EVIDENCE OF SERVANT LEADERSHIP IN
PROFESSIONAL LEARNING COMMUNITIES

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EVIDENCE OF SERVANT LEADERSHIP
IN PROFESSIONAL LEARNING COMMUNITIES

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EVIDENCE OF SERVANT LEADERSHIP
IN PROFESSIONAL LEARNING COMMUNITIES

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ABSTRACT

The purpose of this study was to analyze servant leadership and professional learning communities in Missouri schools. A central issue in the study was to examine the relationship of servant leadership characteristics to characteristics of professional learning communities (PLCs). Quantitative analysis was utilized to determine (a) the strongest and weakest aspects of servant leadership and PLCs, (b) the relationship between characteristics of PLC and characteristics of servant leadership, (c) what characteristics of PLC are most predictive of servant leadership characteristics, and (d) what characteristics of servant leadership are most predictive of PLC characteristics.

A population of 279 teachers and administrators in Missouri schools completed the School Leadership Culture Inventory (SLCI). The quantitative data collected was analyzed statistically to address the research questions for the study. Descriptive statistics were used to identify the strongest and weakest aspects of servant leadership and PLCs. Pearson correlations were used to examine the relationship between servant leadership subscales and the PLC subscales. Multiple regression analysis was used to better understand the relationships between the constructs of the study.

The results indicated a significant direct positive correlation exists between the characteristics of professional learning communities and servant leadership characteristics. Moreover, the analysis revealed that some of the subscales exhibited
predictive value for other subscales. Based on the results of this study, school leaders seeking to develop professional learning communities may benefit from learning more about servant leadership and seeking to implement these characteristics in their own leadership behaviors. In addition, this research supports a connection between the theoretical underpinnings of servant leadership and professional learning communities.
CHAPTER ONE
INTRODUCTION TO THE STUDY

Background

Collins (2001) lamented mediocrity and regarded an organization that is good as the enemy of an organization that could with the right treatment be great. The author reached the conclusion, “I believe it is no harder to build something great than to build something good. It might be statistically more rare to reach greatness, but it does not require more suffering than perpetuating mediocrity” (p. 205). Moreover, “Those who strive to turn good into great find the process no more painful or exhausting than those who settle for just letting things wallow along in mind-numbing mediocrity” (p. 208). As pressure mounts to correct mediocrity in public schools, educators are searching for the means to create and sustain lasting improvement.

America’s schools have been regarded by many critics as irreparably broken even before A Nation at Risk was issued in 1983 by the National Commission on Academic Excellence in Education. In fact, for most of the latter half of the twentieth century, education reform was under constant scrutiny. Soon after the Soviet launching of Sputnik in 1957, criticisms of public education erupted as fears abounded that America’s educational system was inferior and was therefore threatening national security (Rickover, 1959). In the 1960s criticisms continued with the Coleman report, an offshoot of President Johnson’s “war on poverty.” The report consisted of extensive national surveys and achievement testing. The findings were critical of schools and painted a blight picture for the impact public schools could have on students’ learning. In fact, the Coleman report reinforced the belief that schools could do little to overcome students’ socio-economic backgrounds (Coleman, Campbell, Hobson, McPartland, Mood,
Weinfeld, & York, 1966). But at no time in the history of public education had criticism been more widespread than following *A Nation at Risk* in 1983. According to Dow (1991),

In 1983 educators and the general public were treated to the largest outpouring of criticism of the nation’s schools in history, eclipsing even the complaints of the early 1950s. Nearly fifty reports totaling more than six thousand pages voiced a new wave of national concern about the troubled state of American education. They spoke of the fragmented state of the school curriculum, the failure to define any coherent, accepted body of learning, the excessive emphasis on teaching isolated facts, and the lack of attention to higher order skills and concepts. They called for more individualism of instruction, the development of a closer relationship between teachers and students, and methods that encourage the active participation of the student in the learning process. (Dow, 1991)

In the midst of these national criticisms, numerous reform efforts were initiated to challenge the “grammar” of schooling (Tyack & Tobin, 1994, p. 453), which can be explained as the institutional arrangements common in public schools such as age-graded classrooms, and other traditions of how time, space, and subjects of schooling are organized. While these institutional traditions have largely remained intact, these norms have been challenged in various reform movements. In the 1920s, the Dalton Plan for individual instruction allowed students to move through schooling at their own pace. Later, in the 1930s and early 1940s the progressive experiments of the Eight-Year Study put aside subjects and instead organized curriculum around themes of interest to high school students. In the 1960s and 1970s, a plethora of innovations quickly emerged and faded as quickly as the next big idea came along. These new ideas included “student-centered,
experiential, democratic, collegial, and community-oriented approaches to teaching and learning” (Giles & Hargreaves, 2006, p. 125).

Although some of these reform efforts were quite successful in local instances, for the most part the reforms never gained widespread acceptance and the traditional “grammar” of schooling remained largely unchanged. The inability of reform efforts to result in lasting changes can be attributed to the following factors: (a) innovative schools are often perceived as not being “real” schools by other educational professionals (Metz, 1991); (b) the initial creativity and experimentation of innovative schools seems to have a developmental lifespan as leadership changes, district attention shifts, and external forces and teacher’s ingrained expectations result in the school reverting to traditional practices (Fink, 2000); and (c) external circumstances such as historically critical incidents, significant reductions in resources, changes in power relations among bureaucratic structures, or some other major change such as a large-scale reform effort will displace local reform efforts (Ball, Bowe, & Gold, 1992).

As public schools have attempted to improve in recent years, the stakes have only risen. After No Child Left Behind (NCLB) became law in 2001, educators struggled to meet increasingly demanding performance targets brought on by NCLB. Many schools, unable to meet these requirements, were labeled as failing. In spite of the difficulties with public education in America, Schmoker (2006) reported that schools could quickly and radically improve the achievement of students by simply putting into practice the research that is currently available regarding teaching and learning. In fact, numerous researchers and practitioners have unprecedented concurrence that professional learning communities are the surest path to instructional improvement (Dufour & Eaker, 1998; DuFour, Eaker, & DuFour, 2002; Reeves, 2006; Schmoker, 2006).
The term professional learning community (PLC) has been used extensively in
describing a model of school improvement marked by collaboration, common goals, and
a focus on results (DuFour et al., 2002; Reeves, 2006; Schmoker, 2006). Professional
learning communities recognize the need to use teamwork related to implementing the
best known practices regarding teaching and learning. According to DuFour, DuFour,
Eaker, and Many (2006), “A PLC is composed of collaborative teams whose members
work interdependently to achieve common goals linked to the purpose of learning for all”
(p.3). In a PLC, the team is the “fundamental building block” (p. 3) for improvement in
the organization. According to the Missouri Professional Learning Communities fact
sheet (2007), a PLC is characterized by the following:

1. The daily work of the school is driven by common purpose, shared vision and
collective commitments.
2. There are high expectations regarding student achievement and a commitment
on the part of staff to accept responsibility for student learning.
3. The learning of each student is monitored on a timely basis using common
core curriculum and common assessments aligned with state standards.
4. School structures support student learning and provide additional time and
support for students who initially do not achieve intended outcomes.
5. Job-embedded professional development leads to a collective identification of,
reflection about, and implementation of “best practices” for improved student
achievement.
6. Staff members work collaboratively in processes that foster continuous
improvement in all indicators of student achievement.
7. The use of data promotes an action orientation and focus on results.
8. Leadership of school improvement processes is widely dispersed and helps sustain a culture of continuous improvement (para. 5, “What does a school that is a professional learning community look like?”)

While the PLC concept is implemented as a school reform model, school improvement advocates argue that—contrary to the temporary quick fixes of past reforms—the PLC model provides schools with the means for lasting change. In fact, a broad base of research has recognized the power of teams and collaborative learning to improve performance in a variety of contexts (Bruffee, 1999; Katzenbach & Smith, 1993; Lencioni, 2002, Sergiovanni, 2000). Whereas traditional reform brings about “superficial change, (PLCs) are sufficiently flexible and adaptable to create and support sustainable improvements that last over time because, through teamwork and dispersed leadership, they build professional capacity to solve problems and make decisions expeditiously” (Giles & Hargreaves, 2006, p. 126).

Not surprisingly, DuFour et al. (2002) implore effective leadership as necessary to sustain a PLC. More specifically, the authors advocate for the use of servant leadership in the PLC model to develop teachers’ full potential as professionals. Although DuFour et al. (2002) call for servant leadership in professional learning communities, scholarly research has done little to examine the relationship of the two constructs. Since this project will examine professional learning communities and servant leadership, it is important to trace the development of each theory. The following section describes the origin of servant leadership.

Servant leadership as a new paradigm was founded by Robert Greenleaf in his 1970 essay The Servant Leader. Greenleaf developed his ideas related to servant leadership upon his reading of a short narrative, Journey to the East, by Herman Hesse
(1956). In the story, a group of men sets out on a long journey. One of the men, Leo, is employed to accompany the group on their trip to provide menial services to the other men—to care for others well-being and comfort. However, during the trip, Leo disappeared. Soon after Leo was gone the travelers fell into disarray and ultimately the group prematurely ended their journey. Many years later, the narrator of the story encountered Leo once again. Through this later encounter, the narrator came to understand that Leo was, in fact, the true leader of the men on the journey. Although Leo’s nature was that of a servant, he became the leader of the group. Leo demonstrated a desire to serve others and through his service, leadership was bestowed upon him by the other men (Hesse, 1956). After reading the story, Greenleaf concluded that like Leo in Journey to the East, true leadership emerges from service to others. Therefore, he set forth to explore the idea of servant leadership in his writing and lecturing.

While many leadership theories have been advocated in the literature, the concept of servant leadership as advanced by Greenleaf has received little if any recognition in the leadership texts (Yukl, 2006). Greenleaf’s work advocated a new type of leadership based on virtue, equality, and servant hood as the means to true leadership (Spears, 1998). Servant leadership (Autry, 2001; Blanchard, 1998; Greenleaf, 1977; Spears, 1998) is defined as a leadership style that emphasizes serving others first—that the true test of leadership is helping others, ensuring that those served are “healthier, wiser, freer, more autonomous, more likely themselves to become servants” (Greenleaf, 1977, p. 27).

Since servant leaders are concerned with the success of followers, servant leaders place the needs of others ahead of their own. Kouzes and Posner (1993) describe the selfless orientation of the servant leader:
Leaders we admire do not place themselves at the center; they place others there. They do not seek the attention of people; they give it to others. They do not focus on satisfying their own aims and desires; they look for ways to respond to the needs and interests of their constituents… Being a servant may not be what many leaders had in mind when they choose to take responsibility for the vision and direction of their organization or team, but serving others is the most glorious and rewarding of all leadership tasks. (p. 185)

According to Marzano, Waters, and McNulty (2005), servant leadership “has a unique perspective on the position of the leader within the organization. Instead of occupying a position at the top of a hierarchy, the servant leader is positioned at the center of the organization” (p. 17). By assuming this position in the organizational structure, the leader retains contact with all organizational members and strives to help others throughout the hierarchy. Since servant leaders strive to help others, Marzano, Waters, and McNulty (2005) identified the following skills as critical to the servant leader:

1. Understanding the personal needs of those within the organization
2. Healing wounds caused by conflict within the organization
3. Being a steward of the resources of the organization
4. Developing the skills of those within the organization
5. Being an effective listener

Like Marzano et al. (2005), numerous other authors have described servant leadership characteristics. Although various studies have been conducted to examine these servant leadership characteristics, no significant study has considered the relationship of servant leadership behaviors to the development of professional learning.
communities in schools. Furthermore, while professional learning communities have been put forth as a powerful improvement initiative in schools, the current research has not investigated what aspects of servant leadership might lead to stronger professional learning communities.

In Chapter One, a rationale is presented for investigating servant leadership in professional learning communities. Chapter One contains six sections. In the first section background information is provided for the study in order to trace the history of school reform and provide an overview of servant leadership and professional learning communities. In the second section, a statement of the research problem is provided to explain the conceptual underpinnings of this study. The theoretical intersections of servant leadership and professional learning communities are critical to the understanding of effective school reform and effective school leadership. In the third section, the purpose of the study is outlined. Research questions are listed in the fourth section. The key term found in this research are defined in the fifth section. The sixth section includes the organizational outline for this dissertation.

Statement of the Research Problem

While there is extensive discussion in the literature related to the use and implementation of servant leadership in a variety of contexts (Autry, 2001; Blanchard, 1998; Hunter, 1998; Spears, 1998), the majority of this evidence is anecdotal and expository in nature. Authors have made convincing arguments for the use of servant leadership based on wisdom of the ages, their own personal experiences, and the experiences of others. In spite of the popular appeal of servant leadership and the plethora of renowned authors who endorse and promote the concept, servant leadership has been largely ignored by empirical research. Due to its lack of a strong empirical research base,
servant leadership has been omitted or only briefly mentioned in passing in academic texts related to organizational leadership and management (Page & Wong, 1998; Yukl, 2006).

Conversely, the conceptual framework of the PLC model is more widely supported by empirical research (Bryk & Louis, 1997; Bryk, Camburn, & Louis, 1999; Huffman, 2003; Kruse, 1996; Little, 1990; Senge, 1990b). The roots of learning communities extend to the 1960’s but have been researched most extensively in the past 25 years. In spite of a strong research base that clearly outlines the best practices for improving student achievement, actual classroom practices have reflected a serious gap between what is known regarding teaching and learning and what is actually occurring in America’s schools (Marzano, 2003). However, schools are recognizing the need to transform current practice to reflect what research has advocated as best practice.

According to Schmoker (2006), “educators in overwhelming majorities have agreed that there is indeed a yawning gap between the most well-known, incontestably essential practices and the reality of most classrooms” (p. 2). As educators recognize the need to change, professional learning communities have garnered even more attention in research and practice (Schmoker, 2006).

Because of the growing popularity of professional learning communities as a school reform model, it is important to examine the congruency of leadership theory with PLCs. More specifically, this research endeavor has added to the literature by exploring the relationship of servant leadership to the conceptual framework of professional learning communities. Although DuFour et al. (2002) mentioned the need for servant leadership in professional learning communities, research has not examined how servant leadership relates to the PLC concept. In this study, the researcher has examined aspects
of servant leadership in Missouri schools and explored the relationship of servant leadership to professional learning communities.

In the following section, the author will trace how the development of PLCs in Missouri has led to the need for effective leadership in this type of school structure. By examining servant leadership in professional learning communities, the researcher will provide a greater understanding of PLCs and servant leadership in Missouri schools.

*Purpose of the Study*

In Missouri, professional learning communities evolved from the Accelerated Schools Project, a state sponsored initiative for school improvement primarily implemented by elementary and middle schools. In 2000, as the Missouri Department of Elementary and Secondary Education (DESE) explored various reform models targeted at secondary schools, the PLC project was begun as a direct result of a national conference, “Re-inventing High Schools.” At the beginning, a select group of secondary schools were initiated to pilot the model. However, by 2003-2004, four regional professional development centers provided training to schools of all grade levels seeking to implement PLC concepts.

As of 2008, the Missouri PLC project had staff in all parts of the state and nearly 300 schools had participated in project training. In addition to that number, countless other schools had implemented PLC as an outgrowth of Accelerated Schools or other reform initiatives (Missouri Professional Learning Communities Project, n.d.; Missouri Professional Learning Communities [fact sheet], 2007).

Because of the continued growth of professional learning communities in Missouri, it is important to reconcile the PLC model of school improvement to the existing leadership research. More specifically, this research seeks to examine the
relationship of professional learning communities to servant leadership. As advocated by DuFour et al. (2002), servant leadership is proclaimed as an effective leadership theory to be employed in a professional learning community.

While there has been research on servant leadership in educational organizations in general, no research has been conducted to examine the relationship of servant leadership to the development of professional learning communities. Therefore, the purpose of this study was to examine not only servant leadership in Missouri schools as perceived by teachers and administrators, but also to examine the relationship of servant leadership characteristics to characteristics of professional learning communities. A central issue in the study was to determine to what extent schools in Missouri are perceived as servant-led organizations. From this examination of servant leadership in schools, the study seeks to examine what characteristics of servant leadership are most predictive of PLC characteristics; and conversely, what characteristics of PLC are most predictive of servant leadership characteristics.

Research Questions

The following research questions were addressed in the study:

1. In Missouri schools, what are the strongest and weakest aspects of servant leadership?
   a) as perceived by teachers
   b) as perceived by administrators
   c) as perceived by teachers and administrators overall

2. In Missouri schools, what are the strongest and weakest aspects of professional learning communities?
   a) as perceived by teachers
b) as perceived by administrators

c) as perceived by teachers and administrators overall

3. In Missouri schools, what is the relationship between characteristics of professional learning communities (PLC) and characteristics of servant leadership?

4. In Missouri schools, what characteristics of PLC are most predictive of servant leadership characteristics?

5. In Missouri schools, what characteristics of servant leadership are most predictive of PLC characteristics?

**Definition of Terms**

The following terms were important to the research project. A definition has been provided to assist the reader in clarifying the use of these terms within the context of this study.

*Characteristics of servant leadership.* Characteristics of servant leadership are observable behaviors, attitudes, and values that are exhibited by persons who are servant leaders. Characteristics of servant leadership have been recognized and defined in the literature (Bowman, 2005; Greenleaf, 1970, 2002; Patterson, 2003; Spears, 1998) and have been used as a measure of servant led organization through the Organizational Leadership Assessment (OLA) by Laub (1999).

*Collaboration.* Collaboration includes the interactions among organizational members that move beyond mere discussions to positive interdependence of team members for the collective good of the organization (DuFour et al., 2006; Hord, 1997; Kruse, 1996; Little, 1990; Rosenholtz, 1989).
Collective inquiry. Collective inquiry is teachers learning together through research into best teaching practices and further learning together by examining the current reality of student learning in the context of the schools in which they work (DuFour et al., 2006; Drago-Stevenson, 2004; Murphy & Lick, 2005).

Common assessments. Common assessments are assessments of student work aligned to state standards and administered by teachers sharing common curriculum. The results of these assessments are used to modify and plan instruction to meet students’ learning needs (DuFour et al., 2002; Stiggins & Arter, 2006).

DESE. This acronym (DESE) refers to the Missouri Department of Elementary and Secondary Education. DESE is the administrative body representing the Missouri State Board of Education. This department is tasked with school improvement initiatives and oversight of all public schools in the state (Facts about the Department of Elementary and Secondary Education, n.d.).

Deprivatization of practice. When teachers observe each others’ practice and engage in joint work, this shared work results in deprivatization of practice (Bryk & Louis, 1997; DuFour et al., 2002; Schmoker, 2006; Rosenholtz, 1989).

Leader. For this study, leader refers to any person employed by a school who leads in any capacity.

Learning organization. A learning organization is one that, through integrative thinking of organizational members, creates, acquires, and uses new knowledge to become more adaptable to an ever-changing environment (Nonaka & Takeuchi, 1995; Mezirow, 1998; Senge, 1990b).
Mission. In a professional learning community, the mission is the statement of purpose held by the organization. The mission of every school should ultimately be learning (DuFour et al., 2002).

NCLB. NCLB is an acronym referring to No Child Left Behind (2001), a federal law with numerous mandates intended to increase school accountability and improve student achievement. A prominent aspect of the legislation was the law’s requirement that schools meet increasingly difficult performance standards, ultimately resulting in 100% student proficiency by the year 2014. Under this legislation, schools must ensure all students achieve proficiency regardless of socio-economic background, race, ethnicity, or learning disabilities. Schools who do not meet performance targets are labeled as failing and must provide additional services to students (No Child Left Behind, n. d.).

OLA. OLA is an acronym that refers to the Organizational Leadership Assessment, a survey instrument created by Laub (1999) to measure perceptions of servant leadership characteristics in organizations. The survey includes sixty likert-scale items divided along six subscales of servant leadership identified by Laub (1999): (a) the leader values people which included believing in people, serving others needs before his or her own, and by receptive, non-judgmental listening; (b) the leader develops people by providing opportunities for learning and growth, modeling appropriate behavior, and building up others through affirmation and encouragement; (c) the leader builds community by building strong personal relationships, working collaboratively with others, and valuing the differences of others; (d) the leader displays authenticity by being open and accountable to others, being willing to learn from others, and maintaining integrity and trust; (e) the leader provides leadership by envisioning the future, taking
initiative, and clarifying goals; and (f) the leader shares by facilitating a shared vision, sharing power, and releasing control, and sharing status and promoting others.

**PLC.** PLC is an acronym that refers to professional learning communities, a model of school-reform characterized by “collaborative teams whose members work interdependently to achieve common goals linked to the purpose of learning for all” (DuFour et al., 2006). A PLC may be assessed using the Professional Learning Communities Assessment (Hipp & Huffman, 2003) to examine the perceptions of characteristics of a PLC.

**PLCA.** PLCA is an acronym that refers to the Professional Learning Communities Assessment, a survey instrument created by Hipp and Huffman (2003) to measure perceptions of characteristics of professional learning communities in a school. The survey consists of forty-five likert-scale items divided among five constructs: (a) Shared and Supportive leadership, (b) shared values and vision, (c) collective learning and application of learning, (d) supportive conditions, and (e) shared personal practice.

**Reflective dialogue.** Reflective dialogue is a method whereby teachers consistently engage in dialogue with colleagues regarding their work (Bryk & Louis, 1997).

**Reform model.** In education, a reform model is a description of prescriptive practices and/or principles developed in theory and implemented by practitioners to facilitate school change and improvement efforts (Bowe et al., 1992, Metz, 1991; Schmoker, 2006; Tyack & Tobin, 1994).

**School Leadership Culture Inventory.** The School Leadership Culture Inventory (SLCI) is the survey instrument developed for this study. This instrument was adapted by
the researcher from an examination of two surveys: the PLCA (Hipp & Huffman, 2003) and the OLA (Laub, 1999).

