

THE PRINCIPAL'S ROLE IN SUPPORTING PROFESSIONAL LEARNING
COMMUNITIES

by

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B.S., Wichita State University, 1988
M.Ed., Wichita State University, 1992

AN ABSTRACT OF A DISSERTATION

Submitted in partial fulfillment of the requirements for the degree

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College of Education

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2012

Abstract

Increasing student achievement is at the forefront of the school reform movement. Today's educators are called upon to raise academic standards to the highest level in history with common core standards that align with international benchmarks. One of the most rapidly-growing improvement efforts in today's schools is the development of professional learning communities (PLCs). Research shows a link between PLCs and increased student achievement. Additional information is needed about how school leaders have successfully supported sustainable PLCs within their schools.

The purpose of this multi-site case study was to understand the types of principal behaviors as perceived by both teachers and principals that are most meaningful in the support of PLCs. The study also examined the intersection of the dimensions of learning-centered leadership and the critical attributes of PLCs.

This study concluded that in professional learning communities, principals and teachers share a vision for learning and address the needs of all learners. The following leadership dimensions are perceived to be important in the support of professional learning communities: the principal's knowledge and involvement in curriculum and instruction, the principal's knowledge and involvement in the assessment program, and the principal's influence on organizational culture. The study also revealed that when learning-centered leadership and professional learning communities intersect, shared leadership and collective learning are perceived to occur. Commonalities among the five cases in this study were affirmed, but each school site also had unique characteristics. In particular, one site emerged as an exemplar for strong teacher leadership.

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Approved by:

Major Professor
Dr. Trudy A. Salsberry

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Chapter One: Introduction

Introduction to the Study

The United States has undergone a multitude of school reform efforts that have failed to result in significant improvement in student achievement (Marzano, Waters, & McNulty, 2005; Newman & Wehlage, 1995; Schmoker, 2006; Spring, 2008). Although the U.S. was the first nation to embrace the idea of public education for all children, “historically those children have been guaranteed only the right to attend school rather than the right to learn” (DuFour, DuFour, Eaker, & Many, 2006, p. 15).” The No Child Left Behind Act (NCLB, 2002), for the first time in our history, required schools to not only provide opportunities for students to learn, but held them accountable for student learning. The legislation required schools to demonstrate this learning with scores that met a standardized grade level achievement based on yearly statewide summative assessments. Today’s educators are called upon to raise academic standards to the highest level in history with common core standards that align with international benchmarks (National Governors Association, Chief Council of State School Officials, & Achieve, Inc., 2008).

As educators have become increasingly focused on improvement of student achievement, an emphasis on research-based school reform has emerged. One of the most rapidly-growing improvement efforts in today’s schools is the development of professional learning communities (Blankstein, Houston, & Cole, 2008). Professional learning communities are defined as “collaborative teams whose members work interdependently to achieve common goals linked to the purpose of student learning”

(DuFour et al., 2006, p.3). The essence of a professional learning community is a focus on the learning of each student. Educators within the organization understand that their fundamental responsibility is a high level of learning for all students.

Statement of the Problem

In 1998, DuFour and Eaker provided the foundation for professional learning communities (PLCs). They persuaded educators that the most promising strategy for helping all students learn at high levels is to develop the staff's capacity to function as a professional learning community. They offered specific strategies and structures to help educators create PLCs in their own schools. They also offered descriptions of how PLC concepts could impact the various stakeholders in schools—teachers, students, administrators, and parents—and how they could impact curriculum, assessments, and professional development (DuFour et al., 2006; DuFour & Eaker, 1998). Since then, there has been an epic shift in the professional development models in schools across the nation. This collaborative model for professional development has made the one-time workshop model nearly obsolete (Blankstein et al., 2008). Instead, schools are working to develop collaborative communities focused on student learning as the vehicle for school improvement. Whether or not the school uses the term “professional learning community” is immaterial. Any collaborative team whose members work interdependently to achieve common goals linked to student learning can be a PLC.

A review of the literature supports a link between collaboration and student achievement (Blankstein et al., 2008; Darling-Hammond & McLaughlin, 1995; Hord & Sommers, 2008; Marzano, 2003; Newman & Wehlage, 1995); yet there is little research

about the role of school leaders in designing and supporting PLCs (Fullan, 2008; Nelson, Slavit, Perkins, & Hathorn, 2008). According to Fullan (2008), the research about professional learning communities is beginning to shift from examining the operational characteristics of PLCs to exploring how effective professional learning communities are developed.

More research is needed about school leaders' behaviors and their relationship to the successful development of sustainable PLCs within their schools. Stoll, Bolam, McMahon, Wallace, and Thomas (2006) noted the need for further research, stating that "the paucity of longitudinal research on PLCs means little is yet known about the potential for establishing enduring effective PLCs" (p. 247). After reviewing over twenty journal articles and books related to PLCs and examining the research on this topic, they assert that there continues to be much to learn about their sustainability (Stoll, et al, 2006).

A review of the literature also points to significant gaps in the research pertaining to the principal's role in the development and support of professional learning communities (Leithwood, Louis, Anderson, & Wahlstrom, 2004). While several studies support the need for principal involvement (Beck & Murphy, 1996; Hallinger, 1996; Stoll et al., 2006), there is a gap in the research about specific principal behaviors related to PLC development (Nelson et al., 2008). Furthermore, little research can be found on principals who are leading schools that are beating the odds, such as those who have high rates of poverty, great mobility, or lack of parent support (Reimer, 2010). This study

focused on principals in schools that beat the odds by attaining high academic achievement in schools with high rates of poverty.

Purpose of the Study

Increasing student achievement is at the forefront of the school reform movement. Research shows a link between professional learning communities and increased student achievement (Blankstein et al., 2008; Darling-Hammond & McLaughlin, 1995; Hord & Sommers, 2008; Marzano, 2003; Newman & Wehlage, 1995). Additional information is needed about how school leaders have successfully supported sustainable PLCs within their schools. The purpose of this study was to understand the types of principal behaviors as perceived by both teachers and principals that are most meaningful in the support of professional learning communities. This multi-site case study identified the everyday decisions and actions of elementary principals that were perceived to be supportive of PLCs. The study also examined the intersection of the dimensions of learning-centered leadership (Murphy, Elliott, Goldring, & Porter, 2006) and the critical attributes of professional learning communities.

Research Questions

In order to contribute to the existing knowledge pertaining to professional learning communities, this study addressed the following over-arching research questions and sub-questions:

1. What types of principal behaviors are perceived by principals and teachers to be most meaningful in supporting professional learning communities?

2. How do the eight dimensions of learning-centered leadership (Murphy, et al., 2006) intersect with the critical attributes of professional learning communities?
 - a. How is vision for learning manifested by principals in professional learning communities?
 - b. How is instructional programming manifested by principals in professional learning communities?
 - c. How is curricular programming manifested by principals in professional learning communities?
 - d. How is assessment programming manifested by principals in professional learning communities?
 - e. How are communities of learning supported by principals in professional learning communities?
 - f. How is resource acquisition manifested by principals in professional learning communities?
 - g. How do principals support organizational culture in professional learning communities?
 - h. How is social advocacy manifested in professional learning communities?

Conceptual Frameworks

The first conceptual framework for this study was based on the seminal works of DuFour and Eaker (1998) and Hord (1997) with regard to professional learning

communities. In a comprehensive review of school reform initiatives, leadership theories, the school improvement process, and case study research, DuFour and Eaker (1998) identified six characteristics of professional learning communities. Similarly, Hord (1997), as a result of a review of corporate and educational literature to examine the critical dimensions of professional learning communities, identified five characteristics of PLCs. A synthesis of these two frameworks provided the following operational definition of professional learning communities: A professional learning community is a collaborative team whose members work interdependently to achieve common goals linked to the purpose of student learning. A professional learning community possesses the critical dimensions of (1) shared mission and vision, (2) collective inquiry, (3) shared leadership, (4) action orientation, (5) collective learning, and (6) a focus on results (DuFour & Eaker, 1998; Hord, 1997).

The second conceptual framework for this study was based on the learning-centered leadership research by Murphy, Elliott, Goldring, and Porter (2006) at Vanderbilt University. Murphy et al. (2006) defined learning-centered leaders as strong educators who anchor their work on learning, teaching, and school improvement. They are moral agents and social advocates for the children they serve. In an analysis of the research base undergirding the concept of learning-centered leadership, Murphy et al. (2006) identified eight major dimensions of the learning-centered leader: (1) vision for learning, (2) instructional program, (3) curricular program, (4) assessment program, (5) communities of learning, (6) resource acquisition and use, (7) organizational culture, and (8) social advocacy. These dimensions are discussed in greater detail in Chapter

Two. This study examined the relationship between learning-centered leadership dimensions and the attributes of professional learning communities. In order to fully understand what is needed to support and sustain PLCs, it is important to understand the intersection of professional learning communities and the dimensions of learning-centered leadership.

Design of the Study

This case study examined the principal's role in professional learning communities in high-performing, low-income elementary schools. Specifically, it sought to understand the behaviors of principals perceived to be most meaningful by both the principals themselves and the teachers under their supervision. It also examined the critical dimensions of learning-centered leadership and how they intersect with the support of professional learning communities. The following types of data were collected: interviews, documents, and artifacts. The data collection and analysis are described in greater detail in Chapter Three.

Delimitations and Limitations of the Study

The boundaries for this case study were limited to a small number of high performing, low-income, public elementary schools in the greater Wichita area, and as such, the findings may not be appropriate to generalize to schools in other areas or to secondary schools. Every school had a distinctive set of characteristics; therefore, simply modeling the successful practices of one school does not guarantee success at another school. In-depth interviews and rich, thick descriptions will allow readers to make decisions about the transferability of the findings.

While the principal's behaviors and the work of PLCs have great potential to improve instruction and student achievement, there are too many other factors to imply causation in this study. Instead, this study sought to understand the perceptions of principals and teachers in regard to the principal's behaviors that are most meaningful in the support of PLCs. It also sought to understand the intersection of learning-centered leadership and professional learning communities.

