; DuFour & Eacker, 1998; DuFour et al., 2004; Hallinger & Heck, 1996; Hoy & Ferguson, 1985; Hoy & Clover, 1985; Hoy & Miskel, 2008; Leithwood, 1994; Marzano et al., 2003, 2005; Schmoker, 1999, 2006; Sergiovanni, 2000) provide the basis from which we can understand how the school leader can effectively lead their schools towards increased student achievement.

The existing research base focuses the school leader on creating practices that are conducive to building professional teacher/principal relationships rooted in the examination of student data with a constant eye upon adjusting instruction that meets the diverse needs of each individual learner (DuFour & Eacker, 1998; Schmoker, 1999, 2006). A focus upon assuring teachers' utilization of instructional practices that have been found to impact student achievement is also essential (Marzano et al., 2003, 2005; Danielsen, 2002). The creation of an environment in which student achievement is the focus, while recognizing the important role that relationship building has in affecting this environment, is an additional essential ingredient (Sergiovanni, 2000). Marzano (2005) has identified Three Leverage Points that, if focused upon by schools, have been found to be related to higher student achievement levels. These three leverage points are: (a) Building Background Knowledge, (b) Providing Formative Feedback and (c) Ensuring Effective Teaching. It is advisable that principals focus their efforts in these areas rather than upon seeking to effect the level of values congruence that might exist between the principal and his/her staff.

Based upon the findings of this study and the review of the literature found in Chapter Two, it also appears that the principal's understanding of values and his/her subsequent

sensitivity to the divergent values of their teaching staff may be more essential to the success of the principal than the presence of teacher/principal values congruence. The principal that honors, accepts and reacts to this may have a better opportunity to be perceived as effective.

Values effect human relationship (Kluckhohn, 1951; Rokeach 1973, 1979) but as demonstrated by the results of this research, teacher/principal values congruence is not related to teachers' perceptions of their principal's leadership practices. Additionally, teacher/principal values congruence is not related to a school's student achievement levels. Principals would be well served to focus their efforts on other factors that have been shown to improve student achievement instead of seeking to affect the congruence between their work values and the staff's work values. Ingle and Munsterman (1977) expressed a similar sentiment with regards to the selection and placement of elementary school principals, "Elementary school principals should be hired and placed according to their administrative skill rather than whether they fit the value configuration of a community or staff" (p. 12).

Reflection on the Study

The results of the statistical analyses conducted in this research are quite conclusive. Teacher/Principal values congruence has no statistically significant relationship with teacher's perceptions of their principal's leadership practices or with their school's student achievement levels. These findings, though contrary to what intuitively could be expected, hold valuable information for the educational leader seeking to create an environment in which teachers hold positive perceptions of their principal's leadership practices while producing high student achievement levels. It is evident that both of these aims can still be achieved when teachers and their principal hold divergent work values.

The findings of this research remove the principal's ability to rationalize that negative teacher perceptions of their leadership practice may be due to a lack of values congruence. The statistical analyses clearly demonstrated that teacher/principal values congruence bears little relationship to teachers' perceptions of their principal's leadership practices.

The results of this research also eliminate the possibility that low student achievement levels are due to differing work values orientations which might keep teachers and principals from being able to effectively work together to create an environment in which students achieve at high levels. The statistical analyses in this study clearly demonstrated that teacher/principal values congruence is not a requisite factor for schools to produce high student achievement levels.

The results of the statistical analyses from this research remove teacher/principal values congruence as a variable that may influence the effectiveness of their school, at least when effectiveness is defined in terms of teachers' perceptions of their principal's leadership practices and student achievement. Divergent work values between teachers and principals are not a factor that negatively influences their school's success. The lack of teacher/principal values congruence is not a barrier that impedes a school's ability to improve upon the quality of the education provided its students. It is encouraging to know that, even though the teacher and principal may hold differing work values, there is still ample opportunity for them to work effectively together to improve student achievement.

The principal's understanding of the values held by his/her staff may be what is important, not whether or not the principal's values are congruent with those of the teachers they lead. Perhaps what is more critical to the principal is his/her sensitivity to the fact that those within the school possess divergent values and that these values effect individual perceptions and

actions. The leader that understands, accepts and reacts to these differences may have a better opportunity to be perceived as effective. As a result of the findings from this study, future research may be appropriately shifted from a focus upon values congruence to a focus upon exploring values sensitivity.

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Appendix A

The Comparative Emphasis Scale



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Use of the Comparative Emphasis Scale

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1. What is the Comparative Emphasis Scale?