The School Leadership Culture Inventory consists of 60 likert-scale items divided according to 12 subscales total with six subscales related to servant leadership and six subscales related to professional learning communities. Six of the subscales—represented by 30 survey items—are designed to measure perceptions of servant leadership characteristics in organizations as developed by Laub (1999). Laub’s instrument is the Organizational Leadership Assessment (OLA). The subscales were shortened and adapted for the purposes of this study: the leader (a) Values People (b) Develops People (c) Builds Community (d) Displays Authenticity (e) Envisions the Future and (f) Facilitates a Shared Vision.

The remaining six subscales—also represented by 30 survey items—are designed to measure perceptions of characteristics of professional learning communities in schools as developed by Olivier, Hipp, and Huffman (2003). Olivier, Hipp, and Huffman’s instrument is the Professional Learning Communities Assessment (PLCA). The subscales are identified: (a) Shared and Supportive Leadership, (b) Shared Values and Vision, (c) Collective Learning and Application of Learning, (d) Supportive Structures, (e) Supportive Relationships, and (d) Shared Personal Practice. It should be noted, the PLCA treated supportive structures and supportive relationships as one construct. For the purposes of this study, supportive conditions were divided by supportive conditions that are structural in nature versus those that are relational in nature.
Servant leadership. Servant leadership is “an understanding and practice of leadership that places the good of those led over the self-interest of the leader” (Laub, 1999, p. 83).

Shared vision. A shared vision is a results-focused description of what the learning organization would like to become. The vision is based on research proven practices, not on the opinions of organizational members (DuFour et al., 2006; Hipp & Huffman, 2003; Senge, 1990a).

SPSS. SPSS refers to a statistical software suite widely used in academic research to solve research problems. For this study, SPSS was used to complete statistical analysis to answer the research questions as outlined in Chapter Three (SPSS statistics).

Staff. For this study, staff includes teachers and/or other persons who are employed by a school.

Stakeholders. For this study, stakeholders include all individuals who affect or may be affected by a school’s decisions

Teamwork. Teamwork is defined as “A group of people working interdependently to achieve a common goal for which members are held mutually accountable” (DuFour et al., 2006, p. 98).

Conclusion

In Chapter One, an introduction to this study was provided. The researcher provided background information concerning servant leadership and professional learning communities. A rationale was provided for the research problem and the purpose of the study revealing the need to explore effective leadership in professional learning
communities. In addition, the research questions were established and definitions of key terms were provided for the project.

The remainder of the dissertation is organized in the following manner. Chapter Two is a review of the literature concerning servant leadership and professional learning communities. In this review of literature, a context is provided for servant leadership by tracing the origin of servant leadership and exploring the current use of servant leadership in organizations. In addition, Chapter Two includes an overview of professional learning communities and demonstrates connections between servant leadership and PLCs. In Chapter Three, a description is provided of the research design and methodology used in this study. Chapter Four is a description and analysis of the data collected. In the final section of the study, Chapter Five, the researcher presents a discussion of the findings and presents recommendations for further study.
CHAPTER TWO

REVIEW OF LITERATURE

Introduction

The purpose of this review of literature is to define, explain, and trace the development of the two major constructs of this research endeavor: servant leadership and professional learning communities. As school leaders work feverishly to meet the demands of No Child Left Behind, it is more important than ever to employ the very best leadership to create conditions to cause student achievement in schools. To this end, there seems to be agreement among the leading experts in the field of education. According to Schmoker (2006), DuFour et al. (2002), and Stiggins and Arter (2006), the professional learning model provides research-based principles that schools need to create vigorous, high-performing learning organizations to ensure student success. In fact, Schmoker (2006) noted this rare agreement among scholars and practitioners:

If there is anything the research community agrees on, it is this: The right kind of continuous, structured teacher collaboration improves the quality of teaching and pays big, often immediate, dividends in student learning and professional morale in virtually any setting. Our experience with schools across the nation bears this out unequivocally. (p. 177)

Since professional learning communities are widely believed to be a powerful catalyst for improving schools, it is important to understand the type of leadership that will work best in the professional learning community. According to DuFour et al. (2002), in creating professional learning communities, servant leadership is needed to meet needs of followers. This review of literature will ultimately demonstrate the congruency of the professional learning community model with the literature regarding
servant leadership. By revealing the compatibility of these bodies of research, a conceptual framework can be described to justify the purpose of this study.

Chapter Two, review of literature, consists of six major sections. The first section is the introduction to the review of literature. In the second section, the researcher provides a context for servant leadership including a discussion of Robert Greenleaf, along with the definition, characteristics and other research related to servant leadership. The third section is an overview of related leadership theories including transformative, participative, and moral leadership. In the fourth section, the researcher describes professional learning communities in schools and outlines the conceptual framework of PLCs and traces their development. In the fifth section, the researcher explores the usefulness of servant leadership in professional learning communities and considers the similarities in the literature for each concept. The final section is the conclusion to the review of literature.

A Context for Servant Leadership

Since the goal of this literature review is to examine linkages between the literature regarding servant leadership and the literature regarding professional learning communities, and since the goal is to also demonstrate the compatibility of these theories, it is important to understand the contextual relevance of servant leadership to the work of leaders in schools. Therefore, in the following sections, the researcher will (a) trace the development of servant leadership from its origin by Robert Greenleaf in 1970, (b) provide a definition of servant leadership, (c) outline characteristics of a servant leader, (d) describe benefits of servant leadership, (e) examine instruments for measuring servant leadership, (f) examine the structure of servant led organizations, and finally (g) explore criticisms of servant leadership.
Servant leadership as a new paradigm was founded by Robert Greenleaf in his 1970 essay *The Servant Leader*. Greenleaf worked for communication giant AT&T for 38 years. At retirement his title was Director of Management Research. Greenleaf (1998) recalled, “The major focus of my life may best be described as a student of organization, how things get done—particularly in large institutions” (p. 19). Greenleaf credits his experiences with AT&T as a management expert along with his reading and reflection upon a narrative, *Journey to the East*, by Hermann Hesse (1956), as his inspiration for the ideas he developed regarding servant leadership (Greenleaf, 1998). Greenleaf’s ideas were first articulated in his seminal essay, *The Servant as Leader* (1970).


Since Greenleaf developed his ideas related to servant leadership after reading a short narrative, *Journey to the East*, by Hermann Hesse (1956), it is important to understand the nature of the story. In the story, a group of men set out on a journey in search of “ultimate truth.” Included in the group are fictional and real characters such as Mozart, Plato, Don Quixote, and Pythagoras. One of the men, Leo, is employed to accompany the sect on their trip to provide menial services to the other men—to care for others well-being and comfort. However, when Leo disappears from the group, the other travelers fell into disarray and ultimately the group prematurely ended their journey. To the discerning reading, it becomes obvious that Leo was more than a simple servant but
was, in fact, the leader of the group. After reading the story, Greenleaf concluded that like Leo in *Journey to the East*, true leadership emerges from service to others. Therefore, he set forth to explore the idea of servant leadership in his writing and lecturing.

In spite of the popular appeal of Greenleaf’s ideas regarding servant leadership, his ideas did not greatly advance the concept in the scholarly discussion related to leadership theory since it was not based on empirical research. However, similarities can be found between servant leadership and transformational, participative, and moral leadership. Each of these latter theories has a strong empirical foundation in the leadership texts (Yukl, 2006). Each of these theories is briefly examined later in Chapter Two. First, this research presents the theoretical foundation of servant leadership.

**Definition of Servant Leadership**

While it is difficult to derive a simple definition of servant leadership, the essence of servant leadership appears to be a willingness by the leader to serve those with whom he or she interacts. This willingness to serve is in sharp contrast to the belief the leader should control or dominate followers; instead, the servant-leader is striving to nurture, defend, and empower followers (Smith, Montagno, & Kuzmenko, 2004; Yukl, 2006). Greenleaf (2002)—in formulating his earliest writings on servant leadership—recognized the need for sacrificial and unselfish leadership:

The Servant-Leader is servant first. It begins with a natural feeling that one wants to serve. Then conscious choice brings one to aspire to lead. The difference manifests itself in the care taken by the servant: first, to make sure that other people’s highest priority needs are being served. The best test is: 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 they benefit, or at least, not be further deprived? (p. 27)

**Characteristics of Servant Leadership**

Likewise, other authors have noted the importance of embracing virtue and
attentiveness to the needs of followers as central to servant leadership. Bowman (2005)
indicated that the servant-leader is anchored to the universal principles of humility,
honesty, trust, empathy, healing, and a sense of community. Furthermore, Spears (1998)
identified ten characteristics that are exhibited by the servant-leader: (a) listening, (b)
empathy, (c) healing, (d) persuasion, (e) awareness, (f) foresight, (g) conceptualization,
(h) commitment to the growth of people, (i) stewardship, and (j) building community.
Additionally, DePree (1992) argued leaders should exhibit integrity in all things, should
practice equity, should demonstrate accountability for others, and focus on human
relationships. Moreover, the servant-leader is one who chooses to lead through service to
others, serves a greater good, and exhibits “entheos” or sustaining spirit over ego
(Greenleaf, 2002). In his definition, Laub (1999) reaffirmed the selfless orientation of the
servant leader:

Servant leadership is an understanding and practice of leadership that places the
good of those led over the self-interest of the leader. Servant leadership promotes
the valuing and development of people, the building of community, the practice of
authenticity, the providing of 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. (p. 83)
More specifically, Laub (1999) outlined six constructs of servant leadership: the leader (a) values people, (b) develops people, (c) builds community, (d) displays authenticity, (e) provides leadership, and (f) shares leadership. Patterson (2003) also developed theoretical constructs for understanding the characteristics of the servant leader: agapao (seeks the best for others), humility, altruism, vision, trust, service, and empowerment. According to Patterson (2003), a servant leader must place the needs of followers ahead of the needs of the organization:

Servant leaders are those who serve with a focus on the followers whereby the followers are the primary concern and the organizational concerns are peripheral. The servant leader constructs are virtues, which are defined as the good moral quality in a person, or the general quality of goodness, or moral excellence. (p. 5)

Through an examination of the literature, Russell (2001) found that internal values were very important in defining distinguishable attributes of the servant leader. These attributes include vision, credibility, trust, service, modeling, pioneering, appreciation of others, and empowering (Russell & Stone, 2002). Table 1 illustrates the development of the characteristics of servant leadership in this review of literature.

Benefits of Servant Leadership

While Greenleaf (1970) noted several characteristics of servant leadership, the foremost was the motivation of the leader and his or her desire to serve: “The servant-leader is servant first…it begins with the natural feeling that one wants serve, to serve first” (p. 7). Through this sacrificial desire to serve first, the use of servant leadership is beneficial to leaders and followers and to organizations as a whole.

Although servant leadership involves sacrifice to become a leader, leaders still benefit from becoming servants by realizing a greater sense of purpose, by creating better
## Table 1

**Servant Leadership Characteristics Development**

<table>
<thead>
<tr>
<th>Publication</th>
<th>Author</th>
<th>Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>1998</td>
<td>Spears</td>
<td>Listening, empathy, healing, persuasion, awareness, foresight, conceptualization, commitment to the growth of people, stewardship, and building community</td>
</tr>
<tr>
<td>1999</td>
<td>Laub</td>
<td>Values people, develops people, builds community, displays authenticity, provides leadership, and shares leadership</td>
</tr>
<tr>
<td>2001</td>
<td>Russell</td>
<td>Vision, credibility, trust, service, modeling, pioneering, appreciation of others, and empowering</td>
</tr>
<tr>
<td>2003</td>
<td>Patterson</td>
<td>Agapao, humility, altruism, vision, trust, service, and empowerment</td>
</tr>
<tr>
<td>2005</td>
<td>Bowman</td>
<td>Humility, honesty, trust, empathy, healing, sense of community</td>
</tr>
</tbody>
</table>
relationships with followers, and by relinquishing the burden of controlling subordinates (Crippen, 2005; Greenleaf, 2002; Herman & Marlowe, 2005). When leaders relinquish control, Senge (1990) concluded that followers benefit from being able to try new ideas—where control is a distributive process—and followers are permitted to take action throughout the hierarchy of the organization. Furthermore, servant leadership benefits followers by enabling them (DePree, 1992), by helping followers develop their creative potential, and by helping followers develop into healthier, wiser individuals who are more willing to accept responsibilities (Crippen, 2005; Herman & Marlowe, 2005). Hence, followers will engage in meaningful work and will become inspired to become servant-leaders themselves (Greenleaf, 2002; Yukl, 2006).

Furthermore, servant leadership is beneficial to organizations as a whole. Servant led organizations sustain relationships and create a sense of shared purpose (Bowman, 2005), they develop stronger communities (Herman & Marlowe, 2005; Yukl, 2006), and they continually self-renew (DePree, 1992). In general, servant-led organizations may sustain unique organizational culture simply because of the unique underlying motives of a true servant leader (Smith et al., 2004). Through a desire to serve, the servant-leader attends to the needs of the leader, followers, and the organization as a whole. The result is a high functioning community of caring, where virtue is espoused and practiced, and a greater good is achieved by the organization.

Criticisms of Servant Leadership

Because servant leadership focuses on the needs of others and seeks to empower followers in an organization, it has been viewed as a “weak” or “soft” leadership style (Page & Wong, 1998). Even the term servant may bring negative connotations of subservience or slavery (Whetstone, 2002). Because of these perceptions, some leaders
rely on more traditional leadership theories. Since traditional leadership models are transactional (Yukl, 2006) and focus on addressing Maslow’s (1943) lower level needs of food, shelter, safety, and affiliation, the leader may seem stronger and believe in his or her own sense of superiority and power (Tatum, 1995). However, the sense of power and superiority created by such leadership does not result in changing followers’ behavior, the essence of effective leadership.

Although servant leadership, with its open-style, concern for followers’ needs, and focus on virtues, may seem weak or soft, Page and Wong (1998) implored leaders to consider the true effectiveness of servant leadership:

Servant-leadership must not be seen as a model for weak leaders or ‘losers.’
When the going gets tough or when difficult decisions have to be made, as is inevitable in all leadership situations, the servant leader must be just as tough-minded and resilient as other kinds of leaders. What distinguishes servant-leaders from others is not the quality of the decisions they make, but how they exercise their responsibility and whom they consult in reaching these decisions. (p. 2)

Therefore, servant leadership should not be seen as a soft leadership style, but should be seen as a challenging leadership paradigm requiring the development of demanding skills. Tatum (1995) put forth that “the broadening vision of service sees leadership as demanding the skills of listening, consensus-making, ethical decision-making, and conflict resolution” (p. 309).

*Measuring Servant Leadership*

In order to understand and describe perceptions of servant leadership in organizations, Laub (1999) developed a survey instrument that has been widely used in the study of servant leadership in organizations. Laub (1999) utilized six constructs in
developing the Organizational Leadership Assessment (OLA): (a) the leader values people, believes in people, serves other’s needs first, and exhibits receptive, non-judgmental listening; (b) the leader develops people by providing opportunities for learning and growth, modeling appropriate behavior, and building up others through encouragement and affirmation; (c) the leader builds community by building strong personal relationships, working collaboratively with others, and valuing the differences of others; (d) the leader displays authenticity by being open and accountable to others, being willing to learn from others, and maintaining integrity and trust; (e) the leader provides leadership by envisioning the future, taking initiative, and clarifying goals; and (f) the leader shares leadership by facilitating a shared vision, sharing power and releasing control, and sharing status and promoting others.

Although extensive writing has been conducted regarding servant leadership, most of the literature has been philosophical and anecdotal in nature. According to Northouse (2004), a criticism of servant leadership is that it lacks a foundation in empirical research. However, while empirical research may be lacking there is enough consistency in the literature to determine attributes that are common in servant leadership theory. Russell and Stone (2002) identified nine attributes of servant leadership most prominent in the literature: vision, honesty, integrity, trust, service, modeling, pioneering, appreciation of others, and empowerment. These nine attributes provide a useful structure for further research in the study of servant leadership as empirical research on the subject is still in its infancy.

Structure of Servant Leadership

According to Marzano, Waters, and McNulty (2005), servant leadership “has a unique perspective on the position of the leader within the organization. Instead of
occupying a position at the top of a hierarchy, the servant leader is positioned at the center of the organization” (p. 17). By assuming this position in the organizational structure, the leader retains contact with all organizational members and strives to help others throughout the hierarchy. Since servant leaders strive to help others, Marzano et al. (2005) identified the following skills as critical to the servant leader:

1. Understanding the personal needs of those within the organization
2. Healing wounds caused by conflict within the organization
3. Being a steward of the resources of the organization
4. Developing the skills of those within the organization
5. Being an effective listener

In explaining servant leadership, the review of the literature has demonstrated that certain characteristics are evident in this type of leadership. These characteristics of servant leadership are quite different from the qualities of leadership found in traditional top-down pyramid structures (Blanchard, 1998; Page & Wong, 1998). Instead, servant leadership does not rely on coercion and manipulation of followers but considers the needs of followers and acts in the interest of the greater good. Thus, servant leadership is similar, in many ways, to other leadership theories of empowerment. In fact, Robert Greenleaf has been credited as the “father of the empowerment movement” in business leadership (Patterson, 2003).

In the following section, transformational, participative, and moral leadership will be examined as empowerment theories. This review will demonstrate the similarities between servant leadership and these other prominent leadership theories. By considering servant leadership in relationship to transformational, participative, and moral leadership,
it is evident that many of the characteristics of servant leadership have broader
ing implications in leadership study.

Transformational, Participative, and Moral Leadership

In the previous overview of servant leadership, the researcher examined major
tenets of the identified theory to give the reader a general idea of the essence of what
constitutes servant leadership. In contrast, the primary goal of this section is not to reach
a definition for each of the leadership theories examined. Each of these theories could
easily command great depth and breadth far beyond what is afforded in this short review.
Instead, the author will offer a brief examination of these theories—transformational
(Bass, 1985), participative, and moral leadership—as they relate specifically to the
primary discussion of servant leadership.

leaders make followers more aware of the importance and value of the work and induce
followers to transcend self-interest for the sake of the organization” (p. 262).
Transformational leadership is focused on inspiring “the commitments and capacities of
organizational members” (Leithwood, Jantzi & Steinbach, 2000, p. 9). The idea is to
empower followers, and to develop a shared-vision to promote continuous improvement
in the organization. Improving skills and practices is still important, but the focus is on
the individual as the catalyst for change. Each member of the organization is encouraged
to take ownership of the improvement (Leithwood, Jantzi & Steinbach, 2000).

Participative leadership. Like transformational leadership, participative
leadership involves empowerment of followers; it is not reliant on formal positional
power (Yukl, 2006). Instead, it is focused on group decision-making. Hackman and
Johnson (2000) discussed the benefits of distributing power, indicating shared power
automatically “fosters greater cooperation among group members” (p. 143) and allows teams to “achieve goals that would be beyond the capability of any one person” (p. 143). Spillane (2005) indicated participative leadership is not based on actions, but interactions, of individuals who have had leadership responsibilities distributed to them. These interactions are a dynamic, which occurs among leaders, followers, and the situation (Spillane, 2005). Participative leadership should not be viewed as separate individuals working toward a collective objective. Instead, quite the opposite is true. Since Spillane (2005) argues that interactions among leaders, followers, and the situation are what allow for success, it is clear positive interdependence can be a crucial component of distributive leadership. Hackman and Johnson (2000) further noted five possible benefits of sharing power—increased job satisfaction and performance, greater cooperation of group members, collective survival, personal growth and learning, and fewer abuses of power. Participative leadership is available to all of the stakeholders of an organization not only because it embraces democratic ideals but also because participatory leadership can enhance organizational effectiveness (Leithwood et al., 2000).

*Moral leadership.* Moral leadership is another theory of empowerment. Yukl (2006) reported that moral leadership should be democratic and participative with values and ethics as the primary focus for leaders. The idea is that leaders should make decisions based on what is morally defensible. The moral leader will not only consider ethics in decision-making but will also promote participation in the decision-making process. Since moral leadership is value-based, one problem for the leader is resolving contradictions among the value systems of the organization’s stakeholders. The leader must bring diverse value systems together while implementing democratic principles (Leithwood et al., 2000).
Clearly, transformational, participative, and moral leadership render empowerment to organizational members to take ownership of continuous improvement (Yukl, 2006). However, the process of empowering followers also appears to have commonalities with the beliefs of servant leadership. For instance, servant-leaders empower followers by creating a sense of purpose (Bowman, 2005), by listening to followers (Greenleaf, 2002), and by enabling followers to practice creative actions (DePree, 1992). Since servant leadership theory has maintained that meeting the needs of the follower are critical to the success of the leader, it seems servant leadership is closely tied to other empowering leadership theories.

Servant leadership exhibits another similarity to transformational leadership. Whereas transformational leadership has advocated the need of organizational members to embrace a shared-vision, servant leadership, too, has employed the need for shared vision. However, in spite of the similarities between servant leadership and transformational leadership Graham (1991) argued that servant leadership surpassed transformational leadership in the following ways: (1) servant leadership recognizes the social responsibility to serve those who are marginalized by the system one, and (2) servant leadership places followers needs at the forefront, ahead of even the leader’s own needs or the needs of the organization. Therefore, servant leadership creates meaningful work for followers and results in a greater good for society (Greenleaf, 2002).

