AN ANALYSIS OF THE RELATIONSHIPS BETWEEN SERVANT LEADERSHIP,

SCHOOL CULTURE, AND STUDENT ACHIEVEMENT

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by

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Dr. Jerry Valentine, Dissertation Supervisor

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The undersigned, appointed by the Dean of the Graduate Faculty, have examined

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An Analysis of the Relationships between

Servant Leadership, School Culture, and Student Achievement

Brian Clinton Herndon

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ABSTRACT

Purpose of the study. The purpose of the study was to explore and analyze the
relationships among the factors of servant leadership, school culture, and student
achievement in Missouri elementary schools. The method of analysis was quantitative,
with survey data being used to determine (a) if any relationships exist between principal
servant leadership factors and school culture factors; (b) if any relationships exist
between principal servant leadership factors and student achievement; (c) if any
relationships exist between school culture factors and student achievement; and (d) if any
relationships exist between the combination of the factors of principal servant leadership
and school culture on student achievement.

Research procedures. Two survey instruments, the Servant Leadership
Assessment Instrument and the School Culture Survey, were used to collect quantitative
data for analysis. A total of 677 teachers from 62 elementary schools in Missouri
comprised the population of the study. Data from the two surveys as well as student
achievement data were aggregated at the school level and analyzed using Pearson
product-moment correlations and multiple regression analysis to determine the nature of
the relationships among the factors of principal servant leadership, school culture, and
student achievement.

Findings. The results of this study explain the influence of principal servant leadership on school culture and student achievement, the influence of school culture on student achievement, and the influence of the combination of servant leadership and school culture on student achievement. The results suggest that principal servant leadership behaviors have a significant influence on the factors of school culture, one of the principal servant leadership behaviors has a significant influence on student achievement, school culture has a significant influence on student achievement, and the combination of principal servant leadership and school culture has a significant influence on student achievement. The study also found that when controlling for enrollment and free and reduced lunch that free and reduced lunch significantly influenced student achievement more so than the factors of servant leadership or the factors of school culture. Explanatory models were designed from the findings to depict the relationships between servant leadership, school culture, and student achievement.

Chapter One

BACKGROUND TO THE STUDY

Introduction

Leadership is about relationships. Some of those relationships involve positive aspects, and some of them involve negative aspects. Successful leaders are those who fit into the positive aspects category. They are those who encourage the hearts of others (Kouzes & Posner, 1995). Successful leaders involve others in pursuing common goals. They focus on results and know how to influence others for the success of the organization. "Without influence, leadership does not exist" (Northouse, 1997, p. 3).

Servant leadership has emerged as an important style of leadership in the past two decades (Yukl, 2006; Marzano, Waters, & McNulty, 2005; Covey, 2002; Collins, 2001). Robert Greenleaf (1991) first coined the term servant leadership after reading Herman Hesse's book entitled, *Journey to the East*, where some journeymen discovered that the servant who helped them along the journey actually turned out to be the leader of the organization that sponsored the journey, thus the term servant leadership. Greenleaf (1991) describes a servant leader as one who has a natural feeling "to serve, to serve *first*" (p. 7). Conscious choice brings that person to the point of leading because he or she sees a need for leadership. This is sharply different from the person who wants to lead first because of a "need to assuage an unusual power drive or to acquire material possessions. For such it will be a later choice to serve—after leadership is established" (p. 7).

Servant leadership distinguishes itself from other forms of leadership because of its focus on the followers of the organization (Winston, 2003; Russell & Stone, 2002; Stone,

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Russell, & Patterson, 2003; Patterson, 2003; Drury, 2004; Irving, 2005; Winston, 2005; Nwogu, 2004) rather than organizational objectives, instructional practices, or managerial procedures. Servant leaders strive to meet organizational goals by focusing first on the "highest priority needs" (Greenleaf, 1991) of the members of the organization, trusting them to do what it takes to meet the goals of the organization. The servant leader asks him or herself if the follower grows as a person as a result of the leadership. Does the follower, "*while being served*, become healthier, wiser, freer, more autonomous, more likely themselves to become servants? *And*, what is the effect on the least privileged in society; will he benefit, or, at least, will he not be further deprived?" (Greenleaf, 1991, p. 7).

School leadership has changed over the past several decades (Sergiovanni, 2006). School leaders have a multitude of job responsibilities. They are required to know and understand curriculum, assessment, instruction, legal issues, resource allocation, personnel issues, research in their field of practice, professional development, and much, much more (Erlandson, 1994; Hoy & Miskel, 1994). Marzano, Waters, and McNulty (2005) state that with the increasing societal and workplace needs for more knowledgeable, skilled, responsible citizens, the pressure on a school leader has increased dramatically. No Child Left Behind (2002) has added to that pressure since funding and community perceptions are affected by the performance of the students in the school, reflecting the performance of the leader of the school, namely the building principal.

Understanding the leadership of school leaders is vital to a successful school. Establishing positive school culture and ensuring successful student achievement are two important aspects of a school leader's job responsibility. Many researchers have found

that school leaders have an effect on the culture of the school (Lucas, 2001; Miles, 2002; Schooley, 2005; Valentine, 2001). Deal and Peterson (1999) found that school culture has an effect on student achievement. Others have noted the direct and indirect effects of school leadership on student achievement (Marzano, Waters, & McNulty, 2005; Leithwood, Seashore Louis, Anderson, & Wahlstrom, 2004; Prater, 2004; Cotton, 2003; McLeod, 2000; Palmour, 2000; Silins & Murray-Harvey, 1998; Hallinger & Heck, 1996; Siens & Ebmeier, 1996).

School culture can be defined as learned assumptions that are shared by group members as they solve problems related to "external adaptation and internal integration, that has worked well enough to be considered valid and, therefore, to be taught to new members as the correct way to perceive, think, and feel in relation to those problems" (Schein, 1992, p.12). Others have defined school culture as being a set of values, beliefs, feelings, and artifacts "that are created, inherited, shared, and transmitted within one group of people and that, in part, distinguish that group from others" (Cook & Yanow, 1996, p. 440).

Leithwood and Riehl (2003) state that school leaders can influence culture through "practices aimed at developing shared norms, values, beliefs, and attitudes among staff, and promoting mutual caring and trust among staff" (p. 20). Bates (1981) stated that principals shape school culture through conflict and negotiation. Bates (1981) suggested that principals influence the language, metaphors, myths, and rituals of a school, which are important factors in determining the culture of a school.

Sergiovanni (2006) stated that servant leadership effectively describes the role of the school principal. He states that a school principal is to a school what a minister is to a

church. The school principal acts as a minister to the needs of the school and the school community through serving the needs of the school and its community. To successfully serve those needs, the principal must develop a focus on those involved with the success of the school. If the premise that servant leadership describes the role of a principal accurately, then any insight into the servant leadership behaviors of principals that have the greatest impact on school culture and student achievement will be important to leadership theorists and practitioners alike. This study will analyze the relationships between servant leadership, school culture, and student achievement.

Statement of the Problem

School leaders have always been held responsible for the achievement of the students in their schools, but with the advent of No Child Left Behind (2002) school leaders are being held accountable for the achievement of students in their schools more so than ever before. Leithwood and Riehl (2003) concur, stating that school leaders are held accountable for the achievement of their students as well as the structures and processes they establish. Unfortunately, as DeMoss (2002) points out, there has been little research that examines "the role principals play in mediating the context of high-stakes testing" such as the Missouri Assessment Program (MAP) test (p. 112). She also suggested that further research needs to be done in this area, especially considering the importance of such high-stakes tests.

Two of the variables to consider with regard to the achievement of students are leadership and culture. Researchers have found that school leaders can have profound effects on the culture of the school (Lucas, 2001; Miles, 2002; Schooley, 2005; Valentine, 2001) and school culture has been found to have an effect on student

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achievement (Deal & Peterson, 1999). Direct and indirect relationships between leadership and student achievement have been found as well (Cotton, 2003; Hallinger & Heck, 1996; Leithwood, Seashore Louis, Anderson, & Wahlstrom, 2004; Marzano, Waters, & McNulty, 2005; McLeod, 2000; Palmour, 2000; Prater, 2004; Siens & Ebmeier, 1996; Silins & Murray-Harvey, 1998).

Servant leadership is one area of leadership that has gained in popularity over the past decade, and as several researchers point out, there is a dearth of empirical research on this topic (Bowman, 1997; Russell & Stone, 2002; Sendjaya & Sarros, 2002). Taylor, Martin, and Johnson (2003) suggest that finding effective leadership "is an ongoing challenge for any progressive organization or school system dedicated to change" (p. 2). Servant leadership has been found to be an effective model of leadership in such organizations as Southwest Airlines and Starbucks Coffee. Servant leadership has also become an area of study at Columbus State University in Ohio and is studied extensively at Regent University in Virginia.

Good school leaders focus on the achievement of students and thus the culture of the school. A focus on leadership and culture becomes even more important when schools are held accountable for the success of each student. With the increased accountability of school professionals for the achievement of all students and the increase in the interest of servant leadership as a viable style of organizational leadership, it would behoove educational researchers to examine the relationships between servant leadership, school culture, and student achievement. Given the increasing interest in servant leadership and the critical importance of school culture in the achievement of students,

the exploration of the relationships among the three should provide meaningful insight for servant leadership theorists as well as school leaders.

Purpose of the Study

The purpose of this study was to develop an understanding of the relationships among elementary principal servant leadership, school culture, and student achievement as determined by Communication Arts and Mathematics scores of the Missouri Assessment Program. The primary method of analysis was quantitative, with survey data being used to determine (a) if any relationships existed between principal servant leadership factors and school culture factors; (b) if any relationships existed between principal servant leadership factors and student achievement; (c) if any relationships existed between school culture factors and student achievement; and (d) if any relationships existed between the combination of the factors of principal leadership and school culture on student achievement.

Research Questions

The following research questions were examined during this study:

1. Are there relationships between the factors of servant leadership and the factors of school culture?

2. Are there relationships between the factors of servant leadership and student achievement?

3. Are there relationships between the factors of school culture and student achievement?

4. Are there relationships between the combination of factors of servant leadership and school culture on student achievement?

Limitations

The following are limitations of the study:

1. This study took place in one Midwestern state.

2. This study examined only the relationships among principal servant leadership, school culture, and student achievement in elementary schools.

3. This study is subject to the restrictions normally associated with studies using survey methods, such as obtaining an adequate sample size as well as the respondents' accurate interpretation of the instrument questions (Heppner & Heppner, 2004). The study is also limited to the validity and reliability of the instruments used.

Definitions

Agapao love: the degree to which a servant leader demonstrates love in a social and moral sense. The servant leader demonstrates meaning and purpose on the job where the employee has the ability to realize his or her full potential as a person and feels like he or she is associated with a good and/or ethical organization. It is also the degree to which the servant leader is emotionally, physically, and spiritually present for the followers. The servant leader is forgiving, teachable, shows concern for others, is calm during times of chaos, strives to do what is right for the organization, honors people, has a genuine interest in others, and has integrity (Dennis, 2004).

Collaborative leadership: the degree to which school leaders establish and maintain collaborative relationships with school staff. The leaders value teachers' ideas, seek their input, engage them in decision- making, and trust their professional judgments.

School leaders support and reward risk-taking, innovation, and sharing of ideas and practices (Gruenert, 1998).

Collegial support: the degree to which teachers work together effectively, trust each other and value each other's ideas, and assist each other as they work to accomplish the tasks of the school organization (Gruenert, 1998).

Communication Arts Missouri Assessment Program (MAP) scores: In Missouri, all students in grades 3-8 are assessed in Communication Arts. The standards associated with this subject are: (1) speaking and writing standard English, (2) reading fiction, poetry and drama, (3) reading and evaluating nonfiction works and material, (4) writing formally and informally, (5) comprehending and evaluating the content and artistic aspects of oral and visual presentations, (6) participating in formal and informal presentations and discussions of issues and ideas, and (7) identifying and evaluating relationships between language and culture (Missouri Department of Elementary and Secondary Education, 1996a). Only standards one through four are formally assessed on the Missouri Assessment Program (MAP).

Empowerment: the degree to which a servant leader empowers information to others: positive emotional support, actual experience of task mastery, observing models of success, and words of encouragement. The servant leader allows for employee self-direction. Leaders encourage professional growth. The leader lets people do their jobs by enabling them to learn (Dennis, 2004).

Humility: the degree to which a servant leader keeps his or her own accomplishments and talents in perspective, which includes self-acceptance, and further includes the idea of true humility as not being self-focused but rather focused on others.

The servant leader does not overestimate his or her own merits, talks more about employees' accomplishments rather than his or her own, is not interested in self-glorification, does not center attention on his or her accomplishments, is humble enough to consult others to gain further information and perspective, and has a humble demeanor (Dennis, 2004).

Learning partnership: the degree to which teachers, parents, and students work together for the common good of the student; parents and teachers share common expectations and communicate frequently about student performance; parents trust teachers; and students generally accept responsibility for their schooling (Gruenert, 1998).

Missouri Assessment Program (MAP): State-wide test of content area knowledge. "State-level subject area assessments are comprised of three types of items: multiple choice items, constructed response items and performance events" (Missouri Department of Elementary and Secondary Education, 1998, p.5).

Mathematics Missouri Assessment Program (MAP) scores: In Missouri, all students in grades 3-8 are assessed in Mathematics. The standards associated with this subject are: (1) addition, subtraction, multiplication and division; other number sense, including numeration and estimation; and the application of these operations and concepts in the workplace and other situations, (2) geometric and spatial sense involving measurement (including length, area, volume), trigonometry, and similarity and transformations of shapes, (3) data analysis, probability and statistics, (4) patterns and relationships within and among functions and algebraic, geometric and trigonometric concepts, (5) mathematical systems, and (6) discrete mathematics (Missouri Department

of Elementary and Secondary Education, 1996b). All six standards are formally assessed on the MAP.

Professional development: the degree to which teachers value continuous personal development and school-wide improvement; and teachers seek ideas from seminars, colleagues, organizations, and other professional sources to maintain current knowledge, particularly current knowledge about instructional practices (Gruenert, 1998).

Servant Leadership: the natural feeling to serve, to serve first. Conscious choice, then, brings one to aspire to lead. This person is sharply different from the one who chooses to lead first, perhaps because of the need for power or to acquire material possessions. For this person, it will be a later choice to serve—after leadership has been established (Greenleaf, 1991).

School Culture: the expectations and guiding beliefs that are evident in the way a school operates, particularly in the way that people relate, or fail to relate, to each other (Fullan & Hargreaves, 1996).

Student Achievement: the percentage of students in a particular school who score proficient or advanced on the Communication Arts MAP test or the Mathematics MAP test.

Teacher collaboration: the degree to which teachers engage in constructive dialogue that furthers the educational vision of the school; teachers across the school plan together, observe and discuss teaching practices, evaluate programs, and develop an awareness of the practices and programs of other teachers (Gruenert, 1998).

Unity of purpose: the degree to which teachers work toward a common mission for the school; and teachers understand, support, and perform in accordance with that mission (Gruenert, 1998).

Vision: the degree to which a servant leader incorporates the participation of all involved players in creating a shared vision for the organization. The servant leader seeks others' visions for the organization, demonstrates that he or she wants to include employees' visions into the organization's goals and objectives, seeks commitment concerning the shared vision of the organization, encourages participation in creating a shared vision, and has a written expression of the vision of the organization (Dennis, 2004).

Outline of the Study

This study follows a five chapter format, with Chapter 1 being the introduction. Chapter 2 is the review of literature that is relevant to understanding servant leadership, school culture, and student achievement. The methods for data collection and the analysis of the data are presented in Chapter 3. Findings of the quantitative data analysis of the study are presented in Chapter 4. Chapter 5 is a discussion and summary of the quantitative findings of the study and implications for future research.

Chapter Two

REVIEW OF THE LITERATURE

Introduction

No Child Left Behind (2002) has created an increased focus on student

achievement and accountability in today's schools. With this increase in focus has come

an increase in the interest of researching what factors contribute to increased student

achievement (Leithwood & Riehl, 2003). School leadership and school culture are two

factors that have received much attention in the realm of improving student achievement

(Cotton, 2003; Danielson, 2002; Deal & Peterson, 1999; Leithwood & Riehl, 2003;

Leithwood, Seashore Louis, Anderson, & Wahlstrom, 2004; Marzano, Waters, &

McNulty, 2005; Reeves, 2004; Zmuda, Kuklis, & Kline, 2004).

Today's school principal is expected to wear a myriad of hats and possess

extensive knowledge and skills. For example, principals must understand various aspects

of educational administration and know how to deal with curriculum, assessment,

instruction, resource allocation, legal issues, personnel concerns, professional

development, student services, and more (Erlandson, 1994; Hoy & Miskel, 1994). In

addition to a strong knowledge base and background, principals are expected to

effectively lead and efficiently manage their schools while being sensitive and passionate

about their schools and students (Deal & Peterson, 1998; Fullan, 1996). Sergiovanni

(2006) suggests that servant leadership well defines the role of the school principal.

School Culture serves as an explanatory variable between principal leadership and

student achievement (Barth, 2002; Deal & Peterson, 1999; Sergiovanni, 2006). Several

studies have been conducted that show principal leadership has an effect on school

culture (Lucas, 2001; Miles, 2002; Schooley, 2005; Valentine, 2001). Deal and Peterson (1999) suggest that school culture has an effect on student achievement, therefore establishing school culture as an explanatory variable between principal leadership and student achievement.

Many studies and meta-analyses of studies indicate leadership has an effect on student achievement (Cotton, 2003; Hallinger & Heck, 1996; Leithwood, et al. 2004; Marzano, et al. 2005; McLeod, 2000; Palmour, 2000; Prater, 2004; Siens & Ebmeier, 1996; Silins & Murray-Harvey, 1998). The fact that leadership has an effect on student achievement is important since leaders are, more than ever, being held accountable for the results of the students in their buildings (Leithwood & Riehl, 2003). Because leadership has an effect on student achievement, there is a need for effective leadership in schools.

This review of literature will define leadership, examine the relationships between some of the characteristics of Leader-Follower theories of leadership as well as Contingency models of leadership, and synthesize the literature on servant leadership, school culture, and student achievement.

<div align="center">Definition of Leadership</div>

Leadership definitions are as abundant as there are researchers who want to define leadership (Yukl, 2002). It is a difficult concept to define. Bennis (1959) timelessly stated,

> always, it seems, the concept of leadership eludes us or turns up in another form
> to taunt us again with its slipperiness and complexity. So we have invented an

<div align="center">13</div>

endless proliferation of terms to deal with it…and still the concept is not

sufficiently defined (p. 259).

The goal of this review of leadership literature is not to identify a strict definition of

leadership but to begin to develop a broad sense of leadership. Leithwood and Riehl

(2003) state that "we do not want to go too far in developing a formal definition of school

leadership that provides undue constraints" (p. 7).

The literature overwhelmingly supports the notion that leadership is about

relationships. In his seminal book entitled *Leadership*, Burns (1978) suggested that

leadership implies relationships with others. Leithwood and Riehl (2003) state that

"leadership exists within social relationships and serves social ends" (p. 7).

From the outsider looking in, it is possible to see leadership as a "transactional

event that occurs between the leader and his or her followers" (Northouse, 1997, p. 3). It

is a process in which the leader "affects and is affected by the followers" (p. 3). Laub

(2004) states that leadership is an "intentional change process through which leaders and

followers, joined by a shared purpose, initiate action to pursue a common vision" (p. 5).

Kouzes and Posner (1995) posit that there are several different ways in which a

leader engages in a relationship with his or her followers. The leader can model the way,

which means that "leaders go first. They set an example and build commitment through

simple, daily acts that create progress and momentum" (p. 13). The leader "must first be

clear about their guiding principles [and understand that their] deeds are far more

important than their words" (p. 13).

Enabling others to act is another way in which Kouzes and Posner (1995) suggest

that leaders are engaged in relationships with others. They state that "leadership is a team

effort" (p. 11). Leaders must involve all those who are affected by the results of some action so that "they make it possible for others to do good work" (p. 12).

Finally, Kouzes and Posner (1995) conclude that a leader encourages the heart of others. This relational technique is an important part of the role of the leader. "It's part of the leader's job to show people that they can win" (p. 14). Kouzes and Posner also suggest that "love—of their products, their services, their constituents, their clients and customers, and their work—may be the best-kept leadership secret of all" (p. 14).

The leadership literature also contains a strong component of influence. Leithwood and Riehl (2003) state that

> Leadership is an influence process. Leaders act through and with other people or things. Leaders sometimes do things, through words or actions, that have a direct effect on the primary goals of the collective, but more often their agency consists of influencing the thoughts and actions of other persons and establishing the conditions that enable others to be effective (p. 8).

This influence is not coercive, however. It is helping others to want to do what the leader or leaders suggest. Hammer and Champy (1993) define a leader

> not as someone who makes other people *do* what he or she wants, but as someone who makes them *want* what he or she wants. A leader doesn't coerce people into change they resist. A leader articulates a vision and persuades people that they want to become part of it, so that they willingly, even enthusiastically, accept the distress that accompanies its realization (p. 105).

When the follower wants to do what the leader wants, it is for the good of the organization rather than for personal gain on the part of the leader (Burns, 1978; House, et al. 1999).

Leadership also involves influencing others for the attainment of a common goal. Yukl (2002) states that leadership is the process of "influencing others to understand and agree about what needs to get done and how it can be done effectively, and the process of facilitating individual and collective efforts to accomplish the shared objective" (p. 7). Burns' (1978) definition extends Yukl's (2002) beyond just the accomplishment of shared objectives to include followers' values and motivations:

> as leaders inducing followers to act for certain goals that represent the values and the motivation—the wants and the needs, the aspirations and expectations—of both leaders and followers. And the genius of leadership lies in the manner in which leaders see and act on their own and their followers' values and motivations (p. 19).

Northouse (1997) sums it up when he states that leadership "is concerned with how the leader affects followers. Influence is the sine qua non of leadership. Without influence, leadership does not exist" (p. 3). This is especially true when one person tries to get others to do what he or she wants and they may not want to do that. Influence is key to this dilemma.

Leadership also concerns itself with results. Burns (1978) states "all leadership is goal-oriented. The failure to set goals is a sign of faltering leadership. Successful leadership points in a direction; it is also the vehicle of continuing and achieving purpose" (p. 455). Leithwood and Riehl (2003) also suggest that being a goal-oriented

leader is important. They state that leadership should be "directed specifically towards key outcome goals rather than concentrating on technical management, as was a tendency in the recent past (e.g., Boyan, 1988; Rosenblum, et al. 1994)" (p. 8).

Leithwood and Riehl (2003) posit that there are two functions to leadership: "providing direction and exercising influence. Thus, it may be said that leaders mobilize and work with others to articulate and achieve shared intentions" (p. 7). Leaders help group members achieve common goals in order to meet some shared task (Northouse, 1997), and they do it "with clarity and tenacity, and are accountable for their accomplishment" (Leithwood & Riehl, 2003, p. 7).

Leadership in public schools is increasingly focused on goals that are directed at student achievement (Leithwood & Riehl, 2003). "Educational leadership that purports to serve some other end is increasingly viewed as illegitimate and ineffectual" (p. 8). School improvement must be centered on goals of increasing student learning. Leaders must focus on a vision-driven and student-centered process for improving student achievement (Valentine, 2001).

Leadership is also about providing purpose and direction (Leithwood & Riehl, 2003). Jacobs and Jacques (1990) support that notion when they state that "leadership is a process of giving purpose (meaningful direction) to collective effort, and causing willing effort to be expended to achieve purpose" (p. 281).

One way leaders can provide purpose and direction is by articulating visions, embodying values, and creating environments where things can be accomplished (Richards & Engle, 1986). Kouzes and Posner (1995) discuss the notion that leadership is about inspiring a shared vision. They state that "leaders have a desire to make something

happen, to change the way things are, to create something that no one else has ever created before" (p. 11). Leaders are visionaries who are able to "see pictures in their mind's eye of what the results will look like even before they've started their project, much as an architect draws a blueprint or an engineer builds a model" (Kouzes & Posner, 1995, p. 11).

As stated before, leadership is difficult to define, but from the definitions described above, it seems fair to state that leadership can be defined in terms of relationships, influence, results, and providing a purpose and direction. This is not to say that this is an exhaustive definition of leadership, for there are many aspects of leadership that are relevant to the work of leaders. For the sake of this study, leadership will be defined using the following definition from DePree (1989):

> The first responsibility of a leader is to define reality. The last is to say thank you. In between the two, the leader must become a servant and a debtor. That sums up the progress of the artful leader (p. 11)

DePree (1989) defines a debtor as one who owes others the gift of allowing them to become the best they can be, to have the opportunity to serve, and to grow through being tested.

Leader-Follower Theories of Leadership

Many scholars have indicated that servant leadership has as much to do with a follower focus as it does with a leader focus (Drury, 2004; Irving, 2005; Nwogu, 2004; Patterson, 2003; Russell & Stone, 2002; Stone, Russell, & Patterson, 2003; Winston, 2003; Winston, 2005). Patterson (2003) postulated that the focus of a servant leader "is on followers and his/her behaviors and attitudes" and that the focus must be "congruent

with follower focus" (p. 2). She stated that servant leadership encompassed seven

honorable constructs, which work in progression: Agapao love, humility, altruism, vision,

trust, empowerment, and service (Patterson, 2003). Winston (2003) took Patterson's

(2003) notion one step further and included suggestions as to why a follower might be

willing to follow a servant leader. He stated that the progression came from the

follower's Agapao love toward the leader, which yielded a commitment to the leader as

well as a level of self-efficacy. The commitment and self-efficacy inspired intrinsic

motivation which gave way to altruism toward the leader and his/her interests. This, in

turn, became service to the leader and to the organization, which contributed to the

Agapao love within the leader. Winston's (2003) model is outlined in Figure 1.

Figure 1

Winston's Servant Leadership Model

(Winston, 2003, p. 6)

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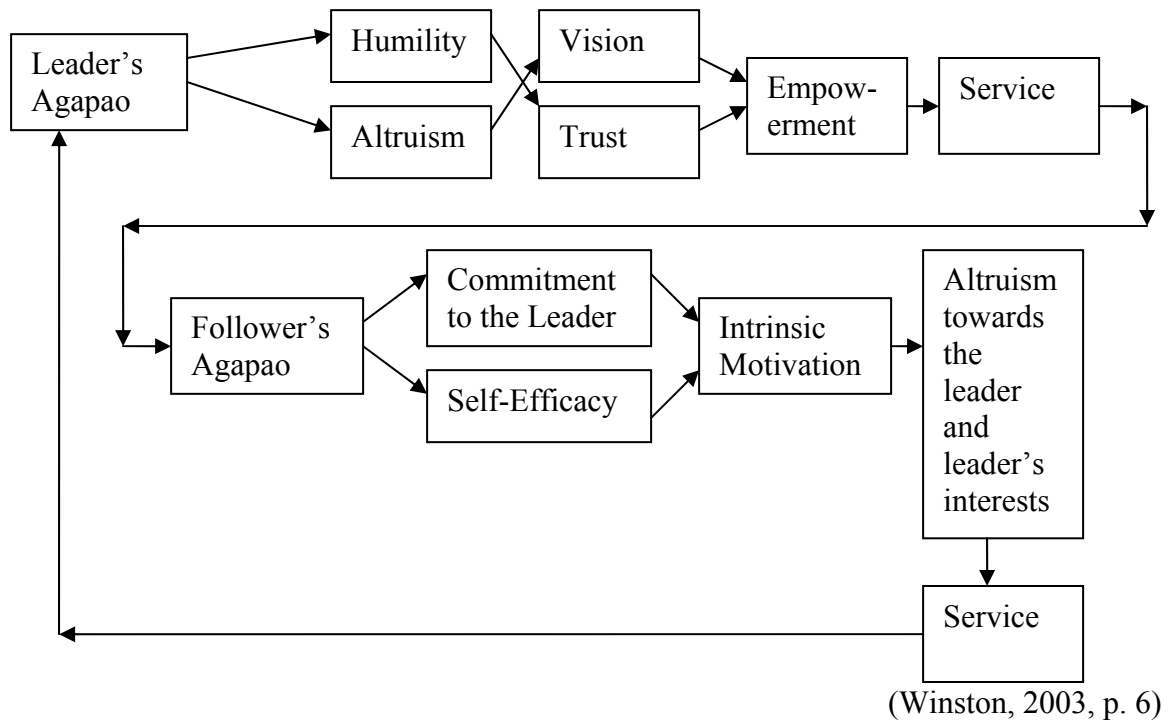
Because servant leadership is relational in nature and involves understanding the relationship between leader and follower, it will be important to outline a couple of theories of leadership within the leader-follower framework to gain a deeper appreciation of the notion of servant leadership. Within this section of the literature review, a brief summary of participative leadership and Leader-Follower exchange theory is presented.

Participative Leadership

Participative leadership theory emphasizes the decision-making processes of the group (Leithwood & Duke, 1999). Leadership involves efforts by a leader to encourage and facilitate participation by others in making decisions that would otherwise be made by the leader alone (Yukl, 2002). Making decisions is one of the most important functions performed by leaders. "A participative leader consults with subordinates, obtains their ideas and opinions, and integrates their suggestions into the decisions regarding how the group or organization will proceed" (Northouse, 1997, p. 91). According to researchers, school leaders will need to adopt more participatory forms of leadership that are consultative, open, and democratic and involve all school constituents in the decision-making process (Hackman & Johnson, 2000; Hallinger, 1995; Leithwood & Duke, 1999). A participatory leader is "a leader who invites others to share the authority of the office and expects those who accept the invitation to share the responsibility as well" (Schlechty, 2000, p. 184). This leader is one who is "strong enough to trust others with his or her fate, just as he or she expects their trust in return" (Schlechty, 2000, p. 184).

In participatory leadership, delegation and empowerment are important elements. Delegation is a distinct type of power-sharing process that occurs when a leader gives

subordinates the responsibility and authority for making some types of decisions formerly

made by the leader (Yukl, 2002). Empowerment involves constituents' beliefs that they

have the opportunity to determine their work roles, accomplish meaningful work, and

influence decision-making (Hackman & Johnson, 2000; Yukl, 2002). Thus, participative

leadership involves "working with and through people" (Hallinger & Heck, 1999, p.

226).

Leader-Follower Exchange Theory

Leader-follower theories of leadership focus primarily on the relationship aspect

between the leader and the follower. The Leader-Follower exchange (LMX) theory is no

exception. Several leadership theorists define the LMX theory in terms of the process

with which the roles of leader and individual subordinate emerge (Dansereau, Graen, &

Haga, 1975; Graen & Cashman, 1975). Yukl (2002) states that the LMX theory

"describes how leaders develop different exchange relationships over time with various

subordinates" (p. 116).

Some of the characteristics of the LMX theory are described in the LMX 7, an

instrument designed to measure three dimensions of Leader-Follower relationships.

Those characteristics are respect, trust, and obligation (Northouse, 1997). The

characteristics measured by the LMX 7 involve the degree with which leaders and

members have mutual respect for each other, the sense of reciprocal trust between the

two parties, and the degree to which there is a feeling of obligation to one another.

"Taken together, these dimensions are the ingredients necessary to create strong

partnerships" (Northouse, 1997, p. 125).

Yukl (2002) describes how the relationship between leader and subordinate develops over time. He says that during the initial phase of the relationship, the leader and subordinate "evaluate each other's motives, attitudes, and potential resources to be exchanged, and mutual role expectations are established" (p. 117). Once the initial phase of the relationship has been established, Yukl (2002) states that the leader and subordinate may move into the second phase where mutual trust, loyalty, and respect are developed. Finally, the leader and subordinate enter into the third and final stage of the relationship "wherein exchange based on self-interest is transformed into mutual commitment to the mission and objectives of the work unit" (Yukl, 2002, p. 117).

Northouse (1997) suggests that organizations benefit when there is a positive Leader-Follower exchange, as opposed to a negative Leader-Follower exchange. He states that organizations "stand to gain much from having leaders who can create good working relationships. When leaders and followers have good exchanges, they feel better, accomplish more, and the organization prospers" (p. 113).

Participative leadership theory and Leader Member Exchange theory of leadership relate to servant leadership in that they contain themes of empowerment and relationship building. Lee and Zemke (1993) consider empowerment and servant leadership as two concepts that cannot be separated because servant leadership emphasizes service, personal development, and shared decision-making. Servant leaders value and develop people, build community, and practice authenticity, which all entail building positive relationships with subordinates (Laub, 1999)

Contingency Models of Leadership

As stated above, servant leadership is a style of leadership that is based upon the relationship between the leader and the follower. There is a confounding variable within the relationship between the leader and follower that needs to be addressed as well. This variable is the situational context within which the leader-follower relationship occurs. Understanding contingency models of leadership that describe the nature of the relationship between leader and follower in the context of the situation is vital to understanding the idea of servant leadership. This section includes a brief summary of LPC Contingency Model, Hersey and Blanchard's Situational Leadership Model, and the Path-Goal Theory of Leadership.

Least Preferred Coworker (LPC) Contingency Model

The Least Preferred Coworker (LPC) Contingency Model of Leadership describes how the situation moderates the relationship between the leader and the least preferred coworker. An LPC score is obtained when the leader considers all past and present coworkers and rates them on a set of bipolar adjective scales (e.g., friendly and unfriendly, fun and boring, helpful and unhelpful). The LPC score is the sum of the ratings on these bipolar adjective scales. A leader with a high LPC score is one who is primarily motivated by close, interpersonal relationships with other people, including subordinates. The achievement of task objectives is a secondary motive for the relationship. A leader with a low LPC score is one who is motivated primarily by the task objectives, and a relationship with others, including subordinates, is a secondary motive.

Rice (1978) reviewed the research on LPC scores and concluded that the data supported a value-attitude interpretation rather than a motive interpretation. Therefore, a

leader with a high LPC score would value interpersonal success, and a leader with a low

LPC score would value task success.

The LPC Contingency Model of leadership relates to servant leadership in that a

leader with a high LPC score would focus on the subordinate over the achievement of the

task. A servant leader trusts followers to do whatever it takes to achieve the

organizational goals, so he or she focuses attention on the relationship between the leader

and the subordinate rather than the task objectives (Stone, Russell, & Patterson, 2004).

Hersey and Blanchard's Situational Leadership Model

Hersey and Blanchard (1977) put forth a contingency theory of leadership that

specified the appropriate leadership behavior depending upon the level of maturity by the

subordinate in relation to the work. A subordinate with a high level of maturity has both

the ability and self-confidence to do the required work; whereas, a subordinate with a low

level of maturity has neither the ability nor the self-confidence to complete the work

required.

According to the situational leadership model proposed by Hersey and Blanchard

(1977), a subordinate who is very immature in relation to the task to be accomplished

would require the leader to provide higher levels of task-oriented support and lower

levels of relations-oriented support in order for the subordinate to satisfactorily complete

the work. A subordinate who has a high level of maturity in relation to the work would

require that the leader allow the subordinate to complete the task without much

interference. A subordinate with a medium level of maturity in relation to the task would

require the leader to provide both task-oriented as well as relations-oriented support as

needed.

The situational leadership model proposed by Hersey and Blanchard (1977) is similar to servant leadership in that the servant leader is one whose main concern is to meet "other people's highest priority needs" (Greenleaf, 1991, p. 7). This means that the servant leader does whatever is necessary to ensure the success of the subordinate, which means, in light of the situational leadership theory proposed by Hersey and Blanchard (1977), he or she needs to provide the appropriate levels of task-oriented support as well as relations-oriented support for each subordinate.

Path-Goal Theory of Leadership

Path-goal theory is defined as the "motivational function of the leader [that] consists of increasing personal payoffs to subordinates for work-goal attainment and making the path to these payoffs easier to travel by clarifying it, reducing roadblocks and pitfalls, and increasing the opportunities for personal satisfaction" along the way (House, 1971, p. 324). It is designed to "explain how leaders can help subordinates along the path to their goals by selecting specific behaviors that are best suited to subordinates' needs and to the situation in which subordinates are working" (Northouse, 1997, p. 89).

A leader who practices path-goal leadership is one who does whatever is necessary to remove any obstacles in the path of the subordinate in order that the subordinate will be able to achieve his/her goal (Northouse, 1997). This leader motivates subordinates when he or she "makes the path to the goal clear and easy to travel through coaching and direction, when it removes obstacles and roadblocks to attaining the goal, and when it makes the work itself more personally satisfying" (Northouse, 1997, p. 89). The way a leader helps a subordinate around an obstacle can be seen in Figure 2.

Figure 2

Path-Goal Leadership
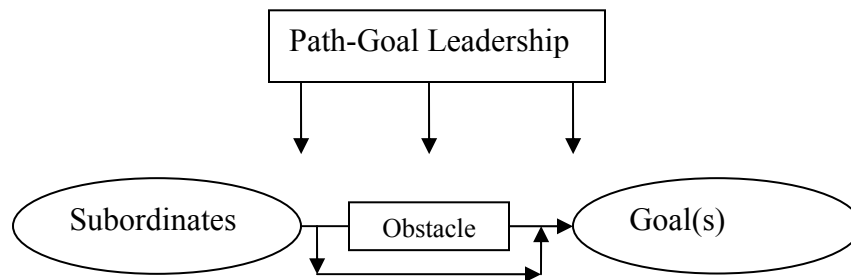
(Northouse, 1997, p. 89)

Northouse (1997) also states that a leader within the path-goal leadership theory defines

goals, clarifies the path, removes obstacles, and provides the support necessary to achieve

the goals.

Path-Goal Leadership theory relates to servant leadership because a servant leader

focuses his or her efforts on the subordinate in order to help him or her achieve success.

This focus, in turn, yields success for the organization (Stone, Russell, & Patterson,

2004). The servant leader, like the leader in a path-goal situation, would define goals,

clarify the path, remove obstacles, and provide the support necessary in order for the

subordinate to be successful.

The Leader-Follower theories of leadership and contingency models of leadership

have themes of empowerment, decision-making, delegation, building relationships, and

doing whatever is necessary to help the subordinate attain their goals and become the best

they can be. These are also some themes that will be seen in the literature on servant

leadership, and they contribute to a deeper understanding of the notion of servant

leadership.

Servant Leadership

Servant Leadership Origination

Robert Greenleaf (1970) first coined the term *Servant Leader* in "The Servant as Leader," an essay he wrote after reading Hermann Hesse's book, *Journey to the East*. It is the story of a servant named Leo, who travels on a mythical journey with several other men in order to serve their needs. He is the one who "does their menial chores, but…also sustains them with his spirit and his song" (Greenleaf, 1991, p. 1). After some time had passed, Leo disappeared and the group of men was no longer able to function without the services of Leo. His contribution to the group had been significant and was missed terribly.

Several years after the journey, one of the men, the narrator, happened upon Leo. The man discovered that Leo was a member of the Order that had sponsored the journey. Not only was he a member of the Order that sponsored the journey, he was the "titular head of the Order, its guiding spirit, a great and noble *leader*" (Greenleaf, 1991, p. 1). Leo was first known as a servant to the men who took the journey, but in reality it was Leo who was the leader, not only of the Order who sponsored the journey, but also of the group of men who had fallen into disarray after Leo disappeared from the group. Leo's leadership was termed Servant Leadership by Robert Greenleaf.

Since the 1970's, servant leadership has gained a slow, but steady cohort of followers in terms of the research. In the last decade, however, servant leadership has gained respect and legitimacy from mainstream leadership theorists (Collins, 2001; Covey, 2002; Marzano, et al. 2005; Yukl, 2006). Jim Laub (2004) writes that "servant leadership is attracting increased attention from scholars, writers, researchers, and

practitioners. Many are now calling for a deeper study of the meaning and application of this emerging sub-field of leadership study" (p. 1). There has been an increase over the past several years of peer-reviewed publications on the topic of servant leadership as well (Autry, 2001; Buchen, 1998; Choi & Mai-Dalton, 1998; Daft & Lengel, 2000; Farling, Stone, & Winston, 1999; Pollard, 1997; Russell, 2001; Sendjaya & Sarros, 2002; Spears, 1998). Bass (2000) states that "the strength of the servant leadership movement and its many links to encouraging follower learning, growth, and autonomy, suggests that the untested theory will play a role in the future leadership of the learning organization" (p. 33).

Servant Leadership Defined

When people hear the phrase servant leadership, they often find themselves confused as to what it is because the phrase itself seems like a paradox (Rude, 2003; Sendjaya & Sarros, 2002). The term "servant" conjures up images of one who is subservient and submissive, taking orders from others and doing menial chores and jobs. The term "leader" often brings to mind the notion of one who is in charge and has control of situations and people. Yet, when the two terms are combined, they describe a person who has a natural feeling

> to serve, to serve *first*. Then conscious choice brings one to aspire to lead. He is
> sharply different from the person who is *leader* first, perhaps because of the need
> to assuage an unusual power drive or to acquire material possessions. For such it
> will be a later choice to serve—after leadership is established (Greenleaf, 1991, p.
> 7).

Servant leaders at their core are first and foremost servants (Greenleaf, 1991). This is a choice they have made not a position in which they find themselves (Pollard, 1997).

"The servant leader's primary intent to serve may emanate from their self-concepts as an altruist, moral person" (Sendjaya & Sarros, 2002, p. 60). The self-concept of a servant leader is a healthy one, as Sendjaya and Sarros (2002) point out that "it would take a leader with an accurate understanding of his or her self-image, moral conviction and emotional stability to make such a choice" (p. 61).

One such historical example of a servant leader is documented in the Gospel of Mark where Jesus uses his words to encourage his disciples to become servants. He says to his disciples after they had been arguing about who was the greatest among them that "whoever wants to become great among you must be your servant" (New International Version, Mark 10:43). He also shows his disciples through his actions of washing their feet an example of one who makes a choice to serve the needs of others (New International Version, John 13). These examples showed his disciples that leadership was not "power over" but rather "power to," which showed that one has the power to "choose to serve others" (Sendjaya & Sarros, 2002, p. 59). Jesus was empowering his disciples to serve the "highest priority needs" of those around them rather than serving the needs of themselves.

Servant leadership is about focus (Stone, Russell, & Patterson, 2004). The focus of the servant leader is on the followers of the organization or those served by the organization. The servant leader asks him or herself:

> do those served grow as persons; do they, *while being served*, become healthier, wiser, freer, more autonomous, more likely themselves to become servants? *And,* what is the effect on the least privileged in society; will he benefit, or, at least, will he not be further deprived? (Greenleaf, 1991, p. 7).

The servant leader trusts followers to "undertake actions that are in the best interest of the organization…[and believes] that organizational goals will be achieved" when the focus is first on the needs of the followers and their growth, rather than being on the organizational objectives (Stone, Russell, & Patterson, 2004, p. 355).

The Servant Leader is one whose main concern is to meet "other people's highest priority needs" (Greenleaf, 1991, p. 7). Within an organization, this might mean that the leader works to ensure that those who work for the organization have what they need to become the best at what they do, thus allowing those who are served by the organization to become the best at what they do. The servant leader is one who values and develops people, builds community, practices authenticity and provides "leadership for the good of those led and the sharing of power and status for the common good of each individual, the total organization and those served by the organization" (Laub, 1999, p. 81).