The Comparative Emphasis Scale (CES) is a copyrighted instrument that is designed to measure four general values that have been shown to be operative in the workplace: achievement/working hard, concern for others/helping others, fairness, and honesty/integrity. The scale utilizes a forced choice or ipsative format for a number of reasons. Because values are thought to be less than totally conscious, they are believed to be most evident in choice situations. Moreover, values are highly socially desirable. Forced choice or ipsative measuring instruments have been shown to reduce the social desirability response bias inherent in other measurement formats (see Meglino & Ravlin, 1998 for more information on values and their measurement).

The CES requires respondents to choose between pairs of single phrases, each describing behaviors that reflect a different value. Each value is compared to every other value four times, with each replication consisting of different behavioral statements. These statements were matched for social desirability, with male/female differences taken into account. Statements were also matched on the extent each represents the value it is associated with (see Ravlin & Meglino, 1987a, b). Use thus far has indicated that individuals respond to the instrument in a generally transitive manner; that responses relate to decision making, prosocial behavior, ratings of performance, and self-ratings; and that congruence on the measure between supervisors and subordinates is related to satisfaction, commitment, and other important work outcomes. Information on the development of the scale, examples of its use and related theory, and information on the values encompassed in the scale can be found in the following publications:

Meglino, B. M., & Korsgaard, M. A. (2007). The role of other orientation in reactions to job characteristics. *Journal of Management*, 33, 57-83.

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Ravlin, E.C. & Meglino, B.M. (1987b). Effect of Values on Perception and Decision Making: A Study of Alternative Work Values Measures. *Journal of Applied Psychology*, 72, 666-673.

2. Versions of the Scale

We have used two versions of the scale. The original version of the CES is designed to be used with populations of working individuals. A more recent version, the CES(S), contains some reworded items that make the scale more appropriate for use with student populations. The CES(S) was used in the previously cited studies by Korsgaard, Meglino, and Lester (1996; 1997).

3. Scoring the CES

Each choice alternative on the CES relates to one of four basic values: achievement/working hard, concern for others/helping others, fairness, and honesty/integrity. The value categories for each item are shown on the Scoring Key for the CES. Each time a respondent chooses an item from a particular value category, he/she scores one point on that value. When all items are scored, the values may be rank ordered by the number of choices made for each. Tied ranks are assigned an average rank. Please note that the scale legitimately only produces a rank order of the four values, and is subject to the limitations of ipsative measurement. Some research by us and others has indicated that non-ipsative measurement is possible when the scale is used to measure only one value. That is, subjects' scores on a single value have been used in a variety of parametric statistical procedures.

4. Reliability of the CES

Internal consistency procedures can yield erroneous estimates of reliability for forced-choice measures. Therefore, Tenopyr (1988, *Journal of Applied Psychology*) recommended computing the internal consistencies of forced-choice scales using the items in normative form. This procedure yielded internal consistencies of .94 or greater for all four subscales of the CES (see Ravlin & Meglino, 1987a).

5. Data Analysis Using the CES

The CES is a fully ipsative measure. For this reason, items cannot be eliminated or added without substantially altering the integrity of the scale. The product of the scale is a rank order for a respondent of the four values measured. Ipsative measures are inherently within-subject measures, and special procedures must be used to legitimately make between-subject comparisons. Four possible approaches to making between-subject comparisons are the following:

- a. As previously noted, comparisons can be made using the scores obtained for a single value.
- b. Use of the CES to categorize respondents: Each individual can be coded in terms of their primary orientation, or the value ranked as most important.
- c. Transformation of each rank to equal areas of the normal curve (see Feather, N.T., *Values in Education and Society*, Free Press, 1975).
- d. Use of Fisher's r to z transformation by deriving within-subject correlation coefficients and cumulating them by transforming them to z scores.

6. Administering the CES

Our experience indicates that the validity of the CES is enhanced when respondents are told to reflect on their previous behavior as they answer the scale and to be prepared to justify their individual responses by providing examples from their behavior. We never actually ask respondents to furnish such justifications. We believe that this admonition causes subjects to focus more attention on the scale.