Since servant leadership results in stronger communities (Crippen, 2005; Herman & Marlowe, 2005), it has held common ground with participative leadership and the involvement and growth of the group. But the most striking similarities may be seen in relationship to servant leadership and moral leadership. In addition to the shared qualities of empowerment of followers, servant leadership and moral leadership are both also
**Table 2**

*Empowerment Theories*

<table>
<thead>
<tr>
<th></th>
<th>Transformational</th>
<th>Moral</th>
<th>Participative</th>
<th>Servant Leadership</th>
</tr>
</thead>
<tbody>
<tr>
<td>Who exerts influence</td>
<td>Typically those in formal leadership roles, but not restricted to such persons</td>
<td>Those in formal administrative roles</td>
<td>The group (including non-administrative organization members)</td>
<td>The group (including non-administrative organization members)</td>
</tr>
<tr>
<td>Sources of influence</td>
<td>Inspire higher levels of commitment and capacity among organization members</td>
<td>Use of a system of moral values to guide organization decision making</td>
<td>Interpersonal communication</td>
<td>Desire to serve others and see followers be successful</td>
</tr>
<tr>
<td>Purposes of influence</td>
<td>Greater effort and productivity Develop more skilled practice</td>
<td>Increase sensitivity to the rightness of decisions</td>
<td>Increase participation in decisions</td>
<td>“Those served are healthier, wiser, freer, more autonomous, more likely themselves to become servants” (Greenleaf, 2002, p. 27)</td>
</tr>
<tr>
<td>Outcomes of influence</td>
<td>Increased capacity of organization to continuously improve</td>
<td>Morally justified courses of action</td>
<td>Increased capacity of organization to respond to internal and external demands for change</td>
<td>More democratic organization</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Democratic schools</td>
<td></td>
<td>Greater good for society</td>
</tr>
</tbody>
</table>

*Note. Adapted from Leithwood, Jantzi, and Steinbach (2000).*
based on the good virtue and universal values of the ethical and moral leader (Bowman, 2005; Greenleaf, 2002; Herman & Marlowe, 2005; Yukl, 2006). Like servant-leaders, moral leaders “build mutual trust and respect among diverse followers” by “nurturing followers, empowering them, and promoting social justice” (Yukl, 2006, p. 436).

Although servant leadership is more easily analyzed as a discipline of wisdom, it has influenced widely accepted scholarly leadership theories: transformational, participative, and moral leadership. In Table 2, the aforementioned empowerment theories were compared with servant leadership. In this literature review, servant leadership was defined and characteristics of servant-leadership were listed. In addition, transformational, participative, and moral leadership were briefly examined to highlight those tenets most similar to those held by servant leadership. In conclusion, the researcher has construed that the elements of servant leadership can be seen in these other leadership styles.

**Professional Learning Communities**

The term professional learning community (PLC) has been used extensively in describing a model of school improvement marked by collaboration, common goals, and a focus on results (DuFour et al., 2002; Reeves, 2006; Schmoker, 2006). Hord (1997) defined the community of learning as one:

- in which the teachers in a school and its administrators continuously seek and share learning, and act on their learning. The goal of their actions is to enhance their effectiveness as professionals for the students’ benefit; thus, this arrangement may also be termed *communities of continuous inquiry and improvement.* (p. 1)
In short, Hord (1997) explained a PLC as a group of educators who “continuously seek and share learning and act on their learning” (p. 6). Therefore, members of a PLC utilize teamwork related to implementing the best known practices regarding teaching and learning. According to DuFour et al. (2006), “A PLC is composed of collaborative teams whose members work interdependently to achieve common goals linked to the purpose of learning for all” (p. 3). Moreover, the professional learning communities (PLC) model calls for teachers to work collaboratively to improve instructional practices, to teach a viable and essential curriculum of agreed upon standards, and to make the learning needs of students the highest priority (DuFour et al., 2002). In a PLC, the team is the “fundamental building block” (p. 3) for improvement in the organization.

While the PLC concept is implemented as a school reform model, a broad base of research has recognized the power of teams and collaborative learning to improve performance in a variety of contexts (Bruffee, 1999; Katzenbach & Smith, 1993; Lencioni, 2002, Nonaka & Takeuchi, 1995; Sergiovanni, 2000). In fact, Senge (1990b) described the learning organization, “where people continually expand their capacity to create the results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning how to learn together” (p. 3). Similarly, Bruffee (1999) examined the effects of collaboration on adult learning, noting that learning did not simply depend on the individual’s assimilation of knowledge but also on “people’s assimilation into communities of knowledgeable peers” (p. 181).

Organizational Learning

It is important to note that the term professional learning community in education is derived from the concept of the learning organization, which was originated in a broader
context of organization theory. Although the syntax is similar, the distinctions in the terms are significant. “While the term ‘organization’ suggests a partnership enhanced by efficiency, expediency, and mutual interests, ‘community’ places greater emphasis on relationships, shared ideals, and a strong culture—all factors that are critical to school improvement” (DuFour, 1998, p. 15). Nevertheless, the concept of the learning organization undergirds the conceptual framework of a professional learning community. Therefore, it is important to examine the literature regarding learning organizations and professional learning communities.

In order to fully explore the characteristics of a learning organization, one must first define the phrase. Mezirow (1998) wrote that “learning may be understood as the process of using a prior interpretation to construe a new or revised interpretation of the meaning of one’s experience in order to guide future action” (p. 189). In regard to organizational learning, Yukl (2006) reported that “learning involves acquiring and using new knowledge” (p. 308). Similarly, Senge (1990b) pointed out that learning organizations utilize integrative thinking and acting at all levels, with an emphasis on increased adaptability. Of these definitions, Nonaka and Takeuchi (1995) were more specific when they wrote, “By organizational knowledge creation we mean the capability of a company as a whole to create new knowledge, disseminate it throughout the organization, and embody it in products, services, and systems” (p. 3). Morgan (1997) used a comparison to cybernetics to point out that learning organizations are organizations that scan the environment and anticipate change; question, challenge and change norms; and allow appropriate strategies and patterns to emerge.

For an organization to be considered a ‘learning organization’ the organization must continuously create new knowledge. Nonaka and Takeuchi (1995) studied the
Japanese business model of knowledge creation within the organization and identified three key characteristics: (a) figurative language and symbolism are used to express the inexpressible, (b) an individual’s personal knowledge has to be shared with others, and (c) new knowledge is born from ambiguity and redundancy.

Nonaka and Takeuchi’s first two characteristics are clearly focused on the social aspects of knowledge creation. Other studies have had similar findings. Eraut (2004) focused on informal learning, which “recognizes the social significance of learning from other people” (p. 247), and Bruffee (1999) emphasized the most important thing for people to understand about the creation of new knowledge is that it does not depend on people’s assimilation of knowledge, but rather on “people’s assimilation into communities of knowledgeable peers” (p. 181). Additionally, Bruffee emphasized the importance of conversation in the creation of new knowledge when he postulated, “We can think because we can talk with one another” (p. 134). Moreover, Bruffee explained how conversation leads students to more complex thinking:

Conversation alone in which they have to cope with their peers resistance to what they believe to be certain, makes it possible for students collectively and individually, to discriminate better between facts and conclusions, draw fewer false conclusions, consider more than one solution to a problem, and be less adversely influenced in their approach to a problem by their experience of a preceding one. (p. 178)

Eraut (2004) identified four types of work activities that give rise to new learning, and three of the four (participation in group activities, working alongside others, and working with clients) involve collaboration and conversation with others. Similarly, Schmoker (2006) concluded that “learning communities encourage teachers to recognize
and share the best of what they already know” (p. 109). Drago-Stevenson (2004) described how “collegial inquiry can facilitate both teacher learning within a school and the growth of the institution” (p. 103). Bruffee (1999) noted that learning is socially constructed, interdependent, and involves reacculturation into new communities. Nonaka and Takeuchi (1995) supported each individual’s role in disseminating knowledge, stating that “an individual’s personal knowledge has to be shared with others” (p. 12).

Another characteristic identified by Nonaka and Takeuchi (1995) focused on ambiguity and redundancy as important elements in knowledge creation. Morgan (1997) compared a learning organization to a functioning brain and also emphasized the ambiguity and apparent randomness: “A lot of the brain’s activity seems to be completely random and characterized by a massive amount of distributed and parallel information processing” (p. 110). When making the connection to organizations, he again emphasized redundancy, stating that “parallel processing and sharing of information can be a source of creativity, shared understanding, trust and commitment” (p. 110).

The structure of an organization can enhance or impede collaboration and knowledge creation. Bolman and Deal (2003) found “structural form both enhances and constrains what an organization can accomplish” (p. 46), while Eraut (2004) postulated, “The workplace context brings new perspectives to research on learning because it encompasses a wide range of more or less structured environments, which are only rarely structured with learning in mind” (p. 247).

Bolman and Deal (2003) emphasized that organizations often cope with complex environments by trying to make the environment simpler. “One way is to develop systems and technology to collect and process information. Another is to break complexity into smaller pieces and assign chunks to specialized individuals or units” (p. 30). This
specialization, while simplifying processes, may not lead to effective collaboration; however, Eraut (2004) found the structuring of work to be important to “the opportunities for meeting, observing, and working alongside people who had more or different expertise, and for forming relationships that might provide feedback, support or advice” (p. 270), indicating that specialization does not have to preclude collaboration if the workplace is structured to foster collaboration. By utilizing teams, an organization can increase cooperation among members and create a sense of interdependence. Bolman and Deal (2003) recognized the use of teams as having “more knowledge, diversity of perspective, time, and energy than individuals working alone” (p. 173). Katzenbach and Smith (1993) indentified a team as “a small number of people with complementary skills who are committed to a common purpose, set of performance goals, and approach for which they hold themselves mutually accountable” (p. 112). Nonaka and Takeuchi (1995) also recognized the need for organizational members to network and share knowledge. “The best working groups come together to share information, perspectives, and insights; to make decisions that help each person do his or her job better; and to reinforce individual performance standards” (Katzenbach & Smith, 1993, p. 112).

In schools, the concept of the learning organization (Senge, 1990a) eventually became known by the term “learning community” as educators sought to implement school reform. When research related to learning communities was in its earliest stages, Rosenholtz (1989) observed 78 schools and noted the presence of collaborative cultures in schools the researcher identified as “learning enriched” in contrast to those identified as “learning deprived.” In these “learning enriched” schools, the researcher noted, the responsibility for improving teaching was viewed as a collective rather than an individual responsibility. Almost concurrently, Little (1990) found that collaborative arrangements
in schools could influence “success and satisfaction with students” (p. 509) especially when these endeavors resulted in “joint work,” or “shared responsibility for the work of teaching (interdependence)” (p. 519). Joint work efforts were marked by teachers collaborating to create lessons, to share instructional strategies, and to examine student achievement data.

**Core Practices of Professional Learning Communities**

In further defining the concept of collegiality, Bryk and Louis (1997) identified three core practices that characterize adult behavior in a professional learning community. The three core practices are reflective dialogue, deprivatized practice, and collaboration/shared work. Additionally, Kruse (1996) identified two other core practices critical to the success of a PLC: shared norms and values and collective focus on student learning. All together, these five core practices represent a conceptual framework for this study to further examine the literature concerning professional learning communities.

Each of these core practices is examined in the following sections.

*Reflective dialogue.* According to Bryk and Louis (1997), teachers in professional learning communities regularly engage in conversations with colleagues regarding their work. According to DuFour et al. (2002), these conversations must be focused on the right things if they are to be successful. The focus should be on serious issues affecting student learning outcomes. DuFour et al. (2002) suggested teachers grapple with answering the following questions as part of the reflective dialogue: What is it we want our students to learn? How can we know all students have learned it? What will our response be to assist those students who are not learning? What will our response be if our students have already mastered the learning? As a result of answering these questions, teachers will engage in collective planning of curriculum and instruction
Murphy & Lick, 2005), will convert tacit knowledge into shared knowledge (Fullan, 2001), and will apply newly acquired information and ideas to solving relevant problems to students’ learning needs (Hord, 1997).

*Deprivatized practice.* DuFour et al. (2002) lamented isolation in the teaching profession and stated that “traditional school has long functioned as a collection of independent contractors united by a common parking lot” (p. 10). Similarly, Schmoker (2006) described how schools have created a “buffer” that left teachers isolated in their classrooms with little accountability, feedback, or support. The author further explained how this system of isolation has been the enemy of improvement because it rewards mediocrity. Conversely, teachers in a professional learning community do not hide behind a classroom door without ever knowing what is happening in the classrooms of their colleagues. Instead, in a true PLC, teachers use strategies such as team teaching and peer coaching, and they observe each other’s classroom to learn from one another (Bryk & Louis, 1997). Rosenholtz (1989) was a pioneer in recognizing the need for teachers to deprivatize professional practice:

If teaching is collectively viewed as an inherently difficult undertaking, it is both necessary and legitimate to seek and to offer professional assistance. This is exactly what occurs in instructionally successful schools, where, because of strong administration or faculty leadership, teaching is considered a collective rather than an individual enterprise; requests and offers of assistance among colleagues are frequent; and reasoned intentions, informed choices, and collective actions set the conditions under which teachers improve instructionally. (p. 430)

*Collaboration/shared work.* According to Kruse (1996), collaboration “is a natural outgrowth of reflective dialogue and deprivatized practice” (p. 6). DuFour et al.

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(2006) called for collaboration to be structured with teams of teachers who share commonalities such as common content or common objectives. The author defined collaboration in a PLC as “A systematic process in which educators work together interdependently to analyze and to impact their professional practice in order to achieve better results for their students, their team, and their school” (p. 98). Through the use of collaborative teams, teachers will share work (Bryk & Louis, 1997), set goals, meet regularly, establish team norms (DuFour et al., 2006), share leadership (Murphy & Lick, 2001), examine student work, and create products of their joint work (DuFour et al., 2006, Murphy & Lick, 2001). Most importantly, teachers in collaborative teams must be careful to keep the focus on student learning and how work of the team will directly affect the learning outcomes of students in the classroom (Schmoker, 2006). In a professional learning community, collaboration is “embedded in every aspect of the school culture. Every major decision related to the learning mission is made through the collaborative process” (DuFour et al., 2002). Rosenholtz (1989) clearly articulated the practicality of collaboration for improving teaching and learning:

> With collaborative endeavors, attending to the material requirements and organization of new instructional techniques or programs need not be duplicative; experiments that falter for lack of proper planning or foresight need not be doomed to repeated failure; successes that are discovered can be replicated, adapted, and celebrated by others without exhaustive and frustrating reinvention.

In terms of effort and time, frustration and pleasure, learning to teach (and to teach better) is far easier where colleagues collaborate. (p. 430)

> **Shared norms and values.** Norms and values guide the work of a professional learning community and “bring coherence to a school-based professional community”
(Bryk & Louis, 1997, p. 4). In fact, Senge (1990a) stated, “You cannot have a learning organization without a shared vision” (p. 209). In the school setting, the professional learning community must be marked by a vision that is unyieldingly focused on student learning (Hipp & Huffman, 2003). When shared norms and values are established, the language and actions of a PLC reflect “common beliefs about children, learning, teaching and teachers’ roles, the importance of interpersonal connectedness, and commitment to the collective good” (Kruse, 1996). In such a community, individuals enjoy freedom to communicate openly and honestly and trust is evident in the culture (Fawcett, 1996). Although a healthy learning community allows for honestly and trust, to affect student learning there must also be shared commitment to act. DuFour et al. (2002) explained that norms and values must translate to action:

A professional learning community recognizes that beliefs are important, but also makes an effort to go beyond beliefs and focus on behaviors. We ask, “How do we need to behave if we are going to become the kind of school we said we seek to become?” As a result, each of the statements in the values documents of a professional learning community should begin with the words “we will.” (p. 16)

Collective focus on student learning. In a professional learning community, the focus of every member of the community must be on student learning (Louis & Kruse, 1995). The collaboration and actions of teachers must center on increasing student learning (Kruse, 1996). Whereas traditional staff development has focused on teaching, in a PLC the focus must shift to keep the focus on learning (DuFour et al., 2002). More specifically, members of a professional learning community have important discussion around key questions: What should students learn? How can educators be sure students have learned it? What will the response be to assist those students who are not learning?
PLC Dimensions and Critical Attributes

Shared and Supportive Leadership
- Nurturing leadership among staff
- Shared power, authority, and responsibility
- Broad-based decision making that reflects commitment and accountability

Shared Values and Vision
- Espoused values and norms
- Focus on student learning
- High expectations
- Shared vision guides teaching and learning

Collective Learning and Application
- Sharing information
- Seeking new knowledge, skills, and strategies
- Working collaboratively to plan, solve problems, and improve learning opportunities

Shared Personal Practice
- Peer observations to offer knowledge, skills, and encouragement
- Feedback to improve instructional practices
- Sharing outcomes of instructional practices
- Coaching and mentoring

Supportive Conditions
- Relationships
  - Caring relationships
  - Trust and respect
  - Recognition and celebration
  - Risk-taking
  - Unified effort to embed change
- Structures
  - Resources (time, money, materials, people)
  - Facilities
  - Communication systems

Figure 1. PLC Dimensions and Critical Attributes from Hipp and Huffman (2003).
What will the response be if students have already mastered the learning? In addition, teachers keep the focus on learning by examining the current reality of student achievement (Murphy & Lick, 2001), engaging in extensive discussion about the curriculum (DuFour et al., 2002), and by sharing best practices (Schmoker, 2006).

Through a five-year, multi-method study of professional learning communities, Hord (1997) developed five dimensions of a PLC. In one phase of the study, the five dimensions of a PLC were examined through 64 interviews at 6 schools determined to be at a high level of readiness in the schools’ efforts to become professional learning communities. Through this qualitative study, the researchers identified themes for each of the five dimensions. These themes were traced from initiation to implementation and serve as critical components of the five dimensions (see Figure 1). These five dimensions of a PLC became the basis for the Professional Learning Communities Assessment (PLCA) (Olivier, Hipp, & Huffman, 2003).

**Structural Conditions in Professional Learning Communities**

The structure of a professional learning community provides conditions to facilitate or impede growth of the learning organization. Although Kruse, Louis, and Bryk (1994) report “that human resources such as openness to improvement, trust and respect, teachers having knowledge and skills, and supportive leadership and socialization” (p. 6) are more vital to the development of a professional community, structural conditions are still critical to facilitate school change. These conditions can either help or hinder the development of the professional learning community. These physical qualities include the availability of resources and schedules and structures that reduce isolation. Likewise, Louis and Kruse (1995) noted important physical elements that support learning communities. These physical conditions include time to meet and
have discussion, small size of the school and proximity of the staff to one another, interdependent teaching roles, school autonomy, and teacher empowerment. Moreover, policies that allow for greater autonomy, more effective communication, and quality staff development are critical to the nurturing of improvement efforts (Donahoe, 1993).

Since time is a valuable resource, "time, or more properly lack of it, is one of the most difficult problems faced by schools and districts" (Watts & Castle, 1993, p. 306). Donahoe (1993) maintained that formally rearranging the use of time in schools so that staff members are supported in their interactions is a critical part of collaborative arrangements. For instance, substantial and regularly scheduled blocks of time should be provided for teachers to meet and talk (Kruse, Louis, & Bryk, 1994). DuFour et al. (2006) and Raywid (1993) addressed the need for supplying meaningful time for staff to engage in the work of learning and acting in behalf of improvement for students and provided many practical ideas for finding time for collaboration.

Professional Learning Communities in Missouri

In Missouri, professional learning communities evolved from the Accelerated Schools Project, a separate state sponsored initiative for school improvement primarily implemented by elementary and middle schools. In 2000, as the Missouri Department of Elementary and Secondary Education (DESE) explored various reform models targeted at secondary schools, the PLC project was begun as a direct result of a national conference, “Re-inventing High Schools.” At the beginning, a select group of secondary schools were selected to pilot the model. However, by 2003-2004, four regional professional development centers provided training to schools of all grade levels seeking to implement PLC concepts (Missouri Professional Learning Communities Project, n.d.; Missouri Professional Learning Communities [fact sheet], 2007).
According to the Missouri Professional Learning Communities Fact Sheet (2007), a PLC is characterized by the following:

1. The daily work of the school is driven by common purpose, shared vision and collective commitments.
2. There are high expectations regarding student achievement and a commitment on the part of staff to accept responsibility for student learning.
3. The learning of each student is monitored on a timely basis using common core curriculum and common assessments aligned with state standards.
4. School structures support student learning and provide additional time and support for students who initially do not achieve intended outcomes.
5. Job-embedded professional development leads to a collective identification of, reflection about, and implementation of “best practices” for improved student achievement.
6. Staff members work collaboratively in processes that foster continuous improvement in all indicators of student achievement.
7. The use of data promotes an action orientation and focus on results.
8. Leadership of school improvement processes is widely dispersed and helps sustain a culture of continuous improvement (para. 5, “What does a school that is a professional learning community look like?”)

Through the Missouri Professional Learning Communities Project, schools throughout the state have received training in implementing the characteristics of professional learning communities. In fact, as of 2008, the Missouri PLC project had staff in all parts of the state and nearly 300 schools had participated in project training. In
addition to that number, countless other schools had implemented PLC as an outgrowth of Accelerated Schools or other reform initiatives.

Benefits of Professional Learning Communities

As public schools have attempted to improve in recent years, the stakes have only risen. After No Child Left Behind (NCLB) became law in 2001, educators struggled to meet increasingly demanding performance targets brought on by NCLB. Many schools, unable to meet these requirements, were labeled as failing and entered a phase of NCLB identified as school improvement. In spite of the difficulties with public education in America, Schmoker (2006) reported that schools could quickly and radically improve the achievement of students by simply putting into practice the research that is currently available regarding teaching and learning. In fact, numerous researchers and practitioners have unprecedented concurrence that professional learning communities are the surest path to instructional improvement (DuFour et al., 2002; Reeves, 2006; Schmoker, 2006).

In an extensive study involving 11,000 students in 800 secondary schools, Lee, Smith, and Croninger (1995) found that in schools characterized by professional learning communities, students achieved greater success in math, science, history and reading than students attending schools with more traditional organizations. Moreover, the achievement gap between students of different backgrounds was also less in the schools practicing the characteristics of PLCs. The researchers noted that in PLC schools “teachers and other staff members experience more satisfaction and higher morale, while students drop out less often and cut fewer classes. And both staff and students post lower rates of absenteeism” (p. 5). Similarly, Louis and Kruse (1995) found that in schools with a strong sense of community, students and teachers demonstrated better classroom motivation and work satisfaction and had a sense of shared responsibility for learning.
After developing several case studies of schools, Darling-Hammond and McLaughlin (1995) concluded that teachers need opportunities to share knowledge and discuss problems related to teaching and learning. She observed that in school with this type of collaborative culture, achievement gains came more quickly than in schools that did not feature collaboration and shared practices. Seashore, Anderson, and Riedel (2003) cautioned, however, that while professional learning communities were important for school-wide instructional change, the effectiveness of the PLC on individual teacher’s practices may be less than previous studies had shown. They noticed that teachers had their own “mental schemas” for determining if they were ready to change their own classroom practice. Consequently, the study found that professional learning communities influence school-wide change and ensuring that changes will stand the test of time.