Although there are various perspectives of servant leadership, there is a common theme among them of having a desire to serve the needs of the follower, thus serving the needs of the organization and striving to help those who are part of the organization to become the best they can be.

Characteristics of Servant Leadership

Although it is widely accepted that a leader can learn to lead and is not simply born to lead (Bolman & Deal, 1991; Stogdill, 1974), a servant leader is one whose characteristics are deeply ingrained within the character of the person**.** Servant leadership is something that is and not something that is done (Ndoria, 2004).

Servant leaders are advocates for those they serve (Sergiovanni, 2006). The servant leader does this by developing those around him or her (Covey, 1998; Laub, 2004;

Pollard, 1997; Whetstone, 2002; Wong, 2004). Covey (1998) states that a servant leader

is "one who seeks to draw out, inspire, and develop the best and highest within people

from the inside out" (Covey, 1998, p. xii). Bennis (1959) states that the effective leader

"actively helps his or her followers to reach their full potential" (p. 102). Wong (2004)

concurs, stating that "servant leadership is predicated on the belief that serving and

developing workers is the best way to achieve organizational goals, because any

[organization] is only as good as its human resources" (p. 3).

Servant leaders are visionaries. They "sense the unknowable; the follower's

potential and are able to help followers see the same thing, within the bigger picture"

(Wis, 2000, p. 5). McGee-Cooper and Trammell (2002) suggest that the most important

quality of a servant leader is a "deep, internal drive to contribute to a collective result or

vision" (p. 148).

Sergiovanni (2000) suggests that an important characteristic of servant leadership

is the dedication to the service of ideals. He states that "servant leadership is practiced by

serving others, but its ultimate purpose is to place oneself, and others for whom one has

responsibility, in the service to ideals" (p. 284). This means a servant leader serves issues

of fairness, doing the right thing, increasing achievement for each student, integrity,

improving the abilities of those being served, etc. Sergiovanni (2006) states that "when

one places one's leadership practice in service to ideas, and to others who also seek to

serve these ideas, issues of leadership role and of leadership style become far less

important" (p. 276).

Marzano, Waters, and McNulty (2005) state that there are several critical skills

within the concept of Servant Leadership:

- Understanding the personal needs of those within the organization.

- Healing wounds caused by conflict within the organization.

- Being a steward of the resources of the organization.

- Developing the skills of those within the organization.

- Being an effective leader.

Because servant leadership is about follower focus (Laub, 2004; Patterson, 2003), and it focuses on the needs of others rather than the needs of self, Patterson (2003) developed the notion that servant leadership was a virtuous style of leadership. She says that "a virtue is a qualitative characteristic that is part of one's character, something within a person that is internal" (p. 2). Whetstone (2001) says it is almost spiritual in nature. Yu (1998) claims that it is a characteristic that exemplifies human excellence.

Patterson (2003) states that servant leadership is a virtuous style of leadership "[that] addresses the idea of doing the right things with a focus on moral character" (p. 2). Kennedy (1995) suggests that virtue does not answer the question of right and wrong, but it seeks to do the right thing in a particular situation. According to Patterson (2003), there are seven virtuous constructs which make up servant leadership. They are (a) Agapao love, (b) humility, (c) altruism, (d) vision, (e) trust, (f) empowerment, and (g) service.

Pollard (1997) sums up the characteristics of a servant leader when he says that a real leader is

> not the person with the most distinguished title, the highest pay, or the longest tenure. The real leader is the role model, the risk-taker. The real leader is not the person with the largest car or the biggest home, but the servant; not the person who promotes himself or herself, but the promoter of others; not the

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administrator, but the initiator; not the taker, but the giver; not the talker, but the

listener (p. 49).

Research in Servant Leadership

The current literature on servant leadership is filled with anecdotal evidence (Bass,

2000; Northouse, 1997; Russell & Stone, 2002; Sendjaya, 2003; Sendjaya & Sarros,

2002), however, "the meticulous standards of scientific methodologies invalidate the

pervasive existence of anecdotal evidence in the popular press of servant leadership in

organisational settings" (Sendjaya, 2003, p. 1). Many leadership scholars have called for

more research in the area of servant leadership (Laub, 2004; Sendjaya, 2003; Sendjaya &

Sarros, 2002; Sergiovanni, 2000). "Rigorous scholarship is needed to take servant

leadership to the next step" (Laub, 2004, p. 2). Sergiovanni (2000) states that servant

leadership is a style of leadership that "deserves more emphasis than it now receives in

the literature on school administration, and more attention from policymakers who seek

to reform schools" (p. 273). Sendjaya (2003) agreed and has called for more "rigorous

qualitative and quantitative research studies on the constructs of servant leadership…in

order to develop servant leadership into a more substantial construct and theory than" it is

today (p. 2).

The academic research that has been conducted in the area of servant leadership is

still "in its infancy" (Stone, et al. 2003, p. 358). Nwogu (2004) states that servant

leadership is moving not only into the construct validation phase but also toward the

"clarification of the leader-follower interdependency model," and that servant leadership

"will gain from searchlighting follower commitment to leadership success" (p. 3). Russell

and Stone (2002) acknowledge that "worthwhile research might determine if the values

of servant leaders correlate with excellent organizational performance" (p. 153). Covey (1998) stated that examining servant leadership at the individual leader level would provide the opportunity to evaluate key individual dimensions of servant leadership.

Knicker (1998) conducted a qualitative study on four elementary school principals in a large, urban, Midwestern city. She studied the lived experiences of these four principals in an attempt to discover how each of them practiced the tenets of servant leadership as espoused by Robert Greenleaf (1977). She concluded that "servant leadership is not so much a kind of leadership, but rather a lens through which one views leadership and the world" (p. 130). She determined that servant leadership was not a frame of leadership but rather, "it is a philosophy which transcends school leadership and guides the perceptions and motives of any who call themselves a servant leader" (p. 131-132). She also noted that servant leadership is a journey where those who espouse this type of leadership tend to be introspective and self-reflective.

Laub (1999), realizing a need for quantifying the servant leadership characteristics of organizational leaders, created an organizational leadership assessment designed to unveil the characteristics of servant leaders through a written and measurable instrument. Stone, et al. (2003) suggest that his research "validates the idea of values as the basis for servant leadership," but they note that "he qualified his conclusions by stating that additional empirical research is necessary to fully understand the relationship between values and servant leadership" (p. 358).

Russell (2001) focused on understanding the values and attributes of servant leadership. He suggested that servant leaders possessed personal values, such as empowerment and humility, that were different from those of non-servant leaders, who

may be more focused on power and control, and that the personal values were tied to the attributes of servant leadership. He concluded that there was evidence of a relationship between values and leadership but that further empirical research was necessary to further examine and validate the connection.

Drury (2004) conducted a study in a non-traditional college measuring job satisfaction, organizational commitment, and servant leadership. She found that servant leadership and job satisfaction were significantly and positively correlated, but that servant leadership and organizational commitment, contrary to the theoretical literature, demonstrated a significant inverse relationship, meaning they were significantly and negatively correlated. Hebert (2004) conducted a similar study in which the relationship between perceived servant leadership and job satisfaction from the follower's perspective was examined. A significant relationship between perceptions of servant leadership and overall intrinsic job satisfaction was found.

Irving (2005) studied the relationship between servant leadership and team effectiveness. He found a significant relationship between servant leadership at the organizational level and team effectiveness at the team level. He also found a significant relationship between each of the factors of the Servant Leadership Assessment Instrument (Love, Empowerment, Vision, Humility, and Trust) and team effectiveness.

Lambert (2005) investigated the relationships between the concepts of servant leadership and student achievement in secondary schools. She also examined the relationships between servant leadership and school climate and between school climate and student achievement. Lambert found that servant leadership correlated with both

student achievement (strong) and school climate (moderate). She also found significant correlations between school climate and student achievement with lower SES schools.

Joseph and Winston (2005) conducted a correlational study between servant leadership, leader trust, and organizational trust. They found a positive correlation between employee perceptions of organizational servant leadership and leader trust as well as between employee perceptions of organizational servant leadership and organizational trust. They also found there were higher levels of both leader trust and organizational trust in servant-led organizations compared to non-servant-led organizations as well as higher levels of organizational trust in servant-led organizations than in non-servant-led organizations.

Servant Leadership Assessment Instrument

Dennis and Bocarnea (2005) conducted a study on Patterson's (2003) seven constructs of servant leadership found and developed a quantitative instrument to measure characteristics of servant leadership of the leader from the perspective of the follower. The seven constructs of servant leadership outlined by Patterson (2003) include (a) Agapao love, (b) humility, (c) altruism, (d) vision, (e) trust, (f) empowerment, and (g) service. Dennis and Bocarnea's (2005) study yielded Cronbach's alpha scores for four of the constructs: Agapao love, humility, vision, and empowerment. The service construct loaded with only one item, and the trust construct loaded with two items, thus neither were included as factors because a Cronbach's alpha needs at least three items to be considered a factor (Dennis & Bocarnea, 2005).

Agapao love ($\alpha = .94$) is the first factor of the Servant Leadership Assessment Instrument (SLAI). It "is the cornerstone of the servant leadership/follower relationship"

(Patterson, 2003, p. 3). Agapao is a Greek term for moral love, "meaning to do the right thing at the right time and for the right reason" (Winston, 2002, p. 5). This type of love is shown by leaders who value followers to the degree that they are willing "to learn the giftings and talents of each one" (Patterson, 2003, p. 3). Dennis (2004) states that the love of servant leaders includes truly caring about followers as people, helping them to feel important, and being genuinely interested in their lives. Gunn (2002) suggests that servant leaders exhibit love by leading with feeling, which fosters understanding, gratitude, kindness, forgiveness, and compassion among followers. Ferch and Mitchell (2001) proposed that Agapao love should be the goal for a leader, such that the leader is emotionally, physically, and spiritually available for the follower.

The second factor of the SLAI is empowerment (α = .94). Empowerment is defined as "entrusting power to others, really giving it away" (Patterson, 2003, p. 6). Covey (1998) states that "the only way you get to empowerment is through high-trust cultures and through an empowerment philosophy that turns bosses into servants and coaches" (p. xi). Servant leaders empower others by teaching them and developing them (Russell & Stone, 2002). Melrose (1995) posits that empowerment involves helping others to do their jobs by enabling them to learn, grow, and progress, even if that means failing at times. Blanchard (2000) states that a servant leader's satisfaction stems from the growth of others. Russell and Stone (2002) suggest that it involves effective listening, making people feel significant, putting an emphasis on teamwork, and valuing of love and equality. Lee and Zemke (1993) consider empowerment and servant leadership as two concepts that go hand in hand because servant leadership emphasizes service, personal

development and shared decision-making. Russell (2001) believes that empowering followers is a major goal of servant leaders.

Vision (α = .89) was identified as the third factor of the SLAI. It is often thought of as an organizational characteristic, but Patterson (2003) suggests that vision is more than that. She says that vision "refers to the idea that the leader looks forward and sees the person as a viable and worthy person and seeks to assist each one in reaching" the state of future growth and benefit (p. 4). In order to be able to help people achieve their best, servant leaders need to know those who follow them. Batten (1998) considers the visionary leader as one who knows his or her followers and is able to help them develop a clear sense of purpose and direction. When the visionary servant leader knows and understands his or her followers well enough to help them achieve their best, it builds a bond of trust between the leader and follower.

The fourth factor of the SLAI is humility (α = .92). It is defined as a lack of false pride (www.dictionary.com). Sandage and Wiens (2001) state that it is the ability to maintain perspective on one's talents and accomplishments, which includes self-acceptance and not being focused on others. Collins (2001) states that humility is illustrated by modesty, by eschewing public praise, not being boastful, and helping others to become successful. It is a test of leadership, determining those who will be good and those who will be great (Collins, 2001). Servant leaders do not draw attention to their own accomplishments but rather focus on the development of the talents and gifts of others for the benefit of the person, the client, and the organization.

Servant Leadership and the School Principal

Servant leadership aptly describes what it means to be a principal (Sergiovanni, 2006). Elementary school principals who are servant leaders "do not 'act' in certain ways but rather view their actions, and make decisions, using the lens of being a servant to others" (Knicker, 1998, p. 131). Sergiovanni (2006) suggests that principals are to schools what ministers are to churches:

Principals are responsible for 'ministering' to the needs of the schools they serve. The needs are defined by the shared values and purposes of the school's covenant. They minister by furnishing help and being of service to parents, teachers, and students. They minister by providing leadership in a way that encourages others to be leaders in their own right. They minister by highlighting and protecting the values of the school. Ultimately, her or his success is known by the quality of the followership that emerges. Quality of follwership is a barometer that indicates the extent to which moral authority has replaced bureaucratic and psychological authority. When moral authority drives leadership practice, the principal is at the same time a leader of leaders, follower of ideas, minister of values, and servant to the followership." (p. 19)

Principals who are servant leaders share power with others (Knicker, 1998). Principals who share power with others feel confident that those who have the power will use it ethically and for the good of the members of the organization as well as those served by the organization. Knicker (1998) also suggests that principals who are servant leaders are different, not because of their actions, but because of the reasons for their

actions. She states that principals who are servant leaders are concerned about their internal motivations about their actions rather than the actions themselves.

School Culture

To understand school culture, it is imperative to first understand culture. Schein (1992, 1985) offers a widely recognized definition that culture is a pattern of shared basic assumptions that a group has learned over the course of time through solving problems that has been shown to work well and prove to be valid enough to be taught to those new to the organization as the correct way to perceive, think, and feel in relation to those problems.

Sergiovanni and Corbally (1984) suggest that culture includes the values, symbols, and shared meanings of a group that might consist of customs, traditions, historical accounts, unspoken understandings, habits, norms, expectations, common meanings associated with objects and rites, shared assumptions, and subjective meanings. Bolman and Deal (1997) concur, saying that culture is "the interwoven pattern of beliefs, values, practices, and artifacts that define for members who they are and how they are to do things" (p. 217). Deal and Kennedy (1982) suggest that culture is the shared beliefs and values that knit a community together. Weick (1985) points out that culture is a "coherent statement of who we are that makes it harder for us to become something else" (p. 385).

Schein (1992) proposes that there are several categories associated with culture. They include: the behavioral regularities when group members interact and might include the language they use, the customs and traditions that evolve and the rituals employed; the group norms or standards by which the group operates; the values the group publicly displays; the ideology that guides the group's behaviors; the implicit rules of interaction

within the organization that old and new members alike are to uphold; the physical layout

of the organization which conveys a "feeling" for members of the organization; the skills

and competencies needed to complete tasks; the organization's habits of thinking and

linguistic paradigms; the shared meanings of the group developed over time; and the

symbols that characterize the organization that have been developed and incorporated

over time. More simplistically, several cultural theorists have plainly stated that culture is

"the way we do things around here" (Bolman & Deal, 2003; Bower, 1966; Deal &

Kennedy, 1982; Deal & Peterson, 1999).

Culture affects the way organizations operate, and it affects the way members of

organizations do their work. Melrose (1998) suggests that culture "tells people *how* to do

what they do, and it determines *how well* they do it" (p. 286). Culture represents an

effective means of coordination (Sergiovanni, 2006), builds commitment and

identification (Schein, 1985), focuses daily behavior (Deal & Kennedy, 1982), fosters

successful change and improvement efforts (Deal & Peterson, 1990), and improves

collegial and collaborative activities that promote healthy communication and problem-

solving tactics (Peterson & Brietzke, 1994).

Culture also has a negative side. Deal and Peterson (1999) suggest four

characteristics that are common in toxic cultures: there is a focus on negative values; the

culture becomes fragmented; the culture becomes exclusively destructive; and it becomes

spiritually fractured. Sergiovanni (2006) warns of the dangers of toxic cultures when he

states that "disengagement, lack of connections, and other manifestations of alienation

stand in the way" of creating the kinds of organizations we want (p. 122).

The culture of a school is no different. There are positive, healthy cultures in schools, and there are negative, toxic cultures in schools. Waller (1932) timelessly stated that schools have cultures that are undeniably their own:

There are, in the school, complex rituals of personal relationships, a set of folkways, more, ad irrational sanctions, a moral code based upon them. There are games, which are sublimated wars, teams, and an elaborate set of ceremonies concerning them. There are traditions, and traditionalists waging their own world-old battle against innovators (p. 96).

Schein (1985) and Deal and Peterson (1990) suggest that school cultures are networks of traditions and rituals that have developed over time as teachers, administrators, students, and parents work together to solve problems and celebrate accomplishments. Deal and Peterson (1999) state that culture helps school leaders better understand their school's own unwritten rules, traditions, norms, and expectations. They suggest that school culture permeates everything within a school: "the way people act, how they dress, what they talk about or avoid talking about, whether they seek out colleagues for help or don't, and how teachers feel about their work and their students" (pp. 2-3). Culture also determines particular educational emphasis or goals that prevail within a school (Hallinger & Heck, 1999).

Fullan and Hargreaves (1996) have identified five levels of culture within a school: true collaboration, comfortable collaboration, contrived collegiality, balkanized, and fragmented. Positive, healthy school cultures might be found in schools where there is true collaboration among faculty members. Fullan and Hargreaves (1996) suggest that schools with collaborative cultures are "places of hard work, of strong and common

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commitment, of dedication, of collective responsibility, and of a sense of pride in the institution" (p. 48). Schools where there is comfortable collaboration among the faculty might be characterized as positive, healthy cultures, as well. A culture of comfortable collaboration might involve support for colleagues and their work without a critical eye or constructive criticism. Sharing ideas, resources, materials, and giving advice would be characteristic of a culture of comfortable collaboration.

Schools that have negative, toxic cultures might find themselves with contrived collegiality, which can be described as collegiality that is controlled by administrators. Usually there is a set of formal bureaucratic procedures that focus the attention on working together. A balkanized culture might exist where there are numerous groups or subcultures who compete for position within the school. Each group has established their own cultures and ways of doing things, but they don't interact with each other. Finally, a fragmented culture is characterized by teacher isolation and autonomy. Collaboration is nonexistent, and staff members are content with the status quo. Champy (1995) describes the epitome of a toxic school culture. It is one that "squashes disagreement [and is] doomed to stagnate, because change always begins with disagreement. Besides, disagreement can never be squashed entirely. It gets repressed, to emerge later as a pervasive sense of injustice, followed by apathy, resentment, and even sabotage" (p. 82).

Hopkins, Ainscow, and West (1994) also describe positive and negative variations of school culture. They suggest that a school is stuck, wandering, or forward-moving. A stuck school culture reveals that there is contrived collegiality and staff isolation. This school culture is characterized by poor organization, mediocre programming, and leadership that is powerless to make any meaningful changes. A wandering school

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culture is characterized by considerable innovation, but maintaining the energy from what they learn through the innovation is difficult, at best. This school culture lacks a unifying mission, and the staff feels stressed from being pulled in so many directions. Many faculty from the wandering school culture rest on their past achievements for their definition of success. Finally, a forward-moving school culture is characterized by values and beliefs that stakeholders use to guide their decision-making. This culture has a good sense of its identity and maintains a healthy balance between the status quo and innovation.

School cultures that want to change and move from toxic to healthy cultures must first begin with people (Dalin, 1993). Changes take time, and "there must be a gradual process of developing openness and trust, which helps a group to become more sensitive and effective as a group" (p. 112). One must consider the traditions and norms of a school culture before beginning the process of change. "Old values and norms have usually set traditions in the school that are hard to change" (p. 99). Because individuals and their relationships are key factors in school cultures, it is critical to "influence the culture at the individual and group level, if we wish to finally attempt to change the school culture" (pp. 97-98).

School cultures exist at many different levels. Sergiovanni's (2006) review of four different levels of the existence of school culture is depicted in Table 1:

Table 1

Four Levels of the Existence of School Culture

Artifacts	What people say, how people behave, and how things look
Perspectives	Shared rules and norms to which people respond, the commonness that exists among solutions to similar problems, how people define the situations they face, and the boundaries of acceptable and unacceptable behavior
Values	The basis for which people judge or evaluate situations they face, the worth of their actions and activities, their priorities, and the behaviors of people with whom they work. They not only specify what is important, but they also specify what is not important.
Assumptions	The unspoken beliefs that members hold about themselves and others, their relationships to other persons, and the nature of the organization in which they live.

(Adapted from Sergiovanni, 2006, pp. 152-153)

Hodgkinson (1983) suggests there are three levels at which school culture exists:

1. The transrational level: where values are conceived as metaphysical, based on beliefs, ethical code and moral insights.

2. The rational level: where values are seen and grounded within a social context of norms, customs, expectations and standards, and depend on collective justification.

3. The subrational: where values are experienced as personal preferences and feelings; they are rooted in emotion, are basic, direct, affective and behaviouristic in character. They are basically asocial and amoral (as cited in Dalin, 1993, p. 97).

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No matter the level at which the culture of the school exists, it has been found to have significant effects on the success of the organization. Barth (2002) states that a school's culture has significant influences on learning and life within the context of the school environment. Deal and Peterson (1999) state that school successes "flourished in cultures with a primary focus on student learning, a commitment to high expectations, social support for innovation, dialogue, and the search for new ideas" (pp. 6-7). Healthy school cultures can "lead to enhanced commitment and performance that are beyond expectations. As a result, the school is better able to achieve its goals" (Sergiovanni, 2006, p. 155).

Leithwood and Seashore-Louis (1998) suggest there are several characteristics of successful schools where the school culture is collaborative. They also state that there seems to be a shared belief in the importance of continuous professional growth, norms of mutual support, a belief in providing honest, candid feedback, the informal sharing of ideas, respect for colleague's ideas, support for risk-taking, encouragement for open discussion of difficulties, shared celebrations of success, a commitment to students, and a belief that all students are valued regardless of their needs.

School leaders have an effect on the cultures of the schools they lead (Lucas, 2001; Miles, 2002; Schooley, 2005; Valentine, 2001). Valentine (2001) states that

> A school's culture should represent a caring about the success of others, particularly students. It should represent collaborative relationships that place the success of each student at the fore. The value system of the school should expect that each student be given the support necessary to be a successful member of the school community. Effective cultures are led by transformational leaders who

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value and foster collaboration, empowerment, and ownership. The culture

embraces continuous professional development, self-reflection, progressive

thinking, and risk-taking, all in the interest of success for each student. Staff

members place student success ahead of personal convenience. They are

committed to a quality school for each student. The culture of the school is a

collection of the shared assumptions of the members of the school that either

inhibit or facilitate student growth. Leaders have the power to shape the culture by

addressing these assumptions (p. 3).

Leithwood and Riehl (2003) note that a leader influences the organizational culture

through practices "aimed at developing shared norms, values, beliefs, and attitudes

among staff, and promoting mutual caring and trust among staff" (p. 20). Sergiovanni

(2006) recommends that if school leaders want to influence school culture that they focus

on the informal, subtle, and symbolic aspects of the school life. Bates (1981) detailed the

role of the principal in shaping the culture of the school:

The culture of the school is therefore the product of conflict and negotiation over

definitions of situations. The administrative influence on school language,

metaphor, myths, and rituals is a major factor in the determination of the culture

which is reproduced in the consciousness of teachers and pupils. Whether that

culture is based on metaphors of capital accumulation, hierarchy and domination

is at least partly attributable to the exercise of administrative authority during the

negotiation of what is to count as culture in the school (p. 43).

School culture can also be seen as having an effect on student achievement. Deal

and Peterson (1999) suggest that school cultures have a significant impact on student

achievement when they state that "school cultures, in short, are key to school achievement and student learning" (p. xii). McLaughlin (1995), in a longitudinal study, found tremendous variation in schools, even departments, serving similar populations of student achievement. Higher performing schools were characterized by positive, focused school cultures, while lower performing schools were characterized by negative, toxic school cultures (as cited in Deal & Peterson, 1999).

In conclusion, it is important to note that culture does not just happen, it is a "negotiated product of the shared sentiment of school participants" (Sergiovanni, 2006, p. 138). School culture is both a product and a process. As a product, it embodies the accumulated wisdom of previous members of the organization. As a process, it is continually renewed and recreated as new members are taught the old ways and eventually become teachers themselves (Bolman & Deal, 1991). School culture is important to the development of healthy schools that focus on the achievement of students. It can be heavily influenced by the leadership of the school and has an effect on the achievement of the school.

School Culture Survey

Gruenert (1998) studied the concepts of school culture found in the literature and developed a quantitative instrument to measure characteristics of school culture at the school level. It was administered to 632 teachers in the state of Missouri and factor analysis revealed six dimensions of school culture. "The School Culture Survey provides insight about the shared values/beliefs, the patterns of behavior, and the relationships in the school. Each factor measures a unique aspect of the school's collaborative culture" (Gruenert & Valentine, 1998).

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Collaborative leadership ($\alpha = .910$) was identified as the first factor and indicated the degree to which school leaders establish and maintain collaborative relationships with school staff (Gruenert, 1998). Valuing teachers' ideas, seeking their input, and engaging them in school decision-making were valuable characteristics of this dimension of school culture. Administrators trusted the professional judgment of teachers and supported risk-taking, innovation, and sharing of ideas and practices.

The second factor of school culture was identified as teacher collaboration ($\alpha = .834$) and described the degree to which teachers engaged in meaningful dialogue with colleagues to support the school's vision (Gruenert, 1998). Components of this factor of school culture include collegial planning time, peer observations, collegial dialogue of teaching practices and evaluation of programs.

Professional development ($\alpha = .867$) was the third factor of school culture and indicated the degree to which teachers valued continuous individual professional development as well as school improvement (Gruenert, 1998). Included in this dimension were behaviors that led to teachers seeking ideas from seminars, colleagues, organizations, and other professional sources in order to maintain current in best practice knowledge, specifically about instructional practices. A reciprocal, supportive relationship existed between individual and organizational growth.

Unity of purpose ($\alpha = .821$) was the fourth factor of school culture and described the level with which teachers worked together to achieve the school's agreed upon mission (Gruenert, 1998). Teachers that knew the mission of the school were those who understood, supported, and performed in accordance with the mission.

The fifth factor of school culture was collegial support (α = .796), which indicated the extent to which teachers effectively worked together (Gruenert, 1998). In this dimension of school culture, teachers trust each other, value each other's opinions and ideas, and work together to accomplish the work of the school.

Learning partnership (α = .658) was the final factor of school culture and referred to the extent that teachers, parents, and students worked in concert to promote the well being of the primary stakeholders, students (Gruenert, 1998). Parents and teachers formed a quality learning partnership where there were common expectations and frequent communication regarding student performance. There was generally a high level of trust between parents and teachers, and students accepted responsibility for their work.

<div align="center">Student Achievement</div>

School leaders are being "held accountable not only for the structures and processes they establish, but also for the performance of those under their charge" (Leithwood & Riehl, 2003, p. 4). Leithwood and Riehl proceed to explain that it has been difficult in the past to measure student outcomes and to tie them to teacher or school leader performance, but technology "makes it more possible to tie student learning outcomes more directly to teachers' and school leaders' performance" (p. 4). This has created a greater amount of pressure on all those involved in education "from students themselves to teachers, principals, and district leaders, to produce documented evidence of successful performance" (p. 4).

Unfortunately, it has been difficult to identify specific characteristics that cause an increase in student achievement (Leithwood & Jantzi, 1999). There have, however, been many studies that have shown various characteristics that have correlations with student

achievement. Many of those studies have focused on leadership (Cotton, 2003;

Leithwood, et al. 2004; McLeod, 2000; Marzano, et al. 2005; Palmour, 2000; Prater,

2004; Silins & Murray-Harvey, 1998).

Marzano, et al. (2005) and Leithwood, et al. (2004) conducted meta-analyses of the

research on leadership and student achievement. Marzano, et al. found correlations

between .17 and .25, and Leithwood, et al. found correlations between .22 and .25.

Marzano, et al. states that "in broad terms, our meta-analysis indicates that principals can

have a profound effect on the achievement of students in their schools" (p. 38).

Leithwood, et al. states that "leadership is second only to classroom instruction among all

school-related factors that contribute to what students learn at school" (p. 5).

Prater (2004) studied the correlations between and among principal managerial

leadership, instructional leadership, transformational leadership, and student

achievement. He found significant correlations among the studied leadership forms and

student achievement. He states that the results of his research "support the belief that

principal leadership influences student achievement" although it is primarily an indirect

relationship (p. 173).

Cotton (2003) conducted a narrative review of the literature on leadership and

student achievement and identified there are 25 categories of principal behavior that

positively effect student achievement. She stated that the 25 characteristics of principals

"in the real world…do not exist separately…the extraordinary principals…embody all or

nearly all these traits and actions" (p. 7). She suggests in her findings that the

effectiveness of the principals is "more than (just) a mere collection of behaviors" (p. 7).

She also states that in reviewing the work of others she has found that the effect of leadership on student achievement has been mostly indirect:

> …while a small portion of the effect may be direct—that is, principals' direct interactions with students in or out of the classroom may be motivating, inspiring, instructive, or otherwise influential—most of it is indirect, that is, mediated through teachers and others (p. 58).

McLeod (2000) conducted a study on the impact of the principal's culture-enhanced leadership behaviors on student achievement in one middle school in South Carolina. She found that leadership was a mediating variable in terms of student achievement. She stated that culture was an important component of effective schools and that "through culture-enhanced leadership behaviors, the principal can foster a harmonious learning environment—conducive to student success" (p. 139).

Palmour (2000) investigated the relationship between principal leadership orientation and student achievement. She found that principal leadership and student achievement have a direct relationship. "The results of this study also confirm that the relationship between principal leadership orientation and student achievement can be viewed as direct" (p. 49).

Finally, Silins and Murray-Harvey (1998) conducted a study to examine the factors that contributed to the effectiveness of senior secondary schools in Australia. They concluded that the leadership of the school did not have a direct effect on the achievement of the students, but it did have an impact on teachers, "who indeed directly influence student performance" (p. 341).

Siens and Ebmeier (1996) agree that principals have a strong, direct effect on mediating variables, but they have little direct effect on student achievement. "Removed from the classroom, principals can only influence student achievement indirectly by working through the teaching staff" (Quinn, 2002, p. 448-449).

Hallinger and Heck (1998) conducted a meta-analysis of the literature on principal leadership and student achievement and developed an organizational framework of the literature:

1. Direct effects (where the principal's actions influence school outcomes)

2. Mediated effects (where the principal's actions affect outcomes indirectly through other variables)

3. Reciprocal effects (where the principal affects teachers and teachers affect the principal, and through these processes outcomes are affected)

Hallinger and Heck stated that the research on direct-effects models did not "seek to control for the effects of other in-school variables such as organizational climate, teacher commitment, [and] instructional organization" (p. 163). They concluded that direct-effects models have "limited utility for investigating the effects of principal leadership" on student achievement because "they have not demonstrated conclusive results with respect to principal effects" (p. 166). The literature they reviewed for their study showed that no significant relationships were found.

Hallinger and Heck (1998) found that mediated-effects models showed the most consistent patterns of results. The mediated-effects models demonstrated that leadership practices have positive effects on student achievement when "mediated by other people, events, and organizational factors such as teacher commitment, instructional practices, or

school culture" (p. 167). This finding, they conclude, demonstrates that "leaders achieve their results primarily through other people" (p. 167).

As for the reciprocal-effects model, Hallinger and Heck (1998) found very few studies that yielded data congruent with a reciprocal-effects model. None of the studies had been conducted with a reciprocal-effects model in mind, however. "The ability to adequately test reciprocal-effects has been limited by the types of data collected and the analytical methods employed by the researchers" (p. 168).

Much of the research has shown that leadership has an indirect effect on student achievement. Hallinger and Heck (1996), however, warn that this indirect effect should not be

> …cause for alarm or dismay. As noted previously, achieving results through others is the essence of leadership. A finding that principal effects are mediated by other in-school variables does nothing whatsoever to diminish the principal's importance (p. 39).

Finally, it is important to consider the nature of high stakes testing. No Child Left Behind (2002) has provided great incentive for states to test children in language arts, mathematics, science, and social studies at various grade levels. Much is at stake for these schools because they need to ensure that, indeed, no child will be left behind. Some researchers suggest that conducting such high stakes tests actually improves student learning, focusing teacher instruction, and persuades children to take learning more seriously (Darling-Hammond & Wise, 1985; Mehrens, 1998; Stake, 1998). Yet, some claim that a focus on high stakes testing in fact limits the range of knowledge taught to children and that it can result in an increase in the achievement gap as a result of the

demotivation of the lowest performing students (Mehrens, 1998; Roderick & Engel, 2001; Shepard, 1990). DeMoss (2002) conducted a qualitative study "examining the role leadership played during the course of a decade in framing how schools would respond to the testing environment" (p. 111). She noted that little research has been done that examines "the role principals play in mediating the context of high-stakes testing" (p. 112). She also suggested that further research needs to be done in this area, especially considering the importance of such high-stakes tests.

Summary

Leadership is difficult to define, yet it is important to organizational success. Leadership can be thought of in terms of relationships, influence, results, and providing a purpose and direction for the organization. Servant leadership is one area of leadership that has gained respect and popularity over the past decade. Servant leaders are those who focus on the needs of others above the needs of themselves. Servant leadership has a follower focus rather than an organizational or outcome focus. For example, in order to move the organization forward, a servant leader focuses on the needs of his or her followers because the servant leader believes that if the needs of the followers are met, then the goals of the organization will be met because the followers will strive to meet organizational goals. Successful leadership depends upon involved followership.

Organizational culture is important to the success of the organization as well. Researchers have found that the culture of the organization can have a significant impact on the success of the organization (Deal & Peterson, 1999). In terms of a school, the culture of that school has a significant effect on the achievement of the students in that school. Culture can be defined in many different ways, but a universal definition is "the

way we do things around here." Culture involves the values, symbols, and shared meanings of a group. These may be seen in the customs, traditions, historical accounts, unspoken understandings, habits, norms, expectations, common meanings associated with objects and rites, shared assumptions, and subjective meanings (Sergiovanni, 1984). For a school culture to be successful, it must be collaborative with a shared belief in the importance of professional development, mutual support, honest feedback, sharing of ideas, risk-taking, celebrations of success, a commitment to students, and a belief that all students are valued (Leithwood & Seashore Louis, 1998). School leaders play an important role in the creation of healthy or unhealthy school cultures (Leithwood & Riehl, 2003; Lucas, 2001; Miles, 2002; Schooley, 2005; Sergiovani, 2006; Valentine, 2001).

Finally, with No Child Left Behind (2002), school leaders are increasingly being held accountable for the achievement of all the students in their schools. This increase in accountability has also increased the demand for understanding how to best meet the achievement goals set out by No Child Left Behind (2002). It is important to continually evaluate the effect leadership and culture have on student achievement. Researchers have found that leadership has an indirect effect on student achievement (Cotton, 2003; Leithwood, et al. 2004; McLeod, 2000; Marzano, et al. 2005; Palmour, 2000; Prater, 2004; Silins & Murray-Harvey, 1998), and school culture affects student achievement as well (Deal & Peterson, 1999). Servant leadership, although not a new concept, has gained prominence in the leadership literature over the past two decades with the publication of Greenleaf's (1970) essay, *The Servant as Leader*. When new leadership styles, such as Servant Leadership, emerge, it is important to understand how these leadership styles

influence culture and organizational effectiveness. This study attempts to gain

perspective on how perceived servant leadership among elementary principals influences

school culture as well as student achievement.

Chapter Three

METHODS

Rationale

The role of the school principal has changed over the last several decades and continues to change even today (Sergiovanni 2006). One thing that has remained constant is that school leadership is a moral endeavor (Burns, 1978; Sergiovanni, 2006). "Transforming leadership ultimately becomes *moral* in that it raises the level of human conduct and ethical aspiration of both leader and led, and thus it has a transforming effect on both" (Burns, 1978, p. 20). As an area of leadership that is moral in its foundation, "servant leadership describes well what it means to be a principal" (Sergiovanni, 2006, p. 19).

According to several scholars on servant leadership, there is a dearth of empirical research on this topic (Russell & Stone, 2002; Bowman, 1997; Sendjaya & Sarros, 2002). However, it is an area of leadership that has grown in interest over the past decade and become a topic of study and discourse for many leadership theorists (Collins, 2001; Marzano, Waters, & McNulty, 2005; Sergiovanni, 2006; Yukl, 2006). "The strength of the servant leadership movement and its many links to encouraging follower learning, growth, and autonomy" make it likely that this leadership style will play an "important role in the future leadership of the learning organization" (Bass, 2000, p. 20). Taylor, Martin, and Johnson (2003) suggest that finding effective leadership "is an ongoing challenge for any progressive organization or school system dedicated to change" (p. 2). It becomes even more important when schools are held accountable for the success of each student.

School leaders have a profound effect upon the cultures of their schools (Schooley, 2005; Miles, 2002; Lucas, 2001; Valentine, 2001), and school culture has been found to have an effect on student achievement (Deal & Peterson, 1999). Many scholars have found that leadership also has an effect on student achievement, although it is an indirect effect (Cotton, 2003; Hallinger & Heck, 1996; Leithwood, Seashore Louis, Anderson, & Wahlstrom, 2004; Marzano, Waters, & McNulty, 2005; McLeod, 2000; Palmour, 2000; Prater, 2004; Scribner, Cockrell, Cockrell, & Valentine, 1999; Siens & Ebmeier, 1996; Silins & Murray-Harvey, 1998). Because school culture serves as an explanatory variable between school leadership and student achievement, it is important to consider the effects of servant leadership on school culture as well as the effects of school culture on student achievement.

This demand for effective leadership, along with an increased interest in servant leadership and the lack of empirical research in this area, as well as the need to consider school culture as an explanatory variable between servant leadership and student achievement serve to necessitate the need to study this emerging style of leadership.

This study used quantitative techniques to explore the relationships between servant leadership, school culture, and student achievement in a Midwestern state.

<div align="center">Purpose of the Study</div>

The purpose of this study was to develop an understanding of the relationships among elementary principal servant leadership, school culture, and student achievement as determined by Communication Arts and Mathematics scores of the Missouri Assessment Program. The primary method of analysis was quantitative, with survey data being used to determine (a) if any explanatory relationships existed between principal

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servant leadership factors and school culture factors; (b) if any explanatory relationships existed between principal servant leadership factors and student achievement; (c) if any explanatory relationships existed between school culture factors and student achievement; and (d) if any explanatory relationships existed between the combination of the factors of principal leadership and school culture on student achievement.

<div align="center">Research Questions</div>

The following research questions were examined during this study:

1. Are there relationships between the factors of servant leadership and the factors of school culture?

2. Are there relationships between the factors of servant leadership and student achievement?

3. Are there relationships between the factors of school culture and student achievement?

4. Are there relationships between the combination of factors of servant leadership and school culture on student achievement?

<div align="center">Null Hypothesis</div>

The following null hypotheses were tested in this study:

H_{01}: There are no significant relationships between servant leadership as measured by the factors of the Servant Leadership Assessment Instrument and school culture as measured by the factors of the School Culture Survey.

$H_{01.1a}$: There are no significant relationships between servant leadership as measured by the factors of the Servant Leadership Assessment Instrument and the factor of collaborative leadership as measured by the School Culture Survey.

$H_{01.1b}$: There are no significant relationships between servant leadership as measured by the factors of the Servant Leadership Assessment Instrument and the factor of collaborative leadership as measured by the School Culture Survey, when controlling for enrollment and free and reduced lunch.

$H_{01.2a}$: There are no significant relationships between servant leadership as measured by the factors of the Servant Leadership Assessment Instrument and the factor of teacher collaboration as measured by the School Culture Survey.

$H_{01.2b}$: There are no significant relationships between servant leadership as measured by the factors of the Servant Leadership Assessment Instrument and the factor of teacher collaboration as measured by the School Culture Survey, when controlling for enrollment and free and reduced lunch.

$H_{01.3a}$: There are no significant relationships between servant leadership as measured by the factors of the Servant Leadership Assessment Instrument and the factor of professional development as measured by the School Culture Survey.

$H_{01.3b}$: There are no significant relationships between servant leadership as measured by the factors of the Servant Leadership Assessment Instrument and the factor of professional development as measured by the School Culture Survey, when controlling for enrollment and free and reduced lunch.

$H_{01.4a}$: There are no significant relationships between servant leadership as measured by the factors of the Servant Leadership Assessment Instrument and the factor of unity of purpose as measured by the School Culture Survey.

$H_{01.4b}$: There are no significant relationships between servant leadership as measured by the factors of the Servant Leadership Assessment Instrument and the

factor of unity of purpose as measured by the School Culture Survey, when

controlling for enrollment and free and reduced lunch.

$H_{01.5a}$: There are no significant relationships between servant leadership as

measured by the factors of the Servant Leadership Assessment Instrument and the

factor of collegial support as measured by the School Culture Survey.

$H_{01.5b}$: There are no significant relationships between servant leadership as

measured by the factors of the Servant Leadership Assessment Instrument and the

factor of collegial support as measured by the School Culture Survey, when

controlling for enrollment and free and reduced lunch.

$H_{01.6a}$: There are no significant relationships between servant leadership as

measured by the factors of the Servant Leadership Assessment Instrument and the

factor of learning partnership as measured by the School Culture Survey.

$H_{01.6b}$: There are no significant relationships between servant leadership as

measured by the factors of the Servant Leadership Assessment Instrument and the

factor of learning partnership as measured by the School Culture Survey, when

controlling for enrollment and free and reduced lunch.

H_{02}: There are no significant relationships between servant leadership as measured by

the factors of the Servant Leadership Assessment Instrument and student

achievement as measured by Communication Arts MAP test scores and

Mathematics MAP test scores.

$H_{02.1a}$: There are no significant relationships between servant leadership as

measured by the factors of the Servant Leadership Assessment Instrument and

student achievement as measured by Communication Arts MAP test scores.

$H_{02.1b}$: There are no significant relationships between servant leadership as measured by the factors of the Servant Leadership Assessment Instrument and student achievement as measured by Communication Arts MAP test scores, when controlling for enrollment and free and reduced lunch.

$H_{02.2a}$: There are no significant relationships between servant leadership as measured by the factors of the Servant Leadership Assessment Instrument and student achievement as measured by Mathematics MAP test scores.

$H_{02.2b}$: There are no significant relationships between servant leadership as measured by the factors of the Servant Leadership Assessment Instrument and student achievement as measured by Mathematics MAP test scores, when controlling for enrollment and free and reduced lunch.

H_{03}: There are no significant relationships between school culture as measured by the factors of the School Culture Survey and student achievement as measured by the Communication Arts MAP scores and Mathematics MAP scores.

$H_{03.1a}$: There are no significant relationships between school culture as measured by the factors of the School Culture Survey and student achievement as measured by Communication Arts MAP test scores.

$H_{03.1b}$: There are no significant relationships between school culture as measured by the factors of the School Culture Survey and student achievement as measured by Communication Arts MAP test scores, when controlling for enrollment and free and reduced lunch.

H$_{03.2a}$: There are no significant relationships between school culture as measured by the factors of the School Culture Survey and student achievement as measured by Mathematics MAP test scores.