7. Using the CES

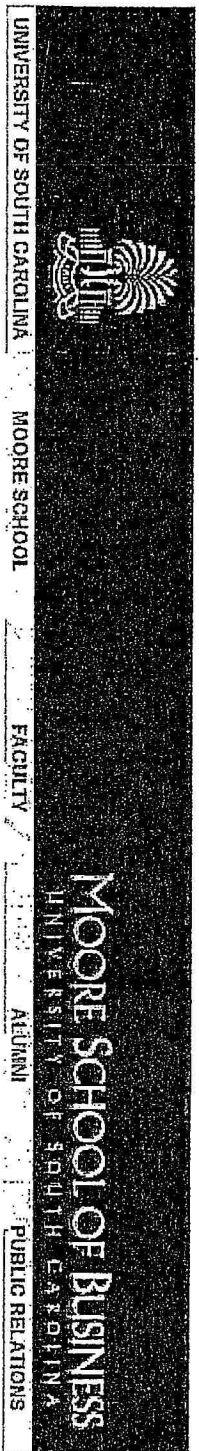
We wish to encourage use of the CES and CES(S) by both researchers and practitioners. The CES is made available for use under the following guidelines:

- a. The instrument must appear with the authors' names and the copyright symbol plainly visible on all forms and/or all methods of reproduction.
- b. The instrument may be used without charge for research purposes only.
- c. If any part of an investigation is for the purpose of consulting or other commercial purposes such as employee selection, a fee is assessed for each administration of the CES. This fee applies whether or not copies of the scale are furnished by the Riegel and Emory Center or the scale is reproduced in any form. Information on the current fee schedule can be obtained by contacting the Research Director at the address given below.

Director of Research
Riegel and Emory Human Resource Research Center
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Comparative Emphasis Scale

Elizabeth C. Ravlin and Bruce M. Meglino

INSTRUCTIONS: Sometimes people must choose between two things they feel they should do. In these choice situations they must place more emphasis on one activity over another. Below are pairs of statements which describe activities which people feel they should do. Read each statement carefully, and then place a check next to the statement which you feel you should emphasize more in your behavior at work.

Example:

- Always being in control of your emotions while under stress
- Looking forward to the future with a positive outlook

Both of the above statements represent activities many people feel are important and should be done. Imagine you're in a situation in which you can only do one of them. Your task is to select the one statement of the pair that you feel should be emphasized in your behavior. In the above example, this particular person felt the second activity should receive more emphasis than the first. Of course another person might feel just the opposite.

Please read the following 24 pairs of statements and indicate which one in each pair you feel should receive more emphasis. Some choices will probably be difficult for you, but please do the best you can. Do not leave any questions blank.

1. Taking care of all loose ends on a job or project
 Being impartial when dealing with others
2. Taking actions which represent your true feelings
 Trying to avoid hurting other people
3. Encouraging someone who is having a difficult day

1. Considering different points of view before taking action
2. Speaking your mind even when your views may not be popular
3. Working to meet job requirements even when your personal schedule must be rearranged
4. Making decisions which are fair to all concerned
5. Expressing your true opinions when asked
6. Continuing to work on a problem until it is resolved
7. Trying to help a fellow worker through a difficult time
8. Trying to help reduce a friend's burden
9. Admitting an error and accepting the consequences
10. Being impartial in judging disagreements
11. Helping others on difficult jobs
12. Taking on additional tasks to get ahead
13. Admitting to making a mistake rather than covering it up
14. Offering help to others when they are having a tough time
15. Doing whatever work is required to advance in your career
16. Always being truthful in dealing with others
17. Giving everyone an equal opportunity at work
18. Judging people fairly based on their abilities rather than only on their personalities
19. Seeking out all opportunities to learn new skills
20. Trying to be helpful to a friend at work
21. Being sure that work assignments are fair to everyone
22. Refusing to take credit for ideas of others
23. Maintaining the highest standard for your performance

- 15. Being determined to be the best at your work
 Trying not to hurt a friend's feelings
- 16. Trying to bring about a fair solution to a dispute
 Admitting responsibility for errors made
- 17. Finishing each job you start even when others do not
 Making sure that rewards are given in the fairest possible way
- 18. Refusing to tell a lie to make yourself look good
 Helping those who are worried about things at work
- 19. Trying as hard as you can to learn as much as possible about your job
 Taking a stand for what you believe in
- 20. Sharing information and ideas which others need to do their job
 Always setting high performance goals for yourself
- 21. Refusing to do something you think is wrong
 Providing fair treatment for all employees
- 22. Allowing each employee to have an equal chance to get rewards
 Taking on more responsibility to get ahead in an organization
- 23. Correcting others' errors without embarrassing them
 Holding true to your convictions
- 24. Providing fair treatment for each employee
 Lending a helping hand to someone having difficulty