In a comprehensive study of 1,500 elementary, middle, and high schools in the United States, the Center on Organization and Restructuring Schools (Newmann & Wehlage, 1995) found that characteristics of learning communities impacted several factors related to student success. The results demonstrated that decentralization, shared decision making, teacher teaming, and/or professional communities of staff lead to improved student outcomes. Four factors were determined to lead to improved results for students:

1. Student learning. Teachers agree on a vision of authentic (in agreement with real-world experience or actuality, no contrived) and high-quality intellectual work for students that includes intellectually challenging learning tasks and clear goals for high-quality learning. This vision is communicated to students and parents.
2. Authentic pedagogy. High-quality student learning is achieved in classrooms through authentic pedagogy (instruction and assessment), and students of all social backgrounds benefit equally, regardless of race, gender, or family income.

3. Organizational capacity. In order to provide learning of a high intellectual quality, the capacity of the staff to work well as a unit must be developed. The most successful school functioned as professional learning communities, where teachers helped one another, took collective (not just individual) responsibility for student learning, and worked continuously to improve their teaching practices. Schools with strong professional communities offered more authentic pedagogy and were more effective in encouraging student achievement.

4. External support. Schools need essential financial, technical, and political support from districts, state, and federal agencies, reform projects, parents, and other citizens.

Likewise, Hord (1997) found that students benefit from schools operating as professional communities. In addition, Hord also noted benefits to teachers in these schools. In a synthesis of professional learning community literature, Hord indicated that comprehensive school reform involving “decentralization, shared decision-making, schools within schools, teacher teaming, and/or professional communities of staff, can improve learning” (p. 30). The research further noted that teachers who adapted their teaching most effectively to meet the learning needs of their students were engaged in a professional community that provided support and encouragement for their teaching. Based on a review of previous studies focused on professional learning communities,
Hord summarized the important outcomes for staff and students in schools where professional learning communities were successfully implemented. In addition to improvements in critical outcomes for students such as decreasing the dropout rate and improving student achievement, teachers also benefited by reducing isolation and engaging in professional learning (see Figure 2).

Ultimately, the outcome of a professional learning community is that the school organization can move beyond first order change to achieve second order change (Scribner, Cockrell, Cockrell, & Valentine, 1999). According to Barott and Raybould (1998), first order change is “within a system of organizing that allows the basic nature of the system to persist. Conversely, the authors explain second order change involves a “qualitative change in the basic nature of the system of organizing itself” (p. 34). Argyris and Schon (1978) termed this systems behavior as single-loop and double-loop learning. While many organizations engage in single-loop learning, wherein a system will “detect and correct deviations from predetermined norms” (Morgan, 1997, p. 78), only learning organizations will “question the appropriateness of what they are doing” (Morgan, 1997, p. 78). When organizations are limited to single-loop learning behaviors, existing norms are not challenged and ineffective practices are often perpetuated (Scribner et al., 1999). Therefore, only schools that engage in second order change or double-loop learning—challenging the basic assumptions and premises governing the system—will result in substantive change in the traditional “grammar” of schooling (Tyak, 1994, p. 453).

Since the literature provides evidence that professional learning communities can result in second-order change for schools and has important benefits for teachers and students, it is important to understand how effective leadership operates in a professional learning community.
<table>
<thead>
<tr>
<th>Benefits of Professional Learning Communities for Teachers and Students</th>
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<tbody>
<tr>
<td><strong>Teachers</strong></td>
<td><strong>Students</strong></td>
</tr>
<tr>
<td>Reduction of isolation of teachers</td>
<td>Decreased dropout rate and fewer classes “cut”</td>
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<tr>
<td>Increased commitment to the mission and goals of the school and increased vigor in working to strengthen the mission</td>
<td>Lower rates of absenteeism</td>
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<tr>
<td>Shared responsibility for the total development of students and collective responsibility for students’ success</td>
<td>Increased learning that is distributed more equitably in the smaller high schools</td>
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<tr>
<td>Powerful learning that defines good teaching and classroom practice, that creates new knowledge and beliefs about teaching and learning</td>
<td>Larger academic gains in math, science, history, and reading than in traditional schools</td>
</tr>
<tr>
<td>Increased meaning and understanding of the content that teachers teach and the roles that they play in helping all students achieve expectations</td>
<td>Smaller achievement gaps between students from different backgrounds</td>
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<td>Higher likelihood that teachers will be well informed, professionally renewed, and inspired to inspire students</td>
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<tr>
<td>More satisfaction and higher morale, and lower rates of absenteeism</td>
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<tr>
<td>Significant advances into making teaching adaptations for students, and changes for learners made more quickly than in traditional schools</td>
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<tr>
<td>Commitment to making significant and lasting changes</td>
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<tr>
<td>Higher likelihood of undertaking fundamental, systemic change</td>
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*Figure 2. Outcomes of Professional Learning Communities (Hord, 1997, pp. 33-34)*
The following section describes leadership in a learning organization and provides the conceptual underpinnings for the congruency of servant leadership to the PLC model.

*Leadership in Professional Learning Communities*

While the characteristics of the professional learning community have been clearly described in the literature, it is difficult to imagine any educational organization developing these characteristics without the presence of active support and nurturing leadership (Hord, 1997). In fact, it is difficult to imagine a professional learning community succeeding at all without active and supportive leadership from all levels of a school organization. As Sergiovanni (1994a) noted, leaders “plant the seeds of community, nurture the fledgling community, and protect the community once it emerges. They lead by serving. They lead by inviting others to share in the burdens of leadership” (p. 19).

Nonaka and Takeuchi (1995) chose to focus on the identification of leadership as the most important element of structure and recommended “middle-up-down as the management style most conducive to organizational knowledge creation” (p. 161). The leader’s role in a learning organization is very different than past models of leadership. These “leaders are designers, teachers, and stewards” they must be able to “build shared vision, to bring to the surface and challenge prevailing mental models, and to foster more systemic patterns of thinking” (Senge, 1990b, p. 9). Yukl (2006) offered a similar explanation, “The leaders [in learning organizations] develop and refine shared conceptual tools and mental models for understanding how things work, how to adapt to the environment, and how to achieve the organization’s objectives” (p. 310). Not only is the role of the leader different in learning organizations, but Nonaka and Takeuchi (1995) proposed that those leaders should come from the middle management position. In their
‘Middle-up-down’ model, the leader is in a middle management position and is positioned “at the intersection of the vertical and horizontal flows of information within the company” (p. 127).

Senge (1990b) outlined the leader’s responsibilities in a learning organization: Leadership in learning organizations centers on subtler and ultimately more important work. In a learning organization, leaders’ roles differ dramatically from that of the charismatic decision maker. Leaders are designers, teachers, and stewards. These roles require new skills: the ability to build shared vision, to bring to the surface and challenge prevailing mental models, and to foster more systematic patterns of thinking. In short, leaders in learning organizations are responsible for building organizations where people are continually expanding their capabilities to shape their future—that is, leaders are responsible for learning. (p. 11)

According to Hipp and Huffman (2003), the school principal is critical to fostering the conditions for successful leadership in a PLC. Louis and Kruse (1995) concurred, identifying principal leadership as one of the necessary human resources for the learning community. McLaughlin and Talbert (2001), in review of their study of high school PLC’s, concluded the following:

For better or worse, principals set conditions for teacher community by the ways in which they mange school resources, relate to teachers and students, support or inhibit social interaction and leadership in the faculty, respond to broader policy context, and bring resources into the school. (p. 98)

Because Shared and Supportive leadership are fundamental to the culture of a PLC, Hipp and Huffman (2003) described the role of the school administrator as a democratic participant, whose power, authority, and decision-making is shared with
teachers, and where leadership among staff members is promoted and nurtured by the
school administrator. Prestine (1993) similarly identified three factors necessary for
principals to lead schools in restructuring: (a) the ability to share authority; (b) the ability
to facilitate the work of staff; and (c) the ability to participate without dominating.
Sergiovanni (1994b) postulated that, “the sources of authority for leadership are
embedded in shared ideas” (p. 214). Crow (1998) explained the dual role of principal as
leader and follower in collaborative cultures:

> Principals can also be active leaders and followers. As leaders, principals can
> attempt to persuade teachers to accept and support a particular vision of the
> school. They may also act in a leadership capacity by supporting and developing
> the leadership potential of teachers. But they may also be active followers,
> responding to the leadership of teachers. For example, encouraging teachers’
> visions of the school and championing the change strategies being promoted by
> teacher leaders are significant acts of followership. (p. 137)

According to Yukl (2006), participative and distributive leadership theories must
recognize leadership as a collection of interactions between leaders and followers. From
this perspective, leadership in a PLC school must be cultivated among teachers. Teachers,
alongside administrators, are thereby responsible for leadership in the organization.
DuFour et al. (2002) recognized this important distinction regarding the critical role of
leadership in a PLC:

> One of the most fundamental cultural shifts that takes place as schools become
> professional learning communities involves how teachers are viewed. In
> traditional schools, administrators are viewed as being in leadership positions,
while teachers are viewed as “implementers” or followers. In professional learning communities, administrators are viewed as leaders of leaders. (p. 22)

DuFour (2007) explained that many school leaders, in working to implement professional learning communities, have become “laissez-faire in their approach” (p. 39), tolerating poor practices for fear of appearing a top-down leader. To address effective leadership in a PLC, DuFour argued that PLCs need strong leaders who will champion best practices while providing teachers the autonomy needed to develop a collaborative professional culture. This type of leadership is loose-tight leadership, an approach that “fosters autonomy and creativity (loose) within a systematic framework that stipulates clear, non-discretionary priorities and parameters (tight)” (p. 39). DuFour concluded that leaders must act decisively to build capacity of people in the organization to help students learn:

(Leaders must) encourage people throughout the organization to examine and articulate their assumptions. They must help build shared knowledge and encourage learning by doing. They must create new experiences for people that call upon them to act in new ways. They must also build continuous improvement processes in the routine practices of each school. They must demonstrate fierce resolve and consistent commitment to a sustained direction over an extended period of time. And, very significantly, they must be emphatically assertive when necessary and use the power of their position to get people to act in ways that are aligned with the mission of higher levels of learning for all. (p. 42)

The ideas about organizational learning theory presented in the previous sections have significant implications for leaders in public schools. First, school leaders must establish a school culture that values learning for all members of the organization. When all
members of a school are involved in the learning process, the result is forward movement for the aims of the organization. According to McCombs and Whisler (1997),

Consensus is emerging that schools are living systems—systems fundamentally in service to students—and that they serve the basic function of learning for the primary recipient (the student) and also for the other people who support the learning process (including teachers, administrators, parents, and other community members). (p. 1)

Next, organizational learning will occur when teachers and students are working collaboratively in teams. The power of teamwork is evident throughout the literature on organizational change and organizational learning. Finally, knowledge creation will occur when organizational members are engaged in conversation and are presented with structures to facilitate the sharing of knowledge throughout the organization.

Servant Leadership in Professional Learning Communities

Although professional learning communities have gained momentum as a reform model in public schools, there has been minimal discussion of what model of leadership is best suited for the PLC. Certainly, democratic leadership theories and theories of empowerment such as transformational leadership, participative leadership, and moral leadership seem compatible with the shared leadership and teamwork advocated for in the PLC literature. Servant leadership, the subject of this research project, has received mention in the literature regarding learning communities (DuFour et al., 2002; Senge, 1990a). However, the discussion has been limited and has not involved empirical research. In spite of these limitations, the literature on professional learning communities and servant leadership exhibits similarities that lead the researcher to hypothesize that these models share common ground. The purpose of the following section is to examine
the congruency of servant leadership literature with the professional learning community literature.

In order to clarify the relationship of the PLC model to servant leadership, Figure 3 was developed by the researcher to demonstrate the relationship of characteristics of professional learning communities to the literature on servant leadership. While there appears to be a general congruency in the literature among all the tenets of professional learning communities with servant leadership, certain characteristics have stronger links in the literature than others. For instance, the research regarding shared vision and values is explicitly important in both the PLC literature and the servant leadership literature.

Conversely, there is not as strong a link between a focus on student learning since the servant leadership literature does not address this specific educational context. However, since servant leadership advocates for caring leadership that is concerned with followers being “healthier, wiser, freer, more autonomous, more likely themselves to become servants” (Greenleaf, 1977, p. 27), it is reasonable to conclude that servant leadership would advocate for a focus on student learning for an organization whose primary function is to educate students for success in a democratic society.

Conclusion

In Chapter Two, the researcher provided a review of the literature related to servant leadership and professional learning communities. The goal of the review was to define, explain, and trace the development of these two major constructs. In addition, Chapter Two is written to demonstrate the compatibility of these two bodies of research. The chapter included an introduction to the review of literature and provided a context for servant leadership including a discussion of Robert Greenleaf. In addition, servant leadership was defined, characteristics were identified, and related leadership theories
PLC Characteristics | Author | Link to Servant Leadership | Author |
--- | --- | --- | --- |
Deprivatized practice, teamwork, interdependence | Hipp & Huffman, 2002; Katzenbach & Smith, 1993; Lencioni, 2002; Little, 1990; Rosenholtz, 1989 | Servant leaders build communities | Bolman & Deal, 2001; Crippen, 2005; Greenleaf, 1977; Herman & Marlow, 2005; Laub, 1999; Senge, 1990a; Spears, 1995 |
Collective inquiry, knowledge creation, organizational learning | Drago-Stevenson, 2004; Eraut, 2004; Hord, 1997; Morgan, 1997; Nonaka & Takeuchi, 1995; Reeves, 2006; Senge, 1990a | Servant leaders are forward thinking, encourage innovation, and organizational learning | Covey, 1996; DePree, 1992; Fullan, 2001; Greenleaf, 1970; Greenleaf, 1977; Greenleaf, 1998; Spears, 1995 |
Shared leadership, shared decision-making | DuFour et al., 1998; DuFour et al., 2002; Hipp & Huffman, 2003; Sergiovanni, 1994a; Sergiovanni, 2001 | Servant leaders empower followers | Bowman, 2005; Crippen, 2005; Greenleaf, 1977; Laub, 1999; Spears, 1995; Yukl, 2006 |
Focus on student learning | DuFour et al., 1998; DuFour et al., 2002; Kruse et al., 1994; Louis & Kruse, 1995; Murphy & Lick, 2005; Reeves, 2006; Schmoker, 2006; Stiggins & Arter 2006 | Servant leaders are concerned with improving society and helping followers grow | Greenleaf, 1970; Greenleaf, 1977; Russell & Stone, 2002; Sendjaya & Sarros, 2002; Whetstone, 2002 |

*Figure 3. Synthesis of Literature Regarding Professional Learning Communities and Servant Leadership.*
were examined. Furthermore, a conceptual framework was established for professional learning communities and their development was traced. In conclusion, professional learning communities were considered in relation to servant leadership and the congruency of these two constructs was established.

By revealing the congruency of the literature regarding servant leadership and professional learning communities, a conceptual framework is established to justify the purpose of this study as outlined in Chapter Three. As illustrated in Figure 3, the literature review confirms the hypothesis that servant leadership and professional learning communities share numerous similarities. Based on this conclusion, the researcher will establish, in Chapter Three, a research design to examine the relationship of professional learning communities and servant leadership in Missouri schools. This empirical research will add to the research reviewed in this chapter.

In Chapter Three, Research Design and Methodology, the purpose of the study is provided and the research questions are outlined. In addition, the theoretical foundations of the research approach are examined, and the methods utilized in the study are explained. Specifically, Chapter Three includes the following sections: introduction, purpose, research questions, research hypothesis, research design rationale, population and sample, data collection and instrumentation, and summary.
CHAPTER THREE
RESEARCH DESIGN AND METHODOLOGY

Introduction

In recent years, numerous educational researchers have advocated for real changes in the way schools do business. Because of the high-stakes environment created by the No Child Left Behind Act (NCLB), schools are under more pressure than ever to improve the learning of all students, including those students with learning disabilities and those from socially and economically disadvantaged backgrounds. In order to meet yearly progress goals and avoid failing-school status and loss of federal funding, schools are searching for answers to what must be done to increase student achievement.

According to Schmoker (2006), the current research in education has clearly identified the components of successful schools; however, the majority of schools across the nation still have not implemented these widely known effective practices.

However, one model for improvement has enjoyed widespread success. The professional learning communities (PLC) model calls for teachers to work collaboratively to improve instructional practices, to teach a viable and essential curriculum of agreed upon standards, and to make the learning needs of students the highest priority (DuFour, Eaker, & DuFour, 2002). Not surprisingly, DuFour et al. (2002) implore effective leadership as necessary to sustain a PLC. More specifically, the authors advocate for the use of servant leadership in the PLC model to develop teachers’ full potential as professionals.

While many leadership theories have evolved dramatically over the past 25 years, the concept of servant leadership as advanced by Robert Greenleaf in 1977 has received
little if any recognition in the leadership texts (Yukl, 2006). Greenleaf’s work advocated a new type of leadership based on virtue, equality, and servant hood as the means to true leadership (Spears, 1998). Through the years, while leadership theories such as transformational, distributive, participative, and moral leadership have commanded attention in both practice and research, servant leadership has received little attention from serious scholars (Yukl, 2006).

In contributing to the scholarly research, this study was developed to understand the presence of servant leadership in Missouri schools and to examine the relationship between servant leadership and professional learning communities. For the purposes of this research, servant leadership (Autry, 2001; Blanchard, 1998; Greenleaf, 1977; Spears, 1998) is defined as a leadership style that emphasizes serving others first—that the true test of leadership is helping others, ensuring that those served are “healthier, wiser, freer, more autonomous, more likely themselves to become servants” (Greenleaf, 1977, p. 27). Servant leadership is examined in relation to the professional learning communities model (DuFour et al., 2002; Hipp & Huffman, 2003; Hord, 1997) as evidenced by a collaborative culture in school-communities that is focused on commitment to a shared mission, vision, values, and goals as a means to continuous improvement of student learning performance.

In order to develop the framework for the design and methods of the study, the theoretical foundations of the research approach were examined, and the methods employed in the study were explained (Patten, 1997). Furthermore, a rationale for the chosen research design was presented, as well as specific procedures for data analysis.
The significance of ensuring credibility and consistency were discussed and an explanation of the researcher’s biases and assumptions were provided.

Chapter Three, research design and methodology, contains the following sections: introduction, purpose, research questions, research hypothesis, research design rationale, population and sample, data collection and instrumentation, and summary.

Purpose of the Study

With the growth of professional learning communities in Missouri, it is important to reconcile the PLC model of school improvement to the existing leadership research. More specifically, this research seeks to examine the relationship of professional learning communities to servant leadership. As advocated by DuFour et al. (2002), servant leadership is proclaimed as an effective leadership theory to be employed in a professional learning community. While there has been research on servant leadership in educational organizations in general, no research has been conducted to examine the relationship of servant leadership to the development of professional learning communities. Therefore, the purpose of this study was to examine not only servant leadership in Missouri schools as perceived by teachers and administrators, but also to examine the relationship of servant leadership characteristics to characteristics of professional learning communities. A central issue in the study was to determine to what extent schools in Missouri are perceived as servant-led organizations. From this examination of servant leadership in schools, the researcher seeks to examine what characteristics of servant leadership are most predictive of PLC characteristics; and conversely, what characteristics of PLC are most predictive of servant leadership characteristics.
Since the topic and purpose of the research is critical to determining the chosen research design, the project employs a quantitative approach (Mertens, 1998). Servant leadership has been written about extensively in the business and leadership literature but little empirical research has tested the conceptual basis of the theory (Page & Wong, 1998). Likewise, professional learning communities are relatively new phenomena as a reform model for schools. Therefore, a quantitative study of the relationship of servant leadership to PLCs would benefit the empirical research in the two fields of study. Moreover, the central argument of this research design suggests that to successfully measure perceptions of servant leadership and their relationship to the PLC model, a quantitative approach is necessary.

The findings of this study are important to inform administrative and teacher leaders regarding effective leadership behaviors in schools seeking to succeed in implementation of the PLC model. Moreover, the study has provided valuable information regarding what aspects of servant leadership are utilized in professional learning communities. The study has served as a contribution to the literature related to both servant leadership and professional learning communities.

Research Questions

The following research questions were addressed in the study:

1. In Missouri schools, what are the strongest and weakest aspects of servant leadership?
   a) as perceived by teachers
   b) as perceived by administrators
   c) as perceived by teachers and administrators overall
2. In Missouri schools, what are the strongest and weakest aspects of professional learning communities?
   a. as perceived by teachers
   b. as perceived by administrators
   c. as perceived by teachers and administrators overall

3. In Missouri schools, what is the relationship between characteristics of professional learning communities (PLC) and characteristics of servant leadership?

4. In Missouri schools, what characteristics of PLC are most predictive of servant leadership characteristics?

5. In Missouri schools, what characteristics of servant leadership are most predictive of PLC characteristics?

Research Design Rationale

Since many research endeavors may be undertaken from either a quantitative or qualitative approach, understanding the distinctions of these two designs proves helpful in determining which is most appropriate for the given study. In fact, the design selection influences much about the research including the questions that may be posed, the methods used to collect data, and the overall analytical approach used by the researcher.

According to Rudestam and Newton (2001), logical positivism has traditionally provided an epistemological foundation supporting quantitative approaches. Logical positivism is concerned with what can be observed directly, and what logical inferences can be taken from direct observation. Knowledge, as viewed from this approach, is objective and quantifiable (Merriam, 1998). Clearly, a successful research design—
including the development of appropriate research questions—must be formulated to meet the desired goals of the research.