H$_{03.2b}$: There are no significant relationships between school culture as measured by the factors of the School Culture Survey and student achievement as measured by Mathematics MAP test scores, when controlling for enrollment and free and reduced lunch.

H$_{04}$: There are no significant relationships between the combination of servant leadership and school culture as measured by the factors of Servant Leadership Assessment Instrument and the School Culture Survey on student achievement as measured by Communication Arts MAP test scores and Mathematics MAP test scores.

H$_{04.1a}$: There are no significant relationships between the combination of servant leadership and school culture as measured by the factors of the Servant Leadership Assessment Instrument and the School Culture Survey on student achievement as measured by Communication Arts MAP test scores.

H$_{04.1b}$: There are no significant relationships between the combination of servant leadership and school culture as measured by the factors of Servant Leadership Assessment Instrument and the School Culture Survey on student achievement as measured by Communication Arts MAP test scores, when controlling for enrollment and free and reduced lunch.

H$_{04.2a}$: There are no significant relationships between the combination of servant leadership and school culture as measured by the factors of Servant Leadership

Assessment Instrument and the School Culture Survey on student achievement as measured by Mathematics MAP test scores.

$H_{04.2b}$: There are no significant relationships between the combination of servant leadership and school culture as measured by the factors of Servant Leadership Assessment Instrument and the School Culture Survey on student achievement as measured by Mathematics MAP test scores, when controlling for enrollment and free and reduced lunch.

Population and Sample

This study examined the relationships between teacher perceptions of principal servant leadership behaviors and school culture and student achievement. Teachers in this study were elementary teachers in K-5, K-4, PK-5, or PK-4 elementary schools in Missouri. Five hundred schools were randomly selected and asked to participate in this study. These schools were identified through the Missouri Department of Elementary and Secondary Education's school directory (Missouri Department of Elementary and Secondary Education, 2006). Sixty-two schools participated and a total of 677 teachers responded to the surveys. The survey data were gathered in the spring of 2006 and aggregated and analyzed at the school level. The student achievement data, 2006 Communication Arts MAP test and Mathematics MAP test results, were gathered in the fall of 2006 once they were reported by the Missouri Department of Elementary and Secondary Education (Missouri Department of Elementary and Secondary Education, 2007).

Procedure

To accomplish the purpose of this study, the following general procedures were followed. For all statistical tests, the level of significance was set at a probability level of $\alpha = .05$.

1. Correlations between the factors of servant leadership and the factors of school culture were analyzed.

2. Using multiple regression analysis, linear relationships for the factors of principal servant leadership as they explain school culture were analyzed.

3. Correlations between the factors of servant leadership and student achievement were analyzed.

4. Using multiple regression analysis, linear relationships for the factors of principal servant leadership as they explain student achievement were analyzed.

5. Correlations between the factors of school culture and student achievement were analyzed.

6. Using multiple regression analysis, linear relationships for the factors of school culture as they explain student achievement were analyzed.

7. Using multiple regression analysis, linear relationships for a combination of the factors of servant leadership and school culture as they explain student achievement were analyzed.

8. From the above findings, an explanatory model among the factors of principal servant leadership, school culture, and student achievement was developed.

Instrumentation

Two instruments were used in this study to collect quantitative data. The Servant

Leadership Assessment Instrument (Dennis & Bocarnea, 2005) was used to measure four

factors of principal servant leadership as perceived by teachers from each of the

participating school's faculty. The School Culture Survey (Gruenert & Valentine, 1998)

was used to measure six factors of school culture as perceived by teachers from each of

the participating school's faculty.

Servant Leadership Assessment Instrument

Servant Leadership was measured using the Servant Leadership Assessment

Instrument (Dennis & Bocarnea, 2005) and assessed by each school faculty's perceptions

of their school principal. A copy of the survey instrument and its items, grouped by

factor, is in Appendix B of this study. Servant Leadership descriptive statistics are

located in Appendix D. The Servant Leadership Assessment Instrument was developed

by Dennis and Bocarnea (2005) using Patterson's (2003) theory of servant leadership and

DeVellis' (2003) "Guidelines in Scale Development" to develop an instrument for

measuring servant leadership. An initial collection of 71 items was administered to a

sample of 406 participants, and the use of an Oblimin Rotation method was used for the

factor analysis that yielded a final instrument of 42 items with four factors (Dennis,

2004). The Servant Leadership Assessment Instrument measures followers' perceptions

of the following four factors of servant leadership:

1. *Agapao love:* measures the degree to which a servant leader demonstrates love in

   a social and moral sense. The servant leader demonstrates meaning and purpose

   on the job where the employee has the ability to realize his or her full potential as

a person and feels like he or she is associated with a good and/or ethical organization. It also measures the degree to which the servant leader is emotionally, physically, and spiritually present for the followers. The servant leader is forgiving, teachable, shows concern for others, is calm during times of chaos, strives to do what is right for the organization, honors people, has a genuine interest in others, and has integrity. This factor has a reported reliability coefficient (Cronbach's alpha) of .94 (Dennis, 2004).

2. *Empowerment:* the degree to which a servant leader empowers information to others: positive emotional support, actual experience of task mastery, observing models of success, and words of encouragement. The servant leader allows for employee self-direction. Leaders encourage professional growth. The leader lets people do their jobs by enabling them to learn. This factor has a reported reliability coefficient (Cronbach's alpha) of .94 (Dennis, 2004).

3. *Vision:* the degree to which a servant leader incorporates the participation of all involved players in creating a shared vision for the organization. The servant leader seeks others' visions for the organization, demonstrates that he or she wants to include employees' visions into the organization's goals and objectives, seeks commitment concerning the shared vision of the organization, encourages participation in creating a shared vision, and has a written expression of the vision of the organization. This factor has a reported reliability coefficient (Cronbach's alpha) of .89 (Dennis, 2004).

4. *Humility:* the degree to which a servant leader keeps his or her own accomplishments and talents in perspective, which includes self-acceptance, and

further includes the idea of true humility as not being self-focused but rather focused on others. The servant leader does not overestimate his or her own merits, talks more about employees' accomplishments rather than his or her own, is not interested in self-glorification, does not center attention on his or her accomplishments, is humble enough to consult others to gain further information and perspective, and has a humble demeanor. This factor has a reported reliability coefficient (Cronbach's alpha) of .92 (Dennis, 2004).

School Culture Survey

School Culture was measured by the School Culture Survey (Gruenert & Valentine, 1998) and assessed by each school faculty's perceptions of the school's culture. A copy of the survey instrument and its items, grouped by factor, is in Appendix C of this study. School Culture descriptive statistics are located in Appendix E. The School Culture Survey was developed by Gruenert & Valentine (1998) after a thorough review of articles, chapters, and books concerned with school culture. An initial collection of 79 items was administered to a sample of 632 teachers in 18 schools, and factor analysis was used to develop a final instrument of 35 items (Gruenert, 1998). The School Culture Survey measures teachers' perceptions of the following six factors of school culture:

1. *Collaborative leadership*: the degree to which school leaders establish and maintain collaborative relationships with school staff. The leaders value teachers' ideas, seek their input, engage them in decision- making, and trust their professional judgments; and leaders support and reward risk-taking, innovation,

and sharing of ideas and practices. This factor has a reported reliability coefficient (Cronbach's alpha) of .91 (Gruenert, 1998).

2. *Teacher collaboration*: the degree to which teachers engage in constructive dialogue that furthers the educational vision of the school; teachers across the school plan together, observe and discuss teaching practices, evaluate programs, and develop an awareness of the practices and programs of other teachers. This factor has a reported reliability coefficient (Cronbach's alpha) of .83 (Gruenert, 1998).

3. *Unity of purpose*: the degree to which teachers work toward a common mission for the school; and teachers understand, support, and perform in accordance with that mission. This factor has a reported reliability coefficient (Cronbach's alpha) of .82 (Gruenert, 1998).

4. *Professional development*: the degree to which teachers value continuous personal development and school-wide improvement; and teachers seek ideas from seminars, colleagues, organizations, and other professional sources to maintain current knowledge, particularly current knowledge about instructional practices. This factor has a reported reliability coefficient (Cronbach's alpha) of .86 (Gruenert, 1998).

5. *Collegial support*: the degree to which teachers work together effectively; trust each other and value each other's ideas; and assist each other as they work to accomplish the tasks of the school organization. This factor has a reported reliability coefficient (Cronbach's alpha) of .79 (Gruenert, 1998).

6. *Learning partnership*: the degree to which teachers, parents, and students work

   together for the common good of the student; parents and teachers share common

   expectations and communicate frequently about student performance; parents

   trust teachers; and students generally accept responsibility for their schooling.

   This factor has a reported reliability coefficient (Cronbach's alpha) of .65

   (Gruenert, 1998).

Data Collection

Principal servant leadership and school culture data were collected in the spring of

2006 from faculty members in elementary schools in Missouri. Five hundred schools

were randomly selected and asked to participate in this study, and 62 schools both agreed

and provided an adequate number of useable returns for a response rate of 12.4%. The

principals of these schools were contacted via email asking for permission to conduct

research in their school (Appendix A). Principal email addresses were obtained from the

Missouri Department of Elementary and Secondary Education's website from the

Missouri School Directory, 2005-2006 (Missouri Department of Elementary and

Secondary Education, 2006). Principals were asked to provide the email addresses of the

teachers from the school in order for the surveys to be conducted. By participating in this

study, the principals and teachers of the schools were provided a profile chart and

description of their school's servant leadership and school culture. Using the list provided

by the principal, all full-time classroom teachers were sent an email asking for their

participation as well as a link directing them to a website where the survey was housed

(Appendix A). Once the participants clicked on the link, they were taken to a website

where a description of the study was provided, as well as the human subjects' rights and

privileges statement, including classification of voluntary participation, anonymity, and confidentiality (Appendix A). At this point, participants had a choice to accept or decline participation. By clicking the "I Accept" button, the participant agreed to participate in the study. Once the participant was finished with the survey, the participant clicked a "submit" button that allowed the results of the survey to be housed in a secure electronic database for the study.

Student achievement and demographic data for the elementary schools were obtained through the Missouri Department of Elementary and Secondary Education (Missouri Department of Elementary and Secondary Education, 2007) and added to the database for each school. Student achievement data were obtained only for the 2005-2006 school year.

Data Analysis

The online electronic survey system allowed the researcher to have instant access to the data and allowed the researcher to electronically transfer the data from the survey system into an Excel spreadsheet. Respondents were assigned a code that linked them to their particular school, which allowed the researcher to analyze the data on the appropriate unit of analysis, the school.

The researcher began formal analysis once all the data were collected and organized into an Excel spreadsheet. The data were transferred into SPSS 14.0 where the data were analyzed per the study's hypotheses using correlation and multiple regression.

Chapter Four

PRESENTATION AND ANALYSIS OF DATA

Introduction

Schools are faced with increasing levels of accountability as a result of high-stakes testing as outlined by the requirements of No Child Left Behind (2002). Because of the increased accountability, school leaders have more pressures on them than perhaps ever before. Schlechty (1990) states that "…principals are accountable for results…" (p. 186). Schlechty (1990) goes on to state that "test scores (among other things) are results toward which school systems need to be managed. Such measures indicate whether the school is doing its business as it should" (p. 194). Schlechty (1990) even suggests that we need results-oriented leadership where there is "attention on producing quality schoolwork for children. If this can be accomplished, test scores, dropout rates, and so on will improve" (p. 195). Schlechty (1990) compares the results-oriented school system with companies such as Ford Motor Company and Xerox, who began to focus on customer needs and product quality, rather than engineering and accounting, and their profits began to increase. Schools that do not perform and increase levels of student achievement for all students can expect to face increasingly strict penalties (U.S. Dept. of Education, 2002). Leadership is one important key to providing the type of success schools strive to achieve.

"Leaders must be decisive. Leaders must be forceful. Leaders must have vision. Leaders must successfully manipulate events and people, so that vision becomes reality. Leaders, in other words, must *lead*" (Sergiovanni, 1992, p. 269). There is a time and place for this type of leadership, but Sergiovanni (1992a) goes on to say that "leadership

that counts, in the end, is the kind that touches people differently. It taps their emotions, appeals to their values, and responds to their connections with other people" (p. 270). A great example of this type of leadership is found in Greenfield's (1991) case study of an urban elementary school, where he states that the teachers'

> persistence in searching out strategies to increase their colleagues' or their personal effectiveness in serving the needs of the school's children was motivated not by bureaucratic mandate or directives from superiors, but by moral commitment to the children, rooted in their awareness of the needs of these children and their beliefs about the significance of their roles, as teachers, in these children's lives. Much of the principal's efforts to foster leadership among the teachers…was directed to further developing and sustaining this moral orientation among teachers (p. 3).

Leadership that empowers others to be the best at what they do is at the heart of servant leadership. Greenleaf (1991) asks the question,

> do those served grow as persons; do they, *while being served*, become healthier, wiser, freer, more autonomous, more likely themselves to become servants? *And*, what is the effect on the least privileged in society; will he benefit, or, at least, will he not be further deprived? (p. 7).

Servant Leadership describes a person who has a natural feeling "to serve, to serve *first*" (Greenleaf, 1991, p. 7). This feeling to serve then brings the leader to the point of leadership because there is a need for it, not because of any internal desire for it and the power that may accompany it. Servant leaders at their core are first and foremost servants (Greenleaf, 1991). This is a choice they have made because of a perceived need they see

not a position in which they find themselves (Pollard, 1997). "The strength of the servant leadership movement and its many links to encouraging follower learning, growth, and autonomy" make it likely that this leadership style will play an "important role in the future leadership of the learning organization" (Bass, 2000, p. 20).

Studies have shown that leadership has an indirect effect on student achievement (Cotton, 2003; Hallinger & Heck, 1996; Leithwood, Seashore Louis, Anderson, & Wahlstrom, 2004; Marzano, Waters, & McNulty, 2005; McLeod, 2000; Palmour, 2000; Prater, 2004; Siens & Ebmeier, 1996; Silins & Murray-Harvey, 1998). Most of the research has focused on the transformational leadership model, which is appropriate for schools facing the critical issues of raising student test scores, especially in school environments where a majority of children come from homes of poverty. Researchers and practitioners alike have used the transformational leadership model to define and describe leadership in the schools for many years, but there is little evidence describing servant leadership (Russell & Stone, 2002; Bowman, 1997; Sendjaya & Sarros, 2002), especially in the school system where leadership theorists have suggested that servant leadership is an excellent model for the public school principal (Sergiovanni, 2006).

School culture also plays a significant role in the success of the organization. Some theorists have posited that the development of an organization's culture is an important responsibility of leadership (Schein, 1985; Maehr & Midgley, 1996). Understanding the role of leadership upon culture and culture's role upon organizational success is critical to helping school leaders adapt to the changes of an increasingly accountable educational system.

Study Design

The purpose of this study was to develop an understanding of the relationships among elementary principal servant leadership, school culture, and student achievement as determined by Communication Arts and Mathematics scores of the Missouri Assessment Program. The primary method of analysis was quantitative, with survey data being used to determine (a) if any relationships existed between principal servant leadership factors and school culture factors; (b) if any relationships existed between principal servant leadership factors and student achievement; (c) if any relationships existed between school culture factors and student achievement; and (d) if any relationships existed between the combination of the factors of principal leadership and school culture on student achievement.

Two survey instruments were used to collect data for analysis. Full-time elementary classroom teachers completed the Servant Leadership Assessment Instrument (Dennis & Bocarnea, 2005) (Appendix B) to provide survey data about the servant leadership characteristics of their school's principal. The four factors of servant leadership are: Agapao love, empowerment, vision, and humility.

Full-time elementary classroom teachers completed the School Culture Survey (Gruenert & Valentine, 1998) (Appendix C) to provide survey data about the culture of their school. The six factors of school culture are: collaborative leadership, teacher collaboration, unity of purpose, professional development, collegial support, and learning partnership.

Student achievement data were gathered from the Missouri Department of Elementary and Secondary Education's website (www.dese.mo.gov). These data were

gathered for the Missouri Assessment Program test scores for Communication Arts and Mathematics. The data gathered were reported by the Missouri Department of Elementary and Secondary Education as school-wide data rather than individual grade-level data. The level of analysis for this study was the school, so school-wide data were the most appropriate data for use in this study.

Data from the two surveys as well as student achievement data were aggregated at the school level and analyzed using correlations and multiple regression analysis to determine the nature of the relationships among the factors of principal servant leadership, school culture, and student achievement.

<u>Research Questions</u>

The following research questions were examined during this study:

1. Are there relationships between the factors of servant leadership and the factors of school culture?

2. Are there relationships between the factors of servant leadership and student achievement?

3. Are there relationships between the factors of school culture and student achievement?

4. Are there relationships between the combination of factors of servant leadership and school culture on student achievement?

Null Hypothesis

The following null hypotheses were tested in this study:

H_{01}: There are no significant relationships between servant leadership as measured by the factors of the Servant Leadership Assessment Instrument and school culture as measured by the factors of the School Culture Survey.

$H_{01.1a}$: There are no significant relationships between servant leadership as measured by the factors of the Servant Leadership Assessment Instrument and the factor of collaborative leadership as measured by the School Culture Survey.

$H_{01.1b}$: There are no significant relationships between servant leadership as measured by the factors of the Servant Leadership Assessment Instrument and the factor of collaborative leadership as measured by the School Culture Survey, when controlling for enrollment and free and reduced lunch.

$H_{01.2a}$: There are no significant relationships between servant leadership as measured by the factors of the Servant Leadership Assessment Instrument and the factor of teacher collaboration as measured by the School Culture Survey.

$H_{01.2b}$: There are no significant relationships between servant leadership as measured by the factors of the Servant Leadership Assessment Instrument and the factor of teacher collaboration as measured by the School Culture Survey, when controlling for enrollment and free and reduced lunch.

$H_{01.3a}$: There are no significant relationships between servant leadership as measured by the factors of the Servant Leadership Assessment Instrument and the factor of professional development as measured by the School Culture Survey.

$H_{01.3b}$: There are no significant relationships between servant leadership as measured by the factors of the Servant Leadership Assessment Instrument and the

factor of professional development as measured by the School Culture Survey, when controlling for enrollment and free and reduced lunch.

$H_{01.4a}$: There are no significant relationships between servant leadership as measured by the factors of the Servant Leadership Assessment Instrument and the factor of unity of purpose as measured by the School Culture Survey.

$H_{01.4b}$: There are no significant relationships between servant leadership as measured by the factors of the Servant Leadership Assessment Instrument and the factor of unity of purpose as measured by the School Culture Survey, when controlling for enrollment and free and reduced lunch.

$H_{01.5a}$: There are no significant relationships between servant leadership as measured by the factors of the Servant Leadership Assessment Instrument and the factor of collegial support as measured by the School Culture Survey.

$H_{01.5b}$: There are no significant relationships between servant leadership as measured by the factors of the Servant Leadership Assessment Instrument and the factor of collegial support as measured by the School Culture Survey, when controlling for enrollment and free and reduced lunch.

$H_{01.6a}$: There are no significant relationships between servant leadership as measured by the factors of the Servant Leadership Assessment Instrument and the factor of learning partnership as measured by the School Culture Survey.

$H_{01.6b}$: There are no significant relationships between servant leadership as measured by the factors of the Servant Leadership Assessment Instrument and the factor of learning partnership as measured by the School Culture Survey, when controlling for enrollment and free and reduced lunch.

H$_{02}$: There are no significant relationships between servant leadership as measured by the factors of the Servant Leadership Assessment Instrument and student achievement as measured by Communication Arts MAP test scores and Mathematics MAP test scores.

H$_{02.1a}$: There are no significant relationships between servant leadership as measured by the factors of the Servant Leadership Assessment Instrument and student achievement as measured by Communication Arts MAP test scores.

H$_{02.1b}$: There are no significant relationships between servant leadership as measured by the factors of the Servant Leadership Assessment Instrument and student achievement as measured by Communication Arts MAP test scores, when controlling for enrollment and free and reduced lunch.

H$_{02.2a}$: There are no significant relationships between servant leadership as measured by the factors of the Servant Leadership Assessment Instrument and student achievement as measured by Mathematics MAP test scores.

H$_{02.2b}$: There are no significant relationships between servant leadership as measured by the factors of the Servant Leadership Assessment Instrument and student achievement as measured by Mathematics MAP test scores, when controlling for enrollment and free and reduced lunch.

H$_{03}$: There are no significant relationships between school culture as measured by the factors of the School Culture Survey and student achievement as measured by the Communication Arts MAP scores and Mathematics MAP scores.

$H_{03.1a}$: There are no significant relationships between school culture as measured by the factors of the School Culture Survey and student achievement as measured by Communication Arts MAP test scores.

$H_{03.1b}$: There are no significant relationships between school culture as measured by the factors of the School Culture Survey and student achievement as measured by Communication Arts MAP test scores, when controlling for enrollment and free and reduced lunch.

$H_{03.2a}$: There are no significant relationships between school culture as measured by the factors of the School Culture Survey and student achievement as measured by Mathematics MAP test scores.

$H_{03.2b}$: There are no significant relationships between school culture as measured by the factors of the School Culture Survey and student achievement as measured by Mathematics MAP test scores, when controlling for enrollment and free and reduced lunch.

H_{04}: There are no significant relationships between the combination of servant leadership and school culture as measured by the factors of Servant Leadership Assessment Instrument and the School Culture Survey on student achievement as measured by Communication Arts MAP test scores and Mathematics MAP test scores.

$H_{04.1a}$: There are no significant relationships between the combination of servant leadership and school culture as measured by the factors of the Servant Leadership Assessment Instrument and the School Culture Survey on student achievement as measured by Communication Arts MAP test scores.

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$H_{04.1b}$: There are no significant relationships between the combination of servant

leadership and school culture as measured by the factors of Servant Leadership

Assessment Instrument and the School Culture Survey on student achievement as

measured by Communication Arts MAP test scores, when controlling for

enrollment and free and reduced lunch.

$H_{04.2a}$: There are no significant relationships between the combination of servant

leadership and school culture as measured by the factors of Servant Leadership

Assessment Instrument and the School Culture Survey on student achievement as

measured by Mathematics MAP test scores.

$H_{04.2b}$: There are no significant relationships between the combination of servant

leadership and school culture as measured by the factors of Servant Leadership

Assessment Instrument and the School Culture Survey on student achievement as

measured by Mathematics MAP test scores, when controlling for enrollment and

free and reduced lunch.

<div align="center">Descriptive Findings</div>

School Demographic Data

Information about student achievement, free and reduced lunch, enrollment, and

socioeconomic status for the 62 schools in this study is in Appendix F. The mean for the

school size was 397.8 students. The mean for the percentage of free and reduced lunch

students was 42%. The mean for the percentage of students scoring proficient or

advanced on the Communication Arts MAP test was 47.9%. The mean for the percentage

of students scoring proficient or advanced on the Mathematics MAP test was 47.2%. Five

hundred schools were randomly selected and asked via email to participate in a state-

wide study on the relationship between servant leadership, school culture, and student achievement. The 62 schools who participated in the study were K-5, K-4, PK-5, or PK-4 elementary schools.

Principal Servant Leadership Variables

The Servant Leadership Assessment Instrument (Dennis & Bocarnea, 2005) (Appendix B) was used to determine school leadership faculty member ratings of their principal's servant leadership behaviors as described by the four factors of servant leadership. The Servant Leadership Assessment Instrument consists of 42 6-point Likert-scale items where 0 = Low, 3 = Moderate, and 6 = High. Higher scores on the factors of the Servant Leadership Assessment Instrument indicate stronger agreement.

Servant Leadership Assessment Instrument descriptive statistics for the set of 62 schools are presented in Table 2. The factor "empowerment" had the highest mean (4.84), followed, in descending order, by "humility" (4.78), "Agapao love" (4.69), and "vision" (4.36).

Table 2

Servant Leadership Assessment Instrument Descriptive Statistics

Variable	N	Mean	Std. Dev.	Variance	Minimum	Maximum
Agapao Love	62	4.69	.74	0.55	2.65	5.85
Empowerment	62	4.84	.62	0.38	2.57	5.72
Vision	62	4.36	.68	0.46	2.33	5.38
Humility	62	4.78	.79	0.62	2.33	5.80

School Culture Variables

The School Culture Survey (Gruenert & Valentine, 1998) (Appendix C) was used to determine faculty ratings of their school's culture as described by the six factors of school culture. The School Culture Survey consists of 35 5-point Likert-scale items where 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, and 5 = Strongly Agree. Higher scores on the factors of the School Culture Survey indicate stronger agreement.

School Culture Survey descriptive statistics for the set of 62 schools are presented in Table 3. The factor "professional development" had the highest mean (4.25), followed, in descending order, by "unity of purpose" (4.24), "collegial support" (4.23), "collaborative leadership" (3.95), "learning partnership" (3.86), and "teacher collaboration" (3.59).

Table 3

School Culture Survey Descriptive Statistics

Variable	N	Mean	Std. Dev.	Variance	Minimum	Maximum
Collaborative Leadership	62	3.95	.36	0.13	2.75	4.62
Teacher Collaboration	62	3.59	.30	0.09	2.83	4.12
Unity of Purpose	62	4.24	.28	0.08	3.00	4.72
Professional Development	62	4.25	.22	0.05	3.77	4.75
Collegial Support	62	4.23	.24	0.06	3.38	4.70
Learning Partnership	62	3.86	.31	0.09	2.88	4.45

Hypothesis Testing

Four hypotheses were tested in this study. Each hypothesis was tested using multiple regression among the factors of the Servant Leadership Assessment Instrument, the School Culture Survey, and Student Achievement, as measured by Communication Arts MAP and Mathematics MAP test scores.

Hypothesis One

The first hypothesis tested in this study was: There are no significant relationships between servant leadership as measured by the factors of the Servant Leadership Assessment Instrument and school culture as measured by the factors of the School Culture Survey. Pearson product-moment correlation coefficients were calculated for the

relationships between the factors of elementary principal servant leadership and the factors of school culture to understand the relationships between the factors servant leadership and the factors of school culture. The Pearson product-moment correlations are listed in Table 4 and Table 5.

Agapao love. The elementary principal servant leadership factor of "Agapao love" had relatively strong significant bivariate correlations with all six factors of school culture, including "collaborative leadership" (r = .676, p < .01), "teacher collaboration" (r = .398, p < .01), "professional development" (r = .364, p < .01), "unity of purpose" (r = .612, p < .01), "collegial support" (r = .396, p < .01), and "learning partnership" (r = .394, p < .01). The elementary principal servant leadership factor of "Agapao love" also had relatively strong significant partial correlations with all six factors of school culture, including "collaborative leadership" (r = .662, p < .01), "teacher collaboration" (r = .416, p < .01), "professional development" (r = .345, p < .01), "unity of purpose" (r = .588, p < .01), "collegial support" (r = .368, p < .01), and "learning partnership" (r = .336, p < .01).

Empowerment. The elementary principal servant leadership factor of "empowerment" had relatively strong significant bivariate correlations with all six factors of school culture, including "collaborative leadership" (r = .728, p < .01), "teacher collaboration" (r = .399, p < .01), "professional development" (r = .445, p < .01), "unity of purpose" (r = .636, p < .01), "collegial support" (r = .398, p < .01), and "learning partnership" (r = .485, p < .01). The elementary principal servant leadership factor of "empowerment" also had relatively strong significant partial correlations with all six factors of school cultures, including "collaborative leadership" (r = .716, p < .01), "teacher collaboration" (r = .428, p < .01), "professional development" (r = .425, p < .01),

"unity of purpose" (r = .601, p < .01), "collegial support" (r = .359, p < .01), and "learning partnership" (r = .400, p < .01).

Vision. The elementary principal servant leadership factor of "vision" had relatively strong significant bivariate correlations with all six factors of school culture, including "collaborative leadership" (r = .722, p < .01), "teacher collaboration" (r = .519, p < .01), "professional development" (r = .419, p < .01), "unity of purpose" (r = .641, p < .01), "collegial support" (r = .450, p < .01), and "learning partnership" (r = .462, p < .01). The elementary principal servant leadership factor of "vision" also had relatively strong significant partial correlations with all six factors of school culture, including "collaborative leadership" (r = .713, p < .01), "teacher collaboration" (r = .533, p < .01), "professional development" (r = .405, p < .01), "unity of purpose" (r = .628, p < .01), "collegial support" (r = .430, p < .01), and "learning partnership" (r = .451, p < .01).

Humility. The elementary principal servant leadership factor of "humility" had relatively strong significant bivariate correlations with all six factors of school culture, including "collaborative leadership" (r = .680, p < .01), "teacher collaboration" (r = .385, p < .01), "professional development" (r = .343, p < .01), "unity of purpose" (r = .592, p < .01), "collegial support" (r = .378, p < .01), and "learning partnership" (r = .340, p < .01). The elementary principal servant leadership factor of "humility" also had significant partial correlations with all six factors of school culture, including "collaborative leadership" (r = .669, p < .01), "teacher collaboration" (r = .398, p < .01), "professional development" (r = .325, p < .05), "unity of purpose" (r = .572, p < .01), "collegial support" (r = .353, p < .01), and "learning partnership" (r = .291, p < .05).

Table 4

Correlations: Factors of Servant Leadership with Factors of School Culture

	SCSCL Bivariate Corr. (sig.)	SCSTC Bivariate Corr. (sig.)	SCSPD Bivariate Corr. (sig.)	SCSUP Bivariate Corr. (sig.)	SCSCS Bivariate Corr. (sig.)	SCSLP Bivariate Corr. (sig.)
SL Agapao Love	.676 (.000)**	.398 (.001)**	.364 (.004)**	.612 (.000)**	.396 (.001)**	.394 (.002)**
SL Empowerment	.728 (.000)**	.399 (.001)**	.445 (.000)**	.636 (.000)**	.398 (.001)**	.485 (.000)**
SL Vision	.722 (.000)**	.519 (.000)**	.419 (.001)**	.641 (.000)**	.450 (.000)**	.462 (.000)**
SL Humility	.680 (.000)**	.385 (.002)**	.343 (.006)**	.592 (.000)**	.378 (.002)**	.340 (.007)**

** Correlation is significant at the 0.01 level (2-tailed).

Table 5

Correlations: Factors of Servant Leadership with Factors of School Culture

	SCSCL Partial Corr. (sig.)	SCSTC Partial Corr. (sig.)	SCSPD Partial Corr. (sig.)	SCSUP Partial Corr. (sig.)	SCSCS Partial Corr. (sig.)	SCSLP Partial Corr. (sig.)
SL Agapao Love	.662 (.000)**	.416 (.001)**	.345 (.007)**	.588 (.000)**	.368 (.004)**	.336 (.008)**
SL Empowerment	.716 (.000)**	.428 (.001)**	.425 (.001)**	.601 (.000)**	.359 (.004)**	.400 (.001)**
SL Vision	.713 (.000)**	.533 (.000)**	.405 (.001)**	.628 (.000)**	.430 (.001)**	.451 (.000)**
SL Humility	.669 (.000)**	.398 (.001)**	.325 (.011)*	.572 (.000)**	.353 (.005)**	.291 (.023)*

** Correlation is significant at the 0.01 level (2-tailed).
* Correlation is significant at the 0.05 level (2-tailed).

A Step-wise linear regression was used to determine if any relationships existed

between the factors of elementary principal servant leadership, as measured by the

Servant Leadership Assessment Instrument, and school culture, as measured by the

School Culture Survey, without controlling for enrollment and free and reduced lunch and when controlling for enrollment and free and reduced lunch. The results for the first hypothesis are organized into six sections corresponding to the six factors of school culture: collaborative leadership, teacher collaboration, professional development, unity of purpose, collegial support, and learning partnership.

     Collaborative Leadership. Null hypothesis 1.1a states that <u>there are no significant relationships between servant leadership as measured by the factors of the Servant Leadership Assessment Instrument and the factor of collaborative leadership as measured by the School Culture Survey.</u> A Step-wise regression analysis with forward inclusion was conducted to determine if any relationships existed between the factors of elementary principal servant leadership and the factor of school culture identified as "collaborative leadership." The results of the analysis are presented in Tables 6-7. A significant model emerged with two variables at the $p < .01$ that included the servant leadership factors of "empowerment" and "vision." In the first model in Step 1 of the regression (Table 6), the elementary principal servant leadership factor of "empowerment" accounted for 52.2% of the variance of the school culture factor of "collaborative leadership" with a significance of .000. The addition of "vision" provided for 57.4% of the variance of the school culture factor of "collaborative leadership" with a significance of .000 (Table 7). There was no difference in explained variance when testing $H_{01.1b}$ by entering enrollment and free and reduced lunch as controls. A significant positive relationship was found for $H_{01.1a}$.

Table 6

Stepwise Regression: Servant Leadership and School Culture

Dependent Variable: School Culture—Collaborative Leadership

Model Summary

Independent Variables	R	R Square	Adjusted R Square	Standard Error	
Servant Leadership: Empowerment	.728	.530	.522	.24891	
Servant Leadership: Vision	.767	.588	.574	.23482	

Step 1

Analysis of Variance	Sum of Squares	DF	Mean Square	F	Sig. F
Regression	4.186	1	4.186	67.557	.000
Residual	3.717	60	.062		
Total	7.903	61			
Variables in Equation	B	Standard Error	Beta	t	Sig. T
(Constant)	1.892	.247		7.646	.000
Empowerment	.423	.051	.728	8.219	.000

Table 7

Stepwise Regression: Servant Leadership and School Culture

Dependent Variable: School Culture—Collaborative Leadership

Model Summary

Independent Variables	R	R Square	Adjusted R Square	Standard Error	
Servant Leadership: Empowerment	.728	.530	.522	.24891	
Servant Leadership: Vision	.767	.588	.574	.23482	

Step 2

Analysis of Variance	Sum of Squares	DF	Mean Square	F	Sig. F
Regression	4.650	2	2.325	42.163	.000
Residual	3.253	59	.055		
Total	7.903	61			
Variables in Equation	B	Standard Error	Beta	t	Sig. T
(Constant)	1.852	.234		7.917	.000
Empowerment	.243	.079	.418	3.085	.003
Vision	.209	.072	.393	2.901	.005

Teacher Collaboration. Null hypothesis 1.2a states that there are no significant relationships between servant leadership as measured by the factors of the Servant Leadership Assessment Instrument and the factor of teacher collaboration as measured by the School Culture Survey. A Step-wise regression analysis with forward inclusion was conducted to determine if any relationships existed between the factors of elementary

principal servant leadership and the factor of school culture identified as "teacher

collaboration." The results of the analysis are presented in Table 8. A significant model

emerged with one variable at the $p < .01$ that included the servant leadership factor of

"vision." In the regression model, the elementary principal servant leadership factor of

"vision" accounted for 25.8% of the variance of the school culture factor of "teacher

collaboration" with a significance of .000. There was no difference in explained variance

when testing $H_{01.2b}$ by entering enrollment and free and reduced lunch as controls. A

significant positive relationship was found for $H_{01.2a}$.

Table 8

Stepwise Regression: Servant Leadership and School Culture

Dependent Variable: School Culture—Teacher Collaboration

Model Summary

Independent Variables	R	R Square	Adjusted R Square	Standard Error	
Servant Leadership: Vision	.519	.270	.258	.26010	
Analysis of Variance	Sum of Squares	DF	Mean Square	F	Sig. F
Regression	1.499	1	1.499	22.164	.000
Residual	4.059	60	.068		
Total	5.559	61			
Variables in Equation	B	Standard Error	Beta	t	Sig. T
(Constant)	2.566	.214		11.986	.000
Vision	.232	.049	.519	4.708	.000

Professional Development. Null hypothesis 1.3a states that <u>there are no significant</u>
<u>relationships between servant leadership as measured by the factors of the Servant</u>
<u>Leadership Assessment Instrument and the factor of professional development as</u>
<u>measured by the School Culture Survey.</u> A Step-wise regression analysis with forward
inclusion was conducted to determine if any relationships existed between the factors of
elementary principal servant leadership and the factor of school culture identified as
"professional development." The results of the analysis are presented in Table 9. A
significant model emerged with one variable at the $p < .01$ that included the servant
leadership factor of "empowerment." In the regression model, the elementary principal
servant leadership factor of "empowerment" accounted for 18.4% of the variance of the
school culture factor of "professional development" with a significance of .000. There
was no difference in explained variance when testing $H_{01.3b}$ by entering enrollment and
free and reduced lunch as controls. A significant positive relationship was found for
$H_{01.3a}$.

Table 9

Stepwise Regression: Servant Leadership and School Culture

Dependent Variable: School Culture—Professional Development

Model Summary

Independent Variables	R	R Square	Adjusted R Square	Standard Error		
Servant Leadership: Empowerment	.445	.198	.184	.19592		
Analysis of Variance	Sum of Squares	DF	Mean Square	F	Sig. F
Regression	.567	1	.567	14.784	.000
Residual	2.303	60	.038		
Total	2.870	61			
Variables in Equation	B	Standard Error	Beta	t	Sig. T
(Constant)	3.487	.195		17.900	.000
Empowerment	.156	.041	.445	3.845	.000

Unity of Purpose. Null hypothesis 1.4a states that there are no significant relationships between servant leadership as measured by the factors of the Servant Leadership Assessment Instrument and the factor of unity of purpose as measured by the School Culture Survey. A Step-wise regression analysis with forward inclusion was conducted to determine if any relationships existed between the factors of elementary principal servant leadership and the factor of school culture identified as "unity of purpose." The results of the analysis are presented in Tables 10-11. A significant model emerged with two variables at the p < .01 that included the servant leadership factors of "vision" and "empowerment." In the first model in Step 1 of the regression (Table 10),

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the elementary principal servant leadership factor of "vision" accounted for 40.2% of the variance of the school culture factor of "unity of purpose" with a significance of .000. The addition of "empowerment" provided for 43.8% of the variance of the school culture factor of "unity of purpose" with a significance of .000 (Table 11). There was no difference in explained variance when testing $H_{01.4b}$ by entering enrollment and free and reduced lunch as controls. A significant positive relationship was found for $H_{01.4a}$.

Table 10

Stepwise Regression: Servant Leadership and School Culture

Dependent Variable: School Culture—Unity of Purpose

Model Summary

Independent Variables	R	R Square	Adjusted R Square	Standard Error
Servant Leadership: Vision	.641	.411	.402	.21507
Empowerment	.676	.456	.438	.20846

Step 1

Analysis of Variance	Sum of Squares	DF	Mean Square	F	Sig. F
Regression	1.940	1	1.940	41.943	.000
Residual	2.775	60	.046		
Total	4.716	61			

Variables in Equation	B	Standard Error	Beta	t	Sig. T
(Constant)	3.072	.177		17.352	.000
Vision	.264	.041	.641	6.476	.000

Table 11

Stepwise Regression: Servant Leadership and School Culture

Dependent Variable: School Culture—Unity of Purpose

Model Summary

Independent Variables	R	R Square	Adjusted R Square	Standard Error
Servant Leadership: Vision	.641	.411	.402	.21507
Empowerment	.676	.456	.438	.20846

Step 2

Analysis of Variance	Sum of Squares	DF	Mean Square	F	Sig. F
Regression	2.152	2	1.076	24.759	.000
Residual	2.564	59	.043		
Total	4.716	61			

Variables in Equation	B	Standard Error	Beta	t	Sig. T
(Constant)	2.814	.208		13.550	.000
Vision	.152	.064	.371	2.381	.021
Empowerment	.154	.070	.344	2.207	.031

Collegial Support. Null hypothesis 1.5a states that <u>there are no significant relationships between servant leadership as measured by the factors of the Servant Leadership Assessment Instrument and the factor of collegial support as measured by the School Culture Survey.</u> A Step-wise regression analysis with forward inclusion was conducted to determine if any relationships existed between the factors of elementary principal servant leadership and the factor of school culture identified as "collegial

support." The results of the analysis are presented in Table 12. A significant model emerged with one variable at the p < .01 that included the servant leadership factor of "vision." In the regression model, the elementary principal servant leadership factor of "vision" accounted for 18.9% of the variance of the school culture factor of "collegial support" with a significance of .000. There was no difference in explained variance when testing $H_{01.5b}$ by entering enrollment and free and reduced lunch as controls. A significant positive relationship was found for $H_{01.5a}$.

Table 12

Stepwise Regression: Servant Leadership and School Culture

Dependent Variable: School Culture—Collegial Support

Model Summary

Independent Variables	R	R Square	Adjusted R Square	Standard Error	
Servant Leadership: Vision	.450	.202	.189	.21412	

Analysis of Variance	Sum of Squares	DF	Mean Square	F	Sig. F
Regression	.698	1	.698	15.216	.000
Residual	2.751	60	.046		
Total	3.448	61			

Variables in Equation	B	Standard Error	Beta	t	Sig. T
(Constant)	3.552	.176		20.154	.000
Vision	.158	.041	.450	3.901	.000

Learning Partnership. Null hypothesis 1.6a states that <u>there are no significant</u> <u>relationships between servant leadership as measured by the factors of the Servant</u> <u>Leadership Assessment Instrument and the factor of learning partnership as measured by</u> <u>the School Culture Survey.</u> A Step-wise regression analysis with forward inclusion was conducted to determine if any relationships existed between the factors of elementary principal servant leadership and the factor of school culture identified as "learning partnership." The results of the analysis are presented in Table 13. A significant model emerged with one variable at the $p < .01$ that included the servant leadership factor of "empowerment." In the regression model, the elementary principal servant leadership factor of "empowerment" accounted for 22.3% of the variance of the school culture factor of "teacher collaboration" with a significance of .000. A significant positive relationship was found for $H_{01.6a}$.

Table 13

Stepwise Regression: Servant Leadership and School Culture

Dependent Variable: School Culture—Learning Partnership

Model Summary

Independent Variables	R	R Square	Adjusted R Square	Standard Error		
Servant Leadership: Empowerment	.485	.235	.223	.26930		
Analysis of Variance	Sum of Squares	DF	Mean Square	F	Sig. F	
Regression	1.339	1	1.339	18.467	.000	
Residual	4.351	60	.073			
Total	5.690	61				
Variables in Equation	B	Standard Error	Beta	t	Sig. T	
(Constant)	2.691	.268		10.049	.000	
Empowerment	.239	.056	.485	4.297	.000	

Null hypothesis 1.6b states <u>there are no significant relationships between servant leadership as measured by the factors of the Servant Leadership Assessment Instrument and the factor of learning partnership as measured by the School Culture Survey, when controlling for enrollment and free and reduced lunch.</u> A Step-wise regression analysis with forward inclusion was conducted to determine if any relationships existed between the factors of elementary principal servant leadership and the factor of school culture identified as "learning partnership," when controlling for enrollment by introducing it as an explanatory variable. The results of the analysis are presented in Tables 14-15. A significant model emerged with two variables at the $p < .01$ that included the servant

leadership factor of "empowerment" and the factor of "enrollment." In the regression

model, the servant leadership factor of "empowerment" accounted for 22.3% of the

variance of the school culture factor of "learning partnership" with a significance of .000

(Table 14). The addition of the factor of "enrollment" accounted for 29.5% of the

variance of the school culture factor of "learning partnership" with a significance of .000

(Table 15). A significant positive relationship was found for $H_{01.6b}$.