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Appendix B

The Leadership Practice Inventory

KOUZES POSNER INTERNATIONAL

15419 Banyan Lane
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FAX: (408) 354-9170

M. Zorn
1/31/05

January 27, 2005

Mr. Daniel Zorn
634 South Foys Lake Drive
Kalispell, Montana

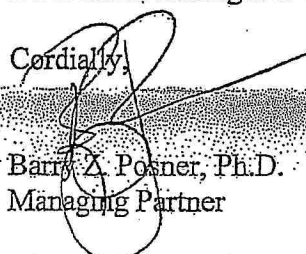
Dear Daniel:

Thank you for your request to use the Leadership Practices Inventory (LPI) in your dissertation. We are willing to allow you to reproduce the instrument as outlined in your letter, at no charge, with the following understandings:

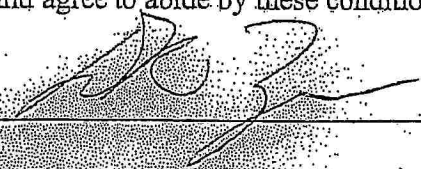
- (1) That the LPI is used only for research purposes and is not sold or used in conjunction with any compensated management development activities;
- (2) That copyright of the LPI, or any derivation of the instrument, is retained by Kouzes Posner International, and that the following copyright statement is included on all copies of the instrument: "Copyright © 2003 James M. Kouzes and Barry Z. Posner. All rights reserved. Used with permission.";
- (3) That one (1) **bound** copy and (1) copy of **all** papers, reports, articles, and the like which make use of the LPI data be sent **promptly** to our attention; and,
- (4) That you agree to allow us to include an abstract of your study and any other published papers utilizing the LPI on our various websites.

If the terms outlined above are acceptable, would you indicate so by signing one (1) copy of this letter and returning it to us. Best wishes for every success with your research project.

Cordially,


Barry Z. Posner, Ph.D.
Managing Partner

I understand and agree to abide by these conditions:

(Signed) 

Date: 1/31/05

LPI OBSERVER

Leadership Practices Inventory

by JAMES M. KOUZES
& BARRY Z. POSNER

INSTRUCTIONS

You are being asked by the person whose name appears at the top of the next page to assess his or her leadership behaviors. Below the person's name you will find thirty statements describing various leadership behaviors. Please read each statement carefully, and using the RATING SCALE on the right, ask yourself:

“How frequently does this person engage in the behavior described?”

When selecting your response to each statement:

- Be realistic about the extent to which this person *actually* engages in the behavior.
- Be as honest and accurate as you can be.
- DO NOT answer in terms of how you would like to see this person behave or in terms of how you think he or she should behave.
- DO answer in terms of how this person typically behaves on most days, on most projects, and with most people.
- Be thoughtful about your responses. For example, giving this person 10s on all items is most likely not an accurate description of his or her behavior. Similarly, giving someone all 1s or all 5s is most likely not an accurate description either. Most people will do some things more or less often than they do other things.
- If you feel that a statement does not apply, it's probably because you don't see or experience the behavior. That means this person does not frequently engage in the behavior, at least around you. In that case, assign a rating of 3 or lower.

For each statement, decide on a response and then record the corresponding number in the box to the right of the statement. After you have responded to all thirty statements, go back through the LPI one more time to make sure you have responded to each statement. *Every* statement *must* have a rating.

The RATING SCALE runs from 1 to 10. Choose the number that best applies to each statement.

1	=	Almost Never
2	=	Rarely
3	=	Seldom
4	=	Once in a While
5	=	Occasionally
6	=	Sometimes
7	=	Fairly Often
8	=	Usually
9	=	Very Frequently
10	=	Almost Always

When you have completed the LPI-Observer, please return it to:

Thank you.

Name of Leader: _____

I (the Observer) am This Leader's (Check one): Manager Direct Report Co-Worker Other

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

He or She:

1.	Sets a personal example of what he/she expects of others.	<input type="text"/>
2.	Talks about future trends that will influence how our work gets done.	<input type="text"/>
3.	Seeks out challenging opportunities that test his/her own skills and abilities.	<input type="text"/>
4.	Develops cooperative relationships among the people he/she works with.	<input type="text"/>
5.	Praises people for a job well done.	<input type="text"/>
6.	Spends time and energy making certain that the people he/she works with adhere to the principles and standards that we have agreed on.	<input type="text"/>
7.	Describes a compelling image of what our future could be like.	<input type="text"/>
8.	Challenges people to try out new and innovative ways to do their work.	<input type="text"/>
9.	Actively listens to diverse points of view.	<input type="text"/>
10.	Makes it a point to let people know about his/her confidence in their abilities.	<input type="text"/>
11.	Follows through on promises and commitments he/she makes.	<input type="text"/>
12.	Appeals to others to share an exciting dream of the future.	<input type="text"/>
13.	Searches outside the formal boundaries of his/her organization for innovative ways to improve what we do.	<input type="text"/>
14.	Treats others with dignity and respect.	<input type="text"/>
15.	Makes sure that people are creatively rewarded for their contributions to the success of projects.	<input type="text"/>
16.	Asks for feedback on how his/her actions affect other people's performance.	<input type="text"/>
17.	Shows others how their long-term interests can be realized by enlisting in a common vision.	<input type="text"/>
18.	Asks "What can we learn?" when things don't go as expected.	<input type="text"/>
19.	Supports the decisions that people make on their own.	<input type="text"/>
20.	Publicly recognizes people who exemplify commitment to shared values.	<input type="text"/>
21.	Builds consensus around a common set of values for running our organization.	<input type="text"/>
22.	Paints the "big picture" of what we aspire to accomplish.	<input type="text"/>
23.	Makes certain that we set achievable goals, make concrete plans, and establish measurable milestones for the projects and programs that we work on.	<input type="text"/>
24.	Gives people a great deal of freedom and choice in deciding how to do their work.	<input type="text"/>
25.	Finds ways to celebrate accomplishments.	<input type="text"/>
26.	Is clear about his/her philosophy of leadership.	<input type="text"/>
27.	Speaks with genuine conviction about the higher meaning and purpose of our work.	<input type="text"/>
28.	Experiments and take risks, even when there is a chance of failure.	<input type="text"/>
29.	Ensures that people grow in their jobs by learning new skills and developing themselves.	<input type="text"/>
30.	Gives the members of the team lots of appreciation and support for their contributions.	<input type="text"/>

Appendix C
Contact Documentation

Dear Certified Educator,

I am Dan Zorn, a doctoral student in Educational Leadership at The University of Montana. I am presently in my 24th year as a Montana educator. During my career I have served as an elementary classroom teacher, a building principal and as a district level administrator. I am in the process of completing my doctoral dissertation, the final requirement of my doctoral program and am requesting your participation in my study. Your voluntary participation has been approved by your superintendent. My research is focused upon exploring the teacher/principal relationship. I am particularly interested in exploring the role that values congruence plays in effecting this relationship. I am additionally interested in the effect that principal/teacher values congruence has on student achievement levels. A brief summary of my research proposal follows:

This study will focus upon values congruence as one of the factors influencing the teacher/principal relationship. The relationship between teachers' perception of their principal's leadership practices and the values congruence between those principals and the teachers will be explored. This study will also examine the relationship of teacher/principal values congruence and student achievement.

To provide the data necessary for the completion of this research I am respectfully requesting that you complete two on-line surveys. The first one is the Comparative Emphasis Scale, a measure designed to determine the dominant values of individuals and groups. The second survey is the Leadership Practice Inventory which measures a teacher's perceptions of their principal's leadership practices. I anticipate that the completion of the two surveys will take approximately 30 minutes for you to complete. If you are willing to participate in this study please complete the short questionnaire that is on the back of this letter. After completing this questionnaire, simply put it in the self addressed, postage paid envelope that is attached and mail it as soon as is convenient for you. Upon receiving your permission to be a part of this study I will then send you an e-mail that has a link to the surveys.

All information provided will be kept strictly confidential with no individual information that would allow anyone to be able to identify who completed the survey. To assure this confidentiality all of the surveys are coded without any overt identifiers of the individual, the school or the principal. I will be the only person who will have access to the key to the codes. These codes will be in a locked file cabinet until completion of the study. After the analysis of the data is completed all keys that connect the codes to any district, schools or individuals will be destroyed. Additionally, none of the findings of this research will be reported in a manner that would allow any specific school district, school, principal or teacher to be identified. The purpose of this research is to provide an overview based upon data retrieved from throughout the state of Montana and will not be used to provide information on any individual district or school.

Thank you for your willingness to be involved in this study. If you have any questions regarding the completion of the surveys don't hesitate to give me a call at (406) 261-1827 or send me an e-mail at Daniel.zorn@umontana.edu. If you wish to receive the results of my research please let me know and I will send you an electronic version of my completed dissertation.

In Gratitude,

Daniel R. Zorn
P.O. Box 1369
Kalispell, MT 59903-1369
406-261-1827
Daniel.zorn@umontana.edu

Certified Educator Questionnaire

Thank you for considering the possibility of being involved in this study. Your return of this questionnaire denotes your willingness to be involved in this study. Please fill out the short questionnaire below and upon completion place it in the self-addressed envelope provided and send it to me via US mail. Thank you again for your help with this research.