The goals of the research must also be considered when selecting modes of data collection. For quantitative research, data collection involves careful sampling procedures and experimental designs, which can result in statistical analysis that may allow the findings to be generalized to a population (Taylor, 2000). Moreover, the goal of the quantitative researcher is to remain completely objective and distant so the data is not contaminated by the researcher’s own bias and interactions with the participants (Thomas, 2003). Another goal of the quantitative researcher is to design a study that can be successfully replicated. Because quantitative studies are much easier to replicate, this characteristic provides a distinct advantage over qualitative studies for the quantitative researcher.

Since the goal of this study is to examine the perception from a large number of people, the best method to achieve this is through quantitative research. More specifically, what servant leadership behaviors prove most prevalent in schools that have implemented the PLC model? By collecting statistical data from a sample, the researcher can best answer the questions posed and apply the findings to a larger population. If instead of the specified hypotheses, the chosen research questions involved deeper understanding, description, or discovery, a qualitative approach would be appropriate. For instance, if the goal of the research was to describe in depth processes about servant leadership or why servant leadership is implemented in schools, then qualitative research would be needed. In this case, however, the goal of the research is as previously stated—to gain a sample of the perceptions of servant leadership in schools and to examine the
relationship between servant leadership and professional learning communities in Missouri. Therefore, the most appropriate research design employs a quantitative approach.

Population

The population for this study was individuals working as teachers or administrators in schools throughout the state of Missouri. Since the goal of this study is to learn more about the relationship of servant leadership to professional learning communities, the study does not set forth to generalize the finding to a larger population. Therefore, convenience sampling (Fink, 2006; Heppner & Heppner, 2004) was the chosen method of selecting participants. An invitation to participate was sent to 500 email addresses of practicing principals and superintendents. In addition, an invitation to participate was distributed, also by email, to 400 teachers in nine Missouri schools. Teachers in three elementary schools, three middle schools, and three high schools were selected to participate. Demographic information was collected from participants to identify school characteristics, their role as teacher or administrator, and the participant’s gender.

Data Collection and Instrumentation

The survey employed in this study—the School Leadership Culture Inventory (SLCI)—was developed by the researcher combining items from two widely researched survey instruments: the Organizational Leadership Assessment (OLA) (Laub, 1999) and the Professional Learning Community Assessment (PLCA) (Huffman, 2003). Each of these surveys was utilized in creating a survey to address the research questions outlined in this chapter (Fink, 2006). The SLCI consists of 60 likert-scale items divided according
to 12 subscales total with six subscales related to servant leadership and six subscales related to professional learning communities. Six of the subscales—represented by 30 survey items—are designed to measure perceptions of servant leadership characteristics in organizations as developed by Laub (1999). The other six subscales—also represented by 30 survey items—are designed to measure perceptions of professional learning communities characteristics schools as developed by (Olivier et al., 2003).

OLA. The OLA survey was designed to measure perceived characteristics of servant leadership and was designed to be used by individuals, teams, organizations, or researchers. In developing the OLA, the researcher utilized a three-round Delphi process. This process included a series of questionnaires administered to selected experts on the subject of servant leadership. These experts had either written on servant leadership or had taught organizational leadership at the university level. Twenty-five experts were originally selected and 14 of these completed the three part process. In the first round, a questionnaire was administered that required participants to identify at least ten characteristics of the servant leader. In the second round, a questionnaire was developed with 67 items compiled from the first questionnaire. The experts were then asked to rate the items on a seven-point scale in assigning their value to servant leadership as essential, necessary, desirable, or unnecessary. In the final round of the Delphi, a third questionnaire was presented that included the results from the second round. On this questionnaire, the experts were asked to once again rate the items; however, in this round the experts were also asked to provide explanation for any response that fell outside the interquartile range. Thereby, the results were used to establish which items would be considered necessary or essential.
The items identified by the survey results as necessary or essential were included as items on the instrument. The instrument, which consisted of Likert-style items, was administered in pre-field and field tests in a variety of organizations. Upon collection and review of the data, Laub (1999) revised the instrument from 74 to 60 questions. The survey items were subdivided into six components of servant leadership: (a) the leader valued people which included believing in people, serving others needs before his or her own, and by receptive, non-judgmental listening; (b) the leader developed people by providing opportunities for learning and growth, modeling appropriate behavior, and building up others through affirmation and encouragement; (c) the leader built community by building strong personal relationships, working collaboratively with others, and valuing the differences of others; (d) the leader displayed authenticity by being open and accountable to others, being willing to learn from others, and maintaining integrity and trust; (e) the leader provided leadership by envisioning the future, taking initiative, and clarifying goals; and (f) the leader shared by facilitating a shared vision, sharing power, and releasing control, and sharing status and promoting others.

The PLCA questionnaire utilizes a Likert scale with minimum and maximum values of 1 and 4 to measure perceptions of teachers, administrators, and other stakeholders related to the five dimensions of a professional learning community. The survey consists of statements of characteristics that occur at the school level regarding PLC practices. According to Huffman (2003), the five dimensions of a professional learning community are shared and supportive leadership, shared values and vision, collective learning and application, shared personal practice, and supportive conditions for building relationships and structures. In developing the PLCA, the researcher
employed a 76 member expert panel to provide data on the relative importance of the 44 statements about practices at the school level. Each expert, representing a variety of levels of professional practice, was asked to rate the importance of each item used in the instrument as high, medium, or low according to its relevance to a survey concerning perceptions of a school as a professional learning community. As a result of this process, all 44 items were retained for the survey and one item was split into two with the final survey consisting of 45 items. In a second round of study, the PLCA was field-tested in schools. In the end, 247 surveys were used to examine descriptive statistics and to determine internal reliability. Internal consistency reliability was examined using Alpha coefficient. The Alpha coefficients ranged from a low of .83 to a high of .93 thus yielding acceptable internal consistency. The results of the testing on the PLCA indicate the instrument is useful as a research tool to measure perceptions of professional learning community characteristics.

The PLCA (Olivier et al., 2003) and OLA (Laub, 1999) were both referenced in creating the School Leadership Culture Inventory (SLCI), the instrument used for this study (see Figure 4). Thirty items were selected from the PLCA and thirty items were selected from the OLA for a sum of 60 items total on the SLCI. Six subscales in the SLCI are tied to servant leadership characteristics. These subscales are adapted from Laub (1999) and are identified as the following: the leader (a) Values People (b) Develops People (c) Builds Community (d) Displays Authenticity (e) Envisions the Future and (f) Facilitates a Shared Vision. Six other subscales in the SLCI are tied to professional learning community characteristics. These subscales are adapted from Olivier, Hipp, and Huffman (2003). These subscales are identified: (a) Supportive and
School Leadership Culture Inventory Subscales

Adapted from Organizational Leadership Assessment (Laub, 1999)

Servant Leadership Characteristics Subscales

The leader:

- Values People
- Develops People
- Builds Community
- Displays Authenticity
- Envisions the Future
- Facilitates a Shared Vision

Adapted from Professional Learning Communities Assessment (Olivier, Hipp, & Huffman, 2003)

Professional Learning Communities Characteristics Subscales

- Shared and Supportive Leadership
- Shared Values and Vision
- Collective Learning and Application of Learning
- Supportive Structures
- Supportive Relationships
- Shared Personal Practice

*Figure 4. School Leadership Culture Inventory Subscales.*
Shared Leadership, (b) Shared Values and Vision, (c) Collective Learning and Application of Learning, (d) Supportive Structures, (e) Supportive Relationships, and (d) Shared Personal Practice. In all, the SLCI has 12 subscales, with 5 items relating to each subscale. Each survey item asked for participant responses utilizing a Likert scale with minimum and maximum values 1-6. As the SLCI was adapted from the previously mentioned instruments, several changes were made to meet the needs of the research design: (a) minor wording changes, (b) Likert scale was established with 6 values for consistency, and (c) survey terms staff, stakeholders, and leaders were defined for consistency.

The completed SLCI was converted to a web-based survey instrument and was piloted in the researcher’s own organization. In piloting the survey, a four-stage process ensured the survey was operational and would provide reliable data in a useable format. In stage one, the survey was reviewed by knowledgeable educators to ensure question completeness, efficiency, and the appropriateness of the format. In stage two, a test respondent completed the survey and provided feedback. In stage three, a pilot study was conducted to test all procedures outlined for the main study. In stage four, a final check was conducted to identify typos and errors not recognized in the previous revisions (Andrews, Nonnecke, & Preece, 2003).

After successful completion of the piloting process, an email was sent to the participants selected for the study. In this email, each individual was provided a statement of informed consent and was provided a hyperlink to an electronic version of the SLCI. Those individuals who chose to participate completed the survey and submitted results
through a secure SSL web protocol. The survey was open for a 10 day period from the date of the initial email to participants.

In developing the research design for a quantitative study, clear methods and procedures must demonstrate congruency with the selected topic (Heppner & Heppner, 2004). In this particular study, the hypothesis was derived from the framework of servant leadership and professional learning communities. To ensure quality findings, specific quantitative procedures were employed.

Data Analysis

Since the goal of the study was to examine perceptions of servant leadership in professional learning communities, the research employed a non-experimental design. The study collected quantifiable survey data to address the purpose of the study as specified in the five research questions.

The data collected from the administration of the online SLCI was downloaded and entered into SPSS software. The data was analyzed using descriptive statistics and a table of means for the twelve subscales. Each subscale included 5 items with values defined 1 to 6. The range of scores for each subscale was 5-30. The data was categorized according to the perceptions of administrators and according to the perceptions of teachers. The data was also examined overall, as perceived by both teachers and administrators.

Research question one. In question one, descriptive statistics (Heppner & Heppner, 2004) were employed to analyze the strongest and weakest aspects of servant leadership according to the perceptions of Missouri teachers and administrators. More specifically, the analysis examined the participants’ perceptions of the characteristics of
servant leadership using Laub’s (1999) six subscales of valuing people, developing people, building community, displaying authenticity, providing leadership, and sharing leadership as evidenced in their respective schools. The means for the subscales were presented in rank order for (a) teachers, (b) administrators, and (c) teachers and administrators overall.

Research question two. In question two, descriptive statistics (Heppner & Heppner, 2004) were employed to analyze the strongest and weakest aspect of professional learning communities according to the perceptions of Missouri teachers and administrators. More specifically, the analysis examined the participants’ perceptions of the characteristics of professional learning communities using the following six subscales based on the work of Hipp and Huffman (2003): shared and supportive leadership, shared values and vision, collective learning and application, shared personal practice, supportive relationships, and supportive structures. The means for the subscales were presented in rank order for (a) teachers, (b) administrators, and (c) teachers and administrators overall.

Research question three. In question three, Pearson correlations (Field, 2005) were utilized to analyze the relationship between characteristics of professional learning communities and characteristics of servant leadership. The researcher sought to identify strong and weak associations between these major constructs. Statistical significance was established at .05.

Research question four. In question four, stepwise multiple regression (Field, 2005) was conducted to predict what characteristics of professional learning communities are most predictive of servant leadership characteristics as defined in the subscales used
in this study. For this question, the predictor variables were the PLC subscales and the criterion variables were the servant leadership subscales. Statistical significance was established at .05. This analysis was repeated for all six of the servant leadership subscales.

Research question five. In question five, stepwise multiple regression (Field, 2005) was conducted to predict what characteristics of servant leadership are most predictive of professional learning communities as defined in the subscales used in this study. For this question, the predictor variables were defined by the servant leadership subscales and the criterion variables were defined by the professional learning community subscales. Statistical significance was established at .05. This analysis was repeated for all six of the servant leadership subscales.

Summary

In Chapter Three, the research design and methodology for the study was presented. The relationship of professional learning communities to servant leadership was outlined to inform the purpose of the study. In addition, the rationale for the researcher’s approach to the study was explained, the research questions were defined, and the population, measures, and data analysis procedures were discussed.
CHAPTER FOUR
PRESENTATION OF THE FINDINGS

Introduction

Schmoker (2006) reported schools could radically improve the achievement of students by simply putting into practice the research currently available regarding teaching and learning. According to researchers and practitioners, professional learning communities are the surest path to instructional improvement (Dufour & Eaker, 1998; DuFour, 2002; Reeves, 2006; Schmoker, 2006). Since so many experts are calling for PLC development in schools, research is needed to examine what effective leadership practices are needed in the development of professional learning communities.

The purpose of this study was to examine how servant leadership characteristics influence professional learning community characteristics in school cultures. DuFour et al. (2002) calls for servant leadership to be implemented in schools operating as professional learning communities. However, no research has been conducted to examine the relationship of these two constructs. From this examination of school organizations, this study seeks to examine the congruency of servant leadership to professional learning communities. The findings of this study are important to encourage further research and guide professional practice regarding leadership of a learning organization.

In this chapter, Presentation of the Findings, the statistical results are presented in examining the data pertinent to the research questions generated by the current study. The chapter includes eight sections. The first section is an introduction to the chapter. The second section, Description of the Sample, includes information about participants based on data collected from the survey instrument. In the third section, Research Question One, the researcher presents findings for research question one based on a descriptive
analysis of the statistics. In the fourth section, Research Question Two, findings are presented for research question two based on a descriptive analysis of the statistics. In the fifth section, Research Question Three, findings are presented for research question three using Pearson correlations for the statistical treatment. The sixth section, Research Question Four, examines the fourth research question using stepwise multiple regressions to analyze the data. In the seventh section, Research Question Five, the researcher presents the findings for Research Question Five also utilizing stepwise multiple regressions to analyze the data. An alpha level of .05 was used for all statistical tests. In the final section, a summary is provided to bring closure to Chapter Four.

Description of the Sample

Data were collected through a web-based survey instrument over a seven-day period. A total of 279 surveys were submitted by participants for the study. Three demographic questions were asked of the participants. The demographics information included professional position, gender, and school type.

The sample for this study included teachers and administrators in Missouri schools. As evidenced in Table 3, almost twice as many teachers participated in the study as administrators.

Table 3

Position of Participants

<table>
<thead>
<tr>
<th>Position</th>
<th>N</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher</td>
<td>182</td>
<td>65.2</td>
</tr>
<tr>
<td>Administrator</td>
<td>97</td>
<td>34.8</td>
</tr>
<tr>
<td>Total</td>
<td>279</td>
<td>100.0</td>
</tr>
</tbody>
</table>
The gender of the participants showed a larger proportion of participants was females while a much smaller proportion was males (see Table 4). This disproportion is also reflected in the ratio of females to males overall working as teachers and administrators in Missouri schools. Females tend to represent a larger percentage of educators in Missouri overall.

Table 4

*Gender of Participants*

<table>
<thead>
<tr>
<th>Gender</th>
<th>N</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>82</td>
<td>29.4</td>
</tr>
<tr>
<td>Female</td>
<td>197</td>
<td>70.6</td>
</tr>
<tr>
<td>Total</td>
<td>279</td>
<td>100.0</td>
</tr>
</tbody>
</table>

The school types for participants were identified by seven categories cross-tabulated by position (see Table 5). The seven categories included the following: (a) elementary, grades K-6; (b) middle school, grades 5-8; (c) combined elementary/middle school, grades K-8; (d) junior high/high school, grades 7-12; (e) high school, grades 9-12; (f) combined grades K-12; and (g) central office administration. Of the 279 respondents, teachers were represented most frequently from the high school level with 80 participants. Administrators were represented most frequently from elementary schools with 26 participants. Overall, 105 of the 279 participants worked in high school settings.
Table 5

*Position of Participants School Type Crosstabulation*

<table>
<thead>
<tr>
<th>Position</th>
<th>Teacher</th>
<th>Administrator</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elementary</td>
<td>50</td>
<td>26</td>
<td>76</td>
</tr>
<tr>
<td>Middle School</td>
<td>31</td>
<td>11</td>
<td>42</td>
</tr>
<tr>
<td>Elementary/Middle</td>
<td>5</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>JH/HS</td>
<td>11</td>
<td>7</td>
<td>18</td>
</tr>
<tr>
<td>High School</td>
<td>80</td>
<td>25</td>
<td>105</td>
</tr>
<tr>
<td>Combined K-12</td>
<td>5</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>Central Office</td>
<td>0</td>
<td>21</td>
<td>21</td>
</tr>
<tr>
<td>Total</td>
<td>182</td>
<td>97</td>
<td>279</td>
</tr>
</tbody>
</table>

The position of the participants was also cross-tabulated with the gender of the participants. Of the 182 teacher participants, 153 were female and only 29 were male. This disproportion is again reflective of the numbers of females working in education. Of the 97 administrator participants, the proportion of males to females was split more evenly (see Table 6).
Table 6

*Position of Participants Gender Crosstabulation*

<table>
<thead>
<tr>
<th>Gender</th>
<th>Male</th>
<th>N</th>
<th>Percent</th>
<th>Female</th>
<th>N</th>
<th>Percent</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher</td>
<td>29</td>
<td>16%</td>
<td></td>
<td>153</td>
<td>84%</td>
<td></td>
<td>182</td>
</tr>
<tr>
<td>Administrator</td>
<td>53</td>
<td>55%</td>
<td></td>
<td>44</td>
<td>45%</td>
<td></td>
<td>97</td>
</tr>
<tr>
<td>Total</td>
<td>82</td>
<td>29%</td>
<td></td>
<td>197</td>
<td>71%</td>
<td></td>
<td>279</td>
</tr>
</tbody>
</table>

*Research Question One*

In Missouri schools, what are the strongest and weakest aspects of servant leadership?

a) as perceived by teachers

b) as perceived by administrators

c) as perceived by teachers and administrators overall

For Research Question One, the data were analyzed using descriptive statistics and a table of means for the twelve subscales. Each subscale included 5 items with values defined 1 to 6. The range of scores for each subscale was 5-30. As reported in Table 7 and subsequent tables, the data were reported as the mean scores for each subscale.

Table 7 shows the results of each servant leadership subscale as reported by teachers. Survey items were on a Likert-scale with values from 1 to 6. Table 7 shows the average scores for each of the six subscales. The subscale Develops People received the highest average score of 4.64 with a standard deviation of 1.00. Builds Community had
the lowest average subscale of 4.31 with a standard deviation of 1.08. On the Likert-scale for this study, the means for these subscales were in between Slightly Agree and Agree.

Table 7

*Teachers’ Average of Servant Leadership Subscales Scores*

<table>
<thead>
<tr>
<th>Subscale</th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Builds Community</td>
<td>150</td>
<td>1.00</td>
<td>6.00</td>
<td>4.31</td>
<td>1.08</td>
</tr>
<tr>
<td>Displays Authenticity</td>
<td>150</td>
<td>1.00</td>
<td>6.00</td>
<td>4.40</td>
<td>1.11</td>
</tr>
<tr>
<td>Values People</td>
<td>150</td>
<td>1.00</td>
<td>6.00</td>
<td>4.50</td>
<td>1.10</td>
</tr>
<tr>
<td>Shares Power</td>
<td>153</td>
<td>1.00</td>
<td>6.00</td>
<td>4.53</td>
<td>1.17</td>
</tr>
<tr>
<td>Envisions Future</td>
<td>150</td>
<td>1.00</td>
<td>6.00</td>
<td>4.60</td>
<td>1.00</td>
</tr>
<tr>
<td>Develops People</td>
<td>150</td>
<td>1.00</td>
<td>6.00</td>
<td>4.65</td>
<td>1.00</td>
</tr>
</tbody>
</table>

*Note. Average subscale score based on Six-point Likert-scale, 1=Strongly Disagree, 2=Disagree, 3=Slightly Disagree, 4= Slightly Agree, 5=Agree, and 6=Strongly Agree*

In Table 8, the researcher demonstrates the results of each servant leadership subscale as reported by administrators. The constructs with the highest averages were Develops People at 5.195 with a standard deviation of .58 and Values People at 5.190 with a standard deviation of .58. The construct with the lowest average was Envisions the Future at 5.06 with a standard deviation of .67. According to the scale for the survey instrument, the mean of 5.06 for Envisions the Future would most align with Agree on the Likert-scale. It should be noted that on all subscales teachers in Missouri schools rated servant leadership characteristics lower than administrators rated servant leadership.
characteristics. However, all of the subscales were in the same order for both teachers and administrators.