Table 14

Stepwise Regression: Servant Leadership and School Culture, when controlling for enrollment

Dependent Variable: School Culture—Learning Partnership

Model Summary

Independent Variables	R	R Square	Adjusted R Square	Standard Error
Servant Leadership: Empowerment	.485	.238	.223	.26930
Enrollment	.564	.318	.295	.25642

Step 1

Analysis of Variance	Sum of Squares	DF	Mean Square	F	Sig. F
Regression	1.339	1	1.339	18.467	.000
Residual	4.351	60	.073		
Total	5.690	61			

Variables in Equation	B	Standard Error	Beta	t	Sig. T
(Constant)	2.691	.268		10.049	.000
Empowerment	.239	.056	.485	4.297	.000

Table 15

Stepwise Regression: Servant Leadership and School Culture, when controlling for enrollment

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Dependent Variable: School Culture—Learning Partnership

Model Summary

Independent Variables	R	R Square	Adjusted R Square	Standard Error
Servant Leadership: Empowerment	.485	.235	.223	.26930
Enrollment	.564	.318	.295	.25642

Step 2

Analysis of Variance	Sum of Squares	DF	Mean Square	F	Sig. F
Regression	1.811	2	.905	13.771	.000
Residual	3.879	59	.066		
Total	5.690	61			

Variables in Equation	B	Standard Error	Beta	t	Sig. T
(Constant)	2.481	.267		9.302	.000
Servant Leadership: Empowerment	.234	.053	.475	4.415	.000
Enrollment	.001	.000	.288	2.679	.010

A Step-wise regression analysis with forward inclusion was conducted to determine if any relationships existed between the factors of elementary principal servant leadership and the factor of school culture identified as "learning partnership," when controlling for free and reduced lunch by introducing it as a explanatory variable. The results of the analysis are presented in Tables 16-17. A significant model emerged with

two variables at the p < .01 that included free and reduced lunch and the servant

leadership factor of "vision." In the regression model, the factor of free and reduced

lunch accounted for 31.8% of the variance of the school culture factor of "learning

partnership" with a significance of .000 (Table 16). The addition of the elementary

principal servant leadership factor of "vision" accounted for 44.8% of the variance of the

school culture factor of "learning partnership" with a significance of .000 (Table 17). A

significant negative relationship was found for free and reduced lunch and a significant

positive relationship was found for "vision" for $H_{01.6b}$.

Table 16

Stepwise Regression: Servant Leadership and School Culture, when controlling for free and reduced lunch

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Dependent Variable: School Culture—Learning Partnership

Model Summary

Independent Variables	R	R Square	Adjusted R Square	Standard Error
Free & Reduced Lunch	.574	.330	.318	.25216
Servant Leadership: Vision Step 1	.683	.466	.448	.22698

Analysis of Variance	Sum of Squares	DF	Mean Square	F	Sig. F
Regression	1.875	1	1.875	29.495	.000
Residual	3.815	60	.064		
Total	5.690	61			

Variables in Equation	B	Standard Error	Beta	t	Sig. T
(Constant)	4.128	.063		62.251	.000
Free & Reduced Lunch	-.007	.001	-.574	-5.431	.000

Table 17

Stepwise Regression: Servant Leadership and School Culture, when controlling for free and reduced lunch

Dependent Variable: School Culture—Learning Partnership

Model Summary

Independent Variables	R	R Square	Adjusted R Square	Standard Error
Free & Reduced Lunch	.574	.330	.318	.25216
Servant Leadership: Vision Step 2	.683	.466	.448	.22698

Analysis of Variance	Sum of Squares	DF	Mean Square	F	Sig. F
Regression	2.651	2	1.325	25.724	.000
Residual	3.040	59	.052		
Total	5.690	61			

Variables in Equation	B	Standard Error	Beta	t	Sig. T
(Constant)	3.369	.204		16.514	.000
Free & Reduced Lunch	-.006	.001	-.510	-5.281	.000
Vision	.169	.044	.375	3.879	.000

Summary. Because eleven relationships were found between the factors of elementary principal servant leadership, as measured by the Servant Leadership Assessment Instrument, and the factors of school culture, as measured by the School Culture Survey, null hypothesis H_{01} was rejected.

Hypothesis Two

The second hypothesis tested in this study was: <u>There are no significant</u>

<u>relationships between servant leadership as measured by the factors of the Servant</u>

<u>Leadership Assessment Instrument and student achievement as measured by</u>

<u>Communication Arts MAP test scores and Mathematics MAP test scores.</u> Pearson

product-moment correlation coefficients were calculated for the relationships between the

factors of elementary principal servant leadership and the factors of student achievement

to understand the relationships between the factors servant leadership and the factors of

student achievement. The Pearson product-moment correlations are listed in Table 18.

Agapao love. The elementary principal servant leadership factor of "Agapao love"

had moderately sized significant bivariate correlations with both factors of student

achievement, "Communication Arts MAP scores" ($r = .293$, $p < .05$) and "Mathematics

MAP scores" ($r = .265$, $p < .05$). The elementary principal servant leadership factor of

"Agapao love" did not have significant partial correlations with either "Communication

Arts MAP scores" ($r = .201$, $p > .05$) or "Mathematics MAP scores" ($r = .160$, $p > .05$).

Empowerment. The elementary principal servant leadership factor of

"empowerment" had moderately sized significant bivariate correlations with both factors

of student achievement, "Communication Arts MAP scores" ($r = .342$, $p < .01$) and

"Mathematics MAP scores" ($r = .317$, $p > .05$). The elementary principal servant

leadership factor of "empowerment" did not have significant partial correlations with

either "Communication Arts MAP scores" ($r = .178$, $p > .05$) or "Mathematics MAP

scores" ($r = .154$, $p > .05$).

Vision. The elementary principal servant leadership factor of "vision" did not have any significant bivariate correlations with either "Communication Arts MAP scores" (r = .172, p > .05) or "Mathematics MAP scores" (r = .183, p > .05). The elementary principal servant leadership factor of "vision" did not have significant partial correlations with either "Communication Arts MAP scores" (r = .061, p > .05) or "Mathematics MAP scores" (r = .089, p > .05).

Humility. The elementary principal servant leadership factor of "humility" had a significant bivariate correlation with one factor of student achievement, "Mathematics MAP scores" (r = .260, p < .05). The elementary principal servant leadership factor of "Agapao love" did not have significant partial correlations with either "Communication Arts MAP scores" (r = .138, p > .05) or "Mathematics MAP scores" (r = .186, p > .05).

Table 18

Correlations: Factors of Servant Leadership with Student Achievement

Servant Leadership Factors:	Communication Arts 2006 Bivariate Correlation (significance)	Communication Arts 2006 Partial Correlation (significance)	Mathematics 2006 Bivariate Correlation (significance)	Mathematics 2006 Partial Correlation (significance)
Agapao Love	.293 (.021)*	.201 (.120)	.265 (.037)*	.160 (.219)
Empowerment	.342 (.007)**	.178 (.169)	.317 (.012)*	.154 (.235)
Vision	.172 (.182)	.061 (.642)	.183 (.154)	.089 (.496)
Humility	.229 (.074)	.138 (.289)	.260 (.041)*	.186 (.150)

** Correlation is significant at the 0.01 level (2-tailed).
* Correlation is significant at the 0.05 level (2-tailed).

A Step-wise linear regression was used to determine if any linear relationships existed between the factors of elementary principal servant leadership, as measured by the Servant Leadership Assessment Instrument, and student achievement, as measured by

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Communication Arts MAP test scores and Mathematics MAP test scores, without

controlling for enrollment and free and reduced lunch and when controlling for

enrollment and free and reduced lunch. The results for the first hypothesis are organized

into two sections corresponding to the two factors of student achievement:

Communication Arts MAP test scores and Mathematics MAP test scores.

Communication Arts. Null hypothesis 2.1a states that <u>there are no significant</u>

<u>relationships between servant leadership as measured by the factors of the Servant</u>

<u>Leadership Assessment Instrument and student achievement as measured by</u>

<u>Communication Arts MAP test scores.</u> A Step-wise regression analysis with forward

inclusion was conducted to determine if any relationships existed between the factors of

elementary principal servant leadership and the factor of student achievement identified

as "Communication Arts MAP scores." The results of the analysis are presented in Table

19. A significant model emerged with one variable at the $p < .01$ that included the servant

leadership factor of "empowerment." In the regression model (Table 19), the servant

leadership factor of "empowerment" accounted for 10.2% of the variance of the student

achievement factor of "Communication Arts MAP scores" with a significance of .007. A

significant positive relationship was found for $H_{02.1a}$.

Table 19

Stepwise Regression: Servant Leadership and Communication Arts

Dependent Variable: Communication Arts

Model Summary

Independent Variables	R	R Square	Adjusted R Square	Standard Error		
Empowerment	.342	.117	.102	13.675		
Analysis of Variance	Sum of Squares	DF	Mean Square	F	Sig. F
Regression	1486.134	1	1486.134	7.947	.007
Residual	11219.820	60	186.997		
Total	12705.954	61			
Variables in Equation	B	Standard Error	Beta	t	Sig. T
(Constant)	10.058	13.597		.740	.462
Empowerment	7.969	2.827	.342	2.819	.007

Null hypothesis 2.1b states that <u>there are no significant relationships between servant leadership as measured by the factors of the Servant Leadership Assessment Instrument and student achievement as measured by Communication Arts MAP test scores, when controlling for enrollment and free and reduced lunch.</u> A Step-wise regression analysis with forward inclusion was conducted to determine if any relationships existed between the factors of elementary principal servant leadership and the factor of student achievement identified as "Communication Arts MAP scores," when controlling for enrollment and free and reduced lunch. The results of the analysis are presented in Table 20. A significant model emerged with one variable at the $p < .01$ that

included free and reduced lunch. In the regression model (Table 20), free and reduced

lunch accounted for 61.9% of the variance of the student achievement factor of

"Communication Arts MAP scores" with a significance of .000. A significant negative

relationship was found for $H_{02.1b}$.

Table 20

*Stepwise Regression: Servant Leadership and Communication Arts, when controlling for
enrollment and free and reduced lunch percentage*

Dependent Variable: Communication Arts

Model Summary

Independent Variables	R	R Square	Adjusted R Square	Standard Error	
Free & Reduced Lunch Percentage	.791	.625	.619	8.912	
Analysis of Variance	Sum of Squares	DF	Mean Square	F	Sig. F
Regression	7941.061	1	7941.061	99.995	.000
Residual	4764.893	60	79.415		
Total	12705.954	61			
Variables in Equation	B	Standard Error	Beta	t	Sig. T
(Constant)	67.360	2.236		30.125	.000
Free & Reduced Lunch Percentage	-.459	.046	-.791	-10.000	.000

Mathematics. Null hypothesis 2.2a states that <u>there are no significant relationships</u>

<u>between servant leadership as measured by the factors of the Servant Leadership</u>

<u>Assessment Instrument and student achievement as measured by Mathematics MAP test</u>

<u>scores.</u> A Step-wise regression analysis with forward inclusion was conducted to

determine if any relationships existed between the factors of elementary principal servant

leadership and the factor of student achievement identified as "Mathematics MAP

scores." The results of the analysis are presented in Table 21. A significant model

emerged with one variable at the p < .05 that included the servant leadership factor of

"empowerment." In the model in Step 1 of the regression (Table 21), the servant

leadership factor of "empowerment" accounted for 8.6% of the variance of the student

achievement factor of "Mathematics MAP scores" with a significance of .012. A

significant positive relationship was found for $H_{02.2a}$.

Table 21

Stepwise Regression: Servant Leadership and Mathematics

Dependent Variable: Mathematics

Model Summary

Independent Variables	R	R Square	Adjusted R Square	Standard Error		
Empowerment	.317	.101	.086	14.547		
Analysis of Variance	Sum of Squares	DF	Mean Square	F	Sig. F
Regression	1422.362	1	1422.362	6.722	.012
Residual	12696.047	60	211.601		
Total	14118.409	61			
Variables in Equation	B	Standard Error	Beta	t	Sig. T
(Constant)	9.747	14.464		.674	.503
Empowerment	7.797	3.007	.317	2.593	.012

Mathematics. Null hypothesis 2.2b states that there are no significant relationships

between servant leadership as measured by the factors of the Servant Leadership

Assessment Instrument and student achievement as measured by Mathematics MAP test

scores, when controlling for enrollment and free and reduced lunch. A Step-wise

regression analysis with forward inclusion was conducted to determine if any

relationships existed between the factors of elementary principal servant leadership and

the factor of student achievement identified as "Mathematics MAP scores," when

controlling for enrollment and free and reduced lunch. The results of the analysis are

presented in Table 22. A significant model emerged with one variable at the $p < .01$ that

included free and reduced lunch. In the regression model (Table 22), free and reduced

lunch accounted for 49.8% of the variance of the student achievement factor of

"Mathematics MAP scores" with a significance of .000. A significant negative

relationship was found for $H_{02.2b}$.

Table 22

Stepwise Regression: Servant Leadership and Mathematics, when controlling for enrollment and free and reduced lunch percentage

Dependent Variable: Mathematics

Model Summary

Independent Variables	R	R Square	Adjusted R Square	Standard Error	
Free & Reduced Lunch Percentage	.712	.507	.498	10.775	
Analysis of Variance	Sum of Squares	DF	Mean Square	F	Sig. F
Regression	7152.719	1	7152.719	61.611	.000
Residual	6965.690	60	116.095		
Total	14118.409	61			
Variables in Equation	B	Standard Error	Beta	t	Sig. T
(Constant)	65.242	2.704		24.132	.000
Free & Reduced Lunch Percentage	-.435	.055	-.712	-7.849	.000

Summary. Four relationships were found between the factors of elementary

principal servant leadership, as measured by the Servant Leadership Assessment

Instrument, and each of the factors of student achievement, as measured by

Communication Arts MAP test scores and Mathematics MAP test scores, without

controlling for enrollment and free and reduced lunch and when controlling for

enrollment and free and reduced lunch, therefore null hypothesis H_{02} was rejected.

Hypothesis Three

The third hypothesis tested in this study was: There are no significant

relationships between school culture as measured by the factors of the School Culture

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<u>Survey and student achievement as measured by the Communication Arts MAP test</u>

<u>scores and Mathematics MAP test scores.</u> Pearson product-moment correlation

coefficients were calculated for the relationships between the factors of school culture

and the factors of student achievement to understand the relationships between the factors

school culture and the factors of student achievement. The Pearson product-moment

correlations are listed in Table 23.

Collaborative leadership. The school culture factor of "collaborative leadership"

had significant bivariate correlations with one factor of student achievement, including

"Mathematics MAP scores" ($r = .283$, $p < .05$). The school culture factor of

"collaborative leadership" did not have partial correlations with either factor of student

achievement, "Communication Arts MAP scores" ($r = .154$, $p > .05$) and "Mathematics

MAP scores" ($r = .214$, $p > .05$).

Teacher collaboration. The school culture factor of "teacher collaboration" did

not have significant bivariate correlations with either factor of student achievement,

"Communication Arts MAP scores" ($r = .084$, $p > .05$) and "Mathematics MAP scores" ($r

= .139$, $p > .05$). The school culture factor of "teacher collaboration" did not have partial

correlations with either factor of student achievement, "Communication Arts MAP

scores" ($r = .178$, $p > .05$) and "Mathematics MAP scores" ($r = .229$, $p > .05$).

Professional development. The school culture factor of "professional

development" had relatively small significant bivariate correlations with both factors of

student achievement, including "Communication Arts MAP scores" ($r = .253$, $p < .05$)

and "Mathematics MAP scores" ($r = .319$, $p < .05$). The school culture factor of

"professional development" had a significant partial correlation with one factor of student

achievement, "Mathematics MAP scores" (r = .311, p < .05), but not with the other, "Communication Arts MAP scores" (r = .231, p > .05).

Unity of purpose. The school culture factor of "unity of purpose" had moderately-sized significant bivariate correlations with both factors of student achievement, including "Communication Arts MAP scores" (r = .361, p <.01) and "Mathematics MAP scores" (r = .364, p < .01). The school culture factor of "unity of purpose" did not have partial correlations with either factor of student achievement, "Communication Arts MAP scores" (r = .224, p > .05) and "Mathematics MAP scores" (r = .233, p > .05).

Collegial support. The school culture factor of "collegial support" had a moderately-sized significant bivariate correlation with one factor of student achievement, including "Mathematics MAP scores" (r = .308, p < .05), but not with the other, "Communication Arts MAP scores" (r = .235, p > .05). The school culture factor of "collegial support" did not have partial correlations with either factor of student achievement, "Communication Arts MAP scores" (r = .116, p > .05) and "Mathematics MAP scores" (r = .232, p > .05).

Learning partnership. The school culture factor of "learning partnership" had very high significant bivariate correlations with both factors of student achievement, including "Communication Arts MAP scores" (r = .674, p <.01) and "Mathematics MAP scores" (r = .602, p < .01). The school culture factor of "learning partnership" also had relatively high and moderate significant partial correlations with the factors of student achievement, including "Communication Arts MAP scores" (r = .438, p <.01) and "Mathematics MAP scores" (r = .336, p < .01). Table 17 contains the correlational matrix for the Pearson product-moment correlations.

Table 23

Correlations: Factors of School Culture with Student Achievement

School Culture Factors:	Communication Arts 2006 Bivariate Correlation (significance)	Communication Arts 2006 Partial Correlation (significance)	Mathematics 2006 Bivariate Correlation (significance)	Mathematics 2006 Partial Correlation (significance)
Collaborative Leadership	.243 (.057)	.154 (.235)	.283 (.026)*	.214 (.098)
Teacher Collaboration	.084 (.516)	.178 (.170)	.139 (.282)	.229 (.075)
Professional Development	.253 (.047)*	.231 (.074)	.319 (.012)*	.311 (.015)*
Unity of Purpose	.361 (.004)**	.224 (.082)	.364 (.004)**	.233 (.070)
Collegial Support	.235 (.067)	.116 (.375)	.308 (.015)*	.232 (.072)
Learning Partnership	.674 (.000)**	.438 (.000)**	.602 (.000)**	.336 (.008)**

** Correlation is significant at the 0.01 level (2-tailed).
* Correlation is significant at the 0.05 level (2-tailed).

A Step-wise linear regression was used to determine if any linear relationships existed between the factors of school culture, as measured by the School Culture Survey, and student achievement, as measured by Communication Arts MAP test scores and Mathematics MAP test scores, without controlling for enrollment and free and reduced lunch and when controlling for enrollment and free and reduced lunch. The results for the first hypothesis are organized into two sections corresponding to the two factors of student achievement: Communication Arts MAP test scores and Mathematics MAP test scores.

Communication Arts. Null hypothesis 3.1a states that there are no significant relationships between school culture as measured by the factors of the School Culture Survey and student achievement as measured by Communication Arts MAP test scores. A Step-wise regression analysis with forward inclusion was conducted to determine if any relationships existed between the factors of school culture and the factor of student achievement identified as "Communication Arts MAP scores." The results of the analysis are presented in Tables 24-25. A significant model emerged with two variables at the $p <$ .01 that included the school culture factor of "learning partnership" and "teacher collaboration." In the model in Step 1 of the regression (Table 24), the school culture factor of "learning partnership" accounted for 44.5% of the variance of the student achievement factor of "Communication Arts MAP scores" with a significance of .000. The addition of the school culture factor of "teacher collaboration" accounted for 50.5% of the variance of the student achievement factor of "Communication Arts MAP scores" with a significance of .000 (Table 25). A significant positive relationship was found for "learning partnership" and a significant negative relationship was found for "teacher collaboration" for $H_{03.1a}$.

Table 24

Stepwise Regression: School Culture and Communication Arts

Dependent Variable: Communication Arts

Model Summary

Independent Variables	R	R Square	Adjusted R Square	Standard Error
School Culture: Learning Partnership	.674	.454	.445	10.755
School Culture: Teacher Collaboration	.722	.521	.505	10.155

Step 1

Analysis of Variance	Sum of Squares	DF	Mean Square	F	Sig. F
Regression	5765.749	1	5765.749	49.847	.000
Residual	6940.204	60	115.670		
Total	12705.954	61			

Variables in Equation	B	Standard Error	Beta	t	Sig. T
(Constant)	-73.905	17.331		-4.264	.000
School Culture: Learning Partnership	31.831	4.509	.674	7.060	.000

Table 25

Stepwise Regression: School Culture and Communication Arts

Dependent Variable: Communication Arts

Model Summary

Independent Variables	R	R Square	Adjusted R Square	Standard Error
School Culture: Learning Partnership	.674	.454	.445	10.755
School Culture: Teacher Collaboration	.722	.521	.505	10.155

Step 2

Analysis of Variance	Sum of Squares	DF	Mean Square	F	Sig. F
Regression	6621.756	2	3310.878	32.106	.000
Residual	6084.197	59	103.122		
Total	12705.954	61			

Variables in Equation	B	Standard Error	Beta	t	Sig. T
(Constant)	-48.698	18.556		-2.624	.011
School Culture: Learning Partnership	38.288	4.811	.810	7.959	.000
School Culture: Teacher Collaboration	-14.024	4.868	-.293	-2.881	.006

Null hypothesis 3.1b states that <u>there are no significant relationships between school culture as measured by the factors of the School Culture Survey and student achievement as measured by Communication Arts MAP test scores, when controlling for enrollment and free and reduced lunch.</u> Another Step-wise regression analysis with

forward inclusion was conducted to determine if any relationships existed between the factors of school culture and the factor of student achievement identified as "Communication Arts MAP scores," when controlling for enrollment and free and reduced lunch. The results of the analysis are presented in Tables 26-27. A significant model emerged with two variables at the $p < .01$ that included the factor of free and reduced lunch and the school culture factor of "learning partnership." In the model in Step 1 of the regression (Table 26), the factor of free and reduced lunch accounted for 61.9% of the variance of the student achievement factor of "Communication Arts MAP scores" with a significance of .000. The addition of the school culture factor of "learning partnership" accounted for 68.7% of the variance of the student achievement factor of "Communication Arts MAP scores" with a significance of .000 (Table 27). There was no difference in explained variance when testing $H_{03.1b}$ by entering enrollment as a control. A significant negative relationship was found for free and reduced lunch and a significant positive relationship was found for "learning partnership" for $H_{03.1b}$.

Table 26

Stepwise Regression: School Culture and Communication Arts, when controlling for free and reduced lunch

Dependent Variable: Communication Arts

Model Summary

Independent Variables	R	R Square	Adjusted R Square	Standard Error	
Free & Reduced Lunch	.791	.625	.619	8.912	
School Culture: Learning Partnership	.835	.697	.687	8.077	

Step 1

Analysis of Variance	Sum of Squares	DF	Mean Square	F	Sig. F
Regression	7941.061	1	7941.061	99.995	.000
Residual	4764.893	60	79.415		
Total	12705.954	61			
Variables in Equation	B	Standard Error	Beta	t	Sig. T
(Constant)	67.360	2.336		30.125	.000
Free & Reduced Lunch	-.459	.046	-.791	-10.000	.000

Table 27

Stepwise Regression: School Culture and Communication Arts, when controlling for free and reduced lunch

Dependent Variable: Communication Arts

Model Summary

Independent Variables	R	R Square	Adjusted R Square	Standard Error
Free & Reduced Lunch	.791	.625	.619	8.912
School Culture: Learning Partnership	.835	.697	.687	8.077

Step 2

Analysis of Variance	Sum of Squares	DF	Mean Square	F	Sig. F
Regression	8856.565	2	4428.282	67.873	.000
Residual	3849.389	59	65.244		
Total	12705.954	61			

Variables in Equation	B	Standard Error	Beta	t	Sig. T
(Constant)	3.406	17.193		.198	.844
Free & Reduced Lunch	-.350	.051	-.602	-6.883	.000
School Culture: Learning Partnership	15.491	4.135	.328	3.746	.000

Mathematics. Null hypothesis 3.2a states that there are no significant relationships between school culture as measured by the factors of the School Culture Survey and student achievement as measured by Mathematics MAP test scores. A Step-wise regression analysis with forward inclusion was conducted to determine if any relationships existed between the factors of school culture and the factor of student

achievement identified as "Mathematics MAP scores." The results of the analysis are

presented in Table 28. A significant model emerged with one variable at the $p < .01$ that

included the school culture factor of "learning partnership." In the regression model

(Table 28), the school culture factor of "learning partnership" accounted for 35.1% of the

variance of the student achievement factor of "Mathematics MAP scores" with a

significance of .000. A significant positive relationship was found for $H_{03.2a}$.

Table 28

Stepwise Regression: School Culture and Mathematics

Dependent Variable: Mathematics

Model Summary

Independent Variables	R	R Square	Adjusted R Square	Standard Error		
School Culture: Learning Partnership	.602	.362	.351	12.252		
Analysis of Variance	Sum of Squares	DF	Mean Square	F	Sig. F	
Regression	5112.325	1	5112.325	34.059	.000	
Residual	9006.084	60	150.101			
Total	14118.409	61				
Variables in Equation	B	Standard Error	Beta	t	Sig. T	
(Constant)	-67.921	19.743		-3.440	.001	
School Culture: Learning Partnership	29.973	5.136	.602	5.836	.000	

Null hypothesis 3.2b states that <u>there are no significant relationships between</u>

<u>school culture as measured by the factors of the School Culture Survey and student</u>

<u>achievement as measured by Mathematics MAP test scores, when controlling for</u>

<u>enrollment and free and reduced lunch.</u> Another Step-wise regression analysis with

forward inclusion was conducted to determine if any relationships existed between the

factors of school culture and the factor of student achievement identified as "Mathematics

MAP scores," when controlling for enrollment and free and reduced lunch. The results of

the analysis are presented in Tables 29-30. A significant model emerged with two

variables at the $p < .01$ that included the factor of free and reduced lunch and the school

culture factor of "learning partnership." In the model in step 1 of the regression (Table

29), free and reduced lunch accounted for 49.8% of the variance of the student

achievement factor of "Mathematics MAP scores" with a significance of .000. The

addition of the school culture factor of "learning partnership" accounted for 54.7% of the

variance of the student achievement factor of "Mathematics MAP scores" with a

significance of .000 (Table 30). There was no difference in explained variance when

testing $H_{03.2b}$ by entering enrollment as a control. A significant negative relationship was

found for free and reduced lunch, and a significant positive relationship was found for

"learning partnership" for $H_{03.2b}$.

Table 29

Stepwise Regression: School Culture and Mathematics, when controlling for free and reduced lunch

Dependent Variable: Mathematics

Model Summary

Independent Variables	R	R Square	Adjusted R Square	Standard Error
Free & Reduced Lunch	.712	.507	.498	10.775
School Culture: Learning Partnership	.750	.562	.547	10.235

Step 1

Analysis of Variance	Sum of Squares	DF	Mean Square	F	Sig. F
Regression	7152.719	1	7152.719	61.611	.000
Residual	6965.690	60	116.095		
Total	14118.409	61			

Variables in Equation	B	Standard Error	Beta	t	Sig. T
(Constant)	65.242	2.704		24.132	.000
Free & Reduced Lunch	-.435	.055	-.712	-7.849	.000

Table 30

Stepwise Regression: School Culture and Mathematics, when controlling for free and reduced lunch

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Dependent Variable: Mathematics

Model Summary

Independent Variables	R	R Square	Adjusted R Square	Standard Error	
Free & Reduced Lunch	.712	.507	.498	10.775	
School Culture: Learning Partnership	.750	.562	.547	10.235	

Step 2

Analysis of Variance	Sum of Squares	DF	Mean Square	F	Sig. F
Regression	7938.221	2	3969.110	37.892	.000
Residual	6180.188	59	104.749		
Total	14118.409	61			
Variables in Equation	B	Standard Error	Beta	t	Sig. T
(Constant)	6.003	21.785		.276	.784
Free & Reduced Lunch	-.334	.064	-.546	-5.194	.000
School Culture: Learning Partnership	14.349	5.240	.288	2.738	.008

Summary. Because seven relationships were found between the factors of school culture, as measured by the School Culture Survey, and the factors of student achievement, as measured by Communication Arts MAP test scores and Mathematics MAP test scores, without controlling for enrollment and free and reduced lunch and when controlling for enrollment and free and reduced lunch, null hypothesis H_{03} was rejected.

Hypothesis Four

The fourth hypothesis tested in this study was: There are no significant relationships between the combination of servant leadership and school culture as measured by the factors of the Servant Leadership Assessment Instrument and the School Culture Survey on student achievement as measured by Communication Arts MAP test scores and Mathematics MAP test scores. A Step-wise linear regression was used to determine if any linear relationships existed between the factors of elementary principal servant leadership, as measured by the Servant Leadership Assessment Instrument, school culture, as measured by the School Culture Survey, and student achievement, as measured by Communication Arts MAP test scores and Mathematics MAP test scores, without controlling for enrollment and free and reduced lunch and when controlling for enrollment and free and reduced lunch. The results for the fourth hypothesis are organized into two sections corresponding to the two factors of student achievement: Communication Arts MAP test scores and Mathematics MAP test scores.

Communication Arts. Null hypothesis 4.1a states that there are no significant relationships between the combination of servant leadership and school culture as measured by the factors of the Servant Leadership Assessment Instrument and the School Culture Survey on student achievement as measured by Communication Arts MAP test scores. A Step-wise regression analysis with forward inclusion was conducted to determine if any relationships existed between the factors of elementary principal servant leadership, school culture, and the factor of student achievement identified as "Communication Arts MAP scores." The results of the analysis are presented in Tables 31-32. A significant model emerged with two variables at the $p < .01$ that included the

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school culture factors of "learning partnership" and "teacher collaboration." In the model in Step 1 of the regression (Table 31), the school culture factor of "learning partnership" accounted for 44.5% of the variance of the student achievement factor of "Communication Arts MAP scores" with a significance of .000. The addition of the school culture factor of "teacher collaboration" accounted for 50.5% of the variance of the student achievement factor of "Communication Arts MAP scores" with a significance of .000 (Table 32). A significant positive relationship was found for $H_{04.1a}$.

Table 31

Stepwise Regression: Servant Leadership and School Culture with Communication Arts

Dependent Variable: Communication Arts

Model Summary

Independent Variables	R	R Square	Adjusted R Square	Standard Error	
School Culture: Learning Partnership	.674	.454	.445	10.755	
School Culture: Teacher Collaboration	.722	.521	.505	10.155	

Step 1

Analysis of Variance	Sum of Squares	DF	Mean Square	F	Sig. F
Regression	5765.749	1	5765.749	49.847	.000
Residual	6940.204	60	115.670		
Total	12705.954	61			
Variables in Equation	B	Standard Error	Beta	t	Sig. T
(Constant)	-73.905	17.331		-4.264	.000
School Culture: Learning Partnership	31.831	4.509	.674	7.060	.000

Table 32

Stepwise Regression: Servant Leadership and School Culture with Communication Arts

Dependent Variable: Communication Arts

Model Summary

Independent Variables	R	R Square	Adjusted R Square	Standard Error
School Culture: Learning Partnership	.674	.454	.445	10.755
School Culture: Teacher Collaboration	.722	.521	.505	10.155

Step 2

Analysis of Variance	Sum of Squares	DF	Mean Square	F	Sig. F
Regression	6621.756	2	3310.878	32.106	.000
Residual	6084.197	59	103.122		
Total	12705.954	61			

Variables in Equation	B	Standard Error	Beta	t	Sig. T
(Constant)	-48.698	18.556		-2.624	.011
School Culture: Learning Partnership	38.288	4.811	.810	7.959	.000
School Culture: Teacher Collaboration	-14.024	4.868	-.293	-2.881	.006

Null hypothesis 4.1b states that there are no significant relationships between the combination of servant leadership and school culture as measured by the factors of the Servant Leadership Assessment Instrument and the School Culture Survey on student achievement as measured by Communication Arts MAP test scores, when controlling for

enrollment and free and reduced lunch. Another Step-wise regression analysis with

forward inclusion was conducted to determine if any relationships existed between the

factors of elementary principal servant leadership, school culture, and the factor of

student achievement identified as "Communication Arts MAP scores," when controlling

for enrollment and free and reduced lunch. The results of the analysis are presented in

Tables 33-34. A significant model emerged with two variables at the $p < .01$ that included

the school culture factors of "learning partnership" and "teacher collaboration." In the

model in Step 1 of the regression (Table 33), the factor of free and reduced lunch

accounted for 61.9% of the variance of the student achievement factor of

"Communication Arts MAP scores" with a significance of .000. The addition of the

school culture factor of "learning partnership" accounted for 68.7% of the variance of the

student achievement factor of "Communication Arts MAP scores" with a significance of

.000 (Table 34). There was no difference in explained variance when testing $H_{04.1b}$ by

entering enrollment as a variable. A significant negative relationship was found for free

and reduced lunch, and a significant positive relationship was found for "learning

partnership" for $H_{04.1b}$.

Table 33

Stepwise Regression: Servant Leadership and School Culture with Communication Arts, when controlling for free and reduced lunch

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Dependent Variable: Communication Arts

Model Summary

Independent Variables	R	R Square	Adjusted R Square	Standard Error	
Free & Reduced Lunch	.791	.625	.619	8.912	
School Culture: Learning Partnership	.835	.697	.687	8.077	

Step 1

Analysis of Variance	Sum of Squares	DF	Mean Square	F	Sig. F
Regression	7941.061	1	7941.061	99.995	.000
Residual	4764.893	60	79.415		
Total	12705.954	61			

Variables in Equation	B	Standard Error	Beta	t	Sig. T
(Constant)	67.360	2.236		30.125	.000
Free & Reduced Lunch	-.459	.046	-.791	-10.000	.000

Table 34

Stepwise Regression: Servant Leadership and School Culture with Communication Arts, when controlling for free and reduced lunch

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Dependent Variable: Communication Arts

Model Summary

Independent Variables	R	R Square	Adjusted R Square	Standard Error	
Free & Reduced Lunch	.791	.625	.619	8.912	
School Culture: Learning Partnership	.835	.697	.687	8.077	

Step 2

Analysis of Variance	Sum of Squares	DF	Mean Square	F	Sig. F
Regression	8856.565	2	4428.282	67.873	.000
Residual	3849.389	59	65.244		
Total	12705.954	61			
Variables in Equation	B	Standard Error	Beta	t	Sig. T
(Constant)	3.406	17.193		.198	.844
Free & Reduced Lunch	-.350	.051	-.602	-6.883	.000
School Culture: Learning Partnership	15.491	4.135	.328	3.746	.000

Mathematics. Null hypothesis 4.2a states that <u>there are no significant relationships between the combination of servant leadership and school culture as measured by the factors of the Servant Leadership Assessment Instrument and the School Culture Survey on student achievement as measured by Mathematics MAP test scores.</u> A Step-wise regression analysis with forward inclusion was conducted to determine if any

relationships existed between the factors of elementary principal servant leadership, the factors of school culture, and the factor of student achievement identified as "Mathematics MAP scores." The results of the analysis are presented in Table 35. A significant model emerged with one variable at the $p < .01$ that included the school culture factor of "learning partnership." In the regression model (Table 35), the school culture factor of "learning partnership" accounted for 35.1% of the variance of the student achievement factor of "Mathematics MAP scores" with a significance of .000. A significant positive relationship was found for $H_{04.2a}$.

Table 35

Stepwise Regression: Servant Leadership and School Culture with Mathematics

Dependent Variable: Mathematics

Model Summary

Independent Variables	R	R Square	Adjusted R Square	Standard Error	
School Culture: Learning Partnership	.602	.362	.351	12.256	
Analysis of Variance	Sum of Squares	DF	Mean Square	F	Sig. F
Regression	5112.325	1	5112.325	34.059	.000
Residual	9006.084	60	150.101		
Total	14118.409	61			
Variables in Equation	B	Standard Error	Beta	t	Sig. T
(Constant)	-67.921	19.743		-3.440	.001
School Culture: Learning Partnership	29.973	5.136	.602	5.836	.000

Null hypothesis 4.2b states that <u>there are no significant relationships between the</u> <u>combination of servant leadership and school culture as measured by the factors of the</u> <u>Servant Leadership Assessment Instrument and the School Culture Survey on student</u> <u>achievement as measured by Mathematics MAP test scores, when controlling for</u> <u>enrollment and free and reduced lunch.</u> Another Step-wise regression analysis with forward inclusion was conducted to determine if any relationships existed between the factors of elementary principal servant leadership and the factor of student achievement identified as "Mathematics MAP scores," when controlling for enrollment and free and reduced lunch. The results of the analysis are presented in Tables 36-37. A significant model emerged with one variable at the $p < .01$ that included the variable of free and reduced lunch and the school culture factor of "learning partnership." In the model in step 1 of the regression (Table 36), free and reduced lunch accounted for 49.8% of the variance of the student achievement factor of "Mathematics MAP scores" with a significance of .000. The addition of the school culture factor of "learning partnership" accounted for 54.7% of the variance of the student achievement factor of "Mathematics MAP scores" with a significance of .000 (Table 37). There was no difference in explained variance when testing $H_{04.2b}$ by entering enrollment as a control. A significant negative relationship was found for free and reduced lunch, and a significant positive relationship was found for "learning partnership" for $H_{04.2b}$.

Table 36

Stepwise Regression: Servant Leadership and School Culture with Mathematics, when controlling for free and reduced lunch

Dependent Variable: Mathematics

Model Summary

Independent Variables	R	R Square	Adjusted R Square	Standard Error
Free & Reduced Lunch	.712	.507	.498	10.775
School Culture: Learning Partnership	.750	.562	.547	10.235

Step 1

Analysis of Variance	Sum of Squares	DF	Mean Square	F	Sig. F
Regression	7152.719	1	7152.719	61.611	.000
Residual	6965.690	60	116.095		
Total	14118.409	61			

Variables in Equation	B	Standard Error	Beta	t	Sig. T
(Constant)	65.242	2.704		24.132	.000
Free & Reduced Lunch	-.435	.055	-.712	-7.849	.000

Table 37

Stepwise Regression: Servant Leadership and School Culture with Mathematics, when controlling for free and reduced lunch

Dependent Variable: Mathematics				

Model Summary

Independent Variables	R	R Square	Adjusted R Square	Standard Error
Free & Reduced Lunch	.712	.507	.498	10.775
School Culture: Learning Partnership	.750	.562	.547	10.235

Step 2

Analysis of Variance	Sum of Squares	DF	Mean Square	F	Sig. F
Regression	7938.221	2	3969.110	37.892	.000
Residual	6180.188	59	104.749		
Total	14118.409	61			
Variables in Equation	B	Standard Error	Beta	t	Sig. T
(Constant)	6.003	21.785		.276	.784
Free & Reduced Lunch	-.334	.064	-.546	-5.194	.000
School Culture: Learning Partnership	14.349	5.240	.288	2.738	.008

Summary. Because seven relationships were found between the factors of elementary principal servant leadership, as measured by the Servant Leadership Assessment Instrument, school culture, as measured by the School Culture Survey, and the factors of student achievement, as measured by Communication Arts MAP test scores and Mathematics MAP test scores, without controlling for enrollment and free and

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reduced lunch and when controlling for enrollment and free and reduced lunch, null hypothesis H_{04} was rejected.

Summary of Findings

Descriptive Findings

For this study 62 elementary schools participated. Six hundred seventy-seven full-time elementary school teachers completed the Servant Leadership Assessment Instrument to assess the servant leadership behaviors of their school's principal and the School Culture Survey to assess the culture of their schools.

For the Servant Leadership Assessment Instrument, the factor "empowerment" had the highest mean (4.84), followed, in descending order, by "humility" (4.78), "Agapao love" (4.69), and "vision" (4.36). For the School Culture Survey, the factor "professional development" had the highest mean (4.25), followed, in descending order, by "unity of purpose" (4.24), "collegial support" (4.23), "collaborative leadership" (3.95), "learning partnership" (3.86), and "teacher collaboration" (3.59).

Hypothesis Testing

Hypothesis One: the first hypothesis, there are no significant relationships between servant leadership as measured by the factors of the Servant Leadership Assessment Instrument and school culture as measured by the factors of the School Culture Survey, was rejected because eleven relationships were found between the factors of elementary principal servant leadership, as measured by the Servant Leadership Assessment Instrument, and the factors of school culture, as measured by the School Culture Survey.

Hypothesis Two: the second hypothesis, <u>there are no significant relationships</u> <u>between servant leadership as measured by the factors of the Servant Leadership</u> <u>Assessment Instrument and student achievement as measured by Communication Arts</u> <u>MAP test scores and Mathematics MAP test scores</u>, was rejected because four relationships were found between the factors of elementary principal servant leadership, as measured by the Servant Leadership Assessment Instrument, and each of the factors of student achievement, as measured by Communication Arts MAP test scores and Mathematics MAP test scores, without controlling for enrollment and free and reduced lunch and when controlling for enrollment and free and reduced lunch.

Hypothesis Three: the third hypothesis, <u>there are no significant relationships</u> <u>between school culture as measured by the factors of the School Culture Survey and</u> <u>student achievement as measured by the Communication Arts MAP scores and</u> <u>Mathematics MAP scores</u>, was rejected because seven relationships were found between the factors of school culture, as measured by the School Culture Survey, and the factors of student achievement, as measured by Communication Arts MAP test scores and Mathematics MAP test scores, without controlling for enrollment and free and reduced lunch and when controlling for enrollment and free and reduced lunch.

Hypothesis Four: the fourth hypothesis, <u>there are no significant relationships</u> <u>between the combination of servant leadership and school culture as measured by the</u> <u>factors of the Servant Leadership Assessment Instrument and the School Culture Survey</u> <u>on student achievement as measured by Communication Arts MAP test scores and</u> <u>Mathematics MAP test scores</u>, was rejected because seven relationships were found between the factors of elementary principal servant leadership, as measured by the

Servant Leadership Assessment Instrument, school culture, as measured by the School

Culture Survey, and the factors of student achievement, as measured by Communication

Arts MAP test scores and Mathematics MAP test scores, without controlling for

enrollment and free and reduced lunch and when controlling for enrollment and free and

reduced lunch.

Summary of Results

     A summary of the findings of the relationships between servant leadership and

school culture is presented in Tables 38-40. The significant correlations, the regressions,

and the standardized beta coefficients are identified on Table 38, and the regressions and

the standardized beta coefficients are identified on Tables 39-40.

     All four factors of servant leadership were positively correlated with each of the

six factors of school culture (Table 38). The servant leadership factor of "empowerment"

was identified as having a significant positive relationship with the school culture factors

of "collaborative leadership," "professional development," "unity of purpose," and

"learning partnership. The servant leadership factor of "vision" was identified as having a

significant positive relationship with the school culture factors of "collaborative

leadership," "teacher collaboration," "unity of purpose," and "collegial support."