Daniel R. Zorn
P.O. Box 1369
Kalispell, MT 59903-1369
406-261-1827
Daniel.zorn@umontana.edu

Your Name _____ Your School's Name _____

City of School _____ Your Principal's Name _____

Number of years working in this school with your present principal (select one)

____ This is my first year in this school working with my present principal

____ This is at least my second year in this school working with my present principal

Your e-mail address _____

Upon completing this form please place it in the stamped, self addressed envelope provided and put it in the mail. Thank you for your willingness to help with this research project.

Principal,

I am Dan Zorn, a doctoral student in educational leadership at The University of Montana. I am presently in my 24th year as a Montana educator. During my career I have served as an elementary classroom teacher, a building principal and as a district level administrator. I am in the process of completing my doctoral dissertation, the final requirement of my doctoral program and am requesting your participation in my study. Your voluntary participation has been approved by your superintendent. My research is focused upon exploring the teacher/principal relationship. I am particularly interested in exploring the role that values congruence plays in effecting this relationship. I am additionally interested in the effect that principal/teacher values congruence has on student achievement levels. A brief summary of my research proposal follows:

This study will focus upon values congruence as one of the factors influencing the teacher/principal relationship. The relationship between teachers' perception of their principal's leadership practices and the values congruence between those principals and the teachers will be explored. This study will also examine the relationship of teacher/principal values congruence and student achievement.

To provide the data necessary for the completion of this research I am respectfully requesting that you complete a survey called the Comparative Emphasis Scale, a measure designed to determine the dominant work values of individuals and groups. I anticipate that the completion of this survey will take approximately 20 minutes for you to complete. If you are willing to participate in this study please complete the short questionnaire that is on the back of this letter. After completing this questionnaire, simply put it in the self addressed, postage paid envelope and mail it as soon as is convenient for you. Upon receiving your permission to be a part of this study I will then send you an e-mail that has a link to the survey.

All certified educators under your supervision are also being asked to complete the Comparative Emphasis Scale and will additionally be asked to complete the Leadership Practice Inventory which measures their perceptions of their principal's leadership practices. Letters asking certified educators to be involved in this study are included in a manila envelope in this mailing. A self addressed, postage paid envelope is also attached to these letters. I am requesting that these letters and the attached envelopes be distributed to all of your school's certified educators that are under your supervision.

All information provided will be kept strictly confidential with no individual information that would allow anyone to be able to identify who completed the survey. To assure this confidentiality all of the surveys are coded without any overt identifiers of the individual, the school or the principal. I will be the only person who will have access to the key to the codes. These codes will be in a locked file cabinet until completion of the study. After the analysis of the data is completed all keys that connect the codes to any district, schools or individuals will be destroyed. Additionally, none of the findings of this research will be reported in a manner that would allow any specific school district, school, principal or teacher to be identified. The purpose of this research is to provide an overview based upon data retrieved from throughout the state of Montana and will not be used to provide information on any individual district or school.

Thank you for considering being involved in this study. If you have any questions regarding the completion of the survey don't hesitate to give me a call at (406) 261-1827 or send me an e-mail at Daniel.zorn@umontana.edu. If you wish to receive the results of my research please let me know and I will send you an electronic version of my completed dissertation.

In Gratitude,

Daniel R. Zorn
P.O. Box 1369
Kalispell, MT 59903-1369
406-261-1827
Daniel.zorn@umontana.edu

Principal Questionnaire

Thank you for considering the possibility of being involved in this study. Your return of this questionnaire denotes your willingness to be involved in this study. Please fill out the short questionnaire below and upon completion place it in the self-addressed envelope provided and send it to me via US mail. Thank you again for your help with this research.

Daniel R. Zorn
P.O. Box 1369
Kalispell, MT 59903-1369
406-261-1827
Daniel.zorn@umontana.edu

Your Name _____ Your Schools Name _____

City of School _____

Number of years you have served as the principal in this school (select one)

_____ This is my first year in this school as its principal

_____ This is at least my second year in this school as its principal

Your e-mail address _____

Upon completing this form please place it in the stamped, self addressed envelope provided and put it in the mail. Thank you for your willingness to help with this research project.

Dear Superintendent,

I am Dan Zorn, a doctoral student in educational leadership at The University of Montana. I have been an educator in the state of Montana for the past twenty-four years. During my 24 years I have served as a central office administrator for 10 years, a building principal for 5 years and a classroom teacher for nine years. I received my Master's degree from the University of Montana, my Bachelor's degree from Northern Montana College and am a graduate of Shelby High School.