Table 8

Administrators’ Average of Servant Leadership Subscales Scores

<table>
<thead>
<tr>
<th>Subscale</th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Builds Community</td>
<td>85</td>
<td>2.95</td>
<td>6.00</td>
<td>5.11</td>
<td>.63</td>
</tr>
<tr>
<td>Displays Authenticity</td>
<td>86</td>
<td>3.17</td>
<td>6.00</td>
<td>5.11</td>
<td>.60</td>
</tr>
<tr>
<td>Values People</td>
<td>85</td>
<td>3.00</td>
<td>6.00</td>
<td>5.19</td>
<td>.58</td>
</tr>
<tr>
<td>Shares Power</td>
<td>88</td>
<td>3.60</td>
<td>6.00</td>
<td>5.16</td>
<td>.58</td>
</tr>
<tr>
<td>Envisions Future</td>
<td>85</td>
<td>2.75</td>
<td>6.00</td>
<td>5.06</td>
<td>.67</td>
</tr>
<tr>
<td>Develops People</td>
<td>85</td>
<td>3.40</td>
<td>6.00</td>
<td>5.20</td>
<td>.58</td>
</tr>
</tbody>
</table>

*Note. Average subscale score based on Six-point Likert-scale, 1=Strongly Disagree, 2=Disagree, 3=Slightly Disagree, 4=Slightly Agree, 5=Agree, and 6=Strongly Agree*

In Table 9, the overall results of the servant leadership subscales are presented including both teachers and administrators. The highest average subscale score was for Develops People at 4.85 with a standard deviation of .91. The lowest average subscale score was for Builds Community at 4.62 with a standard deviation of .86. The mean scores for both of these subscales fall in the range of Slightly Agree and Agree on the Likert-scale for this study.
Table 9

*Overall Average of Servant Leadership Subscales Scores*

<table>
<thead>
<tr>
<th>Subscale</th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Builds Community</td>
<td>236</td>
<td>1.00</td>
<td>6.00</td>
<td>4.62</td>
<td>.86</td>
</tr>
<tr>
<td>Displays Authenticity</td>
<td>236</td>
<td>1.00</td>
<td>6.00</td>
<td>4.66</td>
<td>1.02</td>
</tr>
<tr>
<td>Values People</td>
<td>235</td>
<td>1.00</td>
<td>6.00</td>
<td>4.75</td>
<td>1.00</td>
</tr>
<tr>
<td>Shares Power</td>
<td>241</td>
<td>1.00</td>
<td>6.00</td>
<td>4.76</td>
<td>1.04</td>
</tr>
<tr>
<td>Envisions Future</td>
<td>235</td>
<td>1.00</td>
<td>6.00</td>
<td>4.76</td>
<td>.95</td>
</tr>
<tr>
<td>Develops People</td>
<td>235</td>
<td>1.00</td>
<td>6.00</td>
<td>4.85</td>
<td>.91</td>
</tr>
</tbody>
</table>

*Note.* Average subscale score based on Six-point Likert-scale, 1=Strongly Disagree, 2=Disagree, 3=Slightly Disagree, 4=Slightly Agree, 5=Agree, and 6=Strongly Agree

*Research Question Two*

In Missouri schools, what are the strongest and weakest aspects of professional learning communities?

a) As perceived by teachers

b) As perceived by administrators

c) As perceived by teachers and administrators overall

For Research Question Two, the data were analyzed using descriptive statistics and a table of means for the twelve subscales. Each subscale included 5 items with values defined 1 to 6. The possible range of scores for each subscale was 5-30. As reported in
In Table 10, the researcher has reported the results of the professional learning community subscales for teachers (research question 2a). The survey items were on a Likert-scale with values from 1 to 6. Table 10 includes the average scores for each of the six subscales. The subscale Supportive Structures was the highest average with a mean of 4.81 and a standard deviation of .93. The subscale Shared Personal Practice had the lowest average with a mean of 4.49 and standard deviation of .93. These values indicate a level between Slightly Agree and Agree on the Likert-scale.

Table 10

*Teachers’ Average of Professional Learning Communities Subscales Scores*

<table>
<thead>
<tr>
<th>Subscale</th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shared Personal Practice</td>
<td>150</td>
<td>1.40</td>
<td>6.00</td>
<td>4.49</td>
<td>.93</td>
</tr>
<tr>
<td>Shared Values and Vision</td>
<td>150</td>
<td>1.20</td>
<td>6.00</td>
<td>4.64</td>
<td>.98</td>
</tr>
<tr>
<td>Collective Learning and Application</td>
<td>153</td>
<td>1.40</td>
<td>6.00</td>
<td>4.71</td>
<td>.93</td>
</tr>
<tr>
<td>Supportive Relationships</td>
<td>150</td>
<td>1.20</td>
<td>6.00</td>
<td>4.72</td>
<td>.97</td>
</tr>
<tr>
<td>Shared and Supportive Leadership</td>
<td>150</td>
<td>1.40</td>
<td>6.00</td>
<td>4.73</td>
<td>.96</td>
</tr>
<tr>
<td>Supportive Structures</td>
<td>150</td>
<td>1.20</td>
<td>6.00</td>
<td>4.81</td>
<td>.93</td>
</tr>
</tbody>
</table>

Note: Average subscale score based on Six-point Likert-scale, 1=Strongly Disagree, 2=Disagree, 3=Slightly Disagree, 4=Slightly Agree, 5=Agree, and 6=Strongly Agree
In Table 11, the researcher has reported the average scores for administrators on the professional learning community’s subscales (research question 2b). For the PLC construct, administrators’ highest average score was on Supportive Structures with a mean of 5.07 and a standard deviation of .65. The lowest average score for administrators was Shared Personal Practice with a mean of 4.81 and a standard deviation of .69. These values are nearest the level indicating Agree on the Likert-scale used in the study.

Table 11

<p>| Administrators’ Average of Professional Learning Communities Subscales Scores |
|---------------------------------|-----------------|-----------------|----------|-----------------|</p>
<table>
<thead>
<tr>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shared Personal Practice</td>
<td>85</td>
<td>2.60</td>
<td>6.00</td>
<td>4.81</td>
</tr>
<tr>
<td>Shared and Supportive Leadership</td>
<td>86</td>
<td>2.90</td>
<td>6.00</td>
<td>4.91</td>
</tr>
<tr>
<td>Shared Values and Vision</td>
<td>85</td>
<td>3.20</td>
<td>6.00</td>
<td>4.94</td>
</tr>
<tr>
<td>Collective Learning and Application</td>
<td>88</td>
<td>3.20</td>
<td>6.00</td>
<td>4.99</td>
</tr>
<tr>
<td>Supportive Relationships</td>
<td>85</td>
<td>2.80</td>
<td>6.00</td>
<td>5.02</td>
</tr>
<tr>
<td>Supportive Structures</td>
<td>85</td>
<td>2.80</td>
<td>6.00</td>
<td>5.07</td>
</tr>
</tbody>
</table>

Note. Average subscale score based on Six-point Likert-scale, 1=Strongly Disagree, 2=Disagree, 3=Slightly Disagree, 4= Slightly Agree, 5=Agree, and 6=Strongly Agree

Table 12 shows the strongest and weakest aspects of professional learning communities as perceived by teachers and administrators overall (research question 2c).
According to the data collected for this study, the strongest aspect of professional learning communities is the Supportive Structures subscale with a mean score of 4.91 and a standard deviation of .84. Conversely, the lowest average score overall was the Shared Personal Practice subscale with a mean score of 4.60 and a standard deviation of .86. It should be noted that just as administrators showed higher average subscale scores than teachers on the servant leadership subscales, administrators also had higher subscale scores than teachers on the PLC subscales.

Table 12

*Overall Average of Professional Learning Communities Subscales Scores*

<table>
<thead>
<tr>
<th>Subscale</th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shared Personal Practice</td>
<td>235</td>
<td>1.40</td>
<td>6.00</td>
<td>4.60</td>
<td>.86</td>
</tr>
<tr>
<td>Shared Values and Vision</td>
<td>235</td>
<td>1.20</td>
<td>6.00</td>
<td>4.75</td>
<td>.88</td>
</tr>
<tr>
<td>Shared and Supportive Leadership</td>
<td>236</td>
<td>1.40</td>
<td>6.00</td>
<td>4.80</td>
<td>.86</td>
</tr>
<tr>
<td>Collective Learning and Application</td>
<td>241</td>
<td>1.40</td>
<td>6.00</td>
<td>4.81</td>
<td>.85</td>
</tr>
<tr>
<td>Supportive Relationships</td>
<td>235</td>
<td>1.20</td>
<td>6.00</td>
<td>4.83</td>
<td>.88</td>
</tr>
<tr>
<td>Supportive Structures</td>
<td>235</td>
<td>1.20</td>
<td>6.00</td>
<td>4.91</td>
<td>.84</td>
</tr>
</tbody>
</table>

*Note.* Average subscale score based on Six-point Likert-scale, 1=Strongly Disagree, 2=Disagree, 3=Slightly Disagree, 4= Slightly Agree, 5=Agree, and 6=Strongly Agree

**Research Question Three**

In Missouri schools, what is the relationship between characteristics of professional learning communities (PLC) and characteristics of servant leadership?
Table 13 shows the Pearson correlations for the professional learning community constructs with the servant leadership constructs. All of the constructs demonstrated a significant positive correlation. Significance levels were established at .05, but all measures were clearly significant at $p<.001$. In Table 13, the strongest correlation was between Collective Learning and Application to Builds Community with a Pearson value of .849. The weakest correlation was between Supportive Structures and Values People, with a Pearson value of .633. Also in Table 13, the strongest correlation was between Shared Values and Vision and Facilitates a Shared Vision, with a Pearson value of .844. The weakest correlation was between Supportive Relationships and Envisions the Future, with a Pearson value of .633. All correlation values for the PLC subscales and the servant leadership subscales are evident in Table 13.

In the previous section, the quantitative findings for Research Question Three were presented. For this question, the data for this study were analyzed using Pearson correlations to determine the relationship of the professional learning community subscales with the servant leadership subscales. All of the subscales demonstrated a significant positive correlation. The measures were significant at $p<.001$. The results of Research Question Three are important to the aims of this study as the data inform the researcher about the relationship of the PLCs to servant leadership. Therefore, these results are discussed further in Chapter Five.
Table 13

*Pearson Correlations of PLC Subscales and Servant Leadership Subscales*

<table>
<thead>
<tr>
<th></th>
<th>Values</th>
<th>Develops People</th>
<th>Builds Community</th>
<th>Displays Authenticity</th>
<th>Envisions the Future</th>
<th>Facilitates a Shared Vision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supportive and Shared Leadership</td>
<td>.829*</td>
<td>.820*</td>
<td>.815*</td>
<td>.644*</td>
<td>.714*</td>
<td>.714*</td>
</tr>
<tr>
<td>Shared Values and Vision</td>
<td>.702*</td>
<td>.754*</td>
<td>.820*</td>
<td>.714*</td>
<td>.818*</td>
<td>.844*</td>
</tr>
<tr>
<td>Collective Learning and Application</td>
<td>.675*</td>
<td>.744*</td>
<td>.849*</td>
<td>.692*</td>
<td>.766*</td>
<td>.657*</td>
</tr>
<tr>
<td>Supportive Structures</td>
<td>.633*</td>
<td>.687*</td>
<td>.716*</td>
<td>.644*</td>
<td>.741*</td>
<td>.668*</td>
</tr>
<tr>
<td>Supportive Relationships</td>
<td>.775*</td>
<td>.835*</td>
<td>.844*</td>
<td>.741*</td>
<td>.841*</td>
<td>.714*</td>
</tr>
<tr>
<td>Shared Personal Practice</td>
<td>.681*</td>
<td>.727*</td>
<td>.784*</td>
<td>.682*</td>
<td>.633*</td>
<td>.642*</td>
</tr>
</tbody>
</table>

*Note:* *Significant at p<.001. N=235 or 236 for all comparisons.

**Research Question Four**

In Missouri schools, what characteristics of PLC are most predictive of servant leadership characteristics?

In the following section, the researcher presents the statistical analysis of the data using stepwise multiple regressions to create a model for each construct to examine the proportion of variance in the dependent variable that can be accounted for by the
independent variables. Each table will indicate what percent of variance can be accounted for by the model. More specifically, the PLC constructs are examined to determine which characteristics are most predictive of servant leadership characteristics.

*Develops People.* Table 14 shows the Step 2 model has an R square value of .75. Therefore, 75% of the variance in the dependent variable Develops People, a servant leadership characteristic subscale, is accounted for by this model with independent variables of Supportive Relationships and Shared and Supportive Leadership, professional learning community characteristics subscales.

Table 14

*Summary of Stepwise Multiple Regression for Variables Predicting Develops People*

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Standard Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Step 1</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant: Supportive Relationships</td>
<td>.835</td>
<td>.697</td>
<td>.696</td>
<td>.504</td>
</tr>
<tr>
<td><strong>Step 2</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant: Supportive Relationships and</td>
<td>.866</td>
<td>.750</td>
<td>.748</td>
<td>.458</td>
</tr>
<tr>
<td>Shared and Supportive Leadership</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Values People. Table 15 shows the Step 2 model has an R square value of .713, indicating about 71% of the variance in the dependent variable Values People is accounted for by this model with independent variables Shared and Supportive Leadership and Supportive Relationships.

Table 15

Summary of Stepwise Multiple Regression for Variables Predicting Values People

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Standard Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Step 1</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant: Shared and Supportive Leadership</td>
<td>.829</td>
<td>.688</td>
<td>.686</td>
<td>.559</td>
</tr>
<tr>
<td><strong>Step 2</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant: Shared and Supportive Leadership and Supportive Relationships</td>
<td>.844</td>
<td>.713</td>
<td>.748</td>
<td>.458</td>
</tr>
</tbody>
</table>
Displays Authenticity. Table 16 shows the Step 2 model has an R square value of .695 indicating the model can account for about 70% of the variance in the dependent variable Displays Authenticity when the independent variables are Shared and Supportive Leadership and Shared Personal Practice. This model has the lowest predictive value of the models analyzed for research question four.

Table 16

Summary of Stepwise Multiple Regression for Variables Predicting Displays Authenticity

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Standard Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant: Shared and Supportive</td>
<td>.825</td>
<td>.681</td>
<td>.679</td>
<td>.577</td>
</tr>
<tr>
<td>Leadership</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Step 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant: Shared and Supportive</td>
<td>.833</td>
<td>.695</td>
<td>.692</td>
<td>.565</td>
</tr>
<tr>
<td>Leadership and Shared Personal Practice</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Shares Power. In Table 17, the Step 2 model accounts for almost 81% of the variance in the dependent variable Shares Power when the independent variables are Shared and Supportive Leadership and Shared Personal Practice. As shown in Table 18, the analysis indicates an R squared value of almost 80% for the Step 1 model when Shared and Supportive Leadership is the only independent variable. Therefore, the difference from the Step 1 model to the Step 2 model is only a slight difference when adding the independent variable Shared Personal Practice to the model.

Table 17

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Standard Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Step 1</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant: Shared and Supportive Leadership</td>
<td>.892</td>
<td>.796</td>
<td>.795</td>
<td>.473</td>
</tr>
<tr>
<td><strong>Step 2</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant: Shared and Supportive Leadership and Shared Personal</td>
<td>.898</td>
<td>.806</td>
<td>.805</td>
<td>.461</td>
</tr>
</tbody>
</table>
Envisions Future. In Table 18, the model indicates 79% of the variance in Envisions Future, the dependent variable from the servant leadership constructs can be accounted for by the independent variables Shared and Supportive Leadership, Shared Vision, and Supportive Relationships from the professional learning communities constructs.

Table 18

Summary of Stepwise Multiple Regression for Variables Predicting Envisions Future

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Standard Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Step 1</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant: Shared and Supportive Leadership</td>
<td>.841</td>
<td>.708</td>
<td>.707</td>
<td>.514</td>
</tr>
<tr>
<td><strong>Step 2</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant: Shared and Supportive Leadership, and Shared Vision</td>
<td>.886</td>
<td>.785</td>
<td>.784</td>
<td>.441</td>
</tr>
<tr>
<td><strong>Step 3</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant: Shared and Supportive Leadership, Shared Vision, and</td>
<td>.890</td>
<td>.792</td>
<td>.789</td>
<td>.436</td>
</tr>
<tr>
<td>Supportive Relationships</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Builds Community. The step 4 model summary in Table 19 indicates 81% of the variance in the dependent variable Builds Community can be accounted for by the model. This model includes four independent variables from the professional learning
Table 19

*Summary of Stepwise Multiple Regression for Variables Predicting Builds Community*

<table>
<thead>
<tr>
<th>Model</th>
<th>R Square</th>
<th>R Adjusted Square</th>
<th>Standard Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Step 1</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant: Collective Learning and Application</td>
<td>.849</td>
<td>.721</td>
<td>.720</td>
</tr>
<tr>
<td>Constant: Collective Learning and Application, and Shared and Supportive Leadership</td>
<td>.885</td>
<td>.783</td>
<td>.782</td>
</tr>
<tr>
<td><strong>Step 2</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant: Collective Learning and Application, and Shared and Supportive Leadership</td>
<td>.895</td>
<td>.801</td>
<td>.799</td>
</tr>
<tr>
<td><strong>Step 3</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant: Collective Learning and Application, and Shared and Supportive Leadership, and Supportive Relationships</td>
<td>.898</td>
<td>.806</td>
<td>.803</td>
</tr>
<tr>
<td><strong>Step 4</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant: Collective Learning and Application, and Shared and Supportive Leadership, Supportive Relationships, and Shared Personal Practice</td>
<td>.898</td>
<td>.806</td>
<td>.803</td>
</tr>
</tbody>
</table>

community constructs, Collective Learning and Application, Shared and Supportive Leadership, Supportive Relationships, and Shared Personal Practice. Also in Table 19, the step 3 model shows 80% of the variance in the dependent variable Builds Community can be accounted for by the independent variables Collective Learning and Application,
Shared and Supportive Leadership, and Supportive Relationships. When the step 4 model adds Shared Personal Practice, the model accounts for only about 1% more of the variance in Builds Community.

From the analysis of the data for Research Question Four, it is clear most of the PLC subscales have predictive values for servant leadership characteristics. Specifically, five of the six subscales for professional learning communities are strong predictors for at least one servant leadership subscale. In Figure 5, a summary of the predictive values is presented. Most noticeable is the finding that the PLC construct Shared and Supportive Leadership is a strong predictor of all six servant leadership characteristics. In addition, Supportive Relationships and Shared Personal Practice are predictive of three subscales each while Shared Vision and Collective Learning and Application are predictors of one each. The only PLC subscale that statistical analysis indicated was not a predictor was Supportive Structures.

In the previous section, the quantitative data for Research Question Four were presented. Stepwise multiple regressions were utilized to create a model for each construct to examine the proportion of variance that can be accounted for by each model. Specifically, the PLC subscales were examined to determine which characteristics were most predictive of servant leadership characteristics. These results are helpful to understand the relationship between professional learning community characteristics and servant leadership characteristics. Therefore, these findings are discussed further in Chapter Five of this study.
Supportive Relationships

Collective Learning and Application

Shared Vision

Shared Personal Practice

Supportive Relationships

Shared and Supportive Leadership

PLC Subscales as Predictors of Servant Leadership

Servant Leadership Subscales

Develops People

Values People

Displays Authenticity

Shares Power

Envisions Future

Builds Community

Develops People

Envisions Future

Builds Community

Displays Authenticity

Shares Power

Builds Community

Envisions the Future

Builds Community

Figure 5. PLC Subscales as Predictors of Servant Leadership Subscales.
Research Question Five

In Missouri schools, what characteristics of servant leadership are most predictive of PLC characteristics?

In the following section, the researcher presents the statistical analysis of the data using stepwise multiple regressions to create a model for each construct to examine the proportion of variance in the dependent variable that can be accounted for by the independent variables. Each table indicates about what percent of variance can be accounted for by the model. More specifically, the servant leadership constructs are examined to determine which characteristics are most predictive of professional learning community characteristics.

Supportive Structures. Table 20 shows that the step 3 model has an R square value of .571. Therefore, 57.1% of the variance in the dependent variable Supportive Structures, a professional learning community characteristic subscale, is accounted for by this model with independent variables of Builds Community, Envisions the Future, and Develops People, all servant leadership characteristics subscales. This model has a much lower R square value, and therefore is a weaker predictor, than the other models for Research Question Five. Even in the Step 2 model for Supportive Structures, the independent variables Builds Community and Envisions the Future account for about 56% of the variance in the dependent variable. Therefore, these findings indicate adding Develops People has only a slight impact on the model. Overall, this model is not as strong a predictor as some of the other models for PLC subscales.
Table 20

*Summary of Stepwise Multiple Regression for Variables Predicting Supportive Structures*

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Standard Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant: Builds Community</td>
<td>.716</td>
<td>.513</td>
<td>.511</td>
<td>.590</td>
</tr>
<tr>
<td>Step 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant: Builds Community, and Envisions the Future</td>
<td>.751</td>
<td>.564</td>
<td>.560</td>
<td>.560</td>
</tr>
<tr>
<td>Step 3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant: Builds Community, Envisions the Future, and Develops People</td>
<td>.756</td>
<td>.571</td>
<td>.565</td>
<td>.556</td>
</tr>
</tbody>
</table>
Supportive Relationships. Table 21 shows about 79% of the variance in the dependent variable Supportive Relationships can be accounted for in the model by the independent variables Builds Community, Envisions the Future, and Develops People, three professional learning community constructs. It should be noted the step two model has an R square value of .783 so almost 78% of the variance in Supportive Relationships can actually be accounted for by just two of the PLC constructs Builds Community and Develops People.

Table 21

Summary of Stepwise Multiple Regression for Variables Predicting Supportive Relationships

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Standard Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant: Builds Community</td>
<td>.844</td>
<td>.713</td>
<td>.712</td>
<td>.472</td>
</tr>
<tr>
<td>Step 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant: Builds Community and Develops People</td>
<td>.885</td>
<td>.783</td>
<td>.781</td>
<td>.411</td>
</tr>
<tr>
<td>Step 3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant: Builds Community, Develops People, and Envisions the Future</td>
<td>.891</td>
<td>.794</td>
<td>.791</td>
<td>.401</td>
</tr>
</tbody>
</table>
Collective Learning and Application. In Table 22, about the R square value of the Step 2 model is .738; therefore, about 74% of the variance in the dependent variable Collective Learning and Application can be accounted for by the two independent variables, Builds Community and Envisions the Future. The Step 1 model for Collective Learning and Application indicated about 72% of the variance in the construct is accounted for by the predictive variable Builds Community.

Table 22

Summary of Stepwise Multiple Regression for Variables Predicting Collective Learning and Application

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Standard Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Step 1</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant: Builds Community</td>
<td>.849</td>
<td>.721</td>
<td>.720</td>
<td>.453</td>
</tr>
<tr>
<td><strong>Step 2</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant: Builds Community and Envisions the Future</td>
<td>.859</td>
<td>.738</td>
<td>.736</td>
<td>.440</td>
</tr>
</tbody>
</table>
*Shared Personal Practice.* Table 23 shows the results of the model for predicting Shared Personal Practice. According to the stepwise multiple regression analysis, the R square value of the Step 2 model is .656; therefore, about 66% of the variance in the dependent variable Shared Personal Practice can be accounted for by this model with independent variables Builds Community, Shares Power, and Envisions the Future. The Step 2 model is only slightly weaker when the subscale Envisions the Future is removed.