Table 38

The Relationship Between Servant Leadership and School Culture

	SCS Collaborative Leadership				SCS Teacher Collaboration			
	bivariate corr.	partial corr.	R^2	β	bivariate corr.	partial corr.	R^2	β
SL Agapao Love	.676 (.000)**	.662 (.000)**	-	-	.398 (.001)**	.416 (.001)**	-	-
SL Empowerment	.728 (.000)**	.716 (.000)**	.522	.418	.399 (.001)**	.428 (.001)**	-	-
SL Vision	.722 (.000)**	.713 (.000)**	.156.	.393	.519 (.000)**	.533 (.000)**	.258	.519
SL Humility	.680 (.000)**	.669 (.000)**	-	-	.385 (.002)**	.398 (.001)**	-	-

** Correlation is significant at the 0.01 level (2-tailed).
* Correlation is significant at the 0.05 level (2-tailed).
(R^2: adjusted proportion of variance; β: adjusted beta coefficient)

Table 38 continued

The Relationship Between Servant Leadership and School Culture

	SCS Professional Development				SCS Unity of Purpose			
	bivariate corr.	partial corr.	R^2	β	bivariate corr.	partial corr.	R^2	β
SL Agapao Love	.364 (.004)**	.345 (.007)**	-	-	.612 (.000)**	.588 (.000)**	-	-
SL Empowerment	.445 (.000)**	.425 (.001)**	.184	.445	.636 (.000)**	.601 (.000)**	.036	.344
SL Vision	.419 (.001)**	.405 (.001)**	-	-	.641 (.000)**	.628 (.000)**	.402	.371
SL Humility	.343 (.006)**	.325 (.011)*	-	-	.592 (.000)**	.572 (.000)**	-	-

** Correlation is significant at the 0.01 level (2-tailed).
* Correlation is significant at the 0.05 level (2-tailed).
(R^2: adjusted proportion of variance; β: adjusted beta coefficient)

Table 38 continued

The Relationship Between Servant Leadership and School Culture

	SCS Collegial Support				SCS Learning Partnership			
	bivariate corr.	partial corr.	R^2	β	bivariate corr.	partial corr.	R^2	β
SL Agapao Love	.396 (.001)**	.368 (.004)**	-	-	.394 (.002)**	.336 (.008)**	-	-
SL Empowerment	.398 (.001)**	.359 (.004)**	-	-	.485 (.000)**	.400 (.001)**	.223	.485
SL Vision	.450 (.000)**	.430 (.001)**	.189	.450	.462 (.000)**	.451 (.000)**	-	-
SL Humility	.378 (.002)**	.353 (.005)**	-	-	.340 (.007)**	.291 (.023)*	-	-

** Correlation is significant at the 0.01 level (2-tailed).
* Correlation is significant at the 0.05 level (2-tailed).
(R^2: adjusted proportion of variance; β: adjusted beta coefficient)

When controlling for enrollment, the servant leadership factor of "empowerment"

and the factor of enrollment were identified as having a significant positive relationship

with the school culture factor of "learning partnership" (Table 39).

Table 39

The Relationship Between Servant Leadership and School Culture, when controlling for enrollment

	SCSCL		SCSTC		SCSPD		SCSUP		SCSCS		SCSLP	
	R^2	β	R^2	β	R^2	β	R^2	β	R^2	β	R^2	β
SL Agapao Love	-	-	-	-	-	-	-	-	-	-	-	-
SL Empowerment	-	-	-	-	-	-	-	-	-	-	.223	.475
SL Vision	-	-	-	-	-	-	-	-	-	-	-	-
SL Humility	-	-	-	-	-	-	-	-	-	-	-	-
Enrollment	-	-	-	-	-	-	-	-	-	-	.072	.288

(R^2: adjusted proportion of variance; β: adjusted beta coefficient)

When controlling for free and reduced lunch, the factor of free and reduced lunch as well as the servant leadership factor of "vision" were identified as having significant relationships with the school culture factor of "learning partnership." The servant leadership factor of "vision" had a significant positive relationship with the school culture factor of "learning partnership," while the variable of free and reduced lunch had a significant negative relationship with the school culture variable of "learning partnership" (Table 40).

Table 40

The Relationship Between Servant Leadership and School Culture, when controlling for free and reduced lunch

	SCSCL		SCSTC		SCSPD		SCSUP		SCSCS		SCSLP	
	R^2	β	R^2	β	R^2	β	R^2	β	R^2	β	R^2	β
SL Agapao Love	-	-	-	-	-	-	-	-	-	-	-	-
SL Empowerment	-	-	-	-	-	-	-	-	-	-	-	-
SL Vision	-	-	-	-	-	-	-	-	-	-	.130	.375
SL Humility	-	-	-	-	-	-	-	-	-	-	-	-
Free & Reduced Lunch	-	-	-	-	-	-	-	-	-	-	.318	-.510

(R^2: adjusted proportion of variance; β: adjusted beta coefficient)

A summary of the findings of the relationships between servant leadership and student achievement is presented in Tables 41-42. The significant correlations, the regressions, and the standardized beta coefficients are identified on Table 41. The regressions and the standardized beta coefficients are identified on Table 42.

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The servant leadership factors of "Agapao love" and "empowerment" were significantly positively correlated with the student achievement factor of "Communication Arts MAP scores" with bivariate correlation, but there were no factors of servant leadership that correlated with the student achievement variable of "Communication Arts MAP scores" when controlling for enrollment and free and reduced lunch (Table 41). The servant leadership factors of "Agapao love," "empowerment," and "humility" were significantly positively correlated with the student achievement factor of "Mathematics MAP scores," but there were no factors of servant leadership that correlated with the student achievement factor of "Mathematics MAP scores" when controlling for enrollment and free and reduced lunch. The servant leadership factor of "empowerment" was identified as having a significant positive relationship with the student achievement factors of "Communication Arts MAP scores" and "Mathematics MAP scores."

Table 41

The Relationship Between Servant Leadership and Student Achievement

	Communication Arts MAP scores				Mathematics MAP scores			
	bivariate corr.	partial corr.	R^2	β	bivariate corr.	partial corr.	R^2	β
SL Agapao Love	.293 (.021)*	.201 (.120)	-	-	.265 (.037)*	.160 (.219)	-	-
SL Empowerment	.342 (.007)**	.178 (.169)	.102	.342	.317 (.012)*	.154 (.235)	.086	.317
SL Vision	.172 (.182)	.061 (.642)	-	-	.183 (.154)	.089 (.496)	-	-
SL Humility	.229 (.074)	.138 (.289)	-	-	.260 (.041)*	.186 (.150)	-	-

(R^2: adjusted proportion of variance; β: adjusted beta coefficient)

When controlling for enrollment and free and reduced lunch, the factor of free and reduced lunch was identified as having a significant negative relationship with the student achievement variables of "Communication Arts MAP scores" and "Mathematics MAP scores" (Table 42).

Table 42

The Relationship Between Servant Leadership and Student Achievement, when controlling for enrollment and free and reduced lunch

	Communication Arts MAP scores		Mathematics MAP scores	
	R^2	β	R^2	β
SL Agapao Love	-	-	-	-
SL Empowerment	-	-	-	-
SL Vision	-	-	-	-
SL Humility	-	-	-	-
Enrollment	-	-	-	-
Free & Reduced Lunch	.619	-.791	.498	-.712

(R^2: adjusted proportion of variance; β: adjusted beta coefficient)

A summary of the findings of the relationships between school culture and student achievement is presented in Tables 43-44. The significant correlations, the regressions, and the standardized beta coefficients are identified on Table 43. The regressions and the standardized beta coefficients are identified on Table 44.

The school culture factors of "professional development," "unity of purpose," and "learning partnership" were significantly positively correlated with the student achievement factor of "Communication Arts MAP scores" with bivariate correlation, but there was only one factor of school culture, "learning partnership," which significantly

positively correlated with the student achievement factor of "Communication Arts MAP scores" when controlling for enrollment and free and reduced lunch (Table 43). The school culture factors of "collaborative leadership," "professional development," "unity of purpose," "collegial support," and "learning partnership" were significantly positively correlated with the student achievement factor of "Mathematics MAP scores" with bivariate correlation, but only two factors of school cultures, "professional development" and "learning partnership," significantly positively correlated with the student achievement variable of "Mathematics MAP scores" when controlling for enrollment and free and reduced lunch. The school culture factors of "learning partnership" and "teacher collaboration" were identified as having a significant positive relationship with the student achievement factor of "Communication Arts MAP scores." The school culture factor of "learning partnership" was identified as having a significant positive relationship with the student achievement factors of "Mathematics MAP scores."

Table 43

The Relationship Between School Culture and Student Achievement

	Communication Arts MAP scores				Mathematics MAP scores			
	bivariate corr.	partial corr.	R^2	β	bivariate corr.	partial corr.	R^2	β
SCS Collaborative Leadership	.243 (.057)	.154 (.235)	-	-	.283 (.026)*	.214 (.098)	-	-
SCS Teacher Collaboration	.084 (.516)	.178 (.170)	.060	-.293	.139 (.282)	.229 (.075)	–	–
SCS Professional Development	.253 (.047)*	.231 (.074)	-	-	.319 (.012)*	.311 (.015)*	-	-
SCS Unity of Purpose	.361 (.004)**	.224 (.082)	-	-	.364 (.004)**	.233 (.070)	-	-
SCS Collegial Support	.235 (.067)	.116 (.375)	-	-	.308 (.015)*	.232 (.072)	-	-
SCS Learning Partnership	.674 (.000)**	.438 (.000)**	.445	.810	.602 (.000)**	.336 (.008)**	.351	.602

(R^2: adjusted proportion of variance; β: adjusted beta coefficient)

When controlling for enrollment and free and reduced lunch, the factor of free and reduced lunch as well as the school culture factor of "learning partnership" were identified as having a significant relationship with the student achievement factor of "Communication Arts MAP scores" (Table 44). The relationship between the factor of free and reduced lunch and the student achievement factor of "Communication Arts MAP scores" was a significant negative relationship, while the relationship between the school culture factor of "learning partnership" and the student achievement factor of "Communication Arts MAP scores" was a significant positive relationship. When controlling for enrollment and free and reduced lunch, the factor of free and reduced

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lunch as well as the school culture factor of "learning partnership" were identified as

having a significant relationship with the student achievement factor of "Mathematics

MAP scores." The relationship between the factor of free and reduced lunch and the

student achievement factor of "Mathematics MAP scores" was a significant negative

relationship, while the relationship between the school culture factor of "learning

partnership" and the student achievement factor of "Mathematics MAP scores" was a

significant positive relationship.

Table 44

*The Relationship Between School Culture and Student Achievement, when controlling for
enrollment and free and reduced lunch*

	Communication Arts MAP scores		Mathematics MAP scores	
	R^2	β	R^2	β
SCSCL	-	-	-	-
SCSTC	-	-	-	-
SCSPD	-	-	-	-
SCSUP	-	-	-	-
SCSCS	-	-	-	-
SCSLP	.068	.328	.049	.288
Enrollment	-	-	-	-
F/RL	.619	-.602	.498	-.546

(R^2: adjusted proportion of variance; β: adjusted beta coefficient)

A summary of the findings of the relationships between servant leadership and

school culture and student achievement as determined by the multiple regressions is

presented in Tables 45-46. The significant correlations, the regressions, and the

standardized beta coefficients are identified on Table 45. The regressions and the

standardized beta coefficients are identified on Table 46.

When combining the factors of servant leadership and school culture, the school

culture factors of "learning partnership" and "teacher collaboration" were identified as

having a significant relationship with the student achievement factor of "Communication Arts MAP scores" (Table 45). The relationship between the school culture factors of "learning partnership" was a significant positive relationship, while the school culture factor of "teacher collaboration" was a significant negative relationship. When combining the factors of servant leadership and school culture, the school culture factor of "learning partnership" was identified as having a significant positive relationship with the student achievement factor of "Mathematics MAP scores."

Table 45

The Relationship Between Servant Leadership and School Culture, and Student Achievement

	Communication Arts MAP		Mathematics MAP	
	R^2	β	R^2	β
SL Agapao Love	-	-	-	-
SL Empowerment	-	-	-	-
SL Vision	-	-	-	-
SL Humility	-	-	-	-
SCS Collaborative Leadership	-	-	-	-
SCS Teacher Collaboration	.060	-.293	-	-
SCS Professional Development	-	-	-	-
SCS Unity of Purpose	-	-	-	-
SCS Collegial Support	-	-	-	-
SCS Learning Partnership	.445	.810	.351	.602

(R^2: adjusted proportion of variance; β: adjusted beta coefficient)

When combining the factors of servant leadership and school culture and controlling for enrollment and free and reduced lunch, the factor of free and reduced lunch as well as the school culture factors of "learning partnership" were identified as having a significant relationship with the student achievement factors of "Communication Arts MAP scores" and "Mathematics MAP scores" (Table 46). The relationship between

the factor of free and reduced lunch and the student achievement factors of

"Communication Arts MAP scores" and "Mathematics MAP scores" was a significant

negative relationship, while the relationship between the school culture factor of

"learning partnership" and the student achievement factors of "Communication Arts

MAP scores" and "Mathematics MAP scores" was a significant positive relationship.

Table 46

The Relationship Between Servant Leadership and School Culture, and Student Achievement, when controlling for enrollment and free and reduced lunch

| | Communication Arts MAP | | Mathematics MAP | |
	R^2	β	R^2	β
SL Agapao Love	-	-	-	-
SL Empowerment	-	-	-	-
SL Vision	-	-	-	-
SL Humility	-	-	-	-
SCS Collaborative Leadership	-	-	-	-
SCS Teacher Collaboration	-	-	-	-
SCS Professional Development	-	-	-	-
SCS Unity of Purpose	-	-	-	-
SCS Collegial Support	-	-	-	-
SCS Learning Partnership	.068	.328	.049	.288
Enrollment	-	-	-	-
Free & Reduced Lunch	.619	-.602	.498	-.546

(R^2: adjusted proportion of variance; β: adjusted beta coefficient)

Model Construction

The correlations from the bivariate and the partial correlations as well as the

standardized beta coefficients from the previously presented multiple regression analyses

were used to inform the construction of eight models. The first model, presented as

Figure 3, is the Significant Bivariate Correlation Model for the Relationships Between

Servant Leadership and School Culture. This model represents all the significant bivariate

correlations found from the analyses. A double-headed arrow represents a significant

positive correlation in this model. The model is organized with the independent variables,

the factors of servant leadership, on the left-hand side and the dependent variables, the

factors of school culture, on the right-hand side. Each variable is presented as a box with

a double-headed arrow indicating the mutually influential relationships.

Figure 3

Significant Bivariate Correlation Model for the Relationship Between Servant Leadership and School Culture
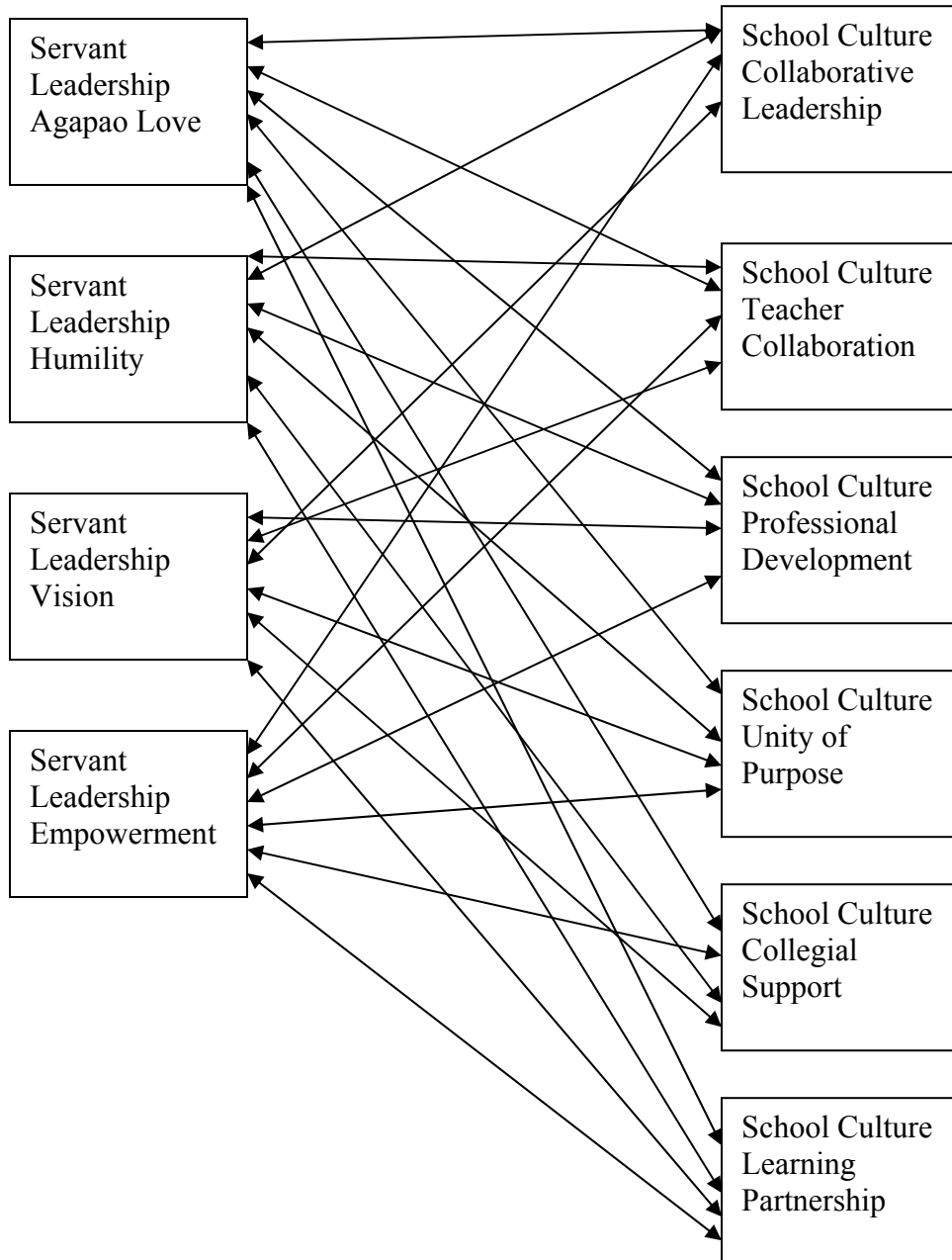
The second model, presented as Figure 4, is the Significant Partial Correlation

Model for the Relationships Between Servant Leadership and School Culture,

Controlling for Enrollment and Free and Reduced Lunch. This model represents all the

significant partial correlations found from the analyses. A double-headed arrow

represents a significant positive correlation in this model. The model is organized with

the independent variables, the factors of servant leadership, on the left-hand side and the

dependent variables, the factors of school culture, on the right-hand side. Each variable is

presented as a box with a double-headed arrow indicating the mutually influential
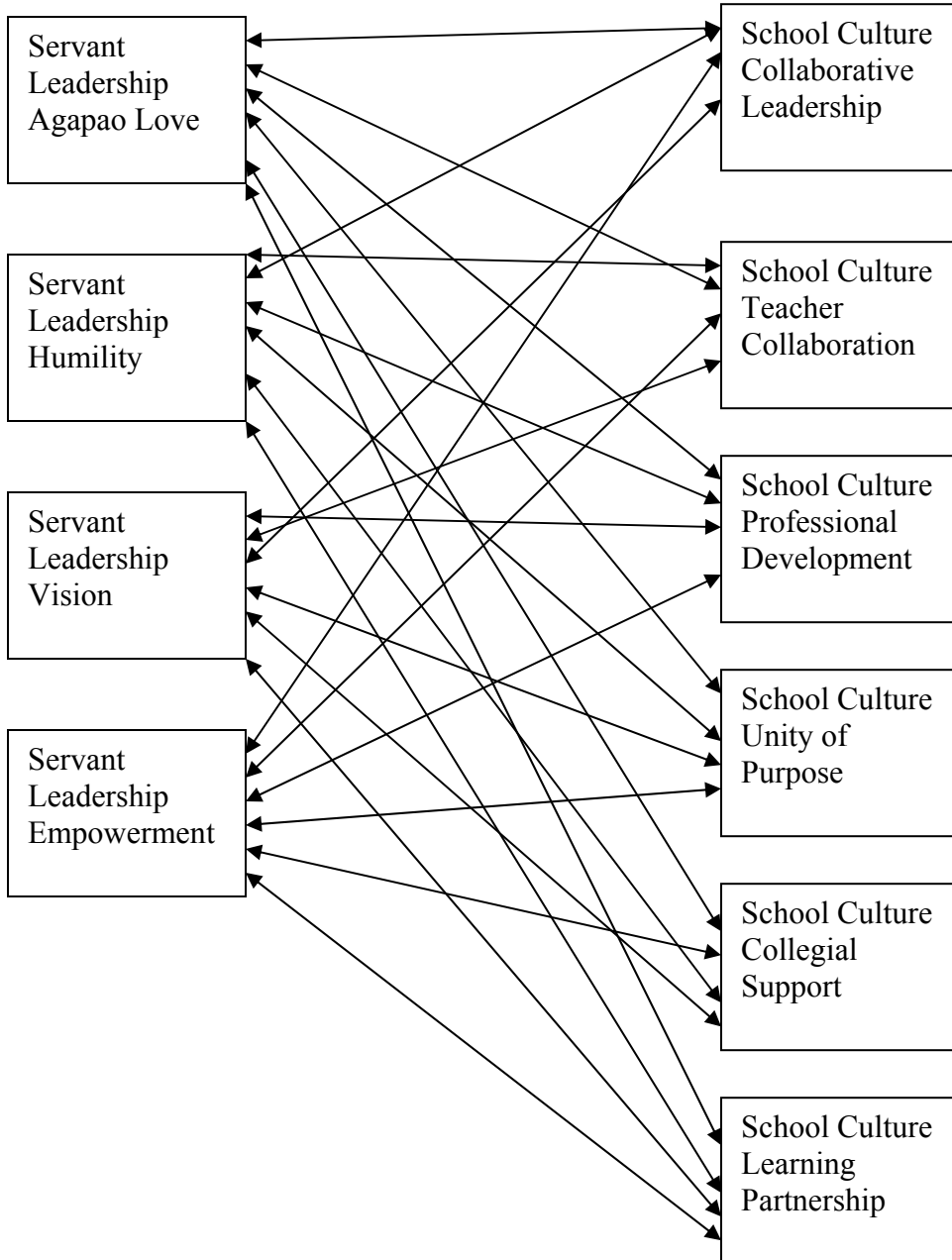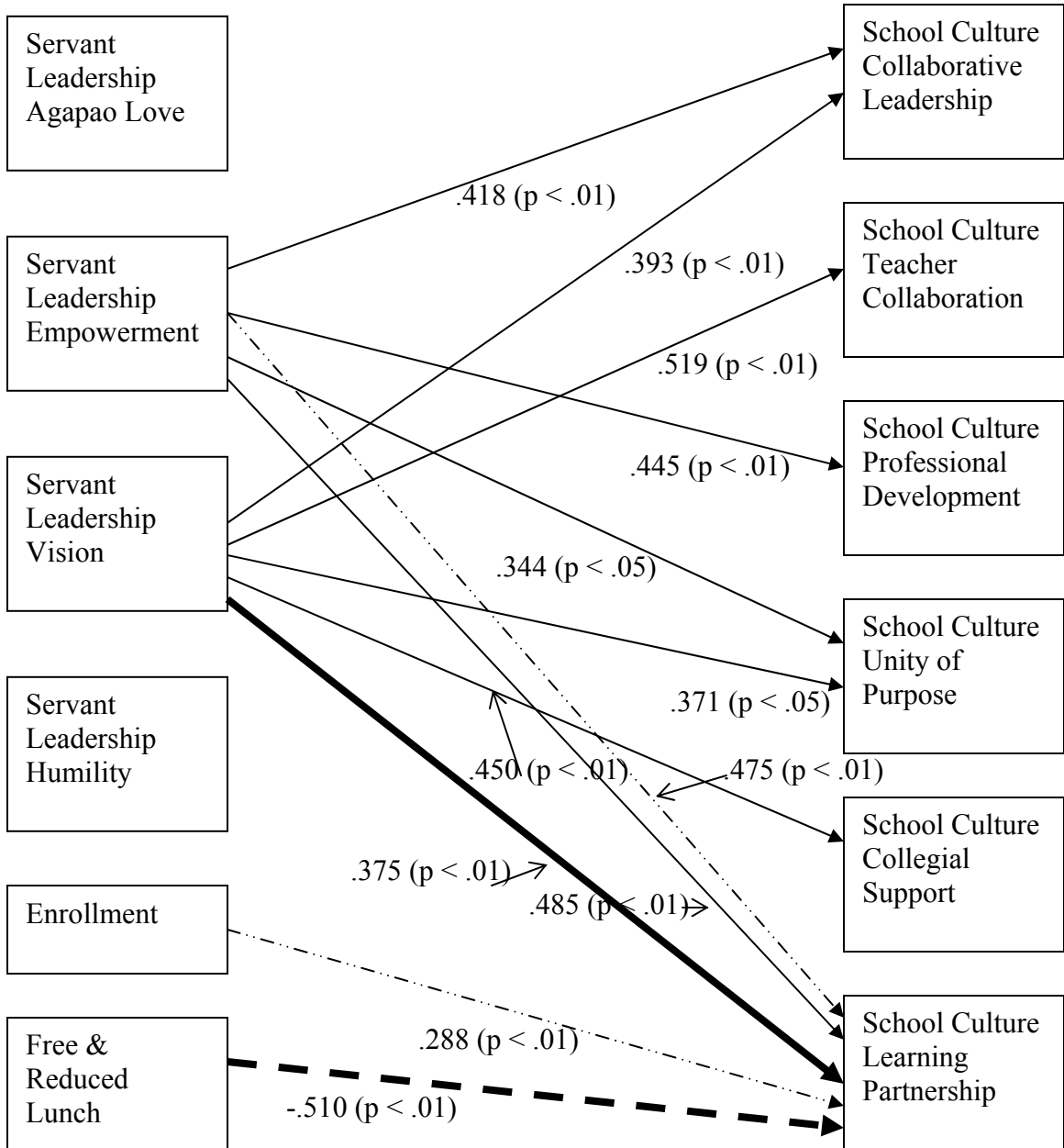
relationships.

Figure 4

Significant Partial Correlation Model for the Relationship Between Servant Leadership and School Culture, Controlling for Enrollment and Free and Reduced Lunch

The third model, presented as Figure 5, is the Model of Influence, Determined from Regressions, for the Relationships Between Servant Leadership and School Culture, Controlling and not Controlling for Enrollment and Free and Reduced Lunch, with Standardized Beta Coefficients. This model represents all the significantly influential standardized beta coefficients from the multiple regression analyses with the influence of each weight displayed. Four types of relationships are presented in Figure 3. The first is a one-way relationship of influence, characterized by a solid arrow with one point. The one-way relationship of influence represents a variable that was significantly positive as an independent variable in the regression for the dependent variable, when not controlling for enrollment and free and reduced lunch. The variable that receives the arrow is the dependent variable. The second type of relationship is a one-way relationship of influence, characterized by a dashed arrow with one point, which represents a variable that was significantly positive as an independent variable in the regression for the dependent variable, when controlling for enrollment. The variable that receives the arrow is the dependent variable. The third type of relationship is a one-way relationship of influence, characterized by a heavy, solid arrow with one point, which represents a variable that was significantly positive as an independent variable in the regression for the dependent variable, when controlling for free and reduced lunch. The variable that receives the arrow is the dependent variable. Finally, the fourth type of relationship is a one-way relationship of influence, characterized by a heavy, dashed arrow with one point, which represents a variable that was significantly negative as an independent variable in the regression for the dependent variable, when controlling for free and reduced lunch. The variable that receives the arrow is the dependent variable.

Figure 5

Model of Influence, Determined from Regressions, for the Relationship Between Servant Leadership and School Culture, Controlling and not Controlling for Enrollment and Free and Reduced Lunch, with Standardized Beta Coefficients

<u>Key</u>

⟶　　= Directly Influenced, Positive, when not controlling for enrollment and free and reduced lunch
　　　(Standardized Beta Coefficients, β)

–··–··–➤　= Directly Influenced, Positive, when controlling for enrollment
　　　(Standardized Beta Coefficients, β)

⟹　　= Directly Influenced, Positive, when controlling for free and reduced lunch
　　　(Standardized Beta Coefficients, β)

▬ ▬ ➤　= Directly Influenced, Negative, when controlling for free and reduced lunch
　　　(Standardized Beta Coefficients, β)

The fourth model, presented as Figure 6, represents the Significant Bivariate and

Partial Correlation Model for the Relationship Between Servant Leadership and Student

Achievement. This model represents all the significant bivariate and partial correlations

found from the analyses. A double-headed arrow represents a significant positive

correlation in this model. The model is organized with the independent variables, the

factors of servant leadership, on the left-hand side and the dependent variables, the

factors of student achievement, on the right-hand side. Each variable is presented as a box

with a double-headed arrow indicating the mutually influential relationships.

Figure 6

*Significant Bivariate and Partial Correlation Model for the Relationship Between
Servant Leadership and Student Achievement*

The fifth model, presented as Figure 7, is the Model of Influence, Determined from Regressions, for the Relationships Between Servant Leadership and Student Achievement, Controlling and not Controlling for Enrollment and Free and Reduced Lunch,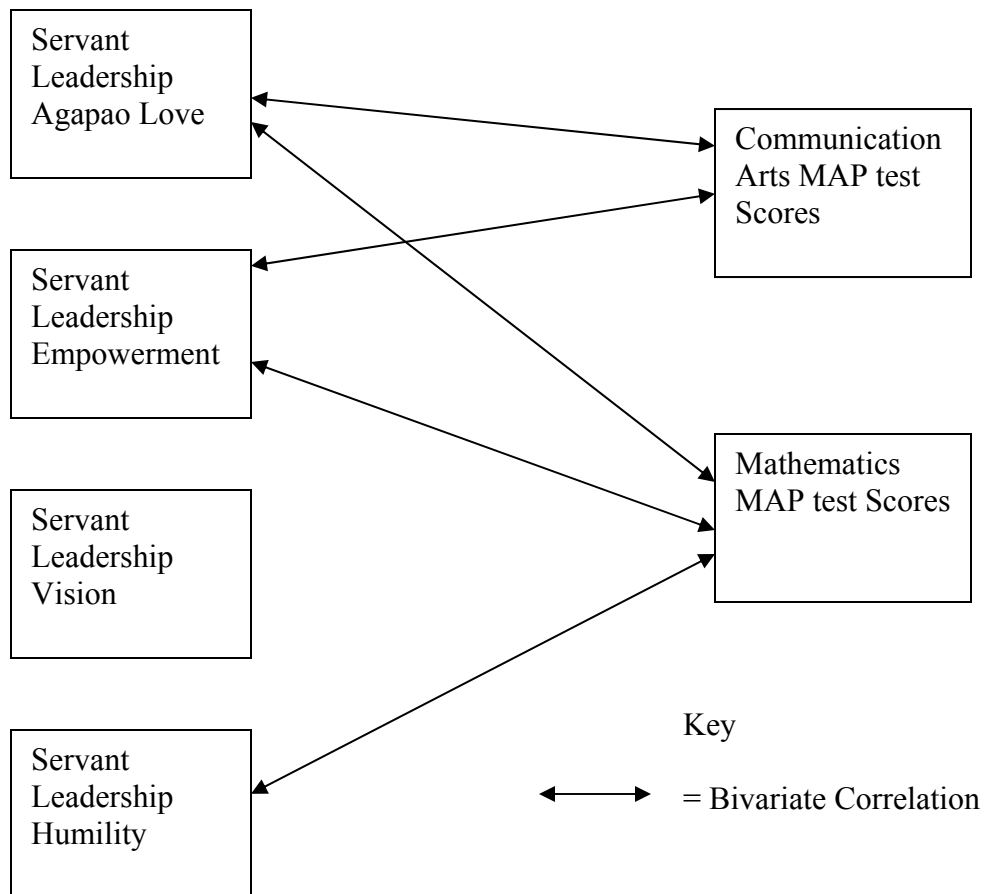 with Standardized Beta Coefficients. This model represents all the significantly influential standardized beta coefficients from the multiple regression analyses with the influence of each weight displayed. Two types of relationships are presented in Figure 5. The first is a one-way relationship of influence, characterized by an solid arrow with one point. The one-way relationship of influence represents a variable that was significantly positive as an independent variable in the regression for the dependent variable, when not controlling for enrollment and free and reduced lunch. The variable that receives the arrow is the dependent variable. The second type of relationship is a one-way relationship of influence, characterized by a heavy, dashed arrow with one point, which represents a variable that was significantly positive as an independent variable in the regression for the dependent variable, when controlling for enrollment and free and reduced lunch. The variable that receives the arrow is the dependent variable.

Figure 7

Model of Influence, Determined from Regressions, for the Relationship Between Servant Leadership and Student Achievement, Controlling and not Controlling for Enrollment and Free and Reduced Lunch, with Standardized Beta Coefficients
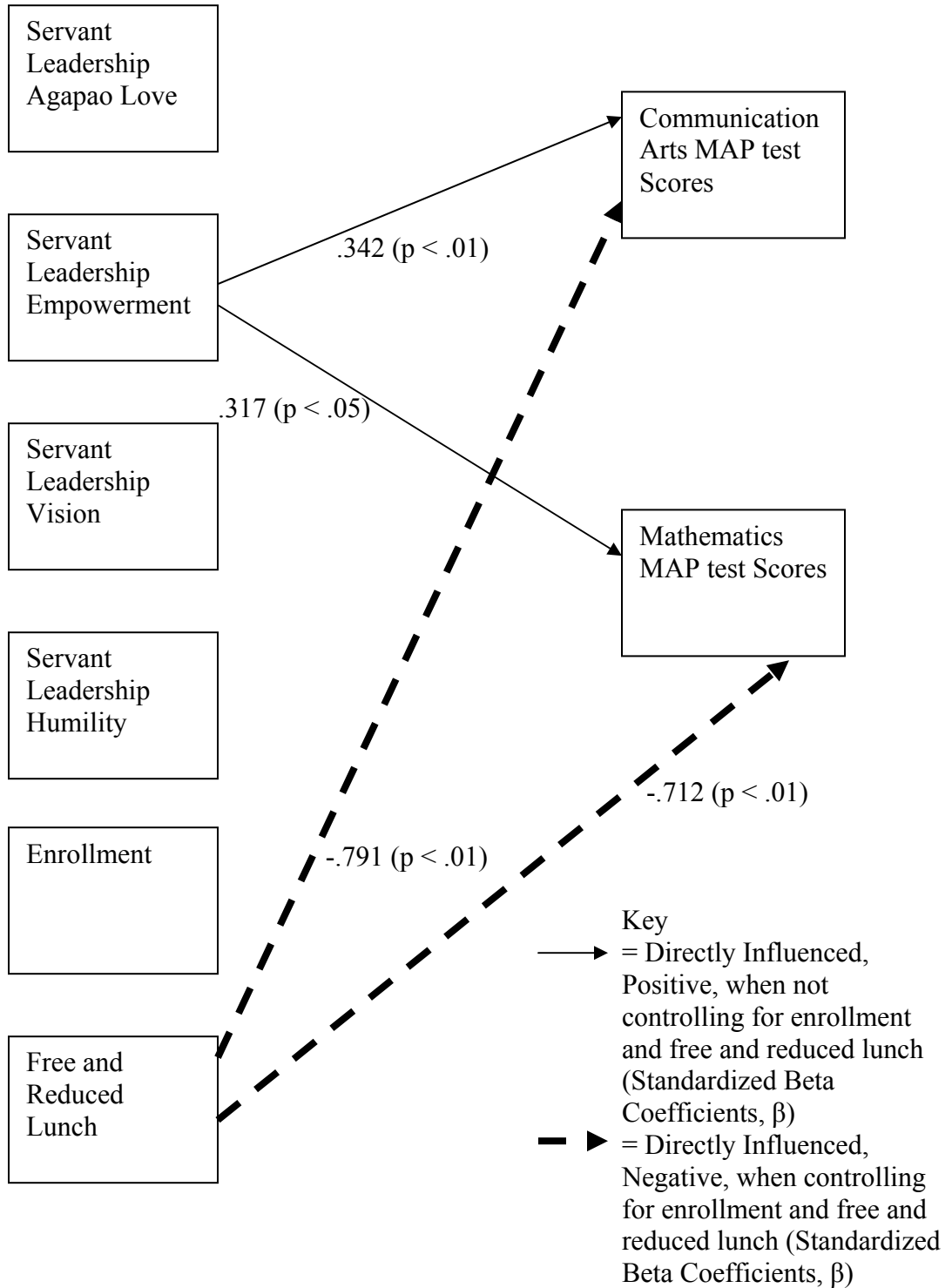

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The sixth model, presented as Figure 8, represents the Significant Bivariate and Partial Correlation Model for the Relationship Between School Culture and Student Achievement. This model represents all the significant bivariate and partial correlations found from the analyses. A double-headed arrow represents a significant positive correlation in this model. The model is organized with the independent variables, the factors of school culture, on the left-hand side and the dependent variables, the factors of student achievement, on the right-hand side. Each variable is presented as a box with a double-headed arrow indicating the mutually influential relationships.

Figure 8

Significant Bivariate and Partial Correlation Model for the Relationship Between School Culture and Student Achievement

The seventh model, presented as Figure 9, is the Model of Influence, Determined from Regressions, for the Relationships Between School Culture and Student Achievement, Controlling and not Controlling for Enrollment and Free and Reduced Lunch, with Standardized Beta Coefficients. This model represents all the significantly influential standardized beta coefficients from the multiple regression analyses with the influence of each weight displayed. Four types of relationships are presented in Figure 5. The first is a one-way relationship of influence, characterized by a solid arrow with one point. The one-way relationship of influence represents a variable that was significantly positive as an independent variable in the regression for the dependent variable, when not controlling for enrollment and free and reduced lunch. The variable that receives th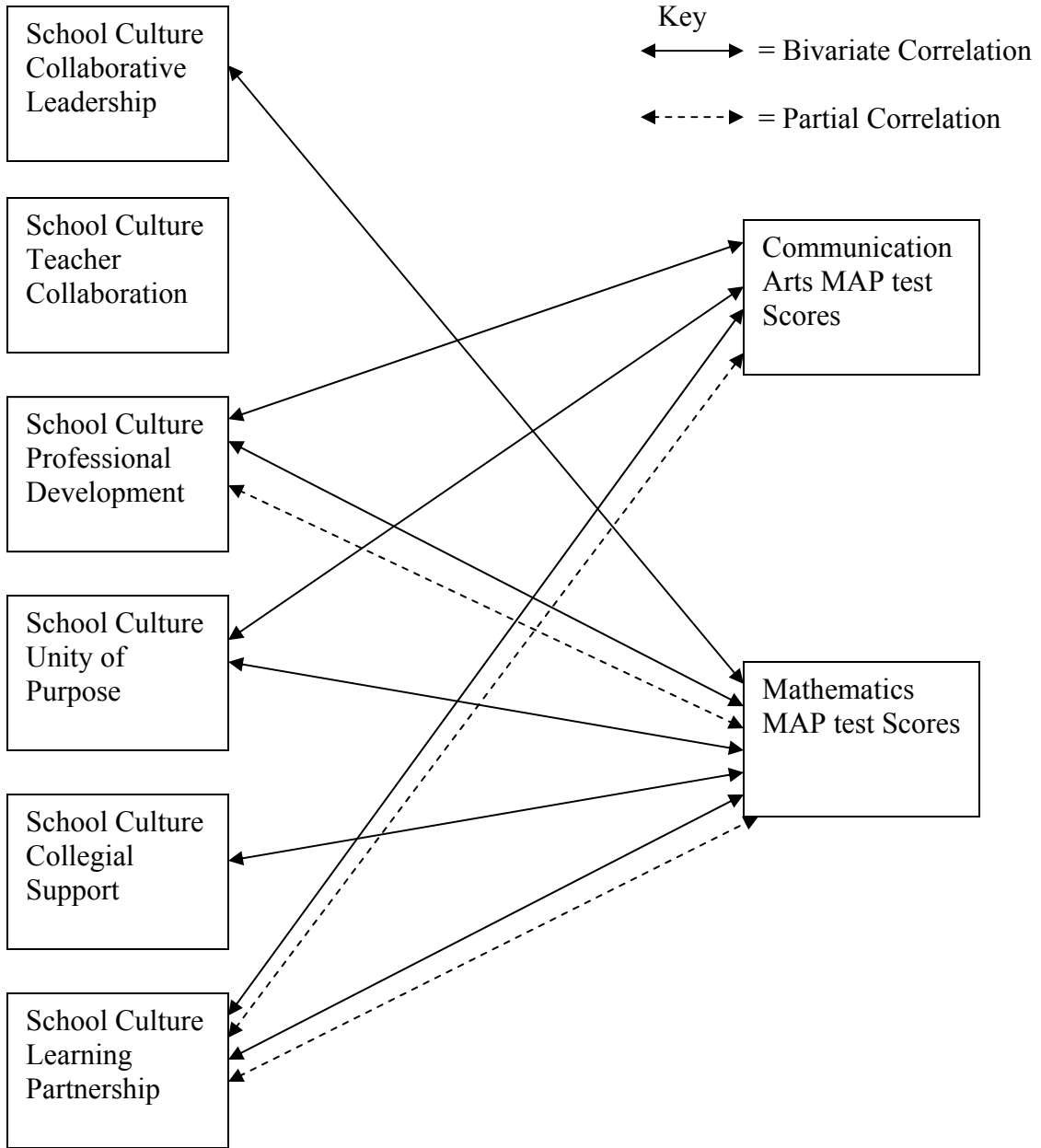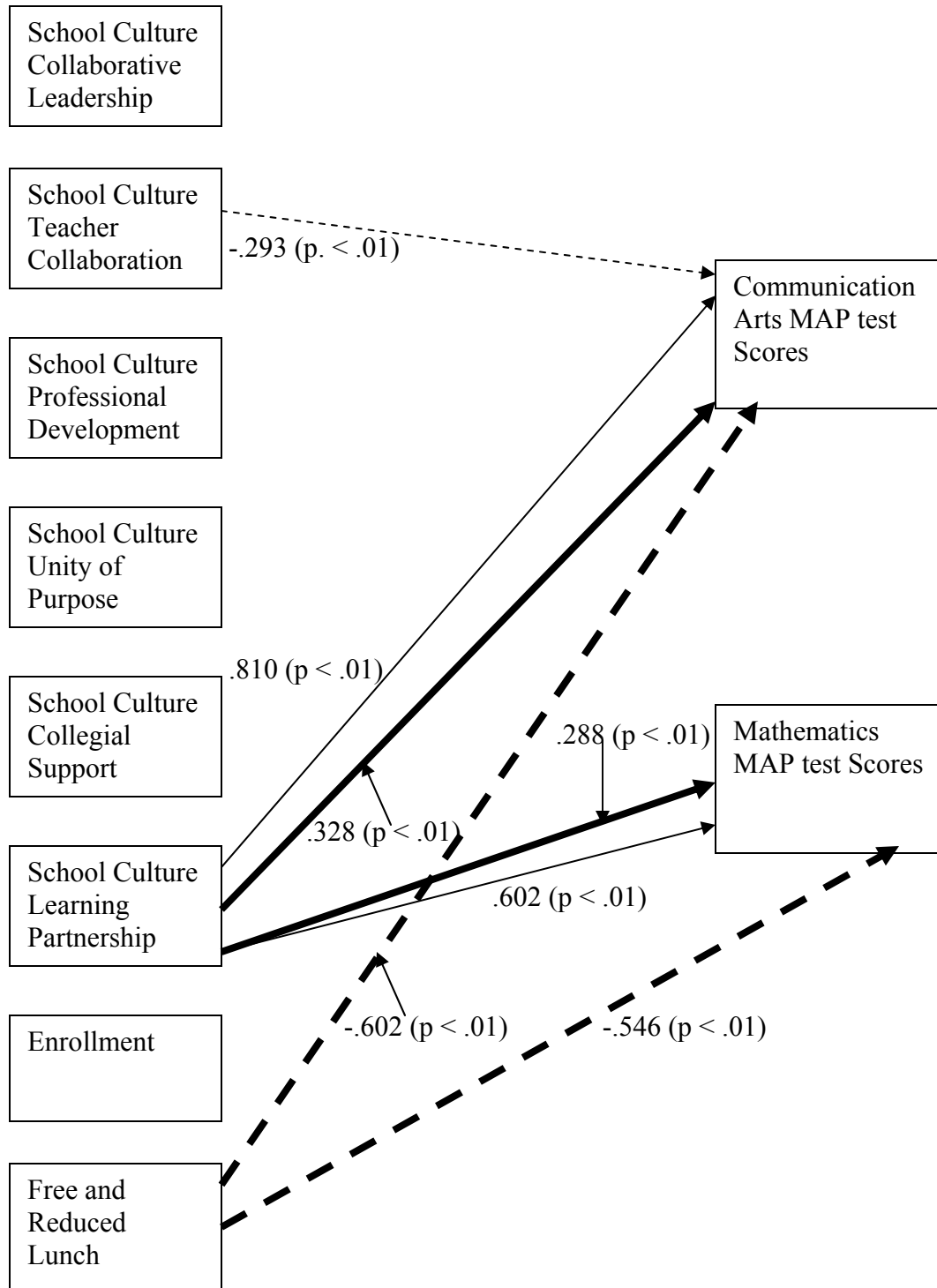e arrow is the dependent variable. The second type of relationship of influence, characterized by a dashed arrow with one point, is a one-way relationship of influence that represents a variable that was significantly negative as an independent variable in the regression for the dependent variable, when not controlling for enrollment and free and reduced lunch. The variable that receives the arrow is the dependent variable. The third type of relationship of influence, characterized by a heavy, solid arrow with one point, is a one-way relationship of influence that represents a variable that was significantly positive as an independent variable in the regression for the dependent variable, when controlling for enrollment and free and reduced lunch. The fourth type of relationship of influence, characterized by a heavy, dashed arrow with one point, is a one-way relationship of influence that represents a variable that was significantly negative as an independent variable in the regression for the dependent variable, when controlling for enrollment and free and reduced lunch.