The methodology of this study presented limitations as well. Participants were asked to answer interview questions about their own perceptions, which may have been reactionary in nature. The interviews may have imposed limitations in regard to their ability to accurately reflect participants' attitudes and perceptions regarding the topic. Not all participants were equally cooperative, articulate, and perceptive. The participants in this study were asked interview questions about their perceptions of their personal experiences; therefore, it is a possible limitation that some felt uncomfortable sharing negative information about their school or their principal. This may have been particularly true for non-tenured teachers. Also, some participants may have attempted to provide responses that represented their teams in the most positive light. This could have resulted in inaccurate descriptions of their PLC's functioning.

As participation in this study was determined by the consent of the building principals, it is possible that the participants offered positively-biased descriptions of their professional learning communities and the principal's behaviors. It cannot be assumed that the perceptions or opinions of those in the study accurately reflected the

perceptions and opinions of all of the school's teachers. Also, this study was limited to perceptions; therefore, its findings did not include observable behaviors.

Purposeful steps were taken to offset the limitations presented by the interview method. The researcher looked for and noted contradictions in the interview transcripts. If contradictions existed, the participants were asked for explanations or clarifications during the member checking process. Also, the researcher noted the extent to which the artifacts matched the interview findings and included this in the narrative.

Summary

In summary, PLCs have great potential to address the professional development needs of teachers and increase student achievement. In light of a long history of school reform efforts, professional learning communities offer teachers job-embedded opportunities to critically examine the needs of their students, to purposefully plan instruction, and to continually monitor the effectiveness of their efforts. Additional information is needed about the role of school leaders in successfully supporting sustainable PLCs within their schools.

This case study of high-performing Title I schools with sustainable PLCs identified the everyday decisions and actions of elementary principals that were perceived to be most meaningful in the support of PLCs. It also examined the intersection of learning-centered leadership and the support of professional learning communities.

Chapter Two further reviews the relevant research and literature pertaining to school reform, professional learning communities, and leadership. Chapter Three

discusses the research design, the setting, the participants, data collection methods, the data analysis, the quality and rigor of the study, and the role of the researcher. Chapter Four provides detailed case descriptions, and Chapters Five and Six discuss the findings and conclusions of this study.

Chapter Two: Review of the Literature

Introduction

The literature review for this study is organized into four major sections: school reform, professional learning communities, leadership, and the gaps in the research. The first section examines school reform from a historical perspective to facilitate an understanding of the evolution of school improvement and professional development models. The second section focuses on the emergence of professional learning communities as a relatively recent school reform initiative. It includes an examination of PLC attributes, the focus of PLCs, the importance of a collaborative culture, the impact of PLCs on teacher instruction, the knowing-doing gap, the impact of PLCs on student learning, and the stages of PLC functioning. The third section provides a discussion of the changing role of the school leader and a comprehensive summary of learning-centered leadership dimensions, which provides a conceptual framework for the study. The fourth section examines gaps in the current discourse about professional learning communities and leadership.

This chapter concludes with a proposed synthesis of the research most pertinent to the over-arching research questions for this study:

1. What types of principal behaviors are perceived by principals and teachers to be most meaningful in the support of sustainable professional learning communities?
2. How do the eight dimensions of learning-centered leadership intersect with the attributes of professional learning communities?

School Reform

The goals of public education have evolved since the beginning of our nation's history. The 1776 Declaration of Independence declared, "All men are created equal." In the 1830s Horace Mann defined schooling as the "great balance wheel of society" because it provided citizens equal chances to pursue status and wealth. Although the ideal of equality was seriously compromised by the denial of rights to women, blacks, Native Americans, and other groups, "equality of opportunity" has been touted as a purpose of American Education since our nation's founding. The United States was the first nation to provide free appropriate public education to all.

The 19th century saw school reform that narrowly focused the purpose for education (Spring, 2008). When the original colonies were being established, schools were formed to prepare white males for leadership positions and the ministry. The purposes were two-fold—to teach basic skills and to teach the scriptures (specifically, fear of the Lord). Over time, the goals expanded. In the 1800s, they included teaching common moral and political values, Americanizing immigrants, training the labor force for industrialization, reforming family life, and teaching anti-communism. In the 20th century, school reform included foci on racial and cultural harmony, the war on poverty, and educating more scientists and engineers in response to the Russian's launch of Sputnik.

In the past thirty years, school reform has continued to evolve. In 1983, the National Commission on Excellence in Education released a report entitled *A Nation at Risk* which reported that the U.S. was falling behind other countries in international

business competition and blamed the failing education system (NCEE, 1983). According to this report, America was losing its place as leader of the world's economic, technological, and business development and that this threatened both economic prosperity and national security. "The educational foundations of our society are presently being eroded by a rising tide of mediocrity that threatens our very future as a nation and as a people" (NCEE, 1983, p. 5). As a result of this report, graduation requirements increased, hours were added to the school day, days were added to the school year, and school improvement initiatives erupted throughout the United States. Five years later, President Reagan gathered leading politicians, educators, and representatives of the media to reflect on the accomplishments of the school reform. A reporter for the *New York Times* who was present for the convention later reported, "...we came to a startling conclusion: There *weren't* any" (Fiske, 1992, p. 25).

In 1989, President George Bush's Goals 2000 initiated another push for reform. In addition to competency in core curricular areas, the Goals 2000 aimed for global competitiveness, drug and violence free schools, and increased parental involvement. This led to the outcomes-based education (OBE) movement of the 1990s. The primary strategy for achieving the goals was decentralization of authority to the school sites. Districts adopted curricular standards and chose performance-based assessments, but the movement did not focus specifically on student achievement gains (Spring, 2008). The end of the century came and went, and there was virtually no evidence to suggest that any progress had been made toward those ambitious goals (DuFour & Marzano, 2011).

In 2002, George W. Bush's administration passed the No Child Left Behind Act, which included accountability provisions requiring states to establish rigorous content standards in reading, math, and science and to define proficiency in these areas (NCLB, 2002). The law intended to ensure that all students, including those from previously under-performing subgroups, would be proficient in the content standards by 2014. For the first time in U.S. history, schools were required not only to provide opportunities for students to learn, but to account for student learning. The NCLB legislation required schools to demonstrate this learning with scores that met a standardized grade level achievement based on yearly statewide summative assessments.

No Child Left Behind was clearly an ambitious reform movement, but not all educators agree that it accomplished its intended purpose. Concerns emerged that NCLB had a negative impact in that it created an *unintended* purpose for education—to prepare students to take tests over specific standards (Spring, 2008). By the time President Bush left office in 2008, even some of the original advocates of NCLB concluded it had failed to improve student achievement (DuFour & Marzano, 2011).

President Barack Obama addressed this topic in multiple campaign speeches as well as a 2008 campaign brochure on education. He called for improved assessments, and said he “believes we should not be forced to spend the academic year preparing students to fill in bubbles on standardized tests (Obama for America, 2008, p. 1).” He called for assessment models that provide “educators and students with timely feedback about how to improve student learning, that measure readiness for college and success in an information-age workplace; and that indicate whether individual students are making

progress toward reaching high standards (Obama for America, 2008, p. 2).” He stated that funds should be provided so states could implement a “broader range of assessments that can evaluate higher-order skills, including students’ abilities to use technology, conduct research, engage in scientific investigation, solve problems, present and defend their ideas (Obama for America, 2008, p. 2).” Obama “believes we need an accountability system that supports schools to improve, rather than focuses on punishments (Obama for America, 2008, p. 2).” He cited the need to assess children appropriately, including English language learners and special needs students. The system “should also create incentives to keep students in school through graduation, rather than pushing them out to make scores look better (Obama for America, 2008, p. 2).”

The groundwork for reauthorization of the No Child Left Behind Act is currently underway. In *Built for Teachers; How the Blueprint for Reform Empowers Educators*, the U.S. Department of Education, led by Secretary of Education Arne Duncan, explicitly stated the current purpose for education. “The president’s reform agenda calls on teachers to take even more bold and courageous steps to completely transform what we offer students in this country so that all have equal access to quality education. Others may see the goal of preparing every student for college or career as pie in the sky, but President Obama believes that education is the great equalizer” (U.S. Department of Education, 2010). The purpose of education appears to have come full circle. While the Declaration of Independence phrase, “All men are created equal,” applied only to white men at the time of its signing, its spirit applies to all Americans today.

The technological advances of the 21st century and the shift in the global economy have prompted other types of school reform. There is renewed interest in the essential skills such as critical thinking, problem solving, communication, and collaboration. These are the skills that students will need for success in today's world. The Partnership for 21st Century Skills (2009) has developed a framework of student outcomes with these skills in mind. The framework includes themes such as global awareness, financial and economic literacy, and civic literacy. It also includes learning and innovation skills such as creativity and information literacy and life skills such as flexibility and adaptability.

Practitioners and researchers agree that schools need to strive for continuous improvement. Currently there is a gap between the knowledge and skills most students learn in school and the knowledge and skills they need in typical 21st century communities and workplaces. To successfully face rigorous college coursework, career challenges and a globally competitive workforce, U.S. schools must align classroom environments with real world environments by infusing 21st century skills such as information and communication skills (information and media literacy skills; communication skills), thinking and problem-solving (critical thinking and systems thinking; problem identification, formulation and solution; creativity and intellectual curiosity), interpersonal and self-direction skills (interpersonal and collaborative skills; self-direction; accountability and adaptability; social responsibility), global awareness, financial, economic and business literacy, and civic literacy (Partnership for 21st Century Skills, 2009).

Today's American educators confront the most formidable challenge in the history of public schooling in the United States. They are called upon to raise academic standards to the highest level in history. Forty-five states have adopted the rigorous Common Core Standards which include such cognitively challenging demands that they align with the highest international benchmarks (National Governors Association, et al., 2008). Furthermore, schools are challenged to bring *every* student to these dramatically higher standards of academic achievement. "No generation of educators in the history of the United States has ever been asked to do so much for so many" (Dufour & Marzano, 2011, p. 5).

To make the challenge even more daunting, the resources available to support school improvement efforts are being slashed. The *New York Times* (Lewin & Dillon, 2010, as cited in DuFour & Marzano, 2011) reported, "The 2010-11 school year is shaping up as one of the most austere in the last half century." The economic recession, high unemployment rate, and plunging state revenues have led to cuts in school budgets throughout the United States. The dramatic budget cuts and massive dismissal of school personnel led Secretary of Education Arne Duncan to warn that the nation was flirting with "educational catastrophe" (DuFour & Marzano, 2011, p. 7).