**Table 23**

*Summary of Stepwise Multiple Regression for Variables Predicting Shared Personal Practice*

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Standard Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Step 1</em></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant: Builds Community</td>
<td>.784</td>
<td>.614</td>
<td>.613</td>
<td>.536</td>
</tr>
<tr>
<td><em>Step 2</em></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant: Builds Community and Shares</td>
<td>.805</td>
<td>.648</td>
<td>.645</td>
<td>.514</td>
</tr>
<tr>
<td>Power</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Step 3</em></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant: Builds Community, Shares</td>
<td>.810</td>
<td>.656</td>
<td>.651</td>
<td>.509</td>
</tr>
<tr>
<td>Power, and Envisions the Future</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Shared Vision. In Table 24, the researcher presents the results of the regression analysis for the dependent variable Shared Vision. For the Step 2 model, the R square value is .755; therefore, about 76% of the variance in the dependent variable Shared Vision can be accounted for by this model where the independent variables are Envisions the Future and Builds Community.

Table 24

Summary of Stepwise Multiple Regression for Variables Predicting Shared Vision

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Standard Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant: Envisions the Future</td>
<td>.833</td>
<td>.694</td>
<td>.693</td>
<td>.490</td>
</tr>
<tr>
<td>Step 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant: Envisions the Future and Builds Community</td>
<td>.869</td>
<td>.755</td>
<td>.753</td>
<td>.440</td>
</tr>
</tbody>
</table>
**Shared and Supportive Leadership.** In Table 25, the researcher presents the results for the stepwise multiple regression analysis for the dependent variable Shared and Supportive Leadership. According to the model, the R square value for the step 3 model is .844; therefore, about 84% of the variance in the dependent variable Shared and Supportive Leadership can be accounted for by the independent variables Shares Power, Builds Community, and Envisions the Future.

Table 25

**Summary of Stepwise Multiple Regression for Variables Predicting Shared and Supportive Leadership**

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Standard Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Step 1</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant: Shares Power</td>
<td>.892</td>
<td>.796</td>
<td>.795</td>
<td>.395</td>
</tr>
<tr>
<td><strong>Step 2</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant: Shares Power, and Builds Community</td>
<td>.915</td>
<td>.837</td>
<td>.835</td>
<td>.355</td>
</tr>
<tr>
<td><strong>Step 3</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant: Shares Power, Builds Community, and Envisions the Future</td>
<td>.919</td>
<td>.844</td>
<td>.842</td>
<td>.347</td>
</tr>
</tbody>
</table>

An analysis of the data for Research Question Five revealed most of the servant leadership subscales have predictive value for the professional learning community subscales. More specifically, four of the five subscales for servant leadership are strong
predictors for at least two professional learning community subscales. In Figure 6, a
graphic representation of the findings for Research Question Five is presented. Each
arrow represents a predictor for the servant leadership constructs. The arrows are larger
where more PLC characteristics can be related to the predictor. For instance, the servant
leadership subscale Builds Community is a strong predictor for all six PLC subscales.
Envisions the Future is also a strong predictor of all six PLC subscales. The two
remaining constructs identified in Figure 6, Develops People and Shares Power, are less
ubiquitous in their predictive nature; however, each still accounts for a relationship with
two PLC subscales respectively.

In the previous section, the quantitative data for Research Question Five were
examined and the findings were presented. For the statistical analysis, stepwise multiple
regressions were utilized to develop a model to measure the proportion of variance in the
dependent variable that can be accounted for by the independent variables. More
specifically, each servant leadership subscale (dependent variable) was analyzed to
determine the predictive value of the construct to the PLC subscales (independent
variables). The results demonstrate to what extent certain characteristics of servant
leadership are more predictive of the PLC characteristics as defined by the subscales.
Overall, these results are helpful to understand the relationship between professional
learning community characteristics and servant leadership characteristics. Therefore,
these findings are discussed further in Chapter 5.
<table>
<thead>
<tr>
<th>Servant Leadership Subscales as Predictors of PLC</th>
<th>PLC Subscales</th>
</tr>
</thead>
<tbody>
<tr>
<td>Builds Community</td>
<td>Supportive Structures</td>
</tr>
<tr>
<td></td>
<td>Supportive Relationships</td>
</tr>
<tr>
<td></td>
<td>Shared and Supportive Leadership</td>
</tr>
<tr>
<td></td>
<td>Collective Learning and Application</td>
</tr>
<tr>
<td></td>
<td>Shared Personal Practice</td>
</tr>
<tr>
<td></td>
<td>Shared Vision</td>
</tr>
<tr>
<td>Envisions Future</td>
<td>Supportive Structures</td>
</tr>
<tr>
<td></td>
<td>Supportive Relationships</td>
</tr>
<tr>
<td></td>
<td>Shared and Supportive Leadership</td>
</tr>
<tr>
<td></td>
<td>Collective Learning and Application</td>
</tr>
<tr>
<td></td>
<td>Shared Personal Practice</td>
</tr>
<tr>
<td></td>
<td>Shared Vision</td>
</tr>
<tr>
<td>Develops People</td>
<td>Supportive Structures</td>
</tr>
<tr>
<td></td>
<td>Supportive Relationships</td>
</tr>
<tr>
<td>Shares Power</td>
<td>Shared and Supportive Leadership</td>
</tr>
<tr>
<td></td>
<td>Shared Personal Practice</td>
</tr>
</tbody>
</table>

*Figure 6. Servant Leadership Subscales as Predictors of PLC Subscales.*
Summary

In Chapter Four, Presentation of the Findings, the statistical analysis of the data is presented to address each of the five research questions identified for this study. The first two research questions identified the strongest and weakest aspects of servant leadership and professional learning communities in Missouri. In order to identify the strongest and weakest aspects of servant leadership and professional learning communities, descriptive statistics were used to create a table of means for the subscales from the SLCI. The results showed on average the participants in this study perceive PLC and servant leadership characteristics as present in their schools as defined by the subscales. The level of agreement ranged from Slightly Agree to Agree based on the Likert-scale values. Although not included in the scope of this study, the researcher observed that participants who identified themselves as administrators seemed to have more positive perceptions on each of the subscales than those who were identified as teachers.

While the first two research questions were descriptive in nature, Research Question Three relied on statistical analysis to examine the relationship between servant leadership and professional learning communities. In fact, Research Question Three utilized Pearson correlations with a significance level of $p<.001$. All of the subscales were found to have positive direct correlations for the PLC characteristics with the servant leadership characteristics. Based on the findings for this question, the relationship between servant leadership and PLC characteristics appears significant. This finding is further discussed in Chapter Five.

For Research Question Four, stepwise multiple regressions were used to analyze the data. The findings indicated some characteristics of PLC were found to be predictive of servant leadership. The professional learning community construct Shared and
Supportive Leadership stood out as a strong predictor of all six servant leadership constructs. For Research Question Five, stepwise multiple regressions were also used to analyze the data. The findings indicated some characteristics of servant leadership were found to be predictive of PLC. The servant leadership constructs Builds Community and Envisions the future separated themselves from the other constructs as each was a strong predictor of all six of the PLC constructs. Since these findings have value for practice and research, these results are further discussed in Chapter Five.
CHAPTER FIVE
DISCUSSION OF THE FINDINGS

Introduction

In Chapter Five, the researcher provides a discussion of the findings related to this study. The purpose of the study was to examine evidence of servant leadership in professional learning communities. Specifically, the study asked teachers and administrators in Missouri schools to report their perceptions of their school culture to examine the presence of servant leadership characteristics and professional learning community characteristics. The survey results were collected through an online survey instrument with a total of 279 participants reporting. In this final chapter, the researcher presents the findings by providing a discussion of the data collected related to the five research questions for the study.

This final chapter includes seven major sections. The first section is the introduction to Chapter Five, Discussion of the Findings. This second section includes a summary of the study including a review of the research questions, a review of the methods employed in the study, and an overview of the findings. The third section is a discussion of the results that will examine each of the research questions utilized for the study. The fourth section outlines the limitations of the study. In the fifth section, the researcher discusses implications for future research. The sixth section includes implications the study may have on professional practice in schools. The final section is a conclusion to the Discussion of the Findings.

Summary of the Study

Before presenting a discussion of the results, the limitations, and the implications of this study, a brief overview of the study is presented. This section includes a review
the research questions for the study and revisit the methods used in the study. In addition, this section provides an overview of the findings.

*Research Questions*

In searching for evidence of servant leadership in professional learning communities, research questions were developed to analyze aspects of professional learning communities and servant leadership not currently addressed in the literature. Specifically, the researcher sought to examine the relationship of professional learning community characteristics and servant leadership characteristics in Missouri schools. As a result of this aim, the following research questions were developed for this study:

1. In Missouri schools, what are the strongest and weakest aspects of servant leadership?
   a. as perceived by teachers
   b. as perceived by administrators
   c. as perceived by teachers and administrators overall

2. In Missouri schools, what are the strongest and weakest aspects of professional learning communities?
   a. as perceived by teachers
   b. as perceived by administrators
   c. as perceived by teachers and administrators overall

3. In Missouri schools, what is the relationship between characteristics of professional learning communities (PLC) and characteristics of servant leadership?

4. In Missouri schools, what characteristics of PLC are most predictive of servant leadership characteristics?
5. In Missouri schools, what characteristics of servant leadership are most predictive of PLC characteristics?

**Methods**

Teachers and administrators from schools in Missouri participated in this quantitative study. All of the participants completed the School Leadership Culture Inventory (SLCI), an instrument developed by the researcher for this study based on two previous survey instruments, the Professional Learning Communities Assessment (PLCA) for professional learning community constructs and the Organizational Leadership Assessment (OLA) for servant leadership constructs.

After data collection was completed, statistical analysis was conducted to address the five research questions. For questions one and two, descriptive statistics were used to examine the perceptions of strengths and weaknesses in PLC characteristics and servant leadership characteristics. For research question three, Pearson correlations were employed to analyze the relationship between characteristics of professional learning communities and servant leadership. Research questions four and five used stepwise multiple regressions to predict outcomes of PLC and servant leadership constructs.

**Overview of Findings**

For servant leadership characteristics, teachers on average perceived the construct Develops People to be strongest subscale with an average response close to the Agree level on the Likert-scale. Conversely, the construct Builds Community was perceived by teachers to be the weakest construct with an average response closer to the Slightly Agree value. Administrators also found the construct Develops People to be strongest with an average response just above the Agree level. Administrators also reported Values People at just above the Agree level, making it among the strongest subscales for administrators.
On the other hand, Envisions the Future was found to be the weakest construct yet it still was reported at the Agree level. For professional learning community characteristics, teachers on average perceived the construct Supportive Structures to be strongest between Slightly Agree and Agree and the construct Shared Personal Practice to be the weakest as it fell closer to Slightly Agree. The data revealed that administrators also viewed Supportive Structures as the strongest construct at just over the Agree cut point and Shared Personal Practice as the weakest construct falling between Slightly Agree and Agree on the scale.

Significant correlation was found between constructs of professional learning communities and constructs of servant leadership. In particular, the direct positive correlation between Collective Learning and Application and Builds Community was notably strong.

In addition, the stepwise multiple regressions indicated predictive value for several of the PLC and servant leadership subscales. For example, where Shared and Supportive Leadership and Shared Personal Practice were entered in the model as independent variables, almost 81% of the variance in the dependent variable Shares Power could be accounted for by the model.

Discussion of Results

The research questions for this study were developed to address the need to establish a relationship between professional learning communities as a model of school reform and servant leadership as a leadership theory. Overall, the results indicate a relationship exists between professional learning communities and servant leadership. The following discussion examines the findings for each of the research questions.
Research Question One

In Missouri schools, what are the strongest and weakest aspects of servant leadership?

a) as perceived by teachers

b) as perceived by administrators

c) as perceived by teachers and administrators overall

For research question one, the mean scores for teachers range from Slightly Agree to Agree. The breakpoint of 4.0 indicated a response of Slightly Agree while a breakpoint of 5.0 indicated a response of Agree on the SLCI; therefore, teachers who participated in the study tend to perceive servant leadership characteristics in their school settings. The strongest aspect of servant leadership in the data was the Develops People subscale at nearer the Agree cut point. The weakest aspect of servant leadership according to the teachers was Builds Community.

For the administrators who participated in the study, the mean scores for servant leadership characteristics range fell between Agree and Strongly Agree. Administrators who participated in the study tended to perceive servant leadership characteristics in their school settings. The strongest aspect of servant leadership for the administrators was Develops People, the same as the teachers, but the weakest aspect was Envisions the Future. Teachers ranked this as the second highest characteristic in sharp contrast to the administrator perception.

Overall, teachers and administrators seem to agree that servant leadership characteristics are present in their organization. It is interesting to note, however, that administrators indicated higher levels of servant leadership than teachers in this study.
Although this finding is not directly related to the research questions presented in this study, this unintentional finding may prove valuable for further inquiry.

Research Question Two

In Missouri schools, what are the strongest and weakest aspects of professional learning communities?

a) as perceived by teachers

b) as perceived by administrators

c) as perceived by teachers and administrators overall

For research question two, the mean scores for teachers range fall between Slightly Agree and Agree. Teachers who participated in the study tended to perceive professional learning community characteristics in their school settings. The strongest aspect of professional learning communities in the data was the Supportive Structures subscale nearing the Strongly Agree level. According to teachers’ perceptions, the weakest aspect of professional learning communities was Shared Personal Practice falling between Slightly Agree and Agree.

For the administrators who participated in the study, the mean scores for professional learning community characteristics were near the Agree choice. Administrators who participated in the study tended to agree that professional learning community characteristics are present in their school settings. The strongest aspect of PLCs for the administrators was Supportive Structures and the weakest aspect was Shared Personal Practice. These two constructs represent the strongest and weakest areas for teachers as well.

Overall, teachers and administrators seemed to agree that professional learning community characteristics were present in their organization. It is interesting to note,
however, that like the measure for servant leadership, administrators once again indicated higher levels of professional learning community characteristics than teachers in this study. Although this finding is not directly related to the research questions presented in this study, this unintentional finding may prove valuable for further inquiry.

Research Question Three

In Missouri schools, what is the relationship between characteristics of professional learning communities (PLC) and characteristics of servant leadership? For research question three, the findings indicate a significant positive correlation between each of the constructs of professional learning communities and each of the constructs of servant leadership. The overwhelming direct positive correlation indicates a strong connection between the presence of servant leadership and the presence of PLCs. This connection reaffirms the links established in the literature noted in Chapter Two of this study. Clearly, the previous literature and the data for the current study point to a strong connection between these two major constructs. Overall, the strongest correlation in this study was Collective Learning and Application to Builds Community with a Pearson value of .849. This correlation seems to stand out from the others and could have significant implications for practice. Certainly, the idea of learning together being connected with building community is a prospect worth pursuing further.

From an examination of the data related to research question three, the strongest correlations seem intuitive for the most part. For instance, the strongest correlations for Supportive and Shared Leadership are Values People and Develops People, servant leadership characteristics that empower followers. For Shared Values and Vision, the strongest correlations are between that construct and Builds Community, Envisions the Future, and Facilitates a Shared Vision. Each of these constructs involves building
community and developing a shared sense of purpose. Likewise, Supportive Relationships demonstrated strong correlations with Develops People, Builds Community, and Envisions the Future. All of these constructs relate to developing positive relationships and interdependence.

In contrast, several of the subscales exhibited weaker correlations in spite of what might be expected. For instance, Supportive and Shared Leadership had its weakest correlation with Display Authenticity. Supportive Structures had weaker correlations than the other on almost every subscale. In addition, Shared Personal Practice also showed weaker correlations with the other subscales even though one might conclude hypothetically that servant leadership would have a great influence on sharing practice. Overall, the data points to the similarities between servant leadership and PLCs with some subscales showing stronger correlations than others.

*Research Question Four*

In Missouri schools, what characteristics of PLC are most predictive of servant leadership characteristics?

According to the statistical analysis for this study, several characteristics of PLC were found to be predictive of servant leadership. To answer this question, stepwise multiple regressions were used to examine the predictive value of the PLC constructs. For instance, Shared and Supportive Leadership and Shared Personal Practice are aspects of PLCs that are strong predictors of servant leadership based on the responses for the participants in this study.

Most striking was the finding that Shared and Supportive Leadership was found to have predictive value for all six servant leadership constructs. According to Hipp and Huffman (2003), the role of the leader in a PLC is as a democratic participant, whose
power, authority, and decision-making is shared with others. The results in the data support the notion that empowerment and shared leadership are important aspects of professional learning communities (DuFour et al., 2002; Hipp & Huffman, 2003; Sergiovanni, 2001) and servant leadership (Crippen, 2005; Greenleaf, 1977; Laub, 1999; Spears, 1995). To demonstrate the connection between these constructs, when Shared and Supportive Leadership and Shared Personal Practice are analyzed as independent variables, 81% of the variance in Shares Power can be accounted for by the model.

Several other PLC variables were also found to be significant predictors of servant leadership. For instance, the PLC construct Supportive Relationships was predictive of three servant leadership subscales: (a) Develops People, (b) Envisions the Future, and (c) Builds Community. Likewise, the PLC construct Shared Personal Practice was also predictive of three servant leadership subscales: (a) Displays Authenticity, (b) Shares Power, (c) and Builds Community. These results support the connections demonstrated in the literature regarding servant leadership and professional learning communities. Moreover, this analysis continues to support the conclusion that the presence of PLC characteristics improves the likelihood of the presence of servant leadership characteristics in schools.
Research Question Five

In Missouri schools, what characteristics of servant leadership are most predictive of PLC characteristics?

For question five, stepwise multiple regressions demonstrated R square value indicating predictive value for some of the servant leadership constructs. According to the analysis for this study, 80% of the variance in the subscale Supportive Relationships can be accounted for by the model that included Builds Community and Develops People as independent variables. Similarly, 74% of the variance for Collective Learning and Application could be accounted for by the subscales Builds Community and Envisions the Future. Based on the perceptions of the participants in this study, the data indicated that servant leadership characteristics were predictive of some PLC characteristics.

Of the servant leadership constructs, Builds Community and Envisions the Future demonstrated the most consistent predictive value for all six of the professional learning community constructs. Therefore, the data point to the relatedness of Builds Community and Envisions the Future to the development of effective PLCs. The relationship between the constructs that was revealed in the data is also supported in the literature. In a PLC, community building is characterized by deprivatized practice, teamwork, and interdependence (Hipp & Huffman, 2003). Moreover, a professional learning community is characterized by shared vision and values (Bryk & Louis, 1997; Hipp & Huffman, 2003). In light of the quantitative data for this study, it seems intuitive that the relationship between characteristics of professional learning communities and characteristics of servant leadership are strengthened as a result of these findings.

Two other servant leadership characteristics demonstrated predictive value based on the stepwise multiple regression models developed in the statistical analysis. Develops
People and Shares Power were both predictive of two PLC subscales each. Develops People showed predictive value for Supportive Structures and Supportive Relationships. Shares Power was found to be a predictor for Shared and Supportive Leadership and Shared Personal Practice.

Overall, the findings for Research Question Five point to the idea that professional learning communities and servant leadership are complimentary. In the following section, the researcher presents a continued discussion of the findings by examining the limitations for the study.

Limitations of the Study

Although great care was taken to ensure a quality study, as with all research projects, there were still limitations to this project. One limitation for this study is the sample of participants. The sample was taken from convenience, and the participants may not represent a general population of educators in Missouri. Therefore, the results of this study cannot be generalized to a larger population. However, generalizing the results to a larger population was not as important to this research as it might be to others. The primary purpose of this study was to examine what the selected participants’ perceptions might reveal about the relationship of servant leadership to professional learning communities regardless of the ability of the researcher to generalize the findings. Although the school types represented seem to reflect the variety found in Missouri, there was no purposeful sampling based on other factors that might ensure a more representative sample.

While the number of participants in the sample was sufficient to conduct the statistical analysis needed for the study, as with any research, a larger number of participants would strengthen the sample and strengthen validity. Another limitation for
the study is the self-report nature of the instrument. Participants in the study were asked to report their own perceptions of condition in their schools. The study is predicated on the honest evaluations of the participants. However, these participants may have been influenced in their responses because of their own biases or agenda related to their school.

One final limitation is the survey instrument itself. While the SLCI was developed using two instruments that have exhibited appropriate levels of reliability and validity, these instruments were adapted for this research. Moreover, any research project is limited when a single data collection instrument is used to draw conclusions about a construct.

Implications for Future Research

Based on the review of literature in Chapter Two and the results reported in this study, it is clear there is still a need for more research related to servant leadership and professional learning communities. Since the results of this study seem to point to the connectedness of servant leadership and professional learning communities, there are many opportunities for future research. This section presents ideas for future research based on this study.

Although servant leadership has numerous advocates among popular authors, the leadership theory lacks a strong empirical foundation in academic circles (Northouse, 2004). However, even from the limited research base, the findings available related to servant leadership have indicated promising benefits for leaders, followers, and organizations overall (Greenleaf, 2002; Herman & Marlowe, 2005; Senge, 1990; Yukl, 2006). Servant leadership is closely tied to other theories of empowerment such as transformational, participative, and moral leadership (Patterson, 2003). However, more
study is needed if servant leadership is to receive serious attention in scholarly texts. Therefore, quantitative studies are valuable to the continued growth of servant leadership.

For this study, the work of Laub (1999) was adapted in measuring servant leadership characteristics. In addition to Laub’s (1999) work, this study also found a rich variety of writings related to servant leadership characteristics (Bowman, 2005; Patterson, 2003; Russell, 2001; Spears, 1998). Because of the varied nature of the literature, future research should seek to clarify the constructs of servant leadership to bring together a stronger theoretical framework. Although several researchers have developed measures to examine servant leadership (Laub, 1999; Page & Wong, 1998; Patterson, 2003), these measures need further development and replication to ensure validity of the servant leadership framework.