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Figure 9

Model of Influence, Determined from Regressions, for the Relationship Between School Culture and Student Achievement, Controlling and not Controlling for Enrollment and Free and Reduced Lunch, with Standardized Beta Coefficients

Key

——▶ = Directly Influenced, Positive, when not controlling for enrollment and free and reduced lunch (Standardized Beta Coefficients, β)

- - - -▶ = Directly Influenced, Negative, when not controlling for enrollment and free and reduced lunch (Standardized Beta Coefficients, β)

━━▶ = Directly Influenced, Positive, when controlling for enrollment and free and reduced lunch (Standardized Beta Coefficients, β)

━ ▶ = Directly Influenced, Negative, when controlling for enrollment and free and reduced lunch (Standardized Beta Coefficients, β)

The eighth and final model, presented as Figure 10, is the Model of Influence, Determined from Regressions, for the Relationships Between Servant Leadership, School Culture, and Student Achievement, Controlling and not Controlling for Enrollment and Free and Reduced Lunch, with Standardized Beta Coefficients. This model represents all the significantly influential standardized beta coefficients from the multiple regression analyses with the influence of each weight displayed. Four types of relationships are presented in Figure 5. The first is a one-way relationship of influence, characterized by a solid arrow with one point. The one-way relationship of influence represents a variable that was significantly positive as an independent variable in the regression for the dependent variable, when not controlling for enrollment and free and reduced lunch. The variable that receives the arrow is the dependent variable. The second type of relationship of influence, characterized by a dashed arrow with one point, is a one-way relationship of influence that represents a variable that was significantly negative as an independent variable in the regression for the dependent variable, when not controlling for enrollment and free and reduced lunch. The variable that receives the arrow is the dependent variable. The third type of relationship of influence, characterized by a heavy, solid arrow with one point, is a one-way relationship of influence that represents a variable that was significantly positive as an independent variable in the regression for the dependent variable, when controlling for enrollment and free and reduced lunch. The fourth type of relationship of influence, characterized by a heavy, dashed arrow with one point, is a one-way relationship of influence that represents a variable that was significantly negative as an independent variable in the regression for the dependent variable, when controlling for enrollment and free and reduced lunch.

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Figure10

Model of Influence, Determined from Regressions, for the Relationship Between Servant Leadership, School Culture, and Student Achievement, Controlling and not Controlling for Enrollment and Free and Reduced Lunch, with Standardized Beta Coefficients
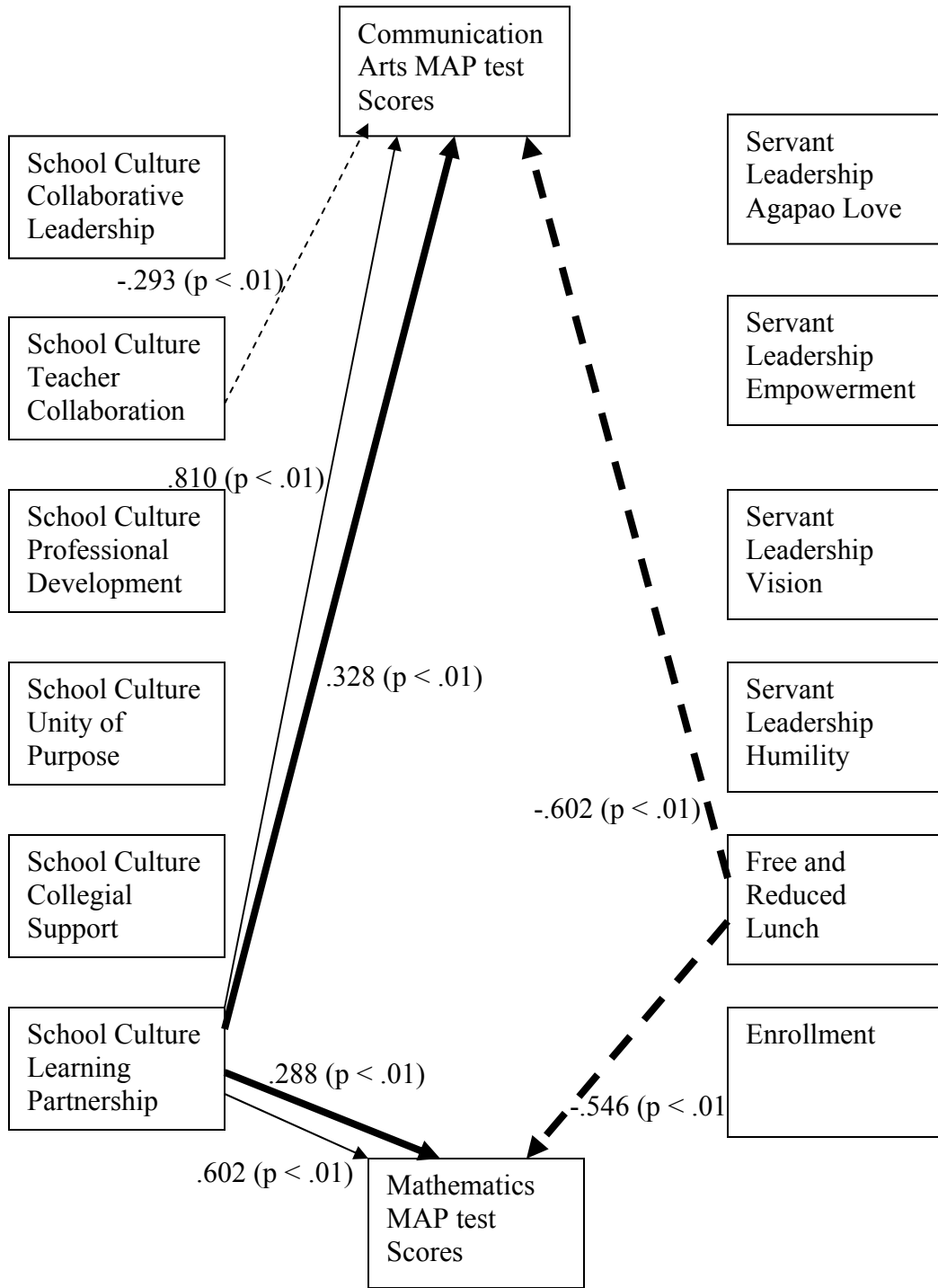
Key

———▶ = Directly Influenced, Positive, when not controlling for enrollment and free and reduced lunch (Standardized Beta Coefficients, β)

- - - -▶ = Directly Influenced, Negative, when not controlling for enrollment and free and reduced lunch (Standardized Beta Coefficients, β)

———▶ = Directly Influenced, Positive, when controlling for enrollment and free and reduced lunch (Standardized Beta Coefficients, β)

— ▶ = Directly Influenced, Negative, when controlling for enrollment and free and reduced lunch (Standardized Beta Coefficients, β)

Chapter Five

DISCUSSION

Introduction

What is leadership? Leadership is a hard-to-define concept. Many definitions of

leadership have evolved through the years. Maxwell (2005) states that leadership has

traditionally been viewed as a river flowing down from the executive office to the rest of

the organization. Another definition of leadership states that leadership is the ability to

influence (Maxwell, 1998; Northouse, 1997). Servant leadership is one such philosophy

of leadership that focuses on the leader's ability to influence. Garcia (1988) presents one

example of a school leader whose ability to influence lies in his willingness which can be

seen in the character and actions of Steve Johnson, a former Mark Twain Middle School

principal in San Antonio, Texas (as cited in Sergiovanni, 1992b, pp. 6-7):

> Being a principal for him is not just a role but a function. He does anything and
> everything that needs to be done to make Twain a more successful place. He can
> even be seen cleaning tables off in the cafeteria, if needed. This is a great model
> for others. Being a principal for Steve Johnson is definitely a vocation. It is his
> life, not just part of his life. His family is also very involved with this process
> Twain is going through. Many days, his wife can be seen at Twain typing and
> editing reports or important documents for the school. They can both be seen at
> the various extracurricular or curriculum-related activities during the week. They
> attend all the athletic events, school programs, and even special events, such as
> the enactment of the Battle of the Alamo at dawn. Johnson is not a "tidy"
> administrator but a practical one. He always attempts to emphasize sense and
> meaning. Things that are done in a school should be done because they have a
> purpose, not because they have always been done a particular way. Purpose is
> built into Twain's everyday life. As the school counselor explained, "Things just
> seem less out of control with Mr. Johnson here. Also, things are communicated
> more openly. We are given an explanation for why things are done. There is not a
> mystery behind policy, and if things are not being done effectively, we attempt to
> find a better way. Business as usual is not promoted. Things make more sense,
> and our philosophy is so much more positive than it was even last year." To Steve
> Johnson, leadership is not a right but a responsibility. He is always looking after
> the best interests of his school.

Greenleaf (1991) first coined the term "servant leader" after reading Herman

Hesse's book entitled, *Journey to the East*, in which some journeymen discovered that

the servant who had helped them through part of the journey actually turned out to be the

leader of the organization that sponsored the journey. The servant, much like the

principal described above, was committed to the success of the stakeholders involved.

This commitment to success by the servant as well as the principal was demonstrated by

the leadership of each individual through his service. Sergiovanni (1992b) suggests that

we must look at the heart of a leader to better understand him or her. He says that the

heart of leadership has to do with "what a person believes, values, dreams about, and is

committed to…it is the person's interior world, which becomes the foundation of her or

his reality" (p. 7). Greenleaf (1991) says it is the heart of the servant leader "to serve, to

serve *first*" (p. 7). Conscious choice brings that person to the point of leading because he

or she sees a need for leadership. This is sharply different from the person who wants to

lead first because of a "need to assuage an unusual power drive or to acquire material

possessions. For such it will be a later choice to serve—after leadership is established" (p.

7).

Servant leadership distinguishes itself from other forms of leadership through its

focus on the followers of the organization (Winston, 2003; Russell & Stone, 2002; Stone,

Russell, & Patterson, 2003; Patterson, 2003; Drury, 2004; Irving, 2005; Winston, 2005;

Nwogu, 2004) rather than organizational objectives, instructional practices, or managerial

procedures. Servant leaders strive to meet organizational goals by focusing first on the

"highest priority needs" (Greenleaf, 1991) of the members of the organization, trusting

them to do what it takes to meet the goals of the organization. The servant leader asks

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him or herself if the follower grows as a person as a result of the leadership. Does the follower, "*while being served*, become healthier, wiser, freer, more autonomous, more likely themselves to become servants? *And*, what is the effect on the least privileged in society; will he benefit, or, at least, will he not be further deprived?" (Greenleaf, 1991, p. 7).

School leadership has seen many changes through the years. Historically, school leaders have not always been accountable for the achievement of every student in his or her building (Goodman, 2006). With introduction of No Child Left Behind (2002), school leaders find themselves being increasingly held accountable for the success of every child in their buildings. Not only are school leaders accountable for the success of every child, but they also need to be able to understand curriculum, assessment, instruction, legal issues, resource allocation, personnel issues, research in their field of practice, professional development, and much, much more (Erlandson, 1994; Hoy & Miskel, 1994). Marzano, Waters, and McNulty (2005) state that with the increasing societal and workplace needs for more knowledgeable, skilled, responsible citizens, the pressure on a school leader has increased dramatically. Add to the pressure of student achievement, funding and community perceptions. These will be affected by the performance of the students in the school, reflecting the performance of the leader of the school, namely the building principal.

Because leadership is under the microscope in the eyes of the community and has the weight of student achievement in its pocket, it is vital that we consider how leadership affects student achievement. Time and time again, researchers find that leadership has both a direct and an indirect effect on student achievement (Marzano, Waters, &

McNulty, 2005; Leithwood, Seashore Louis, Anderson, & Wahlstrom, 2004; Prater, 2004; Cotton, 2003; McLeod, 2000; Palmour, 2000; Silins & Murray-Harvey, 1998; Hallinger & Heck, 1996; Siens & Ebmeier, 1996). Often the mediating variable in leadership studies on the effects on student achievement is culture. Many researchers have found that school leaders have an effect on the culture of the school (Bates, 1981; Leithwood & Riehl, 2003; Lucas, 2001; Miles, 2002; Schooley, 2005; Valentine, 2001). Deal and Peterson (1999) found that school culture has an effect on student achievement as well.

School culture has been defined as learned assumptions that are shared by group members as they solve problems related to "external adaptation and internal integration, that has worked well enough to be considered valid and, therefore, to be taught to new members as the correct way to perceive, think, and feel in relation to those problems" (Schein, 1992, p.12). Others have defined a school culture as being a set of values, beliefs, feelings, and artifacts "that are created, inherited, shared, and transmitted within one group of people and that, in part, distinguish that group from others" (Cook & Yanow, 1996, p. 440).

Leithwood and Riehl (2003) state that school leaders can influence culture through "practices aimed at developing shared norms, values, beliefs, and attitudes among staff, and promoting mutual caring and trust among staff" (p. 20). Bates (1981) stated that principals shape school culture through conflict and negotiation. Bates also suggests that principals influence the language, metaphors, myths, and rituals of a school, which are important factors in determining the culture of a school.

This final chapter provides an overview of the study design followed by a list of the research questions and null hypotheses used to guide the study. Subsequent sections of this chapter include a summary and discussion of the findings from this study, recommendations for practice, and recommendations for future research based upon the findings of this study.

<div align="center">Overview of the Study</div>

The purpose of this study was to develop an understanding of the relationships among elementary principal servant leadership, school culture, and student achievement as determined by Communication Arts and Mathematics scores of the Missouri Assessment Program (MAP). The primary method of analysis was quantitative, with survey data being used to determine (a) if any relationships existed between principal servant leadership factors and school culture factors; (b) if any relationships existed between principal servant leadership factors and student achievement; (c) if any relationships existed between school culture factors and student achievement; and (d) if any relationships existed between the combination of the factors of principal leadership and school culture on student achievement.

Two survey instruments were used to collect data for analysis. Six hundred seventy-seven full-time elementary classroom teachers completed the Servant Leadership Assessment Instrument (Dennis & Bocarnea, 2005) (Appendix B) to provide survey data about the servant leadership characteristics of their school's principal. The four factors of servant leadership are: Agapao love, empowerment, vision, and humility.

Six hundred seventy-seven full-time elementary classroom teachers completed the School Culture Survey (Gruenert & Valentine, 1998) (Appendix C) to provide survey

<div align="center">174</div>

data about the culture of their school. The six factors of school culture are: collaborative leadership, teacher collaboration, unity of purpose, professional development, collegial support, and learning partnership.

Student achievement data were gathered from the Missouri Department of Elementary and Secondary Education's website (www.dese.mo.gov). These data were gathered for the Missouri Assessment Program (MAP) test scores for Communication Arts and Mathematics. The data gathered were reported by the Missouri Department of Elementary and Secondary Education as school-wide data rather than individual grade-level data. The level of analysis for this study was the school, so school-wide data were the most appropriate data for use in this study.

Data from the two surveys as well as student achievement data were aggregated at the school level and analyzed using correlations and multiple regression analysis to determine the nature of the relationships among the factors of principal servant leadership, school culture, and student achievement.

<u>Research Questions</u>

The following research questions were examined during this study:

1. Are there relationships between the factors of servant leadership and the factors of school culture?

2. Are there relationships between the factors of servant leadership and student achievement?

3. Are there relationships between the factors of school culture and student achievement?

4. Are there relationships between the combination of factors of servant leadership and school culture on student achievement?

Null Hypothesis

The following null hypotheses were tested in this study:

H_{01}: There are no significant relationships between servant leadership as measured by the factors of the Servant Leadership Assessment Instrument and school culture as measured by the factors of the School Culture Survey.

$H_{01.1a}$: There are no significant relationships between servant leadership as measured by the factors of the Servant Leadership Assessment Instrument and the factor of collaborative leadership as measured by the School Culture Survey.

$H_{01.1b}$: There are no significant relationships between servant leadership as measured by the factors of the Servant Leadership Assessment Instrument and the factor of collaborative leadership as measured by the School Culture Survey, when controlling for enrollment and free and reduced lunch.

$H_{01.2a}$: There are no significant relationships between servant leadership as measured by the factors of the Servant Leadership Assessment Instrument and the factor of teacher collaboration as measured by the School Culture Survey.

$H_{01.2b}$: There are no significant relationships between servant leadership as measured by the factors of the Servant Leadership Assessment Instrument and the factor of teacher collaboration as measured by the School Culture Survey, when controlling for enrollment and free and reduced lunch.

$H_{01.3a}$: There are no significant relationships between servant leadership as measured by the factors of the Servant Leadership Assessment Instrument and the factor of professional development as measured by the School Culture Survey.

$H_{01.3b}$: There are no significant relationships between servant leadership as measured by the factors of the Servant Leadership Assessment Instrument and the factor of professional development as measured by the School Culture Survey, when controlling for enrollment and free and reduced lunch.

$H_{01.4a}$: There are no significant relationships between servant leadership as measured by the factors of the Servant Leadership Assessment Instrument and the factor of unity of purpose as measured by the School Culture Survey.

$H_{01.4b}$: There are no significant relationships between servant leadership as measured by the factors of the Servant Leadership Assessment Instrument and the factor of unity of purpose as measured by the School Culture Survey, when controlling for enrollment and free and reduced lunch.

$H_{01.5a}$: There are no significant relationships between servant leadership as measured by the factors of the Servant Leadership Assessment Instrument and the factor of collegial support as measured by the School Culture Survey.

$H_{01.5b}$: There are no significant relationships between servant leadership as measured by the factors of the Servant Leadership Assessment Instrument and the factor of collegial support as measured by the School Culture Survey, when controlling for enrollment and free and reduced lunch.

H$_{01.6a}$: There are no significant relationships between servant leadership as measured by the factors of the Servant Leadership Assessment Instrument and the factor of learning partnership as measured by the School Culture Survey.

H$_{01.6b}$: There are no significant relationships between servant leadership as measured by the factors of the Servant Leadership Assessment Instrument and the factor of learning partnership as measured by the School Culture Survey, when controlling for enrollment and free and reduced lunch.

H$_{02}$: There are no significant relationships between servant leadership as measured by the factors of the Servant Leadership Assessment Instrument and student achievement as measured by Communication Arts MAP test scores and Mathematics MAP test scores.

H$_{02.1a}$: There are no significant relationships between servant leadership as measured by the factors of the Servant Leadership Assessment Instrument and student achievement as measured by Communication Arts MAP test scores.

H$_{02.1b}$: There are no significant relationships between servant leadership as measured by the factors of the Servant Leadership Assessment Instrument and student achievement as measured by Communication Arts MAP test scores, when controlling for enrollment and free and reduced lunch.

H$_{02.2a}$: There are no significant relationships between servant leadership as measured by the factors of the Servant Leadership Assessment Instrument and student achievement as measured by Mathematics MAP test scores.

H$_{02.2b}$: There are no significant relationships between servant leadership as measured by the factors of the Servant Leadership Assessment Instrument and

student achievement as measured by Mathematics MAP test scores, when controlling for enrollment and free and reduced lunch.

H_{03}: There are no significant relationships between school culture as measured by the factors of the School Culture Survey and student achievement as measured by the Communication Arts MAP scores and Mathematics MAP scores.

$H_{03.1a}$: There are no significant relationships between school culture as measured by the factors of the School Culture Survey and student achievement as measured by Communication Arts MAP test scores.

$H_{03.1b}$: There are no significant relationships between school culture as measured by the factors of the School Culture Survey and student achievement as measured by Communication Arts MAP test scores, when controlling for enrollment and free and reduced lunch.

$H_{03.2a}$: There are no significant relationships between school culture as measured by the factors of the School Culture Survey and student achievement as measured by Mathematics MAP test scores.

$H_{03.2b}$: There are no significant relationships between school culture as measured by the factors of the School Culture Survey and student achievement as measured by Mathematics MAP test scores, when controlling for enrollment and free and reduced lunch.

H_{04}: There are no significant relationships between the combination of servant leadership and school culture as measured by the factors of Servant Leadership Assessment Instrument and the School Culture Survey on student achievement as

measured by Communication Arts MAP test scores and Mathematics MAP test scores.

$H_{04.1a}$: There are no significant relationships between the combination of servant leadership and school culture as measured by the factors of the Servant Leadership Assessment Instrument and the School Culture Survey on student achievement as measured by Communication Arts MAP test scores.

$H_{04.1b}$: There are no significant relationships between the combination of servant leadership and school culture as measured by the factors of Servant Leadership Assessment Instrument and the School Culture Survey on student achievement as measured by Communication Arts MAP test scores, when controlling for enrollment and free and reduced lunch.

$H_{04.2a}$: There are no significant relationships between the combination of servant leadership and school culture as measured by the factors of Servant Leadership Assessment Instrument and the School Culture Survey on student achievement as measured by Mathematics MAP test scores.

$H_{04.2b}$: There are no significant relationships between the combination of servant leadership and school culture as measured by the factors of Servant Leadership Assessment Instrument and the School Culture Survey on student achievement as measured by Mathematics MAP test scores, when controlling for enrollment and free and reduced lunch.

<u>Summary of Findings</u>

School Demographic Data

Information about student achievement, free and reduced lunch, and enrollment is presented in Appendix F. The mean for the school size is 397.8 students. The mean for the percentage of free and reduced lunch students is 42%. The mean for the percentage of students scoring proficient or advanced on the Communication Arts MAP test is 47.9%. The mean for the percentage of students scoring proficient or advanced on the Mathematics MAP test is 47.2%. Five hundred schools were asked via email to participate in a state-wide study on the relationship between servant leadership, school culture, and student achievement. The 62 schools who participated in the study were K-5, K-4, PK-5, or PK-4 elementary schools.

Descriptive results

For this study, 677 certificated full-time classroom teachers from 62 elementary schools in Missouri participated. For the Servant Leadership Assessment Instrument (Dennis & Bocarnea, 2005) (Appendix B), which was completed by certificated full-time classroom teachers to assess the servant leadership characteristics of their principals, the factor "empowerment" had the highest mean (4.84), followed, in descending order, by "humility" (4.78), "Agapao love" (4.69), and "vision" (4.36). The Servant Leadership Assessment Instrument consists of 42 6-point Likert-scale items where 0 = Low, 3 = Moderate, and 6 = High. Higher scores on the factors of the Servant Leadership Assessment Instrument indicate stronger agreement.

For the School Culture Survey (Gruenert & Valentine, 1998) (Appendix C), which was completed by certificated full-time classroom teachers to determine the ratings

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of their school's culture, the factor "professional development" had the highest mean

(4.25), followed, in descending order, by "unity of purpose" (4.24), "collegial support"

(4.23), "collaborative leadership" (3.95), "learning partnership" (3.86), and "teacher

collaboration" (3.59). The School Culture Survey consists of 35 5-point Likert-scale

items where 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, and 5 =

Strongly Agree. Higher scores on the factors of the School Culture Survey indicate

stronger agreement.

Hypothesis testing

Hypothesis One: the first hypothesis, there are no significant relationships

between servant leadership as measured by the factors of the Servant Leadership

Assessment Instrument and school culture as measured by the factors of the School

Culture Survey, was rejected because eleven relationships were found between the factors

of elementary principal servant leadership, as measured by the Servant Leadership

Assessment Instrument, and the factors of school culture, as measured by the School

Culture Survey.

Hypothesis Two: the second hypothesis, there are no significant relationships

between servant leadership as measured by the factors of the Servant Leadership

Assessment Instrument and student achievement as measured by Communication Arts

MAP test scores and Mathematics MAP test scores, was rejected because four

relationships were found between the factors of elementary principal servant leadership,

as measured by the Servant Leadership Assessment Instrument, and each of the factors of

student achievement, as measured by Communication Arts MAP test scores and

Mathematics MAP test scores, without controlling for enrollment and free and reduced lunch and when controlling for enrollment and free and reduced lunch.

Hypothesis Three: the third hypothesis, <u>there are no significant relationships between school culture as measured by the factors of the School Culture Survey and student achievement as measured by the Communication Arts MAP scores and Mathematics MAP scores</u>, was rejected because seven relationships were found between the factors of school culture, as measured by the School Culture Survey, and the factors of student achievement, as measured by Communication Arts MAP test scores and Mathematics MAP test scores, without controlling for enrollment and free and reduced lunch and when controlling for enrollment and free and reduced lunch.

Hypothesis Four: the fourth hypothesis, <u>there are no significant relationships between the combination of servant leadership and school culture as measured by the factors of the Servant Leadership Assessment Instrument and the School Culture Survey on student achievement as measured by Communication Arts MAP test scores and Mathematics MAP test scores</u>, was rejected because seven relationships were found between the factors of elementary principal servant leadership, as measured by the Servant Leadership Assessment Instrument, school culture, as measured by the School Culture Survey, and the factors of student achievement, as measured by Communication Arts MAP test scores and Mathematics MAP test scores, without controlling for enrollment and free and reduced lunch and when controlling for enrollment and free and reduced lunch.

The relationships between the factors of servant leadership, school culture, and

student achievement are discussed in this section. This section is organized into four

subsections, each corresponding to a null hypothesis. The first subsection is organized by

the factors of school culture, with the discussion focusing on the relative impact of the

factors of elementary principal servant leadership on the factors of school culture. The

second subsection is organized by the factors of student achievement, with the discussion

focusing on the relative impact of the factors of elementary principal servant leadership

on the factors of student achievement. The third subsection is organized by the factors of

student achievement, with the discussion focusing on the relative impact of the factors of

school culture on the factors of student achievement. The fourth subsection is organized

by the factors of student achievement, with the discussion focusing on the relative impact

of the factors of elementary principal servant leadership and school culture on the factors

of student achievement.

Null Hypothesis One Discussion

Null hypothesis one states, <u>there are no significant relationships between servant</u>

<u>leadership as measured by the factors of the Servant Leadership Assessment Instrument</u>

<u>and school culture as measured by the factors of the School Culture Survey</u>.

<u>Collaborative Leadership</u>. Collaborative leadership has been defined as the degree

to which school leaders establish and preserve collaborative relationships with faculty

and staff. Teachers' ideas, input, decision-making involvement, and trustworthiness are

all important values to school leaders. School leaders support and reward risk-taking and

innovative ideas from teachers, as long as it is designed to improve the educational

environment of the students. School leaders also reinforce the sharing of ideas and effective practices among all staff (Gruenert, 1998).

The servant leadership factors of "Agapao love," "empowerment," "vision," and "humility" had significant bivariate and partial correlations with the school culture factor of "collaborative leadership." All correlations were significant at the p = .01 level (2 tailed) for both bivariate and partial correlations. As the presence of each of the factors of servant leadership increased, the presence of the school culture factor of "collaborative leadership" also increased.

The servant leadership factors of "empowerment" and "vision" had significant positive linear relationships with the school culture factor "collaborative leadership." "Empowerment" accounted for 52.2% of the variance in "collaborative leadership" with a significance of .000, and "vision" accounted for an additional 5.2% of the variance with a significance of .000. There was no difference when controlling for enrollment and free and reduced lunch.

Examination of the standardized beta coefficients, β, yielded the influence of two of the servant leadership factors entered into the model. The first, "empowerment," (β = .418, p = .003) explained a considerable portion of the influence on the school culture factor of "collaborative leadership." The servant leadership factor of "vision" was also significant (β = .393, p = .005) in explaining the influence of the school culture factor on "collaborative leadership." There was no difference when controlling for enrollment and free and reduced lunch.

The analysis of the factors of servant leadership and the school culture factor of "collaborative leadership" demonstrates that there are significant relationships between

the two variables. The servant leadership factors of "empowerment" and "vision" were significant in explaining some of the variance in the school culture factor of "collaborative leadership." "Empowerment" is the degree with which the servant leader empowers information to others: positive emotional support, actual experience of task mastery, observing models of success, and words of encouragement (Dennis, 2004). The principal servant leader is one who encourages teacher self-direction, professional development, and helps teachers do their jobs by making it possible for them to learn (Dennis, 2004). A school leader who has high levels of "vision" encourages the participation of all stakeholders in creating a shared vision for the school. A principal who is a servant leader is one who seeks others' visions for the organization, demonstrates that he or she wants to include employees' visions into the organization's goals and objectives, seeks commitment concerning the shared vision of the organization, encourages participation in creating a shared vision, and has a written expression of the vision of the organization (Dennis, 2004). In essence, the more principals empower and support others and involve others in setting the direction of the school, the more the teachers will view their leader as collaborative.

Teacher Collaboration. Teacher collaboration has been defined as the degree to which teachers engage in constructive dialogue with colleagues to support the school's educational vision. This means that teachers plan together, observe and discuss teaching practices, evaluate programs, and develop an awareness of best practices from fellow colleagues (Gruenert, 1998).

The servant leadership factors of "Agapao love," "empowerment," "vision," and "humility" had significant bivariate and partial correlations with the school culture factor

of "teacher collaboration." All correlations were significant at the p = .01 level (2 tailed) for both bivariate and partial correlations. As the presence of each of the factors of servant leadership increased, the presence of the school culture factor of "teacher collaboration" also increased.

The servant leadership factor of "vision" had a significant positive relationship with the school culture factor "teacher collaboration." "Vision" accounted for 25.8% of the variance in "teacher collaboration" with a significance of .000. There was no difference when controlling for enrollment and free and reduced lunch.

Examination of the standardized beta coefficients, β, yielded the influence of one of the servant leadership factors entered into the model. "Vision" (β = .519, p = .000) explained a majority of the influence on the school culture factor of "teacher collaboration." There was no difference when controlling for enrollment and free and reduced lunch.

The analysis of the factors of servant leadership and the school culture factor of "teacher collaboration" demonstrates that there are significant relationships between the two variables. The servant leadership factor of "vision" was significant in explaining some of the variance in the school culture factor of "teacher collaboration." A school leader who has high levels of "vision" encourages the participation of all stakeholders in creating a shared vision for the school. A principal who is a servant leader is one who seeks others' visions for the organization, demonstrates that he or she wants to include employees' visions into the organization's goals and objectives, seeks commitment concerning the shared vision of the organization, encourages participation in creating a shared vision, and has a written expression of the vision of the organization (Dennis,

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2004). Essentially, as school leaders seek to incorporate the vision of others for the organization, the more teachers perceive the culture of the school as collaborative.

Professional Development. Professional development has been defined as the degree to which teachers value continuous personal development and school-wide improvement. Many teachers espouse the notion of becoming life-long learners, and this factor shows the degree to which teachers become life-long learners themselves. They seek ideas from seminars, colleagues, organizations, and other professional sources to maintain current knowledge of best instructional practices (Gruenert, 1998).

The servant leadership factors of "Agapao love," "empowerment," "vision," and "humility" had significant bivariate and partial correlations with the school culture factor of "professional development." All correlations were significant at the p = .01 level (2 tailed) for both bivariate and partial correlations with the exception of the servant leadership factor of "humility" which was had a significant positive partial correlation at the p = .05 level (2 tailed). As the presence of the factors of servant leadership increased, the presence of the school culture factor of "professional development" increased.

The servant leadership factor of "empowerment" had a significant positive relationship with the school culture factor "professional development." "Empowerment" accounted for 18.4% of the variance in "professional development" with a significance of .000. There was no difference when controlling for enrollment and free and reduced lunch.

Examination of the standardized beta coefficients, β, yielded the influence of one of the servant leadership factors entered into the model. "Empowerment" (β = .445, p = .000) explained a considerable portion of the influence on the school culture factor of

"professional development." There was no difference when controlling for enrollment and free and reduced lunch.

The analysis of the factors of servant leadership and the school culture factor of "professional development" demonstrates that there are significant relationships between the two variables. The servant leadership factor of "empowerment" was significant in explaining some of the variance in the school culture factor of teacher "professional development." "Empowerment" is the degree with which the servant leader empowers information to others: positive emotional support, actual experience of task mastery, observing models of success, and words of encouragement (Dennis, 2004). The principal servant leader is one who encourages teacher self-direction, professional development, and helps teachers do their jobs by making it possible for them to learn (Dennis, 2004). In essence, the more a school principal empowers his or her teachers, the more likely he/she is to find that teachers value the professional development and school improvement process.

Unity of Purpose. Unity of purpose has been defined as the degree to which teachers work toward a common mission for the school. Teachers must understand, support, and perform in accordance the school's mission (Gruenert, 1998).

The servant leadership factors of "Agapao love," "empowerment," "vision," and "humility" had significant bivariate and partial correlations with the school culture factor of "unity of purpose." All correlations were significant at the $p = .01$ level (2 tailed) for both bivariate and partial correlations. As the presence of each of the factors of servant leadership increased, the presence of the school culture factor of "unity of purpose" increased.

The servant leadership factors of "vision" and "empowerment" had significant positive relationships with the school culture factor "unity of purpose." "Vision" accounted for 40.2% of the variance in "unity of purpose" with a significance of .000, and "empowerment" accounted for an additional 3.6% of the variance with a significance of .000. There was no difference when controlling for enrollment and free and reduced lunch.

Examination of the standardized beta coefficients, β, yielded the influence of two of the servant leadership factors entered into the model. The first, "vision," ($\beta = .371$, $p = .021$) explained a considerable portion of the influence on the school culture factor of "unity of purpose." The servant leadership factor of "empowerment" was also significant ($\beta = .344$, $p = .031$) in explaining some of the influence on the school culture factor of "unity of purpose." There was no difference when controlling for enrollment and free and reduced lunch.

The analysis of the factors of servant leadership and the school culture factor of "unity of purpose" demonstrates that there are significant relationships between the two variables. The servant leadership factors of "vision" and "empowerment" were significant in explaining some of the variance in the school culture factor of "unity of purpose." A school leader with high levels of "vision" encourages the participation of all stakeholders in creating a shared vision for the school. A principal who is a servant leader is one who seeks others' visions for the organization, demonstrates that he or she wants to include employees' visions into the organization's goals and objectives, seeks commitment concerning the shared vision of the organization, encourages participation in creating a shared vision, and has a written expression of the vision of the organization

(Dennis, 2004). "Empowerment" is the degree with which the servant leader empowers information to others: positive emotional support, actual experience of task mastery, observing models of success, and words of encouragement (Dennis, 2004). The principal servant leader is one who encourages teacher self-direction, professional development, and helps teachers do their jobs by making it possible for them to learn (Dennis, 2004). Basically, as building leaders strive to incorporate the participation of teachers in creating a shared vision and empower the teachers by providing emotional support and words of encouragement, among other things, the more teachers work toward a common mission for the school.

Collegial Support. Collegial support has been defined as the degree to which teachers effectively work together. To work together effectively, teachers must trust each other, value each other's ideas, and assist each other as they work to accomplish the work of the school (Gruenert, 1998).

The servant leadership factors of "Agapao love," "empowerment," "vision," and "humility" had significant bivariate and partial correlations with the school culture factor of "collegial support." All correlations were significant at the $p = .01$ level (2 tailed) for both bivariate and partial correlations. As the presence of each of the factors of servant leadership increases, the presence of the school culture factor of "collegial support" also increases.

The servant leadership factor of "vision" had a significant positive relationship with the school culture factor "collegial support." "Vision" accounted for 18.9% of the variance in "collegial support" with a significance of .000. There was no difference when controlling for enrollment and free and reduced lunch.

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Examination of the standardized beta coefficients, β, yielded the influence of one of the servant leadership factors entered into the model. "Vision" (β = .450, p = .000) explained a considerable portion of the influence on the school culture factor of "collegial support." There was no difference when controlling for enrollment and free and reduced lunch.

The analysis of the factors of servant leadership and the school culture factor of "collegial support" demonstrates that there are significant relationships between the two variables. The servant leadership factor of "vision" was significant in explaining some of the variance in the school culture factor of "collegial support." A school leader who has high levels of "vision" encourages the participation of all stakeholders in creating a shared vision for the school. A principal who is a servant leader is one who seeks others' visions for the organization, demonstrates that he or she wants to include employees' visions into the organization's goals and objectives, seeks commitment concerning the shared vision of the organization, encourages participation in creating a shared vision, and has a written expression of the vision of the organization (Dennis, 2004). Essentially, as building leaders encourage stakeholders to create a shared vision for the school, the more teachers trust each other and value each others' ideas.

Learning Partnership. Learning partnership has been defined as the degree to which teachers, parents, and students work toward the common good of the student. Parents and teachers share common expectations for student performance and communicate frequently about that performance. Parents trust teachers to do what is best for their child, and students generally accept responsibility for their schooling (Gruenert, 1998).

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The servant leadership factors of "Agapao love," "empowerment," "vision," and "humility" had significant bivariate and partial correlations with the school culture factor of "learning partnership." All correlations were significant at the $p = .01$ level (2 tailed) for both bivariate and partial correlations, with the exception of the servant leadership factor of "humility" which was had a significant positive partial correlation at the $p = .05$ level (2 tailed). As the presence of the factors of servant leadership increased, the presence of the school culture factor of "learning partnership" also increased.

The servant leadership factor of "empowerment" had a significant positive relationship with the school culture factor "learning partnership." "Empowerment" accounted for 22.3% of the variance in "learning partnership" with a significance of .000. When controlling for enrollment, the servant leadership factor of "empowerment" and the factor of "enrollment" had a significant positive relationship with the school culture factor of "learning partnership." "Empowerment" accounted for 22.3% of the variance in "learning partnership" with a significance of .000, and the factor of "enrollment" accounted for an additional 7.2% of the variance in "learning partnership." When controlling for free and reduced lunch, the factor of "free and reduced lunch," as well as the servant leadership factor of "vision," had significant positive relationships with the school culture factor of "learning partnership." "Free and reduced lunch" accounted for 31.8% of the variance in "learning partnership" with a significance of .000, and the servant leadership factor of "vision" accounted for an additional 13% of the variance in "learning partnership."

Examination of the standardized beta coefficients, β, yielded the influence of one of the servant leadership factors entered into the model. "Empowerment" ($\beta = .458$, $p =$

.000) explained a considerable portion of the influence on the school culture factor of "learning partnership." When controlling for enrollment, the standardized beta coefficient, β, yielded influence of one of the servant leadership factors entered into the model and the factor of "enrollment" entered into the model. "Empowerment" ($\beta = .475$, $p = .000$) explained a considerable portion of the influence on the school culture factor of "learning partnership." The factor of "enrollment" ($\beta = .288$, $p = .010$) also explained a portion of the influence on the school culture factor of "learning partnership." When controlling for free and reduced lunch, the standardized beta ($\beta = -.510$, $p = .000$) explained a majority of the influence on the school culture factor of "learning partnership." The servant leadership factor of "vision" ($\beta = .375$, $p = .000$) explained a considerable portion of the influence on the school culture factor of "learning partnership."

The analysis of the factors of servant leadership and the school culture of "learning partnership" demonstrates that there are significant relationships between the two variables. The servant leadership factor of "empowerment" was significant in explaining some of the variance in the school culture factor of "learning partnership." When controlling for enrollment, the servant leadership factor of "empowerment" retained its significance, but "enrollment" also became a significant variable explaining some of the variance in the school culture factor of "learning partnership." When controlling for free and reduced lunch, the factor of "free and reduced lunch" replaced "empowerment" as the largest explainer of the variance in the school culture factor of "learning partnership." The servant leadership factor of "vision" became significant in explaining some of the variance in the school culture factor of "learning partnership."

The standardized beta coefficient (β) demonstrates the strong negative relationship between "free and reduced lunch" and "learning partnership," while the standardized beta coefficient (β) for the servant leadership factor of "vision" demonstrates a moderate positive relationship between "vision" and "learning partnership." "Empowerment" is the degree with which the servant leader empowers information to others: positive emotional support, actual experience of task mastery, observing models of success, and words of encouragement (Dennis, 2004). The principal servant leader is one who encourages teacher self-direction, professional development, and helps teachers do their jobs by making it possible for them to learn (Dennis, 2004). A school leader who has high levels of "vision" encourages the participation of all stakeholders in creating a shared vision for the school. A principal who is a servant leader is one who seeks others' visions for the organization, demonstrates that he or she wants to include employees' visions into the organization's goals and objectives, seeks commitment concerning the shared vision of the organization, encourages participation in creating a shared vision, and has a written expression of the vision of the organization (Dennis, 2004). Basically, the more a building leader empowers his or her teachers, the more teachers, parents, and students work together for the common good of the student. When controlling for free and reduced lunch, however, this changes. The greater the percent of free and reduced lunch students, the less teachers, parents, and students work toward the common good of the student. The higher the free and reduced lunch rate, the more likely the building leader is to include all stakeholders in creating a common vision for the school, as well.