If educators are to meet the challenges confronting them, they will be required to think and act in new ways. Research points to professional learning communities as a vehicle to improved student achievement. As Louis, Kruse, and Raywid (1996) contended, "When schools attempt significant reform, efforts to form a school-wide professional learning community are critical" (p. 13). The professional learning

community model will provide the best opportunity for significant school reform focused on the achievement of all students (DuFour & Eaker, 1998).

Professional Learning Communities

Emergence of Professional Learning Communities

Policy-makers have struggled for many years to determine the best system for meeting the needs of our nation's children. Schools have tried for decades, with little success, to improve student achievement through quick-fix programs, improved technology, and additional tutoring. Blankstein et al., (2008) argue that this gap exists because teachers do not have the opportunity to develop the skills they need to help all children succeed. Two different meta-analyses of research on the factors that impact student achievement found that the quality of instruction students receive in their classrooms is the most important variable in student achievement (Hattie, 2009; Marzano, 2003). In an effort to meet the challenge of the achievement gap, many school systems have begun to examine their professional development models (Seltzer & Himley, 1995). Proponents of professional learning communities agree that the PLC approach enhances teachers' knowledge and skills, improves their instructional strategies, and provides teachers with the skills they need to help all children succeed in school (Blankstein et al., 2008; DuFour & Eaker, 1998; DuFour, Eaker, & Karhaned, 2004). Professional learning communities focus on improving the knowledge and skills of staff members so that all students have access to high-quality instruction (DuFour & Eaker, 1998). McLaughlin and Talbert's (1993) longitudinal study of sixteen high schools in Michigan and California revealed that PLCs offer the most effective unit of intervention and powerful

opportunity for improved instruction. Professional development designed to build the capacity of teachers is one of the most viable alternatives to meet our nation's systematic school reform efforts (Halverson, 2003; Seltzler & Himley, 1995).

In 1998, DuFour and Eaker provided the foundation for professional learning communities (PLCs). They persuaded educators that the most promising strategy for helping all students learn at high levels is to develop the staff's capacity to function as a professional learning community. They offered specific strategies and structures to help educators create PLCs in their own schools. DuFour and Eaker (1998) also offered descriptions of how PLC concepts could impact the various stakeholders in schools—teachers, students, administrators, and parents—and how they could impact curriculum, assessments, and professional development. (DuFour & Eaker, 1998; DuFour et al., 2006).

Since 1998, there has been an epic shift in the professional development models in schools across the nation. This collaborative model for professional development has made the one-time workshop model nearly obsolete (Blankstein et al., 2006). The deepest learning for teachers occurs when they learn by doing. Therefore, the most effective training occurs in the context of the school day and is interwoven with the work (Pfeffer & Sutton, 2000). As Hernandez-Broome and Hughes (2004) reported, “Developmental experiences are likely to have the greatest impact when they can be linked to or embedded in a person's ongoing work” (p. 25). “Development today means providing people opportunities to learn from their work rather than taking them away from work to learn” (pp. 27).

In the past decade, PLCs have received support from teacher and administrator organizations. The National Association of Elementary School Principals (2003) published the following statement concerning the practical applications of PLCs:

If adults don't learn, then students won't either. No matter how good school goals are they cannot be met if the school isn't organized to accomplish them. The school operates as a learning community that uses its own experience and knowledge, and that of others, to improve the performance of students and teachers alike—a culture of shared responsibility is established, and everybody learns from one another. (p. 5)

If schools are to improve, school leaders and teachers must work to build a community focused on learning. While it is recognized that quality teaching is important, the ultimate goal of teaching is student learning (DuFour et al., 2004). PLCs offer the teachers in schools the opportunity to develop a systematic plan to meet this goal (DuFour & Eaker, 1998; DuFour et al., 2006). “The professional community of learners in a school is a powerful professional development and school change strategy because the learning of this community focuses on staff learning and this, in turn, produces enhanced student outcomes” (Shaughnessy, 1998, p. 13).

Conceptual Framework for PLC Attributes

The term professional learning community has grown in popularity throughout the past decade. The term has become so commonplace that it has a variety of definitions. This lack of a precise definition is an obstacle to implementing PLC concepts because, as Schmoker observes, “clarity precedes competence” (2004, p. 85). Thus, it was important

to clarify the definition of professional learning communities for the purpose of this study.

Professional learning communities are defined as “collaborative teams whose members work interdependently to achieve common goals linked to the purpose of student learning.” (DuFour, DuFour, Eaker, & Many, 2006). The very essence of a learning community is a focus on the learning of each student. Educators within the organization understand that their fundamental responsibility is high levels of learning for all students.

The conceptual framework for this study was based on the work of DuFour and Eaker (1998) and Hord (1997). In a comprehensive review of school reform initiatives, leadership theories, the school improvement process, and case study research, DuFour and Eaker (1998) identified the following characteristics of professional learning communities:

1. Shared mission, vision, and values - shared understanding , common values, and a collective commitment to guiding principles that articulate what the people in the school believe and what they seek to create.
2. Collective inquiry - the method of improvement, growth, and renewal.
3. Collaborative teams – the basic structure of the professional learning community is a group of collaborative teams that share a common purpose.
4. Action orientation and experimentation – members of a professional learning community turn aspirations into action and visions into reality.

5. Continuous improvement – a persistent discomfort with the status quo and a constant search for a better way.
6. Results orientation – a professional learning community realizes that its effort to develop shared mission, vision, and values; engage in collective inquiry; build collaborative teams; take action and focus on continuous improvement must be assessed on the basis of results rather than intentions. (pp. 25-29)

Shirley M. Hord (1997), Project Director of the Southwest Educational Development Laboratory (SEDL), conducted a review of corporate and educational literature to examine the critical dimensions of professional learning communities. She proposed to define and describe PLCs, describe what happens when teachers study, work and plan collectively in pursuit of increased student learning, and to reveal what is known about creating such communities in schools (Hord, 1997). As a result of the study, five dimensions of professional learning communities emerged:

1. Supportive and shared leadership - requires the collegial and facilitative participation of the principal who shares leadership—and thus, power and authority—by inviting staff input and action in decision-making.
2. Shared values and vision – demands an unwavering commitment to student learning that is consistently articulated and referenced in the staff’s work.
3. Collective learning and application of learning - requires that school staff at all levels are engaged in processes that collectively seek new knowledge among staff and application of the learning to solutions that address students’ needs.

4. Supportive conditions - includes physical conditions and human capacities that encourage and sustain a collegial atmosphere and collective learning.
5. Shared practice - involves the review of a teacher's behaviors by colleagues and includes feedback and assistance activity to support individual and community improvement. (Hord, 2004, p. 7)

Huffman and Hipp (2003) conducted a 5-year study that documented schools involved in the initiation and implementation of organizational restructuring and the development of professional learning communities. The project engaged thirty educators in a planning process focused on the development of professional learning communities in a variety of pre-kindergarten through twelfth grade settings in the Midwest and South United States. Using a mixed-method approach, the researchers collected data for three years. This study revealed that the dimensions of Hord's (1997) framework are non-sequential; they do not develop in any particular order. However, the descriptors of each component of the model fell into a continuum and were predictive of the stage of the PLCs change phase—initiation, implementation, or institutionalization.

A synthesis of the DuFour and Eaker (1998) framework and the Hord (1997) framework provided the following operational definition of professional learning communities: A professional learning community is a collaborative team whose members work interdependently to achieve common goals linked to the purpose of student learning. A professional learning community possesses the critical dimensions of: (1) shared mission and vision, (2) collective inquiry, (3) shared leadership, (4) action

orientation, (5) collective learning, (6) a focus on results (DuFour & Eaker, 1998; Hord, 1997).

The work of professional learning communities is guided by four fundamental questions:

1. What knowledge and skills should every student acquire?
2. How will we know when each student has acquired the essential knowledge and skills?
3. How will we respond when some students do not learn?
4. How will we respond when some students have clearly achieved the intended outcomes? (DuFour et al, 2006)

DuFour et al. (2004) proposed that “people who engage in collaborative team learning are able to learn from one another and thus create momentum to fuel continued improvement” (p. 3). Through collaboration, exploration of best practices, and analysis of current levels of student achievement, professional learning communities fuel school improvement.

Members of a PLC realize that their efforts must be assessed on the basis of results rather than intentions. Unless initiatives are evaluated on the basis of measurable outcomes, they represent “groping in the dark” rather than meaningful, sustainable improvement (DuFour et al., 2006). Focusing on results leads to measurable improvement goals that are aligned to school and district goals.

Focusing on the “Right Things”

One of the most pervasive problems in building PLCs is the fact that often teachers collaborate on a regular basis yet anticipated gains in student achievement fail to materialize (DuFour et al., 2006). “The fact that teachers collaborate will do nothing to improve a school. The pertinent question is not, ‘Are they collaborating?’ but rather, ‘What are they collaborating about’ (p. 91)?” Teachers are often not focusing on the right things. They must recommit to the four questions that drive the work of PLCs: (1) What is it we want our students to learn? (2) How will we know if each student has learned it? (3) How will we respond when some students do not learn it? (4) How can we extend learning for those who have learned it (DuFour et al., 2004; DuFour et al., 2006)?

Clearly, a systematic process is needed. “A systematic process is a combination of related parts, organized into a whole in a methodical, deliberate, and orderly way, toward a particular aim” (DuFour et al., 2006). Teams must establish clear parameters and priorities that guide the work of the teams toward the goal of student learning. In an effort to balance “loose” and “tight” leadership, teams must establish timelines for completion of their own revised norms, goals, lists of essential skills, and common assessments.

Perhaps more importantly, teachers must be equipped with the tools, practice, and confidence to use student data and data-analysis tools to improve learning. Lack of data is certainly not the problem. Many schools suffer from what Robert Waterman (1987) calls the DRIP syndrome—data rich, information poor. Data alone will not inform a

teacher's professional practice. It must be placed in a context to provide a basis for valid comparison.

A strategy toward reaching this goal is reevaluating current common assessments for the following criteria:

- Are they connected to the curriculum?
- Do they measure students' acquisition of agreed-upon knowledge and skills?
- Are they given on a regular and frequent basis to all students enrolled in the grade level?
- Are they administered around the same time?
- Do they identify weaknesses in student learning in order to provide students with additional opportunities to learn?
- Do they allow students to see their own progress toward the standards/indicators? (DuFour, et al., 2006)

Collaborative Culture

School culture cannot be ignored in any discourse on school improvement. Its importance is clearly visible in the literature on this topic. The creation of a collaborative culture is "the single most important factor" (Eastwood & Lewis, 1992, p.215) for any principal wanting to improve a school. Leaders help to shape the culture of the school through the beliefs they hold, the words they speak, and the actions they take.