I am in the process of completing my doctoral dissertation, the final requirement of my doctoral program. My research proposal is focused upon exploring the teacher/principal relationship. To provide the data necessary for the completion of this research I am respectfully requesting that you allow me the opportunity to survey the principal and teachers of Name Elementary School. If you give me the permission to do so, the teachers will be asked to complete two surveys and the principal will be asked to complete one survey. I anticipate that the teacher surveys will take approximately 30 minutes to complete and the principal survey will take approximately 20 minutes. On the following page is a description of my proposed study.

I will be contacting you shortly via e-mail to ask for permission to contact your principal and teachers regarding their willingness to be involved in this study. I recognize how valuable your time is, and appreciate your consideration of this request. If you have any questions regarding your district's involvement in this study, don't hesitate to give me a call at (406) 261-1827 or send me an e-mail at Daniel.zorn@umontana.edu

In Gratitude,

Daniel R. Zorn
P.O. Box 1369
Kalispell, MT 59901
406-261-1827
Daniel.zorn@umontana.edu

Research Description

Daniel R. Zorn

P.O. Box 1369

Kalispell, MT 59903-1369

406-261-1827

Daniel.zorn@umontana.edu

In this study, I am particularly interested in exploring the role that values congruence plays in effecting the teacher/principal relationship. I am additionally interested in the effect that principal/teacher values congruence has on student achievement levels. A brief summary of my research proposal follows:

This study will focus upon values congruence as one of the factors influencing the teacher/principal relationship. The relationship between teachers' perception of their principal's leadership practices and the values congruence between those principals and the teachers will be explored. This study will also examine the relationship of teacher/principal values congruence and student achievement.

To provide the data necessary for the completion of this research I am respectfully requesting that you allow me the opportunity to survey the principal and teachers of Name Elementary School. If you give me the permission to do so, the teachers will be asked to complete two surveys and the principal will be asked to complete one survey. The survey to be completed by the principal and teachers is the Comparative Emphasis Scale, a measure designed to determine the dominant values of individuals and groups. The second survey will only be required of the teachers. This survey is called the Leadership Practice Inventory which measures a teacher's perceptions of their principal's leadership practices. I anticipate that the completion of the two surveys will take approximately 30 minutes for your teachers to complete. The principal survey should take approximately 20 minutes.

All information provided will be kept strictly confidential with no individual information that would allow anyone to be able to identify who completed the survey. To assure this confidentiality all of the surveys are coded without any overt identifiers of the individual, the school or the principal. I will be the only person who will have access to the key to the codes. These codes will be in a locked file cabinet until completion of the study. After the analysis of the data is completed all keys that connect the codes to any district, schools or individuals will be destroyed. Additionally, none of the findings of this research will be reported in a manner that would allow any specific school district, school, principal or teacher to be identified. The purpose of this research is to provide an overview based upon data retrieved from throughout the state of Montana and will not be used to provide information on any individual district or school.

Appendix D
Confidentiality Plan

Confidentiality Plan

All information provided by the principal and teachers will be confidential. All individual information that will be collected in a manner that will not allow anyone to identify who completed either of the surveys to be used in this research. To assure this confidentiality all of the surveys will be coded without any overt identifiers of the individual, the school or the principal. This researcher will be the only person who will have access to the key to the codes. Upon the collection of the data all keys that connect the codes to any district, schools or individuals will be destroyed. Additionally, none of the findings of this research will be reported in a manner that would allow any specific school district, school, principal or teacher to be identified. The purpose of this research is to provide an overview based upon data retrieved from throughout the state of Montana and will not be used to provide information on any individual district or school.