Conclusion. The factors of servant leadership are highly, positively related to the factors of school culture, regardless of "enrollment" and "free and reduced lunch," with

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the exception of the school culture factor of "learning partnership," which showed a negative relationship between "free and reduced lunch" and "learning partnership." Sergiovanni (1992b) suggests that the servant leader must understand that serving others is important but that serving the values and ideals of the school is what truly shapes the culture of the school. The strong positive correlations between servant leadership and the factors of school culture suggest that servant leaders in this study serve the values and ideals of the schools they lead. This finding is consistent with findings from other researchers who have stated that principal leadership is highly related to school culture (Marzano, Waters, & McNulty, 2005; Leithwood and Riehl, 2003; Scribner, Cockrell, Cockrell, & Valentine, 1999).

Null Hypothesis Two Discussion

Null hypothesis two states, <u>there are no significant relationships between servant leadership as measured by the factors of the Servant Leadership Assessment Instrument and student achievement as measured by Communication Arts MAP test scores and Mathematics MAP test scores</u>.

<u>Communication Arts MAP scores</u>. Communication Arts MAP scores are based upon the Communication Arts MAP test which is taken by third through ninth grade students in the state of Missouri. The data analyzed consisted of data from third and fourth grade students or third, fourth, and fifth grade students, depending upon the grade level configuration of the school.

The servant leadership factors of "Agapao love" and "empowerment" had significant bivariate correlations with the student achievement factor of "Communication Arts MAP scores." "Agapao love" was significant at the $p = .05$ level (2 tailed), while

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"empowerment" was significant at the p = .01 level (2 tailed). "Vision" and "humility" did not have significant bivariate correlations with "Communication Arts MAP scores." There were no factors of servant leadership that had significant partial correlations with "Communication Arts MAP scores." As the presence of "Agapao love" and "empowerment" increased, the achievement in "Communication Arts MAP scores" increased.

The servant leadership factor of "empowerment" had a significant positive relationship with the student achievement factor "Communication Arts MAP scores." "Empowerment" accounted for 10.2% of the variance in "Communication Arts MAP scores" with a significance of .007. When controlling for enrollment and free and reduced lunch, the factor of "free and reduced lunch" replaced "empowerment" in accounting for any significant variance in "Communication Arts MAP scores." "Free and reduced lunch" had a significant negative relationship with the student achievement factor of "Communication Arts MAP scores." It accounted for a majority of the variance in "Communication Arts MAP scores" with 61.9% with a significance of .000.

Examination of the standardized beta coefficients, β, yielded the influence of one of the servant leadership factors entered into the model. "Empowerment," (β = .342, p = .007) explained a considerable portion of the influence on the student achievement factor of "Communication Arts MAP scores." When controlling for enrollment and free and reduced lunch, the factor of "free and reduced lunch" (β = -.791, p = .000) explained a majority of the influence on the student achievement factor of "Communication Arts MAP scores."

The analysis of the factors of servant leadership and the student achievement factor of "Communication Arts MAP scores" demonstrates that there are significant relationships between the two variables. The servant leadership factor of "empowerment" was significant in explaining some of the variance in "Communication Arts MAP scores." When controlling for free and reduced lunch, the factor of "free and reduced lunch" replaced "empowerment" as the explainer of the variance on the student achievement factor of "Communication Arts MAP scores." "Empowerment" is the degree with which the servant leader empowers information to others: positive emotional support, actual experience of task mastery, observing models of success, and words of encouragement (Dennis, 2004). The school leader who empowers teachers is one who encourages teacher self-direction, encourages teachers to engage in professional development, and helps teachers do their jobs by making it possible for them to learn (Dennis, 2004).

The fact that there were bivariate correlations but not partial correlations when controlling for "enrollment" and "free and reduced lunch" suggests that the influence of either "enrollment" or "free and reduced lunch" is greater than the influence of the factors of servant leadership. There a positive relationship between one factor of servant leadership, "empowerment," and "Communication Arts MAP scores," but even that disappeared when the factor of "free and reduced lunch" was entered in as a control. "Free and reduced lunch" had a negative relationship with "Communication Arts MAP scores," which means that as levels of free and reduced lunch percentages increase, student achievement decreases, and as levels of free and reduced lunch percentages decrease, student achievement increases. Again, the influence of the factor of "free and

reduced lunch" was overwhelmingly greater than the influence of the factors of servant leadership. This finding of the influence of the factor of "free and reduced lunch" is consistent with findings in other research studies that show that socioeconomic status significantly impacts the levels of student achievement (Coleman, et al., 1966; Leithwood & Jantzi, 1999; Nicholson, 2003; Parish, 2002).

Mathematics MAP scores. Mathematics MAP scores are based upon the Mathematics MAP test which is taken by third through ninth grade students in the state of Missouri. The data analyzed consisted of data from third and fourth grade students or third, fourth, and fifth grade students, depending upon the grade level configuration of the school.

The servant leadership factors of "Agapao love," "empowerment," and "humility" had significant bivariate correlations with the student achievement factor of "Mathematics MAP scores." All three factors were significant at the p = .05 level (2-tailed). "Vision" did not have a significant bivariate correlation with "Mathematics MAP scores." There were no factors of servant leadership that had significant partial correlations with "Mathematics MAP scores." As the presence of the servant leadership factors of "Agapao love," "empowerment," and "humility" increased, the achievement in "Mathematics MAP scores" also increased.

The servant leadership factor of "empowerment" had a significant positive relationship with the student achievement factor "Mathematics MAP scores." "Empowerment" accounted for 8.6% of the variance in "Mathematics MAP scores" with a significance of .012. When controlling for enrollment and free and reduced lunch, the factor of "free and reduced lunch" replaced "empowerment" in accounting for any

significant variance in "Mathematics MAP scores," as with "Communication Arts." "Free and reduced lunch" had a significant negative relationship with the student achievement factor of "Mathematics MAP scores." It accounted for a considerable portion of the variance in "Mathematics MAP scores" with 49.9% and a significance of .000.

Examination of the standardized beta coefficients, β, yielded the influence of one of the servant leadership factors entered into the model. "Empowerment," (β = .317, p = .012) explained a considerable portion of the influence on the student achievement factor of "Mathematics MAP scores." When controlling for enrollment and free and reduced lunch, the factor of "free and reduced lunch" (β = -.712, p = .000) explained a majority of the influence on the student achievement factor of "Mathematics MAP scores."

The analysis of the factors of servant leadership and the student achievement factor of "Mathematics MAP scores" demonstrates that there are significant relationships between the two variables. The servant leadership factor of "empowerment" was significant in explaining some of the variance in "Mathematics MAP scores." When controlling for free and reduced lunch, the factor of "free and reduced lunch" replaced "empowerment" as the explainer of the variance in the student achievement factor of "Mathematics MAP scores." "Empowerment" is the degree with which the servant leader empowers information to others: positive emotional support, actual experience of task mastery, observing models of success, and words of encouragement (Dennis, 2004). The school leader who empowers teachers is one who encourages teacher self-direction, encourages teachers to engage in professional development, and helps teachers do their jobs by making it possible for them to learn (Dennis, 2004).

The fact that there were bivariate correlations but not partial correlations when controlling for "enrollment" and "free and reduced lunch" suggests that the influence of either "enrollment" or "free and reduced lunch" is greater than the influence of the factors of servant leadership on student achievement in "Mathematics MAP scores." There was a positive relationship between one factor of servant leadership, "empowerment," and "Mathematics MAP scores," but that disappeared when the factor of "free and reduced lunch" was entered in as a control. "Free and reduced lunch" had a negative relationship with "Mathematics MAP scores," which means that as levels of free and reduced lunch percentages increase, student achievement decreases, and as levels of free and reduced lunch percentages decrease, student achievement increases. Again, the influence of the factor of "free and reduced lunch" was overwhelmingly greater than the influence of the factors of servant leadership on student achievement in "Mathematics MAP scores." As with the findings in "Communication Arts MAP scores," this finding in "Mathematics MAP scores" on the influence of the factor of "free and reduced lunch" is consistent with findings in other research studies that show that socioeconomic status significantly impacts the levels of student achievement (Coleman, et al., 1966; Goodman, 2006; Leithwood & Jantzi, 1999; Nicholson, 2003; Parish, 2002).

Conclusion. Some factors of servant leadership are positively correlated with the student achievement factors of "Communication Arts MAP scores" and "Mathematics MAP scores." The influence of "free and reduced lunch," however, is very powerful. The influence of "free and reduced lunch" on student achievement essentially eliminated the influence of the factors of servant leadership on student achievement. The findings that "free and reduced lunch" influenced student achievement are consistent with other

research that suggests the same notion (Coleman, et al., 1966; Leithwood & Jantzi, 1999; Nicholson, 2003; Parish, 2002).

Null Hypothesis Three Discussion

Null hypothesis three states, <u>there are no significant relationships between school culture as measured by the factors of the School Culture Survey and student achievement as measured by the Communication Arts MAP scores and Mathematics MAP scores</u>.

<u>Communication Arts MAP scores</u>. Communication Arts MAP scores are based upon the Communication Arts MAP test which is taken by third through ninth grade students in the state of Missouri. The data analyzed consisted of data for third and fourth grade students or third, fourth, and fifth grade students, depending upon the grade level configuration of the school.

The school culture factors of "professional development," "unity of purpose," and "learning partnership" had significant bivariate correlations with the student achievement factor of "Communication Arts MAP scores." "Professional Development" was significant at the $p = .05$ level (2 tailed), while "unity of purpose" and "learning partnership" were significant at the $p = .01$ level (2 tailed). "Collaborative leadership," "teacher collaboration," and "collegial support" did not have significant bivariate correlations with "Communication Arts MAP scores." "Learning partnership" was the only factor of school culture that had a significant partial correlation with "Communication Arts MAP scores." It was significant at the $p = .01$ level (2-tailed). As the presence of the school culture factors of "professional development," "unity of purpose," and "learning partnership" increased, the achievement in "Communication Arts MAP scores" also increased.

The school culture factors of "learning partnership" and "teacher collaboration" had significant positive relationships with the student achievement factor "Communication Arts MAP scores." "Learning partnership" accounted for 44.5% of the variance in "Communication Arts MAP scores" with a significance of .000, while "teacher collaboration" accounted for an additional 6% of the variance in "Communication Arts MAP scores." When controlling for enrollment and free and reduced lunch, the factor of "free and reduced lunch" and the school culture factor of "learning partnership" had significant relationships with the student achievement factor of "Communication Arts MAP scores." "Free and reduced lunch" had a significant negative relationship with the student achievement factor of "Communication Arts MAP scores." It accounted for a majority of the variance in "Communication Arts MAP scores" with 61.9% and a significance of .000. The school culture factor of "learning partnership" accounted for an additional 6.8%

Examination of the standardized beta coefficients, β, yielded the influence of one of the school culture factors entered into the model. The school culture factor of "learning partnership," (β = .810, p = .000) explained a majority of the influence on the student achievement factor of "Communication Arts MAP scores," while the school culture factor of "teacher collaboration" explained some of the influence as well (β = -.293, p = .006). When entering enrollment and free and reduced lunch, the factor of "free and reduced lunch" (β = -.602, p = .000) explained a majority of the influence on the student achievement factor of "Communication Arts MAP scores," while the school culture factor of "learning partnership" explained a smaller portion of the influence, too (β = .328, p = .000).

The analysis of the factors of school culture and the student achievement factor of "Communication Arts MAP scores" demonstrates that there are significant relationships between the two variables. The school culture factors of "learning partnership" and "teacher collaboration" were significant in explaining some of the variance in "Communication Arts MAP scores." When controlling for free and reduced lunch, the factor of "free and reduced lunch" replaced the school culture factor of "learning partnership" as main explainer of the variance in the student achievement factor of "Communication Arts MAP scores." The school culture factor of "teacher collaboration" was no longer a significant explainer of the variance in "Communication Arts MAP scores." "Learning partnership" can be thought of as the degree with which parents, teachers, and students work together for the success of the student. "Teacher collaboration" can be thought of as the degree with which teachers engage in constructive dialogue that furthers the collective educational vision of the school (Gruenert, 1998).

The fact that there were bivariate correlations but only one partial correlation when controlling for "enrollment" and "free and reduced lunch" suggests that the influence of either "enrollment" or "free and reduced lunch" is greater than the influence of the factors of school culture on student achievement in "Communication Arts MAP scores." There was a positive relationship between two factors of school culture, "learning partnership" and "teacher collaboration," and "Communication Arts MAP scores," but that diminished and/or disappeared when the factor of "free and reduced lunch" was entered in as a control. "Free and reduced lunch" had a negative relationship with "Communication Arts MAP scores," which means that as levels of free and reduced lunch percentages increase, student achievement decreases, and as levels of free and

reduced lunch percentages decrease, student achievement increases. Again, the influence of the factor of "free and reduced lunch" was greater than the influence of the factors of school culture on student achievement in "Communication Arts MAP scores." Research has suggested that school culture plays a pivotal role in student achievement (Deal & Peterson, 1999). This study supports that notion, but the factor of "free and reduced lunch" has been shown to have an overwhelming influence on student achievement in the area of "Communication Arts MAP scores." This finding that "free and reduced lunch" influences student achievement is consistent with other research on the same topic (Coleman, et al., 1966; Leithwood & Jantzi, 1999; Nicholson, 2003; Parish, 2002).

Mathematics MAP scores. Mathematics MAP scores are based upon the Mathematics MAP test which is taken by third through ninth grade students in the state of Missouri. The data analyzed consisted of data from third and fourth grade students or third, fourth, and fifth grade students, depending upon the grade level configuration of the school.

The school culture factors of "collaborative leadership," "professional development," "unity of purpose," "collegial support," and "learning partnership" had significant bivariate correlations with the student achievement factor of "Mathematics MAP scores." "Collaborative leadership," "professional development," and "collegial support" were significant at the $p = .05$ level (2-tailed). "Unity of purpose" and "learning partnership" were significant at the $p = .01$ level (2-tailed). "Teacher collaboration" did not have a significant bivariate correlation with "Mathematics MAP scores." "Professional development" and "learning partnership" had significant partial correlations with "Mathematics MAP scores." "Professional development" was

significant at the p = .05 level (2-tailed), while "learning partnership" was significant at the p = .01 level (2-tailed). As the school culture factors of "collaborative leadership," "professional development," "unity of purpose," "collegial support," and "learning partnership" increased, the achievement in "Mathematics MAP scores" increased as well.

The school culture factor of "learning partnership" had a significant positive relationship with the student achievement factor "Mathematics MAP scores." "Learning partnership" accounted for 35.1% of the variance in "Mathematics MAP scores" with a significance of .000. When controlling for enrollment and free and reduced lunch, the factor of "free and reduced lunch" and "learning partnership" had significant relationships with the student achievement factor of "Mathematics MAP scores." "Free and reduced lunch" had a significant negative relationship with the student achievement factor of "Mathematics MAP scores," accounting for 49.8% of the variance. "Learning partnership" had a significant positive relationship and accounted for an additional 4.9% of the variance in "Mathematics MAP scores" with a significance of .000.

Examination of the standardized beta coefficients, β, yielded the influence of one of the school culture factors entered into the model. "Learning partnership," (β = .602, p = .000) explained a majority of the influence on the student achievement factor of "Mathematics MAP scores." When controlling for enrollment and free and reduced lunch, the factor of "free and reduced lunch" (β = -.546, p = .000) explained a majority of the influence on the student achievement factor of "Mathematics MAP scores." The school culture factor of "learning partnership" explained some of the influence as well (β = .288, p = .008).

The analysis of the factors of school culture and the student achievement factor of "Mathematics MAP scores" demonstrates that there are significant relationships between the two variables. The school culture factor of "learning partnership" was significant in explaining some of the variance in "Mathematics MAP scores." When controlling for free and reduced lunch, the factor of "free and reduced lunch" replaced the school culture factor of "learning partnership" as the main explainer of the variance in the student achievement factor of "Mathematics MAP scores." The school culture factor of "learning partnership" retained its significance in accounting for some of the variance in "Mathematics MAP scores." "Learning partnership" can be thought of as the degree with which parents, teachers, and students work together for the success of the student (Gruenert, 1998).

The fact that there were several bivariate correlations but only two partial correlations when controlling for "enrollment" and "free and reduced lunch" suggests that the influence of either "enrollment" or "free and reduced lunch" is greater than the influence of most of the factors of school culture on student achievement in "Mathematics MAP scores." There was a positive relationship between one factor of school culture, "learning partnership," and "Mathematics MAP scores," but that diminished when the factor of "free and reduced lunch" was entered in as a variable. "Free and reduced lunch" had a negative relationship with "Mathematics MAP scores," which means that as levels of free and reduced lunch percentages increase, student achievement decreases, and as levels of free and reduced lunch percentages decrease, student achievement increases. Again, the influence of the factor of "free and reduced lunch" was greater than the influence of most of the factors of school culture on student

achievement in "Mathematics MAP scores." Research has suggested that school culture plays a pivotal role in student achievement (Deal & Peterson, 1999). This study supports that notion, but the factor of "free and reduced lunch" has been shown to have an overwhelming influence on student achievement in the area of "Mathematics MAP scores." This finding that "free and reduced lunch" influences student achievement is consistent with other research on the same topic (Coleman, et al., 1966; Leithwood & Jantzi, 1999; Nicholson, 2003; Parish, 2002).

Conclusion. Some factors of school culture are positively correlated with the student achievement factors of "Communication Arts MAP scores" and "Mathematics MAP scores." The influence of "free and reduced lunch," however, is very powerful. The influence of "free and reduced lunch" on student achievement overpowers the influence of the factors of school culture on student achievement. The finding that "free and reduced lunch" influences student achievement is consistent with other research that suggests the same notion (Coleman, et al., 1966; Leithwood & Jantzi, 1999; Nicholson, 2003; Parish, 2002).

Null Hypothesis Four Discussion

Null hypothesis four states, there are no significant relationships between the combination of servant leadership and school culture as measured by the factors of the Servant Leadership Assessment Instrument and the School Culture Survey on student achievement as measured by Communication Arts MAP test scores and Mathematics MAP test scores.

Communication Arts MAP scores. Communication Arts MAP scores are based upon the Communication Arts MAP test which is taken by third through ninth grade

students in the state of Missouri. The data analyzed consisted of data from third and fourth grade students or third, fourth, and fifth grade students, depending upon the grade level configuration of the school.

The school culture factors of "learning partnership" and "teacher collaboration" had significant positive relationships with the student achievement factor "Communication Arts MAP scores." "Learning partnership" accounted for 44.5% of the variance in "Communication Arts MAP scores" with a significance of .000. "Teacher collaboration" accounted for an additional 6% of the variance in "Communication Arts MAP scores." When controlling for enrollment and free and reduced lunch, the factor of "free and reduced lunch" and the school culture factor of "learning partnership" had a significant relationships with the student achievement factor of "Communication Arts MAP scores." "Free and reduced lunch" accounted for a majority of the variance in "Communication Arts MAP scores" with 61.9% and a significance of .000, while the school culture factor of "learning partnership" accounted for an additional 7% of the variance in "Communication Arts MAP scores."

Examination of the standardized beta coefficients, β, yielded the influence of two of the school culture factors entered into the model. "Learning partnership," ($\beta = .810$, p = .000) explained a majority of the influence on the student achievement factor of "Communication Arts MAP scores." "Teacher collaboration" explained some of the influence as well ($\beta = -.293$, p = .006). When controlling for enrollment and free and reduced lunch, the factor of "free and reduced lunch" ($\beta = -.602$, p = .000) explained a majority of the influence on the student achievement factor of "Communication Arts MAP scores." "Learning partnership" explained some additional influence ($\beta = .328$, p =

.000). Note that the findings for this analysis are similar to the analyses for school culture even though servant leadership has been added to the analysis. This implies that the primary influence on "Communication Arts MAP scores" is a function of culture and the value of leadership is to influence culture, thus indirectly influencing achievement.

The analysis of the factors of servant leadership and school culture and the student achievement factor of "Communication Arts MAP scores" demonstrates that there are significant relationships between two of the three variables. The school culture factors of "learning partnership" and "teacher collaboration" were significant in explaining some of the variance in "Communication Arts MAP scores." When entering free and reduced lunch, the factor of "free and reduced lunch" replaced the school culture factor of "learning partnership" as main explainer of the variance in the student achievement factor of "Communication Arts MAP scores." The school culture factor of "teacher collaboration" was no longer a significant explainer of the variance in "Communication Arts MAP scores." The factors of servant leadership did not yield any significance in accounting for any of the variance in "Communication Arts MAP scores." "Learning partnership" can be thought of as the degree with which parents, teachers, and students work together for the success of the student. "Teacher collaboration" can be thought of as the degree with which teachers engage in constructive dialogue that furthers the collective educational vision of the school (Gruenert, 1998).

Positive relationships were seen between two factors of school culture, "learning partnership" and "teacher collaboration," and "Communication Arts MAP scores," but even that diminished and/or disappeared when the factor of "free and reduced lunch" was entered in as a control. "Free and reduced lunch" had a negative relationship with

"Communication Arts MAP scores," which means that as levels of free and reduced lunch percentages increase, student achievement decreases, and as levels of free and reduced lunch percentages decrease, student achievement increases. Again, the influence of the factor of "free and reduced lunch" was greater than the influence of the factors of servant leadership and school culture on student achievement in "Communication Arts MAP scores." Research has suggested that school leadership plays an indirect role in influencing student achievement; its role of influence is often through the influence of school culture (Scribner, Cockrell, Cockrell, & Valentine, 1999). School culture plays a pivotal role in student achievement (Deal & Peterson, 1999). This study supports that notion, but the factor of "free and reduced lunch" has been shown to have an overwhelming influence on student achievement in the area of "Communication Arts MAP scores." This finding that "free and reduced lunch" influences student achievement is consistent with other research on the same topic (Coleman, et al., 1966; Leithwood & Jantzi, 1999; Nicholson, 2003; Parish, 2002).

Mathematics MAP scores. Mathematics MAP scores are based upon the Mathematics MAP test which is taken by third through ninth grade students in the state of Missouri. The data analyzed consisted of data from third and fourth grade students or third, fourth, and fifth grade students, depending upon the grade level configuration of the school.

The school culture factor of "learning partnership" had a significant positive relationship with the student achievement factor "Mathematics MAP scores." "Learning partnership" accounted for 35.1% of the variance in "Mathematics MAP scores" with a significance of .000. When controlling for enrollment and free and reduced lunch, the

factor of "free and reduced lunch" and "learning partnership" had significant

relationships with the student achievement factor of "Mathematics MAP scores." "Free

and reduced lunch" had a significant negative relationship with the student achievement

factor of "Mathematics MAP scores," accounting for 49.8% of the variance. "Learning

partnership" had a significant positive relationship and accounted for an additional 4.9%

of the variance in "Mathematics MAP scores" with a significance of .000.

Examination of the standardized beta coefficients, β, yielded the influence of one

of the school culture factors entered into the model. "Learning partnership," ($\beta = .602$, p

$= .000$) explained a majority of the influence on the student achievement factor of

"Mathematics MAP scores." When controlling for enrollment and free and reduced

lunch, the factor of "free and reduced lunch" ($\beta = -.546$, p $= .000$) explained a majority of

the influence on the student achievement factor of "Mathematics MAP scores." The

school culture factor of "learning partnership" explained some of the influence as well (β

$= .288$, p $= .008$).

The analysis of the factors of servant leadership and school culture and the

student achievement factor of "Mathematics MAP scores" demonstrates that there are

significant relationships between two of the three variables. The school culture factor of

"learning partnership" was significant in explaining some of the variance in

"Mathematics MAP scores." When controlling for free and reduced lunch, the factor of

"free and reduced lunch" replaced the school culture factor of "learning partnership" as

the main explainer of the variance in the student achievement factor of "Mathematics

MAP scores." The school culture factor of "learning partnership" retained its significance

in accounting for some of the variance in "Mathematics MAP scores." The factors of

servant leadership did not yield any significance in accounting for any of the variance in "Mathematics MAP scores." "Learning partnership" can be thought of as the degree with which parents, teachers, and students work together for the success of the student (Gruenert, 1998).

A positive relationship was seen between one factor of school culture, "learning partnership," and "Mathematics MAP scores," but even that diminished when the factor of "free and reduced lunch" was entered in as a variable. "Free and reduced lunch" had a negative relationship with "Mathematics MAP scores," which means that as levels of free and reduced lunch percentages increase, student achievement decreases, and as levels of free and reduced lunch percentages decrease, student achievement increases. Again, the influence of the factor of "free and reduced lunch" was greater than the influence of all the factors of servant leadership and most of the factors of school culture on student achievement in "Mathematics MAP scores." Research has suggested that school leadership plays an indirect role in influencing student achievement; its role of influence is often through the influence of school culture (Scribner, Cockrell, Cockrell, & Valentine, 1999). School culture plays a pivotal role in student achievement (Deal & Peterson, 1999). This study supports that notion, but the factor of "free and reduced lunch" has been shown to have an overwhelming influence on student achievement in the area of "Mathematics MAP scores." This finding that "free and reduced lunch" influences student achievement is consistent with other research on the same topic (Coleman, et al., 1966; Leithwood & Jantzi, 1999; Nicholson, 2003; Parish, 2002).

Note that the findings for this analysis are similar to the analyses for school culture even though servant leadership has been added to the analysis. This implies that

the primary influence on "Communication Arts MAP scores" and "Mathematics MAP scores" is a function of culture and the value of leadership is to influence culture, thus indirectly influencing achievement.

Conclusion. As noted previously, the findings from null hypothesis three and null hypothesis four are similar, which implies that combining the factors of servant leadership and the factors of school culture documented the more direct influence of culture on achievement and the indirect influence of leadership on achievement. When controlling for free and reduced lunch, the finding that free and reduced lunch replaced the factors of either servant leadership or school culture implies that free and reduced lunch has a strong influence on student achievement. The finding that "free and reduced lunch" influences student achievement is consistent with other research that suggests the same notion (Coleman, et al., 1966; Leithwood & Jantzi, 1999; Nicholson, 2003; Parish, 2002), although the fact that the factors of school culture were more influential than the factors of servant leadership is noteworthy.

<div align="center">Implications</div>

Recommendations for practice

The strong positive correlations between all the factors of servant leadership and all the factors of school culture suggest that principals who are identified as servant leaders can have a positive affect on school culture. Leadership is widely known as a variable with both direct and indirect influence on student achievement (Marzano, Waters, & McNulty, 2005; Leithwood, Seashore-Louis, Anderson, & Wahlstrom, 2004; Prater, 2004; Cotton, 2003; McLeod, 2000; Palmour, 2000; Silins & Murray-Harvey, 1998; Hallinger & Heck, 1996; Siens & Ebmeier, 1996), but its effect on school culture

has been identified as being a direct (Bates, 1981; Leithwood & Riehl, 2003; Lucas, 2001; Miles, 2002; Schooley, 2005; Valentine, 2001). School practitioners should not only study the theories and constructs of school leadership; they should also seek opportunities to measure them and reflect on the findings. In a like manner, school leaders should study their school's culture, measure it, and work with faculty to learn from the analyses.

The factors of servant leadership and school culture were all identified as having relationships with student achievement, but free and reduced lunch overwhelmingly replaced all of the factors of servant leadership and most of the factors of school culture as having influence on student achievement. This is especially noteworthy as many school leaders must find ways to alleviate the effects of free and reduced lunch, which is often a proxy for poverty, on student achievement so students who come from homes of poverty will be able to achieve at levels similar to those of their non-poverty peers. Continued examination of leadership and culture for the practitioner would be of great benefit to lessen the effects of poverty in schools.

Minimal research has been conducted in the area of servant leadership, but because servant leadership is about issues of the heart and an inert desire to serve the needs of others, it would behoove school practitioners to study what scholars say about the characteristics of servant leaders through qualitative studies. Little evidence was found from this study that the servant leadership characteristics as measured in this study had strong influence on student achievement as identified by student achievement scores. School leaders generally understand that academic success can be measured in many ways, only one of which is a state-wide standardized assessment. So, any attempt to

improve one's leadership skills could enhance the learning experience for all students. In particular, studying the characteristics of servant leaders should certainly be a benefit to school leaders and students alike.

Recommendations for research

This study is part of the early generation of research about servant leadership (Bowman, 1997; Russell & Stone, 2002; Sendjaya & Sarros, 2002). The findings revealed strong relationships between servant leadership and school culture, as well as strong relationships between servant leadership and student achievement, and strong relationships between school culture and student achievement.

The servant leadership factors of "empowerment" and "vision" seemed to hold promise as significant explainers of school culture, at least school culture as measured by the factors of the School Culture Survey. The servant leadership factor of "empowerment" was a key factor with significant influence on student achievement. Clearly, the significant relationships between servant leadership and school culture are informative. Research on the relationship between the factors of servant leadership and the factors of school culture as well as school climate would provide additional insight about the factors of servant leadership. Also, the relationships between servant leadership and other "mediating" variables such as "teacher commitment," "teacher efficacy," and "teacher trust" would be informative about the input of servant leadership on these predictors of student success.

The school culture factors of "learning partnership" and "teacher collaboration" were significant explainers of student achievement. Further study on the individual

factors of school culture and student achievement as well as the influence of "free and reduced lunch" on those factors would be valuable.

Because servant leadership is a fairly new style of leadership, it would be informative to scholars to study the relationships between servant leadership and other leadership styles and/or theories with greater research documentation, such as transformational leadership, instructional leadership, and managerial leadership. This could identify servant leadership as its own separate form of leadership or it could align servant leadership more closely as a branch of another, more established form of leadership.

The factors of servant leadership and school culture were all identified as having relationships with student achievement, but free and reduced lunch overwhelmingly replaced all of the factors of servant leadership and most of the factors of school culture as having influence on student achievement. Research about whether servant leadership can influence the negative effects of poverty on student achievement could provide valuable insight into how school leaders can work to improve the learning of children of poverty. Research about whether a school's culture can influence the negative effects of poverty on student achievement may also provide valuable insight into how school leaders can create a culture that is dedicated to improving the achievement of students of poverty.

Considering this was an exploratory study using a relatively new instrument for identifying servant leaders, it would be valuable for future researchers to run a confirmatory factor analysis to analyze the existing factors of servant leadership and the

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theoretical constructs as espoused in the Servant Leadership Assessment Instrument. This could enhance the use of the instrument in identifying servant leaders.

This study was conducted at the elementary level. Additional studies replicating and expanding this study should be initiated at the middle and high school levels. Qualitative studies and mixed-method studies of servant leadership and school culture at all grade levels would also provide valuable findings about the power of servant leadership.

<div align="center">Concluding Remarks</div>

Schools find themselves in a unique atmosphere in the 21st century. School accountability is at an all-time high, district and building leaders are being held accountable for student achievement more so than ever before, and schools must meet the needs of an increasingly diverse group of students. Facing these challenges is no easy task. Necessarily, the interest in what will best increase student achievement for all students is high. Miller (2003) states that there is no "silver bullet that guarantees that every student will be successful, now more than ever research provides guidance about the characteristics of effective schools and effective teachers that, if followed, can help maximize school and ultimately student performance" (p. 1). While this study adds some insight to the knowledge of servant leadership, it also begins to raise important questions about this relatively new style of leadership. As more educators embrace the very logical notion of servant leadership, an empirical foundation of research is important. The servant leadership philosophy appears to have merit, particularly given findings from this study documenting strong relationships between servant leadership and school culture. In

all likelihood, findings in the next several years will determine if it has true theoretical

merit, or is merely a notion without a solid foundation.

References

Autry, J.A. (2001). *The servant leader.* Roseville, CA: Prima.

Barth, R. S. (1980). Reflections on the principalship. *Thrust for educational leadership, 9*(5), 4-7.

Barth, R.S. (2002). The culture builder. *Educational Leadership, 5*, 6-11.

Bass, B.M. (2000). The future of leadership in learning organizations. *Journal of Leadership Studies, 7,* 18-40.

Bates, R. (1981). *Management and the culture of the school.* In R. Bates and Course Team (Eds.), *Management of resources in schools: Study guide I* (pp. 37-45). Geelong, Australia: Deakin University.

Batten, J. (1998). Servant-leadership: A passion to serve. In L. Spears (Ed.), *Insights on leadership: Service, stewardship, spirit, and servant-leadership.* (pp. 38-53). New York: John Wiley & Sons, Inc.

Bennis, W.G. (1959). Leadership theory and administrative behavior: The problem of authority. *Administrative Science Quarterly, 4*, 259-301.

Blanchard, K. (2000). Leadership by the book. *Executive Excellence, 17*(3), 4.

Bolman, L.G., & Deal, T.E. (1991). Leading and managing: Effects of context, culture, and gender. *Educational Administration Quarterly, 28*, 314-329.

Bolman, L., & Deal, T. (1997). *Reframing Organizations: Artistry, choice, and leadership.* San Francisco: Jossey-Bass.

Bolman. L.G., & Deal, T.E. (2003). *Reframing Organizations: Artistry, choice, and leadership*. San Francisco: Jossey-Bass.

Bossert, S., Dwyer, D., Rowan, B., & Lee, G. (1982). The instructional management role of the principal. *Educational Administration Quarterly, 18*(3), 34-64.

Bower, M. (1966). *The will to manage: Corporate success through programmed management*. New York: McGraw-Hill.

Bowman, M.A. (1997) Popular approaches to leadership. In P.G. Northhouse (Ed.) *Leadership theory and practice* (pp. 239-260). Thousand Oaks, CA: Sage Publications.

Buchen, I.H. (1998). Servant leadership: A model for future faculty and future institutions. *Journal of Leadership Studies, 5*(1), 125-134.

Burns, J.M. (1978). *Leadership*. New York: Harper & Row Publishers.

Champy, J. (1995). *Reengineering management.* New York: HarperCollins.

Choi, Y, & Mai-Dalton, R.R. (1998). On the leadership function of self-sacrifice. *Leadership Quarterly, 9*(4), 475-501.

Coleman, J.S., Campbell, E.Q., Hobson, C.J., McPartland, J., Mood, A.M., & Weinfeld, F.D., et al. (1966). *Equality of educational opportunity*. Washington, D.C.: United States Department of Health, Education, and Welfare, Office of Education.

Collins, J. (2001). *Good to great: Why some companies make the leap…and others don't*. New York: HarperCollins Publishers, Inc.

Cook, S.D.N., & Yanow, D. (1996). Culture and organized learning. As cited in Leithwood, Leonard & Sharratt (1998). Conditions fostering organizational learning in schools. *Educational Administration Quarterly, 34*(2), 243-276.

Cotton, K. (2003). *Principals and student achievement: What the research says*. Alexandria, VA: Association for Supervision and Curriculum Development.

Covey, S. (1998). Foreword. In L. Spears (Ed.), *Insights on leadership: Service, stewardship, spirit, and servant-leadership* (pp. 21-28). New York: John Wiley & Sons, Inc.

Covey, S. (2002). Servant-leadership and community leadership in the twenty-first century. In L. Spears (Ed.), *Focus on leadership: Servant-leadership for the 21ˢᵗ century*. (pp. 27-34). New York: John Wiley & Sons, Inc.

Daft, R.L, & Lengel, R.H. (2000). *Fusion leadership: Unlocking the subtle forces that change people and organizations*. San Francisco: Berrett-Koehler.

Dalin, P. (1993). *Changing the school culture.* London: Cassell.

Danielson, C. (2002). *Enhancing student achievement: A framework for school improvement*. Alexandria, VA: Association for Supervision and Curriculum Development.

Darling-Hammond, L., & Wise, A. (1985). Beyond standardization: State standards and school improvement. *The Elementary School Journal, 85*, 315-336.

Deal, T.E., & Kennedy, A.A. (1982). *Corporate Cultures*. Reading, MA: Addison-Wesley, 1982.

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Deal, T.E., & Peterson, K.D. (1990). *The principal's role in shaping school culture.* Washington, D.C.: Office of Educational Research and Improvement, U.S. Department of Education.

Deal, T.E., & Peterson, K.D. (1999). *Shaping school culture: The heart of leadership.* San Francisco: Jossey-Bass Publishers.

Deal. T.E., & Peterson, K.D. (2003). *Shaping school culture*

DeMoss, K. (2002). Leadership styles and high-stakes testing: Principals that make a difference. *Education and Urban Society, 35*(1), 111-132.

Dennis, R.S. (2004). Development of the servant leadership assessment instrument. *Dissertation Abstracts International, 65*(05), 1857. (UMI No. 3133544).

Dennis, R.S., & Bocarnea, M. (2005). Development of the servant leadership assessment instrument. *Leadership and Organization Development Journal, 26*(8), 600-615.

DePree, M. (1989). *Leadership is an art.* New York: Bantam Doubleday Dell.

DeYoung, R. (2000). Expanding and evaluating motives for environmentally responsible behavior. *Journal of Social Issues, 56*(3), 509-526.

Drury, S.L. (2004). Servant leadership and organizational commitment: Empirical findings and workplace limitations. Paper presented at the 2004 meeting of the Servant Leadership Roundtable, Virginia Beach, VA.

Farling, M.L., Stone, A.G., & Winston, B.E. (1999). Servant leadership: Setting the stage for empirical research. *The Journal of Leadership Studies, 6,* 49-72.

Ferch, S.R., & Mitchell, M.W. (2001). Intentional forgiveness in relational leadership: A technique for enhancing effective leadership. *Journal of Leadership Studies, 7*(4), 70-83.

Frick, D.M. (1998). Afterword: Understanding Robert K. Greenleaf and servant-leadership. In L. Spears (Ed.), *Insights on leadership: Service, stewardship, spirit, and servant-leadership* (pp. 353-358). New York: John Wiley & Sons, Inc.

Fullan M., & Hargreaves, A. (1996). *What's worth fighting for in your school?* Buckingham: Open University Press.

Goodman, M.D. (2006). *Middle level programs and practices and student achievement.* Unpublished doctoral dissertation. University of Missouri-Columbia.

Greenfield, W. (1991). *The micropolitics of leadership in an urban elementary school.* Paper presented at the annual meeting of the American Educational Research Association, Chicago, IL.

Greenleaf, R.K. (1970). *The servant as leader.* Indianapolis: Robert K. Greenleaf Center for Servant-Leadership.

Greenleaf, R.K. (1977). *Servant leadership: A journey into the nature of legitimate power and greatness.* New York: Paulist Press.

Greenleaf, R.K. (1991). *The servant as leader.* Indianapolis: Robert K. Greenleaf Center for Servant-Leadership.

Gruenert, S.W. (1998). *Development of a school culture survey.* Unpublished doctoral dissertation. University of Missouri-Columbia.

Gruenert, S., & Valentine, J.W. (1998). *The School Culture Survey.* Columbia, MO: University of Missouri-Columbia.

Gunn, B. (2002). Am I a leader? *Strategic Finance, 83*(10), 13-14.

Hackman, M.Z. & Johnson, C. E. (2000). *Leadership: A communication perspective* (3rd ed). Prospect Heights, Illinois: Waveland Press, Inc.

Hallinger, P. & Heck, R.H. (1996). Reassessing the principal's role in school effectiveness: A review of empirical research, 1980-1995. *Educational Administration Quarterly, 32*(1), pp. 5-44.

Hallinger, P., & Heck, R.H. (1998). Exploring the principal's contribution to school effectiveness: 1980-1995. *School Effectiveness and School Improvement, 9*(2), 157-191.

Hallinger, P., & Heck, R. (1999). Can leadership enhance school effectiveness? In Bush et al. (Eds.) *Educational management: Redefining theory, policy and practice,* (pp. 178-190). London: Paul Chapman Publishing.

Hammer, M. & Champy, J. (1993). *Reengineering the corporation: A manifesto for business revolution.* New York: HarperCollins Publishers.

Hebert, S.C. (2004). The relationship of perceived servant leadership and job satisfaction from the follower's perspective. *Proceedings of the American Society of Business and Behavioral Sciences, 11*(1), 685-697.

Heppner, P.P., & Heppner, M.J. (2004). *Writing and publishing your thesis, dissertation & research: A guide for students in the helping professions.* Belmont, CA: Brooks/Cole-Thomson Learning.

Hersey, P., & Blanchard, K.H. (1977). *The management of organizational behavior* (3rd ed). Englewood Cliffs, NJ: Prentice Hall.

Hopkins, D., Ainscow, M., & West, M. (1994). *School improvement in an era of change.* New York: Teachers College Press.

House, R.J. (1971). A path goal theory of leader effectiveness. *Administrative Science Quarterly, 16*, 321-339.

House, R.J. (1996). Path-goal theory of leadership: Lessons, legacy, and a reformulated theory. *Leadership Quarterly, 7*(3), 323-344.

House, R.J., Hanges, P.J., Ruiz-Quintanilla, S.A., Dorfman, P.W., Javidan, M., Dickson, M., et al. (1999). Cultural influences on leadership and organizations: Project GLOBE. In W.H. Mobley, M.J. Gessner, & V. Arnold (Eds.), *Advances in global leadership* (pp. 171-233). Stamford, CT: JAI Press.

Irving, J.A. (2005). Exploring the relationship between servant leadership and team effectiveness: Findings from the nonprofit sector. Paper presented at the 2005 meeting of the Servant Leadership Roundtable, Virginia Beach, VA.

Jacobs, T.O., & Jaques, E. (1990). Military executive leadership. In K.E. Clark & M.B. Clark (Eds.), *Measures of leadership* (pp. 281-295). West Orange, NJ: Leadership Library of America.

Joseph, E.E., and Winston, B.E. (2005). A correlation of servant leadership, leader trust, and organizational trust. *Leadership and Organization Development Journal, 26*(1), 6-22.

Kaplan, S. (2000). Human nature and environmentally responsible behavior. *Journal of Social Issues, 56*(3), 491-508.

Kennedy, R.G. (1995). Virtue and corporate culture: The ethical formation of baby wolverines. *Review of Business, 17*(2), 10-15.

Knicker, C.M. (1998). *The elementary school principal as servant leader*. Unpublished doctoral dissertation. University of St. Thomas.

Kouzes, J.M., & Posner, B.Z. (1995). *The leadership challenge: How to keep getting extraordinary things done in organizations*. San Francisco: Jossey-Bass Publishers.

Lambert, W.E. (2005). Servant leadership qualities of principals, organizational climate, and student achievement: A correlational study. *ProQuest Information and Learning Company*. (UMI No. 3165799).

Laub, J. (1999). Assessing the servant organization: Development of the organizational leadership assessment (OLA) instrument. *Dissertation Abstracts International,* 60 (02), 308A. (UMI No. 9921922).

Laub, J. (2004). Defining servant leadership: A recommended typology for servant leadership studies. Paper presented at the 2004 meeting of the Servant Leadership Roundtable, Virginia Beach, VA.

Lee, C., & Zemke, R. (1993). The search for spirit in the workplace. *Training, 30*, 21.