Collegial learning promotes the culture of educational change (Hall and Hord, 1997). Hargreaves (1997) suggests that "the central task in creating cultures of

educational change is to develop more collaborative working relationships between principals and teachers and among teachers themselves” (p. 2). Schmoker (1997) notes that school personnel are being asked, for the first time, to be thinkers and group problem-solvers. “This is something new...[to be] brought together—regularly—to be asked for their suggestions, to develop real solutions to the most pressing concerns students face” (p. 143).

Sparks (2007) offered the following steps for school leaders who want to shape school culture to improve teaching. First, the leaders must work to cultivate energy, passion, appreciation, celebration, and a sense of possibility. They must help teachers believe that what they do every day makes a difference. They should encourage examination of personal strengths and inner development. The leaders must monitor and continuously improve the quality of relationships. They should address both the emotional and intellectual lives of teachers, and lastly, they should distribute leadership widely throughout the school community. Sparks opined that in such cultures, teachers are more likely to maintain high levels of enthusiasm about their work, share successful practices, engage in individual and group reflection, and express themselves candidly. Their shared commitment to high levels of learning and performance for all teachers and students will promote productive and professionally satisfying workplaces.

Other strategies for promoting a collaborative, professional, learning culture include modeling risk-taking in the service of achieving goals, communicating concern for student achievement, and communicating interest in staff performance (Murphy, et al., 2006). Learning-centered principals work hard to create an environment of high

performance expectations for self, staff, and students. On a personal front, they “portray a positive attitude about the ability of staff to accomplish substantial things and inspire teachers to accomplish things that might seem beyond their grasp” (Waters & Grubbs, n.d., as cited in Murphy et al., 2006, p. 22).

In collaborative school cultures, principals remain key to shaping the norms, values, and beliefs of the staff. Principals shape culture through the multitude of daily interactions they have in the school community. “The principal is a potter who builds culture through hiring, budget, and supervisory decisions; the principal is a poet whose written and oral messages can reinforce a healthy culture; the principal is an actor on all the stages of school events; and the principal is a healer who can help repair the culture when a tragedy, conflict, or loss occurs” (Allen, 2003, as cited in Hall & Hord, 2006, p. 33). The transformation from a culture of isolation to a culture of collaboration will not occur in a school without the effective leader. As McLaughlin and Talbert (2006) concluded, “Principals are in a key strategic position to promote or inhibit the development of a teacher learning community in their school. School administrators set the stage and conditions for starting and sustaining the community development process” (p. 56).

The Impact of PLCs on Teacher Instruction

In a meta-analysis conducted by Marzano, Pickering, and Pollock (2001) at the Mid-Continent Research for Education and Learning (McREL), researchers identified the single most important factor affecting student achievement: the quality of the teacher and the instructional strategies used to impact student learning.

Prior to the emergence of professional learning communities, privatization of classrooms was the status quo in most schools (Mullen & Huttinger, 2008). DuFour and Eaker described high schools as a collection of independent contractors connected by a common parking lot (1998). Teachers entered and departed from schools with minimal interaction. Interactions that occurred were often superficial or unrelated to the work of the school. Schmoker (2006) cited teacher isolation as one of the greatest barriers to improving student learning. Privatization meant that the teachers could essentially close the door and teach whatever they wanted. Teacher isolation also resulted in minimal monitoring of the quality of teacher work, and ultimately the impact (or lack of impact) on student learning.

To guarantee that high quality instruction and assessment practices are happening in every classroom, the walls of privatization must be eliminated. Professional learning communities encourage deprivatization and can have a profound impact on the practice of teaching (DuFour & Eaker, 1998; DuFour et al., 2004; Hord, 1997; McLaughlin & Talbert, 1993). PLCs promote peer dialogue focused on the teachers' behaviors (Louis & Kruse, 1995). Little (2006) found when teachers engage regularly in authentic joint work focused on explicit, common goals, their collaboration pays off in the forms of higher quality instruction and increased teacher confidence. In PLCs, teachers publicly discuss goals, strategies, materials, and pacing—things that have been traditionally held as private (Louis, et al., 1996). Teachers' open dialogue reflecting on and developing classroom practices, elicits deep team learning, improves classroom practice of teachers

individually and collectively, and leads to higher levels of student achievement (DuFour et al., 2004).

Hord's (1997) research revealed that PLCs result in the following improved outcomes for teachers:

- Reduced teacher isolation
- Increased commitment to strengthening the school's mission and goals
- Collective responsibility for student success
- New knowledge concerning the definition of teaching and learning
- Increased meaning and understanding of content and their role in student achievement
- Professional renewal and desire to inspire students
- Higher morale and satisfaction
- Significant advances in efforts to accommodate students
- Commitment to making major and ongoing changes
- Higher probability of fundamental, systematic change. (pp. 27-28)

Unfortunately, the question confronting many schools is not, "What do we need to know in order to improve?" but rather, "How will we turn what we already know into action?"

The Knowing-Doing Gap

The literature reveals that PLCs, with their focus on structured teacher collaboration, are one of the practices that the educational research community can agree upon (Blankstein et al., 2008, DuFour et al., 2004, Hord, 2004). It makes sense that

schools committed to helping students achieve at high levels would focus on learning rather than teaching. It makes sense that teachers accomplish more working collaboratively than they do working in isolation. It makes sense that schools would assess their effectiveness in helping students learn on the basis of results. So why don't schools do what they already know makes sense? Mike Schmoker (2005) responds, "[Educators] *know* what to do—it is that we do not *do* what we know" (emphasis in original, p. 149). In *The Knowing Doing Gap*, Pfeffer and Sutton (2000) concluded,

The answer to the knowing-doing problem is deceptively simple. Embed more of the process of acquiring new knowledge in the actual doing of the task and less in the formal training programs that are frequently ineffective. If you do it, then you will know it. (p. 27)

Pfeffer and Sutton (2000) identified eight themes that help to explain and address the knowing-doing gap:

- 1) Why must come before how. It is more important for staff to understand the organization's mission, beliefs, and values than to replicate detailed practices and procedures.
- 2) Knowing comes from doing and teaching others how. Learning by doing should be the modus operandi of organizations wishing to bridge the knowing-doing gap.
- 3) Action counts more than elegant plans and concepts. Action must be valued above talk, and analysis without action is unacceptable.

- 4) There is no doing without mistakes. The organization must encourage risk-taking and the response of leaders to failures sends a powerful message to staff about whether or not risks are really encouraged or not.
- 5) Fear fosters knowing-doing gaps. Leaders must build a “forgiveness framework not a failure framework” (Pfeffer & Sutton, 2000, p. 100).
Additionally, leaders should attempt to make power differences less visible in the hierarchical structure of the organization.
- 6) Beware of false analogies. Fight the competition, not each other.
Cooperation and collaboration help to close the knowing-doing gap.
- 7) Measure what matters and what can help turn knowledge into action. Just because what gets measured gets done does not mean that leaders should measure everything.
- 8) What leaders do, how they spend their time, and how they allocate resources matters.

Most organizations already have the knowledge they need to improve. They simply do not implement what they already know. Moving forward requires more *will* than skill. “Those who hope to lead PLCs should stop waiting for more training, more knowledge, and more skills and instead create the conditions that enable staff members to learn by doing” (DuFour et al., 2006).

Impact of PLCs on Student Learning

The very essence of a professional learning community is a focus on and a commitment to the learning of every student (DuFour & Eaker, 1998). When a school or

district functions as a PLC, educators within the organization embrace high levels of learning for all students as the reason their organization exists (DuFour et al., 2006). Studies show that a sense of professional community correlates positively with student outcomes (Newman & Wehlage, 1995). Reflective discussion, open sharing of classroom practices, developing a common knowledge base for improvement, collaborating on the design of new materials and curricula, and establishing norms related to pedagogical practice and student performance are hallmarks of a professional culture (Louis & Marks, 1998). Research also indicates that PLCs have considerable impact on student achievement and preparation for the demands of the 21st Century (Blankstein et al., 2008; Hord & Sommers, 2008). Darling-Hammond (1995) found that schools that discussed the effectiveness of teaching practices and focused their efforts on teaching and learning showed improved academic results more quickly than schools that did not. Lee, Smith, and Croninger (1995) reported that in a study of 82 secondary schools, where teachers worked together to change their classroom pedagogy, students achieved greater gains in math, science, history, and reading than students in traditionally organized schools.

Similarly, Hord (1997) identified the following positive outcomes for students in schools with organized professional learning communities:

- Lower dropout rates
- Fewer incidents of absenteeism
- More equitable learning in smaller high schools
- Larger achievement gains in math, science, history, and reading
- Smaller achievement gaps between subgroups. (pp. 27-28)

Schmoker (2001) identified three key elements that impact student achievement:

- (1) teachers aim their efforts explicitly at the achievement of measurable goals;
- (2) teachers work in teams regularly to analyze student successes and failures; and
- (3) teachers routinely assess students' progress to target deficiencies and reinforce strengths.

In a PLC, educators are hungry for evidence that students are acquiring the knowledge, skills, and dispositions deemed most essential to their success. Schools systematically monitor student learning through formative assessments and respond immediately to students who experience difficulty. A coordinated systematic attack that is timely and based on intervention rather than remediation is the response when students do not learn. Undergirding a professional learning community are shared norms focused on student learning and collective responsibility for school processes and improvement which provide a structure that directs professional behavior (Bryk, Camburn, & Louis, 1999).

Stages of PLC Functioning

More than twenty years ago, Naisbitt and Aburdene (1985, as cited in DuFour et al., 2006) concluded that people find it easier to get from point A to point B if they know where point B is and how to recognize it once they arrive. Unfortunately, school improvement efforts are often plagued with uncertainty about both points A and B. Many educators have not taken the time to clarify either the current status of their school or what they hope it will become. This often results in random starts and stops rather than sustained, meaningful improvement. Collins (2001) asserted that effective

improvement requires an honest assessment of the current reality. Teachers will find it easier to move forward if they first agree on where they are. Therefore, it is critical for the members of a professional learning community to frequently assess the current reality of their team's functioning.