Appendix E

Data

School	Values Congruence Correlation Spearman rho	LPI MTW Mean	LPI ISV Mean	LPI CTP Mean	LPI EOTA Mean	LPI ETH Mean	Math CRT G4 Mean	Read CRT G4 Mean
9	0.738	7.741	7.981	8.130	8.815	7.426	78	88
21	-0.105	6.014	5.736	5.889	7.375	5.917	N/A	N/A
32	0.800	6.229	5.604	6.167	6.792	6.104	57	97
34	0.000	7.405	7.310	6.976	8.881	7.714	56	85
38	-0.200	4.881	4.536	4.869	4.583	4.583	65	68
39	-0.105	8.083	7.889	7.694	8.472	8.083	84	90
42	0.400	6.857	6.857	6.762	7.619	6.595	40	51
44	-0.316	7.278	6.944	6.333	7.944	7.306	39	53
46	0.738	8.241	7.185	7.370	9.019	8.574	93	96
52	-0.949	6.583	7.396	7.083	9.000	7.188	50	66
55	-1.000	5.762	4.976	5.000	6.190	5.071	49	76
57	-0.200	5.917	7.500	6.556	7.750	7.056	51	68
58	-0.866	8.389	8.241	8.241	9.148	8.796	73	76
65	0.000	6.556	5.972	5.861	8.250	6.111	77	93
66	-0.056	6.972	7.667	7.667	8.500	6.861	72	79
71	0.316	6.146	6.771	6.667	7.542	6.333	94	95
75	0.211	7.606	6.939	6.955	7.667	7.515	76	85
84	0.894	6.271	6.083	5.792	7.625	6.000	64	69
87	-0.400	6.048	5.381	5.357	6.810	5.929	80	70
91	-0.316	6.476	6.095	6.119	7.286	6.357	N/A	N/A
93	0.333	6.472	6.750	6.361	6.333	6.583	43	71
98	0.236	4.833	5.643	6.548	6.690	5.548	70	70
103	0.949	7.364	7.833	6.833	8.303	7.576	66	84
109	-1.000	5.481	6.148	5.593	7.870	6.352	82	86
128	-0.400	7.063	6.771	6.604	7.917	6.729	64	74
129	0.316	3.284	3.451	3.559	5.402	4.039	65	81
131	-0.200	5.917	5.694	5.111	6.194	6.583	91	82
135	0.211	6.405	5.595	5.976	8.952	8.071	70	90
136	-0.200	3.944	5.400	4.922	5.544	4.522	83	85
138	-0.316	7.056	7.361	6.583	7.917	6.444	42	84
139	0.500	2.190	1.619	1.929	4.667	2.286	86	88
140	-0.200	5.583	5.972	6.333	6.361	4.750	77	77
141	0.949	7.750	7.521	6.583	7.646	7.792	34	43
145	0.316	4.929	4.429	4.857	5.905	5.405	57	78
147	0.316	5.125	5.542	5.979	7.083	5.521	63	70
149	0.105	7.042	5.917	6.500	7.604	6.542	60	86
159	-1.000	4.361	6.389	5.056	6.250	4.611	68	82

School	Values Congruence Correlation Spearman rho	LPI MTW Mean	LPI ISV Mean	LPI CTP Mean	LPI EOTA Mean	LPI ETH Mean	Math CRT G4 Mean	Read CRT G4 Mean
162	1.000	4.017	4.783	4.167	4.867	4.833	60	83
166	0.800	4.917	4.472	3.806	7.500	6.694	92	93
173	-0.632	8.186	7.696	7.716	8.716	8.490	61	82
190	-0.400	7.500	7.093	7.130	8.556	7.870	85	86
196	0.211	6.939	5.758	6.212	6.955	6.864	81	81
197	0.316	6.479	5.813	5.208	7.896	7.063	77	86
198	0.632	7.929	8.119	8.214	8.000	5.548	77	93
201	-0.200	7.458	7.521	7.354	8.979	6.792	49	74
206	0.800	5.929	4.929	4.762	7.619	6.381	48	88
207	0.632	7.976	7.524	7.500	7.881	7.357	69	76
210	0.500	7.759	7.722	8.000	7.963	7.370	63	87
211	0.211	4.667	3.917	3.889	5.889	3.833	86	97
214	0.800	6.139	5.667	6.528	7.583	5.972	N/A	N/A
218	0.800	7.267	7.250	7.400	8.133	8.200	77	81
221	0.949	8.283	8.150	7.767	8.083	7.317	69	82
233	0.211	6.848	7.470	7.500	6.015	6.242	67	85
238	-0.200	7.963	7.981	8.167	8.556	7.704	94	97
240	0.800	8.972	7.833	8.111	9.194	8.722	79	88
246	0.949	3.643	3.190	2.667	5.238	2.905	65	90
248	-0.775	6.190	6.250	6.036	7.750	7.202	78	79
262	-0.400	5.083	4.278	4.278	5.250	3.750	59	71
263	0.316	7.000	7.639	6.917	8.194	8.278	83	89
265	-0.600	8.271	7.708	8.063	7.938	6.729	64	79
267	0.800	5.833	5.643	5.857	7.857	7.905	65	87
270	-0.400	5.583	5.250	5.000	6.375	6.563	69	77