Leithwood, K., & Duke, D. L. (1999). A century's quest for a knowledge base, 1976–1998. In J. Murphy & K. S. Louis (Eds.), *Handbook of research on educational policy* (pp. 45–72). San Francisco: Jossey Bass.

Leithwood, K. & Jantzi, D. (1999). Transformational school leadership effects: A replication. *School Effectiveness and School Improvement, 10*(4), pp.451-479.

Leithwood, K.A., Louis, K.S., Anderson, S. & Wahlstrom, K. (2004). *How leadership influences student learning: Review of research.* Minneapolis, MN: Center for Applied Research, University of Minnesota.

Leithwood, K.A. & Riehl, C. (2003). *What do we already know about successful school leadership?* Paper prepared for the AERA Division A Task Force on Developing Research in Educational Leadership.

Leithwood, K., & K.S. (1998). *Organizational learning in schools.* Lisse: Swets & Zeitlinger.

Lucas, S.E. (2001). *Transformational leadership: Principals, leadership teams, and school culture.* Unpublished doctoral dissertation. University of Missouri – Columbia.

Marzano, R.J., Waters, T., & McNulty, B.A. (2005). *School leadership that works: From research to results.* Alexandria, VA: Association for Supervision and Curriculum Development.

Maxwell, J.C. (2005). *The 360 degree leader: Developing your influence from anywhere in the organization.* Nashville, TN: Thomas Nelson Publishers, Inc.

Maxwell, J.C. (1998). *The 21 irrefutable laws of leadership: Follow them and people will follow you.* Nashville, TN: Thomas Nelson Publishers, Inc.

McGee-Cooper, A., & Trammell, D. (2002). From hero-as-leader to servant-as-leader. In L. Spears and M. Lawrence (Eds.), *Focus on leadership: Servant leadership for the 21st century.* (pp. 141-151). New York: John Wiley & Sons, Inc.

McLeod, C.C. (2000). The principal's impact on student achievement through culture-enhanced leadership behaviors. *Dissertation Abstracts International, A61* (06), 2129. (UMI No. 9976935).

Mehrens, W.A. (1998). Consequences of assessment: What is the evidence? *Education Policy Analysis Archives, 6*(13). Available from http://epaa.asu.edu

Melrose, K. (1995). *Making the grass greener on your side: A CEO's journey to leading by serving*. San Francisco: Berrett-Koehler Publishers, Inc.

Miles, M.T. (2002). *The relative impact of principal instructional and transformational leadership on school culture*. Unpublished doctoral dissertation. University of Missouri – Columbia.

Miller, K. (2003). *School, teacher, and leadership impacts on student achievement*. Aurora, CO: Mid-Continent Research for Education and Learning.

Missouri Department of Elementary and Secondary Education. (1996a). *The Show-Me Standards: Communication Arts*. Retrieved April 07, 2007, from http://www.dese.mo.gov/standards/comarts.html

Missouri Department of Elementary and Secondary Education. (1996b). *The Show-Me Standards: Mathematics*. Retrieved April 07, 2007, from http://www.dese.mo.gov/standards/math.html

Missouri Department of Elementary and Secondary Education. (1998). *Assessment Standards for Missouri Public Schools*. Retrieved April 07, 2007, from http://www.dese.mo.gov/divimprove/assess/assessmentstandards.pdf

Missouri Department of Elementary and Secondary Education. (2006). Missouri School Directory. Retrieved February 20, 2006, from http://dese.mo.gov/directory/download.html

Missouri Department of Elementary and Secondary Education. (2007). Missouri School Data and Statistics. Retrieved October 9, 2007, from http://www.dese.mo.gov/schooldata/

Monroe, K.R. (1994). A fat lady in a corset: Altruism and social theory. *American Journal of Political Science, 38*(4), 861-893.

Nicholson, M.R. (2003). Transformational leadership and collective efficacy: A model of school achievement. *Dissertation abstracts international, A64*(06). 1929. (UMI No. 3093682)

Northouse, P.G. (1997). *Leadership: Theory and practice*. Thousand Oaks, CA: Sage Publications.

Nwogu, O.G. (2004). Servant leadership model: The role of follower self-esteem, emotional intelligence, and attributions on organizational effectiveness. Paper presented at the 2004 meeting of the Servant Leadership Roundtable, Virginia Beach, VA.

Palmour, J.R. (2000). The relationship of principal leadership orientation to student achievement. *Dissertation Abstracts International, A61* (07), 2545. (UMI No. 9979906).

Parish, J.B. (2002). School climate and state standards: A study of the relationships between middle school organizational climate and student achievement on the Virginia Standards of Learning Tests. *Dissertation abstracts international, A63*(02), 453. (UMI No. 3041368)

Patterson, K. (2003). Servant leadership: A theoretical model. Paper presented at the 2003 meeting of the Servant Leadership Roundtable, Virginia Beach, VA.

Peterson, K.D., & Brietzke, R. (1994). *Building collaborative cultures: Seeking ways to reshape urban schools*. Urban Monograph Series. Oak Brook, IL: North Central Regional Educational Laboratory.

Pollard, C.W. (1997). The leader who serves. *Strategy and Leadership, 25*(5), 49-51.

Prater, M.E. (2004). *The relative impact of principal managerial, instructional, and transformational leadership on student achievement.* Unpublished doctoral dissertation. University of Missouri – Columbia.

Quinn, D.M. (2002). *The impact of principal leadership behaviors on instructional practice and student engagement. Journal of Educational Administration, 40*(4/5), pp. 447-467.

Reeves, D.B. (2004). *Accountability for learning: How teachers and school leaders can take charge*. Alexandria, VA: Association for Supervision and Curriculum Development.

Rice, R.W. (1978). Construct validity of the least preferred coworker score. *Psychological Bulletin, 85*, 1199-1237.

Richards, D., & Engle, S. (1986). After the vision: Suggestions to corporate visionaries and vision champions. In J.D. Adams (Ed.), *Transforming leadership* (pp. 199-214). Alexandria, VA: Miles River Press.

Roderick, M. & Engel, M. (2001). The grasshopper and the ant: Motivational responses of low-achieving students to high-stakes testing. *Educational Evaluation and Policy Analysis, 23*(3), 197-227.

Rude, W. (2003). Paradoxical leadership: The impact of servant-leadership on burnout of staff. Paper presented at the 2003 meeting of the Servant Leadership Roundtable, Virginia Beach, VA.

Russell, R.F. (2001). The role of values in servant leadership. *Leadership and Organization Development Journal, 22,* 76-84.

Russell, R.F. & Stone, A.G. (2002). A review of servant leadership attributes: Developing a practical model. *Leadership & Organization Development Journal, 23*(3/4), 145-157.

Sandage, S.J., & Wiens, T.W. (2001). Contextualizing models of humility and forgiveness: A reply to Gassin. *Journal of Psychology and Theology, 29*(3), 201-211.

Schein, E.H. (1985). *Organizational culture and leadership*. San Francisco, CA: Jossey-Bass.

Schein, E.H. (1992). *Organizational culture and leadership (2 ed).* San Francisco, CA: Jossey-Bass.

Schlechty, P.C. (1990). Leading a school system through change: Key steps for moving reform forward. In *The Jossey-Bass reader on educational leadership* (pp. 182-201). San Francisco: Jossey-Bass.

Schooley, M.L. (2005). *An Analysis of the Relationship between Transformational Leadership and School Culture.* Unpublished doctoral dissertation. University of Missouri – Columbia.

Scribner, J.P., Cockrell, K.2., Cockrell, D.H., & Valentine, J.W. (1999). Creating professional learning communities in schools through organizational learning: An evaluation of the school improvement process. *Educational Administration Quarterly, 35*(1), pp. 130-160.

Sendjaya, S. (2003). Development and validation of servant leadership behavior scale. Paper presented at the 2003 meeting of the Servant Leadership Roundtable, Virginia Beach, VA.

Sendjaya, S. & Sarros, J.C. (2002). Servant leadership: Its origin, development, and application in organizations. *Journal of Leadership & Organizational Studies, 9,* 57-64.

Sergiovanni, T.J. (1992a). *Leadership as stewardship: Who's serving who?* (pp. 269-286). In *The Jossey-Bass reader on educational leadership*. San Francisco: Jossey-Bass.

Sergiovanni, T.J. (1992b). *Moral leadership: Getting to the heart of school improvement.* San Francisco: Jossey-Bass.

Sergiovanni, T.J. (2000). *The lifeworld of leadership: Creating culture, community, and personal meaning in our schools*. San Francisco: Jossey-Bass.

Sergiovanni, T.J. (2006). *The principalship: A reflective practice perspective*. New York: Pearson Education, Inc.

Sergiovanni, T.J., & Corbally, J. (Eds.). (1984). *Leadership and organizational culture.* Urbana, IL: University of Illinois Press.

Shepard, L.A. (1990). Inflated test score gains: Is the problem old norms or teaching to the test? *Educational Measurement: Issues and Practice, 9*(3), 15-22.

Siens, C. & Ebmeier, H. (1996). Developmental supervision and the reflective thinking of teachers. *Journal of Curriculum and Supervision, 11*(4), pp. 299-321.

Silins, H.C., & Murray-Harvey, R. (1998). What makes a good senior secondary school? *Journal of Educational Administration, 37*(4), 329-344.

Spears, L.C. (1998). *Insights on leadership: Service, stewardship, spirit, and servant-leadership.* New York: Wiley & Sons, Inc.

Stake, R. (1998). Some comments on assessment in U.S. education. *Education Policy Analysis Archives, 6*(14). Available from http://epaa.asu.edu

Stogdill, R.M. (1974). *Handbook of leadership: A survey of the literature*, New York: Free Press.

Stone, A.G., Russell, R.F., & Patterson, K. (2004). Transformational versus servant leadership: A difference in leader focus. *Leadership & Organization Development Journal, 25*(3/4), 349-361.

Taylor, T., Martin, B.N., & Johnson, J.A. (2003). Examination of leadership practices of principals identified as servant leaders. Paper presented at the 2003 annual meeting of the American Educational Research Association, Chicago, IL.

U.S. Department of Education. (2002). *No child left behind.* Washington, D.C.: Government Printing Office.

Valentine, J.W. (2001). Frameworks for continuous school improvement: A synthesis of essential concepts. Retrieved December 13, 2005, from http://www.mllc.org/uploads/docs/MLLC%20Frameworks%20for%20Change%20Position%20Paper.pdf

Waller, W. (1932). *The sociology of teaching*. New York: Wiley.

Weick, K.E. (1985). *The significance of culture*. In P.J. Frost, L.F. Moore, M.R. Louis, C.C. Lundberg, & J. Martin (Eds.), *Organizational culture*. Beverly Hills, CA: Sage Publications.

Whetstone, J.T. (2001). How virtue fits within business ethics. *Journal of Business Ethics, 33*(2), 101-114.

Whetstone, J.T. (2002). Personalism and moral leadership: The servant leader with a transforming vision. *Business Ethics: A European Review, 11*(4), 385-392.

Winston, B.E. (2002). *Be a leader for God's sake*. Virginia Beach, VA: Regent University-School of Leadership Studies.

Winston, B. (2003). Extending Patterson's servant leadership model: Explaining how leaders and followers interact in a circular model. Paper presented at the 2003 meeting of the Servant Leadership Roundtable, Virginia Beach, VA.

Wis, R.M. (2002). The conductor as servant leader. *Music Educators Journal, 89*(2), 17-22.

Wong, P.T.P. (2004). The paradox of servant-leadership. *Quarterly publication of the Ohio State University Leadership Center*, Spring 2004.

Yu, J. (1998). Virtue: Confucius and Aristotle. *Philosophy East and West, 48*(2), 323-347.

Yukl, G. (2002). *Leadership in organizations* (5th ed.). Upper Saddle River, NJ: Prentice Hall.

Yukl, G. (2006). *Leadership in organizations* (6th ed.). Upper Saddle River, NJ: Pearson Prentice Hall.

Zmuda, A., Kuklis, R., & Kline, E. (2004). *Transforming schools: Creating a culture of continuous improvement*. Alexandria, VA: Association for Supervision and Curriculum Development.

Appendix A

Institutional Review Board Documentation

Letter to Elementary School Principals

March 15, 2006

Dear Elementary School Principal,

Under the direction of my advisor, Dr. Jerry Valentine, I am conducting a study of school leadership and school culture in Missouri's elementary schools. Servant leadership is a relatively new perspective founded in the belief that principals must view themselves as leaders who work to serve the needs of their teachers so the teachers in turn can serve the needs of the students. School culture is a long-standing concept that helps school leaders understand critical issues such as teacher collaboration, collegiality, and unit of purpose. We believe the findings from this state-wide study will be of value to elementary principals across the state and nation, and we will make the findings available to all participating schools. In fact, I will provide each participating school with a detailed profile and explanation of both the leadership and culture factors for their school.

To conduct a study of this nature, I have randomly selected 200 Missouri elementary schools in order to obtain a large enough sample of teachers from across the state. The perspective of teachers is important to both leadership and culture because teachers are influenced by leadership and work with leaders to shape the school's culture. Therefore, I am writing to ask two things: (1) permission from you to invite the teachers of your school to respond to the brief survey about leadership and culture, and (2) support from your secretary in providing the email addresses of your full-time teachers. Once I have your permission and the email addresses, I will send each teacher an email that will take them to the survey on the Internet where they can complete the survey online in about 15 minutes. When they respond to the survey, their responses will come directly to MU where I will compile the information for the study and prepare the leadership and culture profiles for your school.

In any form of research such as this, the University requires that I share with you, and subsequently with each teacher, information about how we will maintain privacy and confidentiality of respondents. Your participation and that of your teachers is entirely voluntary. Responses, participation, or non-participation will not be used in any evaluative manner. A respondent may choose not to complete the survey for any reason and anyone who begins the survey may choose to stop at any time. While there are no sensitive items in this survey, a respondent may also choose to not answer any question. All responses will be confidential and once the responses are received electronically here at MU, they will be made anonymous by separating the response from the email address. All data for this study will be analyzed in the aggregate ensuring that neither individual teachers nor schools will be identified in any written reports by the researcher.

If you have any questions about this survey or the process we are using to collect the information from elementary schools across the state, don't hesitate to email me at bchxtd@mizzou.edu or my advisor at ValentineJ@missouri.edu or contact me by phone at (573) 882-0947 or my advisor at (573) 882-0944 or contact the MU Office of Research at (573)

882-9585.

I realize that permitting us to contact your teachers will require a few minutes of your time and a few minutes of your teachers' time. Even though they will be able to respond at their leisure, we know we are imposing on you and your staff. The opportunity to have a profile for you and your teachers to study and the opportunity to contribute to the greater understanding of effective leadership and school culture are important to our profession. We hope you will carefully consider this request for your school to participate and ask your secretary to forward to us by email reply a list of teachers' names and email addresses.

Thank you,

Brian Herndon
Research Assistant/Doctoral Student
Middle Level Leadership Center
#8 London Hall
University of Missouri
(573) 882-0947
Email: bchxtd@mizzou.edu

Letter #1 to Elementary School Teachers

Dear Elementary School Teacher:

Under the direction of my advisor, Dr. Jerry Valentine, I am surveying teachers from elementary schools across the state. The purpose of this survey is to obtain a basic understanding of the leadership skills and organizational culture of elementary schools in Missouri. Your principal provided me with the permission to conduct this survey in your school and contact you to ask for your participation in this state-wide study. By participating in this study, your school will receive a profile of school leadership and school culture, providing you with data that can enhance your school's capacity to serve your students. This is an online survey which can be accessed by selecting the URL at the end of this email.

In any form of research such as this, the University requires that I share the following information with all potential respondents: Participation is entirely voluntary. Your responses, participation, or non-participation will not be used in any evaluative manner. You may choose not to complete the survey for any reason whatsoever; additionally, if you begin the survey and decide you would like to end your participation, you may do so at any time. You may refuse to answer any questions that might be uncomfortable to you. Your response will not be used unless you give your permission, which is implied by your return of your responses when you select the "submit" button at the end of the survey. Upon receipt of the completed survey, your responses will be downloaded into a statistical database and the email link to your identity will be deleted in order to ensure that responses will be anonymous.

Because we survey only a small sample of schools, your responses are extremely valuable. Please take the few moments needed to complete the survey items to this brief, yet important, survey.

If you have any questions about this survey or the process we are using to collect the information from elementary schools across the state, don't hesitate to contact me, Brian Herndon, at bchxtd@mizzou.edu or by phone at (573) 882-0944, my advisor, Dr. Jerry Valentine, at ValentineJ@missouri.edu or by phone at (573) 882-0944, or you may contact the MU Office of Research at (573) 882-9585.

I hope you will be willing to take a few minutes to respond to the survey. Your responses will enable your school to have profile data while also providing a state-wide picture of leadership and school culture. Please try to find the fifteen minutes needed to complete the survey.

Thank you,

Brian Herndon
Research Assistant/Doctoral Student

Middle Level Leadership Center
#8 London Hall
University of Missouri
(573) 882-0947

Letter #2 to Elementary School Teachers

Dear Elementary School Teacher:

As noted in the introductory email, the purpose of this survey is to help educators develop a better understanding of the nature of servant leadership and school culture at the elementary school level. In addition to helping all of education better understand the relationships between leadership, culture, and student achievement, your building will benefit from this research because I will provide your principal with a school-wide profile of the leadership and culture data, valuable data for continuous school improvement. Thank you for taking the time to complete the survey.

Because I am conducting a study through the University of Missouri, I must follow University guidelines required of all surveys. Therefore, even though there are no sensitive questions in this survey, I am obligated to inform you of your rights as a survey respondent by providing the following information:

Your participation in this survey is voluntary and your responses, participation, or non-participation will not be used in any evaluative manner. You may choose not to participate for any reason, you may discontinue participation at any time, and you may refuse to answer any question that might be uncomfortable for you. Your responses will be confidential and will go directly to the Center when you complete the survey and select the submit button. If you have any questions about the survey or its use, please contact Mr. Brian Herndon at (573) 882-0947 or Dr. Jerry Valentine at (573) 882-0944. If you have any concerns or questions regarding compliance with this statement you may contact the University Institutional Review Board office for Human Subjects Research at (573) 882-9585.

Please complete this survey today if you can, and if not please try to do so in the next two or three days. If you begin the survey and are interrupted, simply leave your browser open and you can return to the survey a few minutes later. If you have any technical problems, email me by replying to the email that invited you to participate and I will try to help you with the process.

I know it is an inconvenience to ask you to take the time to complete the survey. I appreciate your willingness to do so. I very much appreciate your time and thoughts.

Your responses will be completely confidential and will go directly to our database at MU when you complete the survey and select the submit button. When the responses arrive, all links between your email and your responses will be eliminated, thus rendering your responses completely anonymous. Please proceed to the survey by selecting the "I ACCEPT" button below. Typical completion time for this survey is ten minutes.

Thank You!

Brian

Letter #3 to Elementary School Teachers

Dear Elementary School Teacher,

Thank you very much for participating in this survey. I know your time is precious, and I appreciate you willingness to participate very much. Once the data have been gathered, I will put it together to create a profile of the leadership and culture of your school and send it to your principal. Of course, the data are confidential and your name will not be associated with any of the data. Please look for the information in April.

Sincerely,
Brian Herndon
Ph.D. Candidate
University of Missouri – Columbia
Columbia, MO 65211

Appendix B

Servant Leadership Assessment Instrument

Dear Brian Herndon,

Thank you for the comments. Yes, you can use my instrument for your study.

Enclosed you will find the updated factors and items (I updated 4 service items since the dissertation, service items 4, 15, 29, and 38 on the enclosed instrument).

As to the validity and reliability, I suggest you check the UMI site below. I have also included an URL for a journal, which includes reliability and validity as well, for up upcoming article ("Development of the servant leadership instrument"). It is due to be online 2-6 weeks from now. Dr. Mihai Bocarnea and I are co-authors.

Sincerely,

Rob Dennis, Ph.D.

-----Original Message-----
From: Rob Dennis [mailto:dennis_robbie@hotmail.com]
Sent: Monday, November 14, 2005 3:29 PM
To: Dennis, Rob
Subject: FW: Servant Leadership Assessment Instrument

>From: "Herndon, Brian Clinton (UMC-Student)" <bchxtd@mizzou.edu>
>To: <dennis_robbie@hotmail.com>
>Subject: Servant Leadership Assessment Instrument
>Date: Mon, 14 Nov 2005 13:40:07 -0600
>
>Dr. Dennis,
>
>
>
>I am a Ph.D. student at the University of Missouri - Columbia, and I am
>planning to do my dissertation on the relationship between elementary
>school principal servant leadership, school culture, and student
>achievement. I have been looking for a servant leadership assessment
>tool that would be helpful in determining the level of servant
>leadership at the individual level. I have been in touch with Drs. Wong
>and Page as well as Dr. Patterson. Drs. Wong and Page have a very
>interesting instrument, but it does not have the reliability and
>validity yet. Dr. Patterson said she was working on an instrument, but
>she suggested yours at this point in time. I also contacted Justin
>Irving, who said I should get in touch with you, and he provided me with
>your email address. I read Dr. Irving's piece on "Exploring the

>Relationship between Servant Leadership and Team Effectiveness:
>Findings from the Non-Profit Sector" where he used your SLAI. I showed
>it to my advisor, Dr. Jerry Valentine, and he thought we had a winner!
>I was wondering if you might be willing to do a few things for me:
>
>
>
>1.   Would you be willing to grant me permission to use your
>instrument for my study?
>2.   Would you be willing to email me a copy of the instrument along
>with the factors so my advisor can get a better feel for it?
>3.   Would you be willing to include the validity and reliability
>with the above information?
>
>
>
>I appreciate your time and any help you can offer to me.
>
>
>Sincerely,
>Brian Herndon
>
>
>
>Brian Herndon
>
>Graduate Research Assistant
>
>Department of Educational Leadership and Policy Analysis
>
>Middle Level Leadership Center
>
>8 London Hall
>
>University of Missouri-Columbia
>
>Columbia, MO 65211
>
>Phone: (573) 882-0947
>
>e-mail: bchxtd@mizzou.edu
>
>
>

_____

Servant Leadership Assessment Instrument
Form 2-06

To what degree do these statements describe the conditions at your school?

Rate each statement on the following scale:

0 = Low

3= Moderate

6 = High

		Low			Moderate			High
1.	My principal sees serving as a mission of responsibility to others.	0	1	2	3	4	5	6
2.	My principal is genuinely interested in me as a person.	0	1	2	3	4	5	6
3.	My principal trusts me to keep a secret.	0	1	2	3	4	5	6
4.	My principal models service to inspire others.	0	1	2	3	4	5	6
5.	My principal has shown unselfish regard for my well-being.	0	1	2	3	4	5	6
6.	My principal desires to develop my leadership potential.	0	1	2	3	4	5	6
7.	My principal creates a culture that fosters high standards of ethics.	0	1	2	3	4	5	6
8.	My principal talks more about employees' accomplishments that his or her own.	0	1	2	3	4	5	6
9.	My principal has endured hardships, e.g., political, "turf wars," etc. to defend me.	0	1	2	3	4	5	6
10.	My principal shows trustworthiness in me by being open to receive input from me.	0	1	2	3	4	5	6
11.	My principal lets me make decisions with increasing responsibility.	0	1	2	3	4	5	6
12.	My principal does not overestimate her or his merits.	0	1	2	3	4	5	6
13.	The level of trust my principal places in me increases my commitment to the organization.	0	1	2	3	4	5	6
14.	My principal has sought my vision regarding the organization's vision.	0	1	2	3	4	5	6
15.	My principal understands that serving others is most important.	0	1	2	3	4	5	6
16.	My principal voluntarily gives of him or her self, expecting nothing in return.	0	1	2	3	4	5	6
17.	My principal has shown his or her care for me by encouraging me.	0	1	2	3	4	5	6
18.	My principal gives of his or her self with no ulterior motives.	0	1	2	3	4	5	6

19.	My principal has shown compassion in his or her actions toward me.	0	1	2	3	4	5	6
20.	My principal is not interested in self-glorification.	0	1	2	3	4	5	6
21.	My principal makes me feel important.	0	1	2	3	4	5	6
22.	My principal is humble enough to consult others in the organization when he or she may not have all the answers.	0	1	2	3	4	5	6
23.	My principal has made personal sacrifice(s) for me.	0	1	2	3	4	5	6
24.	My principal gives me the authority I need to do my job.	0	1	2	3	4	5	6
25.	My principal turns over some control to me so that I may accept more responsibility.	0	1	2	3	4	5	6
26.	My principal has made sacrifices in helping others.	0	1	2	3	4	5	6
27.	My principal shows concern for me.	0	1	2	3	4	5	6
28.	My principal empowers me with opportunities so that I develop my skills.	0	1	2	3	4	5	6
29.	My principal understands that service is the core of leadership.	0	1	2	3	4	5	6
30.	My principal communicates trust to me.	0	1	2	3	4	5	6
31.	My principal seeks to instill trust rather than fear or insecurity.	0	1	2	3	4	5	6
32.	My principal has encouraged me to participate in determining and developing a shared vision.	0	1	2	3	4	5	6
33.	My principal entrusts me to make decisions.	0	1	2	3	4	5	6
34.	My principal and I have written a clear and concise vision statement for our company.	0	1	2	3	4	5	6
35.	My principal aspires not to be served but to serve others.	0	1	2	3	4	5	6
36.	My principal has asked me what I think the future direction of our company should be.	0	1	2	3	4	5	6
37.	My principal does not center attention on his or her own accomplishments.	0	1	2	3	4	5	6
38.	My principal models service in his or her behaviors, attitudes, or values.	0	1	2	3	4	5	6
39.	My principal's demeanor is one of humility.	0	1	2	3	4	5	6
40.	My principal has shown that he or she wants to include employees' vision into the organization's goals and objectives.	0	1	2	3	4	5	6
41.	My principal knows I am above corruption.	0	1	2	3	4	5	6
42.	My principal seeks my commitment concerning the shared vision of our organization.	0	1	2	3	4	5	6

Servant Leadership Assessment Instrument

The Servant Leadership Assessment Instrument provides insight about the servant leadership characteristics of a leader. Each factor measures a unique aspect of the servant leadership of the leader. The factor definitions are underlined; the additional sentences provide more detail about the concepts associated with each factor.

<u>Agapao love</u> (items 2, 7, 17, 19, 21, 27) measures the degree to which a servant leader demonstrates love in a social and moral sense. The servant leader demonstrates meaning and purpose on the job where the employee has the ability to realize his or her full potential as a person and feels like he or she is associated with a good and/or ethical organization. It also measures the degree to which the servant leader is emotionally, physically, and spiritually present for the followers. The servant leader is forgiving, teachable, shows concern for others, is calm during times of chaos, strives to do what is right for the organization, honors people, has a genuine interest in others, and has integrity. This factor has a reported reliability coefficient (Cronbach's alpha) of .94 (Dennis, 2004).

<u>Empowerment</u> (items 6, 11, 24, 25, 28, 33) measures the degree to which a servant leader empowers information to others: positive emotional support, actual experience of task mastery, observing models of success, and words of encouragement. The servant leader allows for employee self-direction. Leaders encourage professional growth. The leader lets people do their jobs by enabling them to learn. This factor has a reported reliability coefficient (Cronbach's alpha) of .94 (Dennis, 2004).

<u>Vision</u> (items 14, 32, 34, 36, 40, 42) measures the degree to which a servant leader incorporates the participation of all involved players in creating a shared vision for the organization. The servant leader seeks others' visions for the organization, demonstrates that he or she wants to include employees' visions into the organization's goals and objectives, seeks commitment concerning the shared vision of the organization, encourages participation in creating a shared vision, and has a written expression of the vision of the organization. This factor has a reported reliability coefficient (Cronbach's alpha) of .89 (Dennis, 2004).

<u>Humility</u> (items 8, 12, 20, 22, 37, 39) measures the degree to which a servant leader keeps his or her own accomplishments and talents in perspective, which includes self-acceptance, and further includes the idea of true humility as not being self-focused but rather focused on others. The servant leader does not overestimate his or her own merits, talks more about employees' accomplishments rather than his or her own, is not interested in self-glorification, does not center attention on his or her accomplishments, is humble enough to consult others to gain further information and perspective, and has a humble demeanor. This factor has a reported reliability coefficient (Cronbach's alpha) of .92 (Dennis, 2004).

The Servant Leadership Assessment Instrument was developed by Robert Dennis.

Appendix C

School Culture Survey

Email Correspondence from Dr. Jerry W. Valentine

Brian,

I am glad to grant you permission to use the School Culture Survey for your dissertation research. Please inform me of the findings of your study when you are finished.

Good luck!
Jerry Valentine

From: Herndon, Brian Clinton (UMC-Student)
Sent: Monday, February 27, 2006 2:10 PM
To: Valentine, Jerry W.
Subject: Permission to use instrument

Dr. Valentine,

I am writing to ask for permission to use the School Culture Survey for my dissertation research. I am conducting an analysis of the relationship between servant leadership, school culture, and student achievement in elementary schools in Missouri. The use of your instrument will be valuable to me in my research.

Thank you very much.

SCHOOL CULTURE SURVEY
Form 4-98

To what degree do these statements describe the conditions at your school?

Rate each statement on the following scale:

1=Strongly Disagree   2=Disagree   3=Neutral   4=Agree   5=Strongly Agree

		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1.	Teachers utilize professional networks to obtain information and resources for classroom instruction.	1	2	3	4	5
2.	Leaders value teachers' ideas.	1	2	3	4	5
3.	Teachers have opportunities for dialogue and planning across grades and subjects.	1	2	3	4	5
4.	Teachers trust each other.	1	2	3	4	5
5.	Teachers support the mission of the school.	1	2	3	4	5
6.	Teachers and parents have common expectations for student performance.	1	2	3	4	5
7.	Leaders in this school trust the professional judgments of teachers.	1	2	3	4	5
8.	Teachers spend considerable time planning together.	1	2	3	4	5
9.	Teachers regularly seek ideas from seminars, colleagues, and conferences.	1	2	3	4	5
10.	Teachers are willing to help out whenever there is a problem.	1	2	3	4	5
11.	Leaders take time to praise teachers that perform well.	1	2	3	4	5
12.	The school mission provides a clear sense of direction for teachers.	1	2	3	4	5
13.	Parents trust teachers' professional judgments.	1	2	3	4	5
14.	Teachers are involved in the decision-making process.	1	2	3	4	5
15.	Teachers take time to observe each other teaching.	1	2	3	4	5
16.	Professional development is valued by the faculty.	1	2	3	4	5
17.	Teachers' ideas are valued by other teachers.	1	2	3	4	5
18.	Leaders in our school facilitate teachers working together.	1	2	3	4	5
19.	Teachers understand the mission of the school.	1	2	3	4	5
20.	Teachers are kept informed on current issues in the school.	1	2	3	4	5
21.	Teachers and parents communicate frequently about student performance.	1	2	3	4	5
22.	My involvement in policy or decision making is taken seriously.	1	2	3	4	5

23.	Teachers are generally aware of what other teachers are teaching.	1	2	3	4	5
24.	Teachers maintain a current knowledge base about the learning process.	1	2	3	4	5
25.	Teachers work cooperatively in groups.	1	2	3	4	5
26.	Teachers are rewarded for experimenting with new ideas and techniques.	1	2	3	4	5
27.	The school mission statement reflects the values of the community.	1	2	3	4	5
28.	Leaders support risk-taking and innovation in teaching.	1	2	3	4	5
29.	Teachers work together to develop and evaluate programs and projects.	1	2	3	4	5
30.	The faculty values school improvement.	1	2	3	4	5
31.	Teaching performance reflects the mission of the school.	1	2	3	4	5
32.	Administrators protect instruction and planning time.	1	2	3	4	5
33.	Teaching practice disagreements are voiced openly and discussed.	1	2	3	4	5
34.	Teachers are encouraged to share ideas.	1	2	3	4	5
35.	Students generally accept responsibility for their schooling, for example they engage mentally in class and complete homework assignments.	1	2	3	4	5

School Culture Survey

The School Culture Survey provides insight about the shared values/beliefs, the patterns of behavior, and the relationships in the school. Each factor measures a unique aspect of the school's collaborative culture. The factor definitions are underlined; the additional sentences provide more detail about the concepts associated with each factor.

Collaborative Leadership (items 2, 7, 11, 14, 18, 20, 22, 26, 28, 32, 34) measures the degree to which school leaders establish and maintain collaborative relationships with school staff. The leaders value teachers' ideas, seek input, engage staff in decision-making, and trust the professional judgment of the staff. Leaders support and reward risk-taking and innovative ideas designed to improve education for the students. Leaders reinforce the sharing of ideas and effective practices among all staff.

Teacher Collaboration (items 3, 8, 15, 23, 29, 33) measures the degree to which teachers engage in constructive dialogue that furthers the educational vision of the school. Teachers across the school plan together, observe and discuss teaching practices, evaluate programs, and develop an awareness of the practices and programs of other teachers.

Professional Development (items 1, 9, 16, 24, 30) measures the degree to which teachers value continuous personal development and school-wide improvement. Teachers seek ideas from seminars, colleagues, organizations, and other professional sources to maintain current knowledge, particularly current knowledge about instructional practices.

Collegial Support (items 4, 10, 17, 25) measures the degree to which teachers work together effectively. Teachers trust each other, value each other's ideas, and assist each other as they work to accomplish the tasks of the school organization.

Unity of Purpose (items 5, 12, 19, 27 31) measures the degree to which teachers work toward a common mission for the school. Teachers understand, support, and perform in accordance with that mission.

Learning Partnership (items 6, 13, 21, 35) measures the degree to which teachers, parents, and students work together for the common good of the student. Parents and teachers share common expectations and communicate frequently about student performance. Parents trust teachers and students generally accept responsibility for their schooling.

The School Culture Survey was developed by Steve Gruenert and Jerry Valentine at the Middle Level Leadership Center, 1998. For more information about the SCS, contact Jerry Valentine, Director of the Middle Level Leadership Center, 218 Hill Hall, University of Missouri, Columbia, MO 6521 or email him at ValentineJ@missouri.edu.

Appendix D

Servant Leadership Descriptive Statistics

Servant Leadership Descriptive Statistics

	Mean	Median	Standard Deviation
Agapao Love	4.64	4.80	.73844
Empowerment	4.77	4.92	.61936
Vision	4.30	4.36	.67641
Humility	4.69	4.88	.78515
SL1	4.75	4.84	.65842
SL2	4.59	4.59	.73156
SL3	4.80	4.85	.58739
SL4	4.63	4.78	.78455
SL5	4.49	4.49	.80126
SL6	4.56	4.59	.73494
SL7	4.90	5.02	.73343
SL8	4.79	5.10	.86934
SL9	3.65	3.78	.81643
SL10	4.80	4.92	.73179
SL11	4.72	4.82	.61705
SL12	4.77	5.00	.77064
SL13	4.89	5.09	.71122
SL14	4.17	4.21	.69692
SL15	4.79	4.89	.72223
SL16	4.77	4.92	.76894
SL17	4.59	4.85	.82816
SL18	4.72	4.88	.78673
SL19	4.72	4.78	.78097
SL20	4.73	4.83	.80522
SL21	4.43	4.67	.79615
SL22	4.79	5.00	.79574
SL23	3.49	3.57	.87824
SL24	4.98	5.16	.73467
SL25	4.72	4.87	.62439
SL26	4.55	4.67	.85489
SL27	4.64	4.75	.79875
SL28	4.73	4.84	.69247
SL29	4.77	4.86	.72606
SL30	4.76	4.87	.71452
SL31	4.77	5.00	.81355
SL32	4.58	4.73	.69345
SL33	4.92	5.08	.60234
SL34	3.70	3.95	.92058
SL35	4.64	4.79	.78864
SL36	3.79	3.84	.79042
SL37	4.80	5.00	.83303

	Mean	Median	Standard Deviation
SL38	4.79	4.95	.82573
SL39	4.25	4.33	.93136
SL40	4.74	4.90	.75368
SL41	5.21	5.33	.54948
SL42	4.79	4.92	.61356

Appendix E

School Culture Descriptive Statistics

School Culture Descriptive Statistics

	Mean	Median	Standard Deviation
Collaborative Leadership	3.91	3.95	.35994
Teacher Collaboration	3.56	3.58	.30187
Professional Development	4.23	4.24	.21693
Unity of Purpose	4.20	4.23	.27804
Collegial Support	4.23	4.27	.23776
Learning Partnership	3.83	3.83	.30543
SCS1	4.33	4.32	.24453
SCS2	4.03	4.12	.38145
SCS3	3.95	4.00	.42507
SCS4	4.05	4.17	.31753
SCS5	4.42	4.49	.26602
SCS6	3.72	3.67	.45254
SCS7	4.13	4.18	.42353
SCS8	3.66	3.66	.43396
SCS9	4.13	4.17	.32438
SCS10	4.48	4.52	.29752
SCS11	3.77	3.83	.52150
SCS12	4.09	4.12	.36803
SCS13	3.83	3.84	.28964
SCS14	3.86	4.00	.43270
SCS15	2.92	2.92	.47485
SCS16	4.03	4.00	.34295
SCS17	4.25	4.26	.20966
SCS18	4.10	4.16	.40470
SCS19	4.23	4.26	.32422
SCS20	4.02	4.16	.56817
SCS21	4.16	4.15	.27126
SCS22	3.78	3.87	.44113
SCS23	3.75	3.80	.30854
SCS24	4.25	4.27	.20742
SCS25	4.14	4.16	.32037
SCS26	3.42	3.43	.38637
SCS27	4.07	4.08	.32847
SCS28	3.86	3.92	.38799
SCS29	3.92	4.00	.33856
SCS30	4.41	4.44	.26678
SCS31	4.20	4.21	.28923
SCS32	3.81	3.83	.47483
SCS33	3.18	3.20	.39472
SCS34	4.23	4.29	.33552
SCS35	3.62	3.67	.46172

Appendix F

School Demographic Data

School	Grade	Enrollment	F/RL	Percentage F/RL	%Advanced/ Proficient Lang. Arts	% Advanced/ Proficient Mathematics
01	K-4	320	67	20.9	60.20	51.60
02	K-5	549	83	16.6	57.00	49.00
03	K-5	228	116	50.2	47.00	60.00
04	K-5	658	218	35.6	38.70	40.50
05	K-4	295	231	77	39.60	35.50
06	PK-5	464	299	66.3	35.40	40.60
07	K-5	290	240	80	33.10	30.70
08	PK-5	207	149	72.3	54.00	50.00
09	K-5	273	146	61.1	42.30	51.40
10	K-5	242	125	51.9	46.00	23.80
11	PK-5	628	273	43.5	46.40	44.20
12	K-5	300	75	24.6	43.40	45.80
13	K-5	574	336	59.7	36.40	49.20
14	PK-4	434	143	32.4	40.00	36.50
15	PK-5	232	182	75.7	18.80	14.10
16	K-4	222	154	71.3	33.80	27.10
17	K-4	415	149	38.2	51.50	42.30
18	K-5	358	134	39.1	64.20	53.00
19	K-5	439	129	29.6	58.70	61.00

School	Grade	Enrollment	F/RL	Percentage F/RL	%Advanced/ Proficient Lang. Arts	% Advanced/ Proficient Mathematics
20	K-5	469	57	12.1	66.20	63.90
21	K-5	407	25	8	60.40	50.00
22	PK-5	350	118	32.2	77.60	77.60
23	PK-4	285	187	64.9	44.30	30.20
24	K-5	477	69	14.5	65.80	61.60
25	K-5	115	85	74.6	30.00	26.90
26	K-4	427	165	38.6	55.40	58.80
27	K-5	311	275	92.3	18.00	19.00
28	K-5	286	270	92.5	32.50	39.50
29	K-5	570	104	19.7	58.50	52.60
30	K-5	459	177	36.2	39.20	45.00
31	K-5	371	182	47.3	33.90	45.00
32	K-5	704	72	10.1	63.40	60.10
33	K-5	195	94	48	47.80	40.70
34	K-5	566	57	10.1	58.50	64.50
35	K-5	279	61	21.3	53.20	53.60
36	K-5	307	42	13.9	77.10	75.40
37	K-5	572	220	38.2	57.10	54.10
38	K-5	240	73	29.6	69.20	72.90
39	PK-5	552	13	2.6	56.30	47.10
40	PK-5	380	220	58.6	34.30	23.20

School	Grade	Enrollment	F/RL	Percentage F/RL	%Advanced/ Proficient Lang. Arts	% Advanced/ Proficient Mathematics
41	K-4	497	178	36.7	50.00	49.20
42	K-5	338	151	43.1	41.00	41.00
43	K-5	431	78	18.7	49.80	48.30
44	K-5	282	245	84.8	21.20	29.80
45	K-5	416	87	22.3	62.90	67.10
46	K-5	414	300	73.5	23.80	25.20
47	K-5	344	50	14.1	66.00	72.00
48	K-5	828	47	5.6	60.90	63.90
49	K-5	480	235	47.8	29.80	24.80
50	K-4	529	61	11.3	54.70	52.40
51	K-5	563	227	39.7	48.10	46.10
52	K-5	239	52	22.2	53.80	47.90
53	PK-5	532	287	53.8	46.80	53.40
54	K-5	368	227	61	42.00	43.10
55	K-5	682	61	8.9	48.00	59.80
56	K-5	130	118	88.7	30.70	39.70
57	K-5	189	103	52.6	44.90	41.60
58	PK-5	230	183	80.8	16.90	14.40
59	K-5	385	89	25.3	57.30	59.90
60	K-5	361	63	17.2	70.20	73.30
61	PK-5	464	221	47.7	57.20	53.80

School	Grade	Enrollment	F/RL	Percentage F/RL	%Advanced/ Proficient Lang. Arts	% Advanced/ Proficient Mathematics
62	K-4	514	200	39.2	59.50	50.50
Mean		397.84	146.42	42.04	47.89	47.18

Vita

Brian Clinton Herndon was born on July 29, 1972, in Phoenixville, Pennsylvania.
He was raised in Oregon City, Oregon, and West Plains, Missouri, where he graduated
from high school in 1990. He received his Bachelor of Science in Interdisciplinary
Studies with a focus on Journalism, Geography, and Political Science from the University
of Missouri-Columbia in 1994. He also received a Master of Elementary Education from
the University of Colorado, Boulder, in 1997, an Educational Specialist in Elementary
Administration from the University of Missouri-Columbia in 2005, and a Doctorate of
Philosophy from the University of Missouri-Columbia in 2007. He taught for four years
as a Kindergarten teacher, three of which were in the Adams 12 Five Star School District
in north suburban Denver, Colorado and one of which was in the Columbia Public School
District in Columbia, Missouri. He also taught 3rd grade for three years and is currently
teaching 4th grade in the Columbia Public School District in Columbia, Missouri. During
the pursuit of his Doctorate, he worked as a Graduate Research Assistant at the Middle
Level Leadership Center at the University of Missouri-Columbia. He is married to the
former Jennifer Anne Meyer of Edgerton, Missouri. They have two children, a son,
Samuel Isaiah, and a daughter, Abigail Mae, as well as a dog, Koby, and a cat, Oscar.
The Herndon family currently resides in Columbia, Missouri.