DuFour et al. (2006) provided a four-point continuum for assessing the stages of a professional learning community:

- 1) Pre-Initiation: The school has not yet begun to address the principles or practice of a PLC.
- 2) Initiation: An effort has been made to address the principle, but the effort has not yet begun to impact a critical mass of staff members.
- 3) Developing: A critical mass of staff has begun to engage in the practice. Members are being asked to modify their thinking as well as their traditional practices. Structural changes are being made to support the transition.
- 4) Sustaining: The principle is deeply embedded in the culture of the school. It is a driving force in the daily work of the staff. It is deeply internalized and staff would resist attempts to abandon the principle or practice. (p. 32-33)

Fullan (2007) and Hipp and Huffman (2003) used similar language to describe the levels through which a proposed innovation moves to reach desired outcomes: initiation, implementation, and institutionalization. In initiation, the staff makes the decision to proceed with the change. In implementation, the innovation is operationalized into practice. In institutionalization, the innovation is recognized as an ongoing part of the system or "the way things are done around here."

Hipp et al. (2007) asserted that schools rarely reach the level of institutionalization, and Stoll et al. (2006) argue that the term sustainability more accurately represents the element of continuous growth that is necessary for change. Additionally, Hipp et al. (2007) introduced the term *non-initiated* to the continuum which represents, at best, mere awareness.

Leadership

Overview

Leadership has been a topic of interest, theorizing, and research for centuries. Academics, sports fans, stockholders, teachers, and CEOs have theories about what constitutes a leader. Although there are many well-known definitions of leadership, a classic definition by Tannebaum, Weschler, and Massarik (1961) encompasses many of its critical dimensions: “Interpersonal influence directed through the communication process toward the attainment of a goal or goals” (p. 24). Beyond defining leadership, contemporary researchers have found it more meaningful to study what leaders actually do than to focus on their personal traits. Bernard Bass (1981) listed behaviors that differentiate leaders from followers as

strong drive for responsibility and task completion, vigor and persistence in the pursuit of goals, originality in problem-solving, willingness to accept the consequences of decisions and action, the ability to influence others’ behavior, and the capacity to structure social interaction systems to the purpose at hand.
(p. 81)

Bennis and Nanus (1985) expanded the understanding of leadership to include another dimension, the concept of vision—“the capacity to create and communicate a view of the desired state of affairs that includes commitment among those working in the organization” (p. 21).

In a 2006 Wallace Foundation report on learning-centered leadership, Murphy, Elliott, Goldring, and Porter identified five core findings about leadership.

1. First, leadership matters. In the last fifty years, academics, practitioners, and researchers from every field of study have concluded that leadership is a central variable that defines organizational success. In the education field specifically, there is parallel evidence that leadership is a key element in school district success as defined in terms of student achievement (Marzano, Waters, & McNulty, 2005; Murphy et al., 2006; Murphy & Hallinger, 1988).
2. Secondly, in difficult times leadership matters even more. The literature is rich with examples of organizational failure, but in contrast, there are also examples of those who recovered and grew even stronger (ex: IBM). What is clear is that leadership is the key condition explaining organizational success and failure. Similarly, K-12 research demonstrates that school leadership is a critical element in helping schools break the cycle of failure (Mirvis, Ayas, & Roth, 2003; Murphy et al., 2006).
3. Third, in periods of significant organizational transition, leadership is the major controllable factor in explaining performance. Scholars from many fields agree that strong leadership provides a bridge to successful adaptation and transition.

Education is currently in a state of transition, shifting from an industrial model of learning to one struggling to redefine itself for the 21st Century. Leadership will be a critical factor in the success or failure of this transition (Murphy et al., 2006).

4. Fourth, Murphy et al., (2006) posited that instructionally-focused and change-oriented leadership are especially effective leadership styles for education.

Instructionally-focused leaders stay focused on the learning, teaching, curriculum, and assessments. Change-oriented leaders employ effective methods for getting staff, students, families, and communities to become more effective.

5. Lastly, team leadership enhances organizational performance. Analysts have begun to argue that shared or distributive leadership can substantially improve organizational performance. Murphy et al. (2006) maintained that spreading leadership among multiple stakeholders can help lift the organization to heights that simply cannot be achieved by a single leader.

The literature on team leadership is extensive (Kouzes & Posner, 2003; Marzano, Waters, & McNulty, 2005; Sergiovanni, 2005). Kouzes and Posner (2003) described its importance in this way:

In the thousands of cases we've studied, we've yet to encounter a single example of extraordinary achievement that didn't involve the active participation and support of many people. We've yet to find a single instance in which one talented person—leader or individual contributor—accounted for most, let alone 100 percent, of the success. Throughout the years, leaders from all professions, from all economic sectors, and from around the globe continue to tell us, “You can't do

it alone.” Leadership is not a solo act; it’s a team performance.... The winning strategies will be based upon the “we” not “I” philosophy. Collaboration is a social imperative. Without it people can’t get extraordinary things done in organizations. (p. 22)

Conceptual Framework for Learning-centered Leadership

Learning-centered leaders are strong educators who anchor their work in learning, teaching, and school improvement. They are moral agents and social advocates for the children they serve. In their analysis of the research base undergirding the concept of learning-centered leadership, Murphy et al. (2006) identified eight major dimensions of the learning-centered leader: vision for learning, instructional program, curricular program, assessment program, communities of learning, resource acquisition and use, organizational culture, and social advocacy. These provided a conceptual framework that shaped this study.

Vision for learning. The first dimension of the learning-centered leadership framework is vision for learning. Learning-centered leaders develop the mission and vision of the school with and among stakeholders. They use multiple sources of information when forming the vision—assessment data pertaining to student learning, demographic data related to the community, and information on patterns of opportunity to learn (Murphy et al., 2006). Learning-centered leaders facilitate a school vision with high standards of student learning, a belief that all students can learn, and goals that are clearly defined. They articulate the vision through personal modeling and communication. They keep the mission and vision at the center of everyone’s work

through a variety of formal and informal exchanges, symbols, and ceremonies. Learning-centered leaders exhibit the following core leadership behaviors in implementing the mission and vision:

- Provide appropriate physical and emotional resources
- Develop and maintain enabling systems
- Delegate responsibility and accountability
- Build consensus and buy-in for policies, practices, and support systems
- Supervise faculty and staff committees tasked to identify staff and resources needed to achieve teaching and learning goals
- Supervise the development of performance criteria for achieving teaching and learning goals
- Supervise the analysis and reform of process system requirements needed to achieve teaching and learning goals
- Encourage new policies and practices that could achieve results. (Murphy, et al, 2006, p. 10)

Lastly, they steward the vision by continuously examining assumptions, beliefs, and values, assessing the implementation of goals, and evaluating organizational performance and student learning (Murphy, et al., 2006; Louis & Miles, 1990).

Instructional program. Another dimension of the learning-centered leader is a strong orientation to the instructional program of the school. Learning-centered leaders are knowledgeable about pedagogy, and they are directly involved in the design of the instructional program. They spend considerable time supporting school staff in their

efforts to strengthen teaching and learning. Learning-centered leaders give specific feedback about teacher performance. They hire and promote effective teachers, and they counsel poor teachers to leave the classroom. Learning-centered leaders make sure that a majority of the school day is devoted to instructional activities and non-instructional activities are kept to a minimum. They protect the instructional time from interruptions and coordinate time usage among teachers and across classes. They celebrate the instructional accomplishments of teachers and recognize individual achievements (Murphy, et al., 2006).

Curricular program. Learning-centered leaders are diligent in implementing a rigorous curricular program. They ensure that each student has opportunity to learn the content in all academic subjects, and they monitor the effectiveness of the curriculum. Learning-centered leaders work to coordinate standards, instruction, curricular materials, and assessments (Murphy, et al., 2006).

Assessment program. The fourth dimension of learning-centered leadership is the assessment program. Learning-centered leaders are central to the development, implementation, and monitoring of the assessment systems at the classroom and school levels. Assessment systems in learning-centered schools are comprehensive—they feature a variety of monitoring data and data-collection tools. They disaggregate information by program placement and by biosocial characteristics such as gender, race, and class. They make judgments about the effectiveness of instruction and curriculum by triangulating data from multiple sources. Learning-centered leaders provide teachers with assessment results on a regular basis and facilitate staff dialogue in whole group, small

group, and individual forums. They ensure that information about student progress is reported to parents in an accessible form, at multiple times, and in a variety of formats (Murphy et al., 2006).

Communities of learning. Learning-centered leaders facilitate the development of communities of learning. In the area of professional development, they attend to their own growth; therefore, they model a lifetime commitment to learning. They focus their learning on issues of school improvement. They assist teachers in strengthening their instructional skills by funding workshops, hiring coaches, and facilitating intra- and inter-school visitations. They plan professional development based upon the principles of learning theory and models of best practice. Learning-centered leaders promote formation of a learning organization. They facilitate the building of shared beliefs, nurture the collaborative process, and create organizational structures that promote shared responsibility for student learning. Through their actions, learning-centered leaders also communicate the importance of community-building in a school. They treat all people with fairness and dignity. They build the foundations that support shared direction, cooperative work, and mutual accountability (Murphy et al., 2006).

Resource allocation and use. Another dimension of learning-centered leadership is resource allocation and use. Learning-centered leaders acquire and use resources in support of every student reaching ambitious performance targets. They are skilled in locating and securing additional resources for their schools. They link resource allocation to the mission and goals of the school, and they occupy their time with

management and politics only to the extent that they strengthen the quality of school programs and student learning (Murphy et al., 2006).

Organizational culture. Organizational culture is another important dimension of learning-centered leadership. Five themes emerged from their work: production emphasis, accountability, continuous improvement, safe learning environment, and personalized community. Effective organizations can be identified by a strong production emphasis, or commitment to results. They take risks in the service of attaining their goals and have clearly defined school-wide expectations. Learning-centered leaders integrate both internal and external accountability systems and hold their staffs accountable for aligning teaching and learning within the context of the broader achievement goals set by policy. They are relentless in the pursuit of continuous improvement, knowing that status quo is often linked with decline. Learning-centered leaders commit to keeping safe and orderly schools. This means that they address problems with the physical plant and confront student discipline quickly and forcefully. Lastly, learning-centered leaders facilitate a personalized community for students. They do this by creating opportunities for student leadership and creating structures that allow students to form ties to the school and appropriate adult role models (Murphy et al., 2006).