Future study should also examine the professional learning community framework. The PLC model is marked by collaboration, common goals, and a focus on results in schools (DuFour et al., 2002; Reeves, 2006; Schmoker, 2006). Herd (1997) referred to the PLC as “communities of continuous inquiry and improvement” (p. 1). While this study addresses the development of PLC characteristics in school cultures, more research is needed to measure the impact of the PLC culture on student learning.

Although this study examined the strongest and weakest aspects of servant leadership and professional learning communities, it would be helpful to have a clearer picture of the true implementation of these constructs in Missouri schools. In order to achieve this aim, it would be necessary to employ other research methods beyond the scope of a self-reporting survey instrument. Qualitative research could provide rich descriptions (Merriam, 1998) of how servant leadership and professional learning communities are truly being implemented. For instance, it would be helpful to have
specific observation of practices in Missouri schools along with interview data to clarify what was reported as strengths and weaknesses in the quantitative data. This type of research would help to provide triangulation (Merriam, 1998) of the findings of this study.

One interesting finding beyond the scope of the research questions for this study was the difference in the way administrators reported on the scale when compared with teachers. It would be especially helpful to see research conducted to investigate why administrators who participated in this study reported perceptions of their schools that were more positive on the scale than the results reported by teachers who participated. Do administrators typically view their schools more positively than teachers or is this an anomaly for this study?

Another consideration for future research is to examine how servant leadership and professional learning communities can be cultivated in schools. While this study indicates there is a relationship in the two constructs, it would be helpful to know what is happening in schools that have strong professional learning communities and strong servant leadership cultures. Again, qualitative study in this area might help to resolve these problems.

*Implications for Practice*

The findings of this study have significant implications for school leaders seeking to create collaborative cultures and improve organizational learning. Taken as a whole, the results of this study indicate servant leadership is connected to professional learning communities; therefore, practitioners should seek to learn more about servant leadership and implement servant leadership behaviors as they operate in the context of their organization.
In implementing servant leadership, practitioners should recognize that true servant leadership is rooted in the desire of the leader to serve first (Greenleaf, 1970). Servant leaders are concerned with empowering followers (Spears, 1995), communicating a vision (Blanchard, 1998), and building communities (Greenleaf, 1977). In schools, servant leadership is needed because schools are by their nature organizations with a purpose to serve. When servant leaders are present in an organization, leaders and followers are likely to increase their capacity to be servant leaders (Greenleaf, 1977). In other words, servant leaders develop other servant leaders.

Since the professional learning communities model is relatively new to school organizations, it is still unclear how effective the model will be. Based on the results of this study, it appears the participants in this research project perceive both professional learning community and servant leadership characteristics in their schools. While this data are encouraging, school leaders should not assume all schools are functioning as healthy PLCs simply because their organization claims to be a PLC. School leaders should collect data in their own schools to measure the level of implementation. Furthermore, school leaders should continue to cultivate the culture of their school so all members of the organization understand and embrace what it takes to create this type of school culture.

Based on the literature available and the data collected for this study, it appears servant leadership is compatible with the PLC concept. As the PLC model continues to develop, practitioners should consider utilizing servant leadership behaviors as they seem to directly correlate to professional learning community characteristics. Although servant leadership may lack a strong empirical research foundation, there is ample anecdotal
evidence and a rich collection of writings from leaders in business and other areas supporting the use of servant leadership in organizations.

Conclusion

This study was conducted to add relevant, quantitative data-based research to the existing literature on servant leadership and professional learning communities. Although there have been numerous attempts at school reform throughout the history of schooling in America, these reform efforts have not resulted in lasting change. As the challenges facing schools continue to mount, it is important to implement the best of what research provides as effective practice in schools. In this study, the researcher has attempted to add to the knowledge regarding school leadership and school cultures.
References


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Appendix A

Letter to Participants
(distributed through email)

Dear Educator,

You are invited to participate in a questionnaire asking your perceptions of your school’s culture. The purpose of this study is to examine the current reality of organizational culture in Missouri schools. This research is being conducted through the University of Missouri-Columbia under the supervision of Dr. Robert Watson. Your help would be appreciated.

Your participation will take no more than fifteen minutes to complete. Please access the survey by clicking on the following URL:

http://www.surveymonkey.com/s.aspx?sm=HIPUI1vwal5bbWXh7xOxdA_3d_3d

You will be asked a series of questions. Your responses are protected by SSL, a secure internet communications protocol. This survey will only be available online for 10 days.

The risks to you as a participant are minimal. All information will only be reported in aggregate. Your name and email address will not be reported in any form and will be destroyed after all data has been collected. Your email address is used only for invitation purposes. The results of this study may be published in scientific research journals or presented at professional conferences. **Again, your name, IP address, email or identity will not be revealed.**

Participation in this study will not benefit you directly. However, it may help to provide information to those who implement school reform initiatives. It may also benefit your school. The data in the study will be available for your school if your administration requests it. Of course, it will be aggregate data only and will not reveal your responses in any way. Additionally, this study will also add to the research available on school leadership and organizational behavior.

Participation in this study is voluntary, and you can choose not to participate. If you decide not to participate, there will be no penalty to you. You may withdraw from this study at any time by not submitting your responses.

If you have any questions about participation or have difficulty accessing the survey, please contact David Geurin at dggdz2@mizzou.edu.

Thank you for your consideration.

David Geurin
Appendix B

Permission Letter
(distributed through email)

Dear (Name),

(Enter Name) School District has been selected to participate in a study of servant leadership in professional learning communities. If, after reading this email, you would like your school to be included in this study, please send a reply indicating your desire to participate. Should you choose for your school to be included, administrators and teachers in your school would be asked to complete a questionnaire about perceptions of your school’s culture.

The survey will be sent through email and is completed online. The survey will take no more than 15 minutes to complete.

The risks for participation are minimal. All information will only be reported in aggregate. Each participant’s name and email address will not be revealed and all information will be destroyed after data has been collected. Your email address is used only for invitation purposes. The results of this study may be published in scientific research journals or presented at professional conferences.

Participation in this study could be of benefit to your school. If you wish, a report can be delivered to you describing the aggregate data for your school. You may find this data helpful. Although you may choose to receive a report specific to your school, your school will not be named in this study and your individual school results will only be reported in aggregate with other schools for the purposes of the study.

As a further benefit, the study may also prove helpful in providing information to those who implement school reform initiatives. It will also add to the research available on school leadership and organizational behavior.

Participation in this study is voluntary, and you can choose for your school not to participate. If you decide not to participate, there will be no penalty to you. You may withdraw from this study at any time.

This research is being conducted as a dissertation project in partial fulfillment of a Doctorate in Educational Leadership at the University of Missouri-Columbia. Your help would be appreciated.

If you have any questions about participation, please contact David Geurin at dggdz2@mizzou.edu. Please send a reply to this email indicating if your school will participate.

Sincerely,
David Geurin
Appendix C

Demographic Information
This information will be used for research purposes only.

Please mark one response with an X for each of the following questions.

1. Which of the following best describes the school in which you work?
   _____Elementary School (grades K-6)
   _____Middle School (grades 5-8)
   _____Elem/Middle (grades K-8)
   _____Junior High/High School (grades 7-12)
   _____High School (grades 9-12)
   _____Combined K-12
   _____Central Office

2. Which of the following best describes your position in your school?
   _____Teacher
   _____Administrator (Superintendent, principal, or other)

3. Your gender?
   _____Male
   _____Female
Appendix D

School Leadership Culture Inventory

**Directions:** This questionnaire asks for your perceptions of the principal, staff, stakeholders and overall school climate in the school where you currently work. It contains statements about practices and characteristics that occur in some schools. Read each statement and record your response by placing an X in one of the six boxes. You are asked to select the scale point that best reflects your personal level of agreement or disagreement with the statement. Please be certain to only select one response for each statement.

**Definitions:**
- *Staff*—teachers and/or other employees of your school
- *Leaders*—persons employed by your school who lead in any capacity
- *Stakeholders*—all persons who affect or can be affected by your school’s actions

<table>
<thead>
<tr>
<th>Statements</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Slightly Disagree</th>
<th>Slightly Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 The staff is consistently involved in discussing and making decisions about most school issues.</td>
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<td>2 The principal participates democratically with staff, sharing power/authority.</td>
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<td>3 Staff in this school trust each other.</td>
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<td>4 Leadership is promoted and nurtured among staff.</td>
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<td>5 Staff know where this school is headed in the future.</td>
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<td>6 Staff within this school are caring and compassionate towards one another.</td>
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<td>7 Staff attempt to work with others more than working on their own.</td>
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<td>8 Decision-making takes place through committees and through communication across grade and subject areas.</td>
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<td>9 Supervisors encourage people to share in making important decisions.</td>
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<td>10 Staff view conflict as an opportunity to learn and grow.</td>
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<td>11 Stakeholders assume shared responsibility and accountability for student learning without evidence of imposed power and authority.</td>
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<td>12 Leadership communicates a clear vision of the future of the school.</td>
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<td>13 Leaders are open to learning from those below them in the organization.</td>
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<td>14 Leaders work in collaboration with teachers/staff, not separate from them.</td>
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<td>15 Leaders empower teachers/staff to make important</td>
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<td>16</td>
<td>Leaders are open to receiving criticism and challenge from others.</td>
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<td>17</td>
<td>Collaborative processes exist and develop shared values among staff.</td>
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<td>18</td>
<td>The staff shares visions for school improvement that have an undeviating focus on student learning.</td>
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<td>19</td>
<td>A collaborative process exists for developing a shared vision among staff.</td>
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<td>20</td>
<td>Stakeholders are actively involved in creating high expectations that serve to increase student achievement.</td>
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<td>21</td>
<td>Leaders encourage each person to exercise leadership.</td>
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<td>22</td>
<td>Leaders admit personal limitations and mistakes.</td>
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<td>23</td>
<td>Leaders encourage people to take risks even if they may fail.</td>
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<td>24</td>
<td>Leaders practice the same behavior they expect from others.</td>
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<td>25</td>
<td>Leaders provide opportunities for all teachers/staff to develop to their full potential.</td>
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<td>26</td>
<td>The staff work together to seek knowledge, skills, and strategies and apply this new learning to their work.</td>
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<td>27</td>
<td>Collegial relationships exist among staff that reflect commitment to school improvement efforts.</td>
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<td>28</td>
<td>The staff plan and work together to search for solutions to address diverse student needs.</td>
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<td>29</td>
<td>The staff engages in dialogue that reflects a respect for diverse ideas that lead to continued inquiry.</td>
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<td>30</td>
<td>School staff and stakeholders learn together and apply new knowledge to solve problems.</td>
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<td>31</td>
<td>Opportunities exist for staff to observe peers and offer encouragement.</td>
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<td>32</td>
<td>The staff provides feedback to peers related to instructional practices.</td>
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<td>33</td>
<td>Leaders honestly evaluate themselves before seeking to evaluate others.</td>
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<td>34</td>
<td>Leaders use their power and authority to benefit the teachers/staff.</td>
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<td>35</td>
<td>Leaders build people up through encouragement and affirmation.</td>
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<td>36</td>
<td>Leaders encourage teacher/staff to work together rather than competing against each other.</td>
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<td>37</td>
<td>Leaders are accountable and responsible to others.</td>
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<td>38</td>
<td>Leaders are receptive listeners.</td>
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<td>39</td>
<td>Leaders put the needs of the teachers/staff ahead of their own.</td>
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<td>40</td>
<td>Leaders allow teachers/staff to help determine where the school is headed.</td>
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<td>41</td>
<td>The staff collaboratively reviews student work to improve instructional practices.</td>
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<td>42</td>
<td>Individuals and teams have the opportunity to share the results of their practices.</td>
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<td>43</td>
<td>I feel appreciated by my principal for what I contribute.</td>
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<td>44</td>
<td>I trust the leadership of this school.</td>
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<td>45</td>
<td>I am able to be creative in my job.</td>
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<td>46</td>
<td>A person’s work is valued more than his or her title.</td>
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<td>47</td>
<td>I am able to use my best gifts and abilities in my job.</td>
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<td>48</td>
<td>Caring relationships exist among staff and students that are built on trust and respect.</td>
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<td>49</td>
<td>A culture of trust and respect exists for taking risks.</td>
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<td>50</td>
<td>Outstanding achievement is recognized and celebrated regularly in our school.</td>
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<td>51</td>
<td>School staff and stakeholders exhibit sustained and unified effort to embed change into the culture of the school.</td>
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<td>52</td>
<td>Time is provided to facilitate collaborative work.</td>
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<td>53</td>
<td>The school schedule promotes collective learning and shared practice.</td>
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<td>54</td>
<td>The school facility is clean, attractive, and inviting.</td>
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<tr>
<td>55</td>
<td>The proximity of grade level/department personnel allows for collaboration.</td>
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<td>56</td>
<td>Communication systems promote a flow of information among staff.</td>
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<tr>
<td>57</td>
<td>People are clear on the key goals of the school.</td>
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<tr>
<td>58</td>
<td>The staff informally shares ideas for improving student learning.</td>
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<td>59</td>
<td>School staff members have fun while getting the job done.</td>
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<td>60</td>
<td>School goals focus on student learning beyond test scores and grades.</td>
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Adapted from Olivier, Hipp, & Huffman (2003); Laub (1999).
## Appendix E

### School Leadership Culture Inventory

### Item Association to Subscales

<table>
<thead>
<tr>
<th>Statements</th>
<th>Subscale</th>
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<tbody>
<tr>
<td>1. The staff is consistently involved in discussing and making decisions about most school issues.</td>
<td>PLCA (Shared and Supportive Leadership)</td>
</tr>
<tr>
<td>2. The principal participates democratically with staff, sharing power/authority.</td>
<td>PLCA (Shared and Supportive Leadership)</td>
</tr>
<tr>
<td>3. Staff in this school trust each other.</td>
<td>OLA (Builds Community)</td>
</tr>
<tr>
<td>4. Leadership is promoted and nurtured among staff.</td>
<td>PLCA (Shared and Supportive Leadership)</td>
</tr>
<tr>
<td>5. Staff know where this school is headed in the future.</td>
<td>OLA (Envisions the Future)</td>
</tr>
<tr>
<td>6. Staff within this school are caring and compassionate towards one another.</td>
<td>OLA (Builds Community)</td>
</tr>
<tr>
<td>7. Staff attempt to work with others more than working on their own.</td>
<td>OLA (Builds Community)</td>
</tr>
<tr>
<td>8. Decision-making takes place through committees and through communication across grade and subject areas.</td>
<td>PLCA (Shared and Supportive Leadership)</td>
</tr>
<tr>
<td>9. Supervisors encourage people to share in making important decisions.</td>
<td>OLA (Shares Power)</td>
</tr>
<tr>
<td>10. Staff view conflict as an opportunity to learn and grow.</td>
<td>OLA (Builds Community)</td>
</tr>
<tr>
<td>11. Stakeholders assume shared responsibility and accountability for student learning without evidence of imposed power and authority.</td>
<td>PLCA (Shared and Supportive Leadership)</td>
</tr>
<tr>
<td>12. Leadership communicates a clear vision of the future of the school.</td>
<td>OLA (Envisions the Future)</td>
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<tr>
<td>13. Leaders are open to learning from those below them in the organization.</td>
<td>OLA (Shares Power)</td>
</tr>
<tr>
<td>14. Leaders work in collaboration with teachers/staff, not separate from them.</td>
<td>OLA (Shares Power)</td>
</tr>
<tr>
<td>15. Leaders empower teachers/staff to make important decisions.</td>
<td>OLA (Shares Power)</td>
</tr>
<tr>
<td>16. Leaders are open to receiving criticism and challenge from others.</td>
<td>OLA (Displays Authenticity)</td>
</tr>
<tr>
<td>17. Collaborative processes exist and develop shared values among staff.</td>
<td>PLCA (Shared Values and Vision)</td>
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<tr>
<td>18. The staff shares visions for school improvement that have an undeviating focus on student</td>
<td>PLCA (Shared Values and Vision)</td>
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<tr>
<td>19</td>
<td>A collaborative process exists for developing a shared vision among staff.</td>
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<tr>
<td>20</td>
<td>Stakeholders are actively involved in creating high expectations that serve to increase student achievement.</td>
</tr>
<tr>
<td>21</td>
<td>Leaders encourage each person to exercise leadership.</td>
</tr>
<tr>
<td>22</td>
<td>Leaders admit personal limitations and mistakes.</td>
</tr>
<tr>
<td>23</td>
<td>Leaders encourage people to take risks even if they may fail.</td>
</tr>
<tr>
<td>24</td>
<td>Leaders practice the same behavior they expect from others.</td>
</tr>
<tr>
<td>25</td>
<td>Leaders provide opportunities for all teachers/staff to develop to their full potential.</td>
</tr>
<tr>
<td>26</td>
<td>The staff work together to seek knowledge, skills, and strategies and apply this new learning to their work.</td>
</tr>
<tr>
<td>27</td>
<td>Collegial relationships exist among staff that reflect commitment to school improvement efforts.</td>
</tr>
<tr>
<td>28</td>
<td>The staff plan and work together to search for solutions to address diverse student needs.</td>
</tr>
<tr>
<td>29</td>
<td>The staff engages in dialogue that reflects a respect for diverse ideas that lead to continued inquiry.</td>
</tr>
<tr>
<td>30</td>
<td>School staff and stakeholders learn together and apply new knowledge to solve problems.</td>
</tr>
<tr>
<td>31</td>
<td>Opportunities exist for staff to observe peers and offer encouragement.</td>
</tr>
<tr>
<td>32</td>
<td>The staff provides feedback to peers related to instructional practices.</td>
</tr>
<tr>
<td>33</td>
<td>Leaders honestly evaluate themselves before seeking to evaluate others.</td>
</tr>
<tr>
<td>34</td>
<td>Leaders use their power and authority to benefit the teachers/staff.</td>
</tr>
<tr>
<td>35</td>
<td>Leaders build people up through encouragement and affirmation.</td>
</tr>
<tr>
<td>36</td>
<td>Leaders encourage teacher/staff to work together rather than competing against each other.</td>
</tr>
<tr>
<td>37</td>
<td>Leaders are accountable and responsible to others.</td>
</tr>
<tr>
<td>38</td>
<td>Leaders are receptive listeners.</td>
</tr>
<tr>
<td>39</td>
<td>Leaders put the needs of the teachers/staff ahead</td>
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<tr>
<td></td>
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</tr>
<tr>
<td>40</td>
<td>Leaders allow teachers/staff to help determine where the school is headed.</td>
</tr>
<tr>
<td>41</td>
<td>The staff collaboratively reviews student work to improve instructional practices.</td>
</tr>
<tr>
<td>42</td>
<td>Individuals and teams have the opportunity to share the results of their practices.</td>
</tr>
<tr>
<td>43</td>
<td>I feel appreciated by my principal for what I contribute.</td>
</tr>
<tr>
<td>44</td>
<td>I trust the leadership of this school.</td>
</tr>
<tr>
<td>45</td>
<td>I am able to be creative in my job.</td>
</tr>
<tr>
<td>46</td>
<td>A person’s <em>work</em> is valued more than his or her <em>title</em>.</td>
</tr>
<tr>
<td>47</td>
<td>I am able to use my best gifts and abilities in my job.</td>
</tr>
<tr>
<td>48</td>
<td>Caring relationships exist among staff and students that are built on trust and respect.</td>
</tr>
<tr>
<td>49</td>
<td>A culture of trust and respect exists for taking risks.</td>
</tr>
<tr>
<td>50</td>
<td>Outstanding achievement is recognized and celebrated regularly in our school.</td>
</tr>
<tr>
<td>51</td>
<td>School staff and stakeholders exhibit sustained and unified effort to embed change into the culture of the school.</td>
</tr>
<tr>
<td>52</td>
<td>Time is provided to facilitate collaborative work.</td>
</tr>
<tr>
<td>53</td>
<td>The school schedule promotes collective learning and shared practice.</td>
</tr>
<tr>
<td>54</td>
<td>The school facility is clean, attractive, and inviting.</td>
</tr>
<tr>
<td>55</td>
<td>The proximity of grade level/department personnel allows for collaboration.</td>
</tr>
<tr>
<td>56</td>
<td>Communication systems promote a flow of information among staff.</td>
</tr>
<tr>
<td>57</td>
<td>Staff are clear on the key goals of the school.</td>
</tr>
<tr>
<td>58</td>
<td>The staff informally shares ideas for improving student learning.</td>
</tr>
<tr>
<td>59</td>
<td>School staff members have fun while getting the job done.</td>
</tr>
<tr>
<td>60</td>
<td>School goals focus on student learning beyond test scores and grades.</td>
</tr>
</tbody>
</table>
VITA

David Geurin was born in Hammond, Indiana but also lived in Tennessee and Kentucky during his childhood. After graduating from Calloway County High School in Murray, Kentucky, David attended Southwest Baptist University in Bolivar, MO, earning a Bachelor of Science Degree in English in 1996. He taught English and social studies for nine years in Marshfield, MO. During this time, he also coached basketball and softball and served in other capacities as well. In 2003, he earned a Master’s Degree in Educational Administration, also from Southwest Baptist University.

David accepted a position as principal of Miller High School in 2005. During his time in Miller, the school completed a successful MSIP review, received A+ Schools designation, implemented the professional learning community model, and started an afterschool program. The afterschool program was a result of a $1.2 million grant David authored in 2007.

In 2008, David was named principal of Bolivar High School in Bolivar, MO. In the same year he completed his doctorate from the University of Missouri-Columbia. Bolivar High School serves 775 students and has a proud tradition of outstanding achievement in academics and extracurricular activities. The school was one of the first schools in Southwest Missouri to become a professional learning community.

David is married to the Lori Choate Geurin, and they have four children, Drew, Cooper, Maddie, and Emma. Upon completion of his doctoral studies, David looks forward to spending more time with family. He also plans to remain involved in church and community activities. In the future, he would like to run a marathon, learn to play the guitar, and teach college-level courses as an adjunct instructor.