Social advocacy. The last dimension of learning-centered leadership is social advocacy. Learning-centered leaders understand contextual trends and their potential impacts to the school and community. They predict the ways in which external policy initiatives will impact their classrooms, and they respond proactively. Learning-centered

leaders commit to educational experiences that honor diversity. They act with integrity, fairness, and professional ethics. They are cognizant of their own values and beliefs, and their behaviors align with these beliefs. Lastly, they are skilled at developing relationships with parents and community members in the religious, business, and political sectors (Murphy, et al., 2006).

These eight dimensions of learning-centered leadership formed a conceptual framework for this study. It is important to understand the intersection of these principles with the attributes of professional learning communities in order to fully understand what principals need to do to support sustainable PLCs.

The Principal's Role in Professional Learning Communities

In the 1930s and 1940s, practitioners became concerned that educational *management* was not keeping up with the needs of public schooling (Moore, 1964). The 1950s brought a focus on scientific principles and empirical information to understand educational management (Heck & Hallinger, 2005). It became apparent, however, that quantitative methods were inadequate in shaping an understanding of the social reality of schools. In the 1980s, Bossert, Dwyer, Rowan, and Lee (1982) described a shift in educational leadership studies from one of exploring actions and processes to one of focusing on results. The critical role of the principal in creating the conditions for school improvement has continued to be found in research over the past 30 years. Leithwood, et al. (2004) summarized, "Indeed, there are virtually no documented instances of troubled schools being turned around without intervention by a powerful leader. Many other factors may contribute to such turnarounds, but leadership is the catalyst" (p. 5).

The literature on leadership, change, and innovation documents the all-too-familiar experiences with short-lived change efforts led by charismatic, highly capable school leaders. These “person-dependent” change strategies often do not result in sustained change or meaningful improvement. Distributive leadership, also called shared leadership, has great potential for continuous and lasting school improvement. Effective principals are adept at meeting this challenge. They involve others in the crafting and implementation of important decisions (Marzano, Waters, & McNulty, 2005).

Marzano, Waters, and McNulty (2005), of the Mid-Continent Research for Education and Learning Association (McREL) conducted a meta-analysis of studies on the impact of leadership on student achievement. They found that the most important factor affecting the teacher and the learning process in a school is the designated leadership within the school. Their work identified twenty-one principal behaviors associated with significant gains in student achievement. According to DuFour and Marzano (2011), team collaboration vital to the PLC process provides a vehicle in which to address nineteen of the twenty-one principal responsibilities identified:

1. Providing affirmation and celebration of staff effort and achievement
2. Challenging the status quo as a change agent
3. Establishing processes to ensure effective communication throughout the school
4. Shaping the assumptions, beliefs, expectations, and habits that constitute the school’s culture

5. Demonstrating flexibility in meeting the different needs of teams and being willing to make modifications to school procedures
6. Focusing on clear goals and relentlessly pursuing the school's purpose and priorities
7. Articulating the ideals and beliefs that drive the day-to-day work of the school
8. Soliciting input from staff in the design and implementation of procedures and policies
9. Engaging staff in the ongoing review and discussion of the most promising practices for improving student learning
10. Participating in the design and implementation of curriculum, instruction, and assessment
11. Demonstrating interest in and knowledge of curriculum, instruction, and assessment
12. Creating processes to provide ongoing monitoring of the school's practices and their effect on student learning
13. Creating the conditions that optimize school improvement efforts
14. Establishing clear procedures and orderly routines
15. Serving as a spokesperson and advocate for the school and staff
16. Establishing a positive working relationship with each member of the staff
17. Providing teachers with the resources, materials, and support to help them succeed at what they are being asked to do

18. Recognizing the undercurrents of the informal organization of the school and using that information to be proactive in addressing problems and concerns
19. Being visible throughout the school and having positive interactions with staff and students

The remaining two of the twenty-one responsibilities offered by Marzano et al. (2005)—contingent rewards and discipline—focus on the principal’s interaction with specific individuals. Principals, then, are leaders of leaders. The principal must first believe that the rightful title of instructional leader belongs to the teacher (Marks & Printy, 2003). The principal must then know when to involve staff in developing policies and giving input into important decisions (Marzano et. al, 2005).

In the context of professional learning communities, all members of the staff share the leadership role, but the principal remains the point person (Hall & Hord, 2006). The principal assumes and maintains ultimate responsibility but operates in a less visible and more democratic way. Everyone on the staff contributes ideas about interventions and strategies needed for student improvement.

Hall and Hord (2006) suggested that the first step in making this possible is for school and district leaders to make high-quality professional learning a priority. Additionally, an important role of the principal is to support the learning community with the physical conditions necessary for the staff to meet—a dedicated time, a location, and policies that support the time the staff invests in their community of conversations. Effective principals model the democratic participation they hope to encourage in the professional learning communities. They hire staff members who value collaboration and

collegiality. They support professional growth that focuses on conflict resolution and data-based decision making.

The importance of the principal's role in the support of sustainable PLCs can be summarized in this statement by Murphy et al. (2006), "At the school level, all change flows through the principal's office" (p. 181). Additionally, McLaughlin and Talbert (2001, p. 98) concluded, "For better or worse, principals set conditions for teacher community by the ways in which they manage school resources, relate to teachers and students, support or inhibit social interaction and leadership in the faculty, respond to the broader policy context, and bring resources into the school."

Gaps in the Research

Chapter Two has explored the literature on school reform, professional learning communities, and leadership. Increasing student achievement is at the forefront of the school reform movement. Policy makers have struggled for many years to determine the best system for meeting the needs of our nation's children. The emergence of PLCs has offered a powerful opportunity for reform and potentially the most viable alternative to meet our nation's systematic reform efforts.

This review of the literature clearly supports a relationship among professional learning communities, improved teacher instruction, and increased student achievement—the current discourse in the field is rich with research to support this link. Yet there is little research about the role of school leaders in designing and supporting PLCs. What leadership dimensions must school leaders possess in order for schools to fully realize the power of their PLCs? More research is needed about principals'

behaviors and their relationship to meaningful professional collaboration in schools. This concern was supported by Leithwood, Louis, Anderson, and Wahlstrom (2004), who stated, “Research is also urgently needed which unpacks how successful leaders create the conditions in their schools which promote student learning” (p. 22). In other words, what are the principal behaviors that most meaningful in supporting PLCs?

While several studies support the need for principal involvement in PLCs (Beck & Murphy, 1996; Hallinger, 1996; Stoll et al., 2006), there is a gap in the research about specific principal behaviors related to PLC development (Nelson, Slavit, Perkins, & Hathorn, 2008). A number of dissertations completed in the last five years examined both PLCs and building-level leadership (Dumas, 2010; Maynor, 2010; Mohabir, 2009; Peretti, 2009; Reimer, 2010; Weistling, 2010, Wells, 2010); however, only three of these studies gathered data from both principals and teachers to examine the principal’s behaviors associated with successful development of sustainable professional learning communities (Dumas, 2010; Maynor, 2010, Peretti, 2009). Fewer still focused on elementary schools (Mohabir, 2009; Wells, 2010). Furthermore, little research can be found on principals who are leading schools that are beating the odds, such as those who have high rates of poverty, great mobility, or lack of parent support (Reimer, 2010). No studies were found that examined the intersection of critical PLC attributes with learning-centered leadership dimensions.

Summary

This study contributed to the ongoing discourse about learning-centered leadership and professional learning communities. It examined the principal’s behaviors

that are perceived to be most meaningful in the support of sustainable PLCs in high-performing elementary schools that were beating the odds. It also examined the intersection of learning-centered leadership principles and the critical attributes of professional learning communities. The following chapter describes the research methods, the setting, and the participants in the study. It also addresses the data collection methods, the data analysis, the quality and rigor of the study and the role of the researcher. Chapter Four provides detailed case descriptions, and Chapters Five and Six describe the findings and conclusions from this study.

Chapter Three: Methodology

Introduction

This case study examined the principal's role in supporting sustainable professional learning communities in high-performing, low-income elementary schools. Specifically, it sought to understand the behaviors of principals perceived to be most meaningful by both the principals themselves and the teachers under their supervision. The following types of data were collected: interviews, documents, and artifacts. The over-arching research questions that follow served as a guide for data collection and analysis:

1. What types of principal behaviors are most meaningful in the support of sustainable professional learning communities?
2. How do the eight dimensions of learning-centered leadership intersect with the attributes of professional learning communities?

This chapter describes the research methods, the setting for the study, the process for participant selection, data collection, data analysis, quality and rigor of the study, and the role of the researcher.

Methods

The intent of qualitative research is to examine a social situation or interaction by allowing the researcher to enter the world of others and attempt to achieve a holistic understanding (Creswell, 2007). Qualitative research has its emphasis on discovery and description; its objectives are focused on the extraction and interpretation of the meaning of experience (Bloomberg & Volpe, 2008). Case study is an intensive description and

analysis of a bounded system. “In case studies, researchers focus their attention on the activities, events, or individual purposes, which may not necessarily involve the group per se” (Creswell, 2005, p. 439). Given that this study focused particular interest on the perceived individual behaviors of the principals in support of sustainable PLCs in their schools, the case study method was employed. The intent was not to generalize to a particular population, but to thoroughly explore the support of professional learning communities in five successful schools.

The process of building the case study involved three steps—gathering data about the organizations and their participants, organizing and editing the data into manageable files, and writing a narrative that told a story about the organizations (Patton, 2002). The data collected for this study included in-depth one-on-one interviews, documents, and artifacts. The following section describes the selection of school sites.

Setting

A criterion-based sampling method was used to determine the school sites for this study. Participants were principals and teachers in high-performing, low-income elementary schools in South-central Kansas. The following criteria were used to determine the selection of participating schools: High academic performance, high poverty rate, sustainable PLCs, geographic proximity, and access to interviews and artifacts.

High Academic Performance

Each of the selected sites earned the state’s Standard of Excellence award in both reading and math for a minimum of two of the last three years. The requirements for

Standard of Excellence were related to the five performance levels of the Kansas State Assessments: Exemplary, Exceeds Expectations, Meets Expectations, Approaching Standard, and Academic Warning. The percentage of students required in each performance category was as follows:

Table 3-1 Performance Requirements for Kansas Standard of Excellence Award

	Minimum Percent of Students Required in <i>Exemplary</i>	Maximum Percent of Students Required in <i>Academic Warning</i>
Reading	At least 25%	Not more than 5%
Math	At least 25%	Not more than 5%

	Expected Percentage of Students Classified as <i>Exceeds Standard</i> or Above	Expected Percentage of Students Classified as <i>Meets Standard</i> or Above	Expected Percentage of Students Classified as <i>Approaching Standard</i> or Above
Reading	60%	80%	95%
Math	60%	80%	95%

In addition, to receive a Standard of Excellence award at the building level, the building was required to make adequately yearly progress (AYP) in the “All Students” group and the building was required to have accredited quality performance accreditation (QPA) status.

High Poverty Rate

Each of the selected sites had school-wide Title I status. A Title I school is eligible to become a Title I School-wide Program when the poverty level, (determined by free and reduced meal counts, Aid for Dependent Children, census, or Medicaid) is at or above 40%. Schools operating school-wide programs were required to conduct

comprehensive needs assessments that identified the schools' strengths and challenges in key areas that affect student achievement. School-wide Title I schools were required to develop comprehensive school-wide program plans that describe how they would achieve the goals they had identified as a result of its needs assessment. The schools were required to evaluate annually the outcomes and the plans' implementation to determine whether the academic achievement of all students, and particularly of low-achieving students, improved, whether the goals and objectives contained in the plan were achieved, and if the plan was still appropriate as written.

Sustainable Professional Learning Community

Each of the selected sites had been functioning as a sustainable professional learning community for two years or more. Professional learning community was defined as a collaborative team whose members work interdependently to achieve common goals linked to the purpose of student learning. The professional learning communities possessed the critical dimensions of (1) shared mission and vision, (2) collective inquiry, (3) shared leadership, (4) action orientation, (5) collective learning, and (6) a focus on results (DuFour & Eaker, 1998; Hord, 1997). Whether or not the school used the term "professional learning community" was immaterial as long as the school met the definition stated above. Sustainability was determined by administering a brief survey to the teachers and administrators in each of the school sites (Appendix A). The survey assessed the stage of the PLC's functioning by asking the following questions: (1) Has your professional learning community been functioning for at least two years? (2) Are the PLC principles (shared mission and vision, collective inquiry, shared leadership, action

orientation, collective learning, and focus on results) deeply embedded in the culture of your school? (3) Is your professional learning community a driving force in the daily work of the staff? (4) Would you resist attempts to abandon the principles of professional learning communities?

Using the rule of 20:60:20 (Rogers, 2003), the researcher expected schools with sustainable PLCs to have a minimum of 80% positive (yes) responses. The 20:60:20 rule states that approximately 20% of the people who work in an organization will embrace the change immediately. They are the innovators and early adopters. Another group, approximately 60%, will be comprised of the early majority and late majority who are a little slower to accept the innovation. The remaining 20% can be expected to resist change until the bitter end and in some cases deliberately try to make it fail. Therefore, if 80% of the questions were answered by “yes” responses, the school was considered to have a sustainable professional learning community.

Geographic Proximity

For economic feasibility, each of the selected sites was within one hundred miles of a mid-sized city in South-central Kansas. This geographic boundary allowed for traveling to and from the school sites within the same day.

Access Artifacts and Interviews

Lastly, the principals in each of the selected sites allowed access to PLC artifacts such as mission and vision statements, meeting agendas, minutes, and student data profiles. The principals also agreed to be interviewed, and they granted permission to

interview three or four teachers knowledgeable about the development and functions of their professional learning communities.

Fourteen area schools met all of the criteria above. After rank ordering the schools in order of percentage of poverty, the top six principals were contacted by telephone. The researcher gave each principal a brief description of the study, and five agreed to schedule face-to-face meetings. The principal in the sixth school declined the request for a meeting. In these face-to-face meetings, the researcher explained in greater detail the intent of the research, the proposed methodology, and the interview questions. All five agreed to grant access to their artifacts, to sit down for one-on-one interviews, and granted permission for teacher interviews.

Once permission was obtained, the researcher sent the brief survey about the sustainability of the professional learning communities via email to all of the teachers and administrators in the buildings (Appendix A). When sustainability was determined, the researcher scheduled dates and times to begin gathering data.

The table below provides a summary of the selection criteria for the five school sites identified for this study.

Table 3-2 School Site Selection Criteria

School Identifier	Building-wide Standard of Excellence Awards	School-wide Title I Status	Percentage of Positive Responses on PLC Sustainability Survey	Miles from City in South-central Kansas
A	Yes	Yes	89%	0
B	Yes	Yes	91%	13
C	Yes	Yes	93.75%	87
D	Yes	Yes	82.25%	50
E	Yes	Yes	94%	0

Participant Selection

A purposeful sampling method was used to select this study's sample. The participants for this study included elementary teachers and building-level administrators in high-performing, low-income schools with sustainable PLCs. Patton (2002) suggested that participants should be selected based upon their richness of information; therefore, at each site, the principal was asked to select three to four teachers who had participated heavily in the work of the professional learning community since its initiation. Given that the definition of sustainable includes at least two years of PLC experience, a delimiting time frame of two years of PLC experience was used for participant selection as well. Principals were asked to select both early-career teachers (those in their first five years of professional experience), and veteran teachers (those with six or more years of professional experience).

The tables below provide a summary of the participants' positions and years of experience.

Table 3-3 Participants' Positions and Levels of Experience (Principals)

Participant Identifier	School Identifier	Position	Years of Experience
P1	A	Principal	11
P2	B	Principal	8
P3	C	Principal	17
P4	D	Principal	4
P5	E	Principal	16

Table 3-4 Participants' Positions and Levels of Experience (Teachers)

Participant Identifier	School Identifier	Position	Experience E = Early-Career V = Veteran
T1	A	1st grade teacher	E
T2	A	3rd grade teacher	V
T3	A	5th grade teacher	E
T4	B	2nd grade teacher	V
T5	B	3rd grade teacher	E
T6	B	5th grade teacher	V
T7	C	Resource teacher	E
T8	C	Resource teacher	V
T9	C	4th grade teacher	V
T10	C	1st grade teacher	V
T11	D	3rd grade teacher	E
T12	D	Kdgtn teacher	V
T13	D	Resource teacher	V
T14	E	6th grade teacher	E
T15	E	1st grade teacher	E
T16	E	3rd grade teacher	V

The participants will be identified by their participant identifiers in the narrative and tables in future chapters. It is important to note that the researcher had no prior relationships or contact with any of the participants in this study.

Data Collection

The use of multiple methods and triangulation is critical in attempting to obtain an in-depth understanding of the principal's role in the development of the professional learning communities (Bloomberg & Volpe, 2008). Therefore, the data collection for this case study was extensive—drawing on interviews, documents, and artifacts.

Requested documents and artifacts included mission and vision statements, goal statements, school-wide assessment plans, student assessment samples, documentation of

student grouping, PLC meeting agendas, PLC meeting minutes, photos, videos, and other documentation of professional learning community progress. The artifacts were examined to verify the data collected in the interviews. They were also reviewed to assist the researcher in finding patterns and themes, and to build background for the case descriptions in Chapter Four.

While one-on-one interviews are time-consuming and costly, they are an effective way to conduct educational research and are well suited for individuals who are comfortable sharing their ideas as well as those who are hesitant to speak (Creswell, 2005). In this study, the researcher gleaned rich, thick descriptions of the schools' day-to-day functioning, the collaborative cultures, the unique characteristics of the professional learning communities, and the principals' behaviors that were perceived to have impacted the PLCs. The interview method allowed the researcher to clarify statements and probe for additional information.

Before beginning interviews, it was important to gain the acceptance and trust of the participants. Therefore, the researcher made telephone or email contact with each participant before visiting their sites. She discussed the intent of the research, the research questions, the participants' right of refusal to answer specific questions, and the process for protecting their confidentiality.

Before each interview, the researcher spent time with each participant reviewing the interview guide (Appendix B), thoroughly explaining the consent form (Appendix C), and acquiring written consent. A pre-determined list of interview questions was used; however, follow-up questions were asked as necessary to facilitate clarification or

expansion of specific responses. All interviews were individual, and each participant was interviewed once. Interviews took approximately forty-five minutes each.

The interview questions were developed following a review of the literature. The interview questions corresponded to the critical dimensions of professional learning communities as defined by the synthesis of the frameworks provided by DuFour and Eaker (1998) and Hord (1997): shared mission and vision, collective inquiry, shared leadership, action orientation, collective learning, and focus on results.

Shared Vision and Mission

- Describe the common vision of your school.
- How was the school's vision developed?

Collective Inquiry

- What opportunities exist for staff members to collectively analyze students' needs?
- How are these opportunities encouraged? What role, if any, does the principal play in encouraging collective inquiry?

Shared Leadership

- What leadership opportunities exist for teachers in your school?
- What role does the principal play in encouraging teacher leadership?

Action Orientation

- Describe changes in practice that have resulted from the implementation of the professional learning community concept in your school?

- How are these opportunities supported? What role, if any, does the principal play in encouraging improved practice?

Collective Learning

- What is the process for planning professional development in your school?
- What role does the principal play in planning professional development activities?

Focus on Results

- Describe the process used for making instructional decisions based upon data?
- What role, if any, does the principal play in encouraging a focus on results?

Data Analysis

Data analysis for this study consisted of preparing and organizing the data.

The interview data were reduced into themes through a process of coding, condensing, synthesizing and interpreting. The findings of the research are presented in narrative text and tables in Chapter Five.

All interviews were recorded with a digital voice recorder. Each voice recording was downloaded onto a compact disc, checked for clarity, and transcribed. Participants were asked to review their transcripts for accuracy prior to coding.

The conceptual frameworks for the study were the centerpiece for managing the data. The data were first analyzed for the six critical dimensions of PLCs (as first described in Chapter One). Secondly, they were analyzed for the eight dimensions of

learning-centered leadership. The researcher identified patterns across the PLC attributes and across the leadership dimensions and the final analysis examined the intersection of these two frameworks. A detailed explanation of the data analysis procedures is provided in Chapter Five.

Field notes and documents were reviewed and catalogued. After determining the patterns and themes that emerged from the interviews, the researcher reflected on each concept and attempted to determine whether or not she had observed similar themes in the documents and artifacts. In the final phase of the data analysis, the data were packaged and presented in narrative text and tables.

Quality and Rigor of the Study

Methodological validity involves asking how well matched the logic of the research method is to the kinds of research questions that are being posed and the kind of explanation that the researcher is developing (Bloomberg & Volpe, 2008). As Merriam (1998) indicated, qualitative case study is an ideal design to understand and interpret educational phenomena:

A case study design is employed to gain an in-depth understanding of the situation and meaning for those involved. The interest is in the process rather than outcomes, in context rather than a specific variable, in discovery rather than confirmation. Insights gleaned from case studies can directly influence policy, practice, and future research. (Merriam, 1998, p. 19, as cited in Bloomberg & Volpe, 2008)

Given that the goal of this study was to gather in-depth information about actions of the principal perceived to support professional learning communities, the case study approach made sense when framed within Merriam’s definition.

To enhance the trustworthiness of this study, the following strategies were used: multiple sources of data (often referred to in the past as triangulation), peer review, member checking, and rich, thick description. This process involved the use of corroborating evidence from different sources to shed light on a theme of perspective (Creswell, 2007). Data for this study included interviews, documents, and artifacts.

Peer review provided an external check of the research process. Fellow doctoral candidates participate in “peer debriefing sessions” (Creswell, 2007, p. 208) to ask questions about the methods, meanings, and interpretations in this study. The peer review team was comprised of three doctoral candidates from Kansas State University. All three members were pursuing doctoral degrees in Educational Leadership and Administration. The following table provides details of their expertise in the field:

Table 3-5 Peer Reviewer Levels of Experience and Expertise

	Years in Field of Education	Years in Educational Leadership	Current Position	Level of Education
Reviewer A	26	15	Director of Human Resources	Doctoral Candidate Educational Leadership
Reviewer B	16	9	Middle School Principal	Doctoral Candidate Educational Leadership
Reviewer C	15	6	High School Assistant Principal	Doctoral Candidate Educational Leadership

Member checking provided another external check of the research process (Creswell, 2007). Participants in this study were asked to review the accuracy of the transcripts prior to data analysis. They were also sent by email a draft of the preliminary data analyses consisting of description and themes and asked to express their views and identify omissions.

Rich, thick descriptions were used in this study to allow readers to make decisions regarding transferability. The participants and setting were described in detail to enable the readers to transfer information to other settings or to determine whether the findings can be transferred “because of shared characteristics” (Erlandson et al., 1993, p. 32, as cited in Creswell, 2007).

Role of the Researcher

The researcher for this study was a doctoral student in educational leadership employed as a principal in an elementary school with approximately 800 students. Her professional background included eleven years as an elementary classroom teacher and twelve years as a building-level administrator.

Due to the qualitative nature of this study, the researcher brought her own experience, training, and perspective into the study. Being a building principal, she acknowledged that this research about principals’ behavior was value-laden and that her personal background was present. Her own experience as a leader in the implementation of PLCs shaped the narrative. However, in designing and completing this research, she was committed to letting the findings emerge and included her own interpretation only in

conjunction with the interpretations of the participants. Every effort was made to report the findings without bias.

Summary

This chapter describes methodology that was used in this case study, including the methods, setting, participants, data collection, data analysis, the quality and rigor of the study, and the role of the researcher. The case study methodology provided a means for understanding how the participants perceived the role of the principal in the support of sustainable professional learning communities. It also examined the intersection of PLC attributes and the dimensions of learning-centered leadership. Through one-on-one interviews and document collection, rich data were gathered to meet these objectives. Chapter Four will provide case descriptions, and Chapters Five and Six will describe the findings and conclusions from this study.

Chapter Four: Case Descriptions

Introduction

Due to the researcher’s purposeful selection criteria, the school sites for this study were similar in many aspects (high academic performance, high poverty rate, sustainable PLC functioning, and geographic proximity)—however, they were quite unique in other ways. They differed in school size, student demographics, special programs, principals’ years of experience, staff mobility, and a variety of other characteristics.

The table below provides an overview of each school’s student demographics.

Table 4-1 School Site Student Demographics

School Identifier	Number of Students	Percentage of Economically Disadvantaged Students	Percentage of English Language Learners	Percentage of Minority Students	Percentage of Students with Disabilities
A	380	58.40%	4.50%	36.80%	9.50%
B	443	55.10%	0.30%	15.10%	20.50%
C	169	76.90%	23.70%	33.70%	18.90%
D	366	66.10%	6.10%	22.70%	17.50%
E	316	80.70%	8.70%	53.20%	12.40%

While a majority of the students in each of the schools were economically disadvantaged, the overall student demographics varied greatly from site to site. School C was a small school with just 169 students. School E had the highest poverty with nearly 82% of its students economically disadvantaged. School E also had the highest minority population of all the school sites. School C had a large number of English Language Learners (ELLs), and School A had an interestingly low number of special education students.

As a visitor to each of the school sites, the researcher experienced the rich characteristics of each organization through interviews, observations, documents, and artifacts. Each school had its own palpable culture and set of unique traditions. This chapter describes the special qualities of each school site and seeks to provide a snapshot of the researcher's experience within the building. Each vignette ends with a focus on leadership—a description of the leadership qualities that made each building principal stand out as unique among the others. Fictional names were used in the case descriptions to protect anonymity. The fictional names are identified with asterisks (*).

School A

School A is an environmental magnet elementary school in a large, urban school district. The school's motto, which can be found on a tri-fold brochure about its environmental focus is, "We Grow Neat Kids!" The school demonstrates a commitment to providing multi-tiered systems of support for students. An extensive camping program and an adult mentoring program provide evidence of the staff's dedication to connecting with kids. Lastly, the school's principal and teachers demonstrate a commendable level of shared leadership.

Environmental Education

The first thing a visitor to School A will notice is its extensive outdoor learning site. The school is situated on thirteen acres of land that are used for environmental study. The school grounds feature a large pond, a wooded area with a nature trail, a native prairie, a butterfly garden, and access to the Arkansas River. The teachers focus

on a systematic sequence of environmental education strands, including wetlands, oceans, grasslands, woodlands, mountains, deserts, rainforests, and Kansas diversity.

In the fall of 2008, the school moved into a brand new, \$8.3 million, environmentally conscious facility. The 60,400 square foot school was built to hold 450 students and features an environmental lab. To coincide with the environmental magnet theme, the school has large windows for natural lighting, preferred parking for fuel efficient vehicles, recycling alcoves, a neighborhood recycling center, and an outdoor courtyard.

In addition, School A has a full-time environmental education teacher on staff. The school has received two grants recently, including an O.W.L.S. (Outdoor Wildlife Learning Site) grant and a W.H.I.P. (Wildlife Habitat Incentives Program) grant.

Multi-tiered System of Supports for Students

School A is in its second year of a reading multi-tiered system of supports (MTSS) initiative that helps students at all levels become successful readers. The MTSS initiative has provided structure for student assessments, collective inquiry among teachers, purposeful intervention strategies for struggling students, and professional development for school staff. School A has chosen a Walk-to-Intervention model, in which students are grouped for instruction based upon similar reading deficits.

In School A's MTSS model, the teachers meet weekly in PLC meetings to discuss student progress, determine groups for instruction, and collaboratively plan intervention lessons for students. The principal explained, "We have purposely set up structures within our schedule and everything surrounding our school to make sure we have times

for [collective inquiry]. We have built into our master schedule...MTSS time...for teams to get together. They're looking at their student data and they're planning interventions, groupings, and tiered instruction. Which kids need additional help? Which skills are the kids lacking?" (P1)

School A has an instructional coach to assist with professional development and the delivery of multi-tiered systems of support. The coach meets with every grade level for focused data discussions for 90 minutes every other week. According to the principal, the instructional coach helps the teachers to dig deeper when diagnosing students' reading problems. "...she'll do quadrant sorts with them. Which level are they in? Which kids need help with fluency? Which ones need comprehension? Which ones do we need to look at for drilling down with the QPS or past assessments and find out where they're at with their phonics? They will sit there and make a plan for every single class and every single kid on what they need during that time." (T1)

Commitment to Connecting

School A's teachers are strongly committed to connecting with kids. One of the ways the adult/student relationship is nurtured is through the school's camping program. Camping is an integral part of the school's instructional program. All kindergarten and first graders participate in day camps in the fall and spring. The fall camp is on the school grounds, and the spring camp is held at a local park. The teachers and parents work together to provide a learning experience that is rich in investigation, project-based learning, and relationship-building.

For second and third grade students, teachers organize both day camps and overnight trips. Grade Two students have a day camp at a local park in the fall and an overnight camp in cabins at a local campsite in the spring. The third graders have overnight tent camping on the school grounds in the fall, and overnight camping at an out-of-town YMCA camp in the spring.

Fourth and fifth graders participate in more extensive camping experiences. The camp trips are three days/two nights long; one is in Kansas, and the other is out-of-state. Students pitch their own tents, help with meal preparation, and take responsibility for clean-up. The focus is on responsibility and teamwork.

School A also has a mentoring program to assure that every student has a positive relationship with an adult in the school. The “buddy” program was initiated by the MTSS leadership team during an all-staff professional development meeting. The team leaders made post-it notes with the names of every student in the school on them. They posted them on the walls of the library. Staff members walked around the room and wrote tally marks on the post-it notes of students that they had a relationship with. Then the team identified the kids with the fewest tally marks. Those students were assigned an adult “buddy.” The goal of the program is for the adult mentors to seek out those students, make a connection, and let the children know that they have adults that care about them. One teacher remarked, “I thought it was very powerful.... My little guy is a second grader now, and he just gets so excited when he sees me. You know, my path probably would not cross his if we hadn’t done that intentionally.” (T2)

School A's mission statement is titled "No Child Left Indoors." It states that stakeholders will interact and collaborate through positive relationships. It also states that stakeholders will feel safe, respected, and engaged in an atmosphere that focuses on core curriculum and integrates environmental education. School A is working to accomplish its mission through an outdoor learning program, shared leadership, a multi-tiered system of supports, and a commitment to connecting with kids.

Leadership Focus: Knights of the Rounds Table

Shared leadership is a hallmark of School A's culture. The principal is not only willing to distribute leadership among the staff, but he is committed to doing so. When asked about leadership opportunities in the building, the principal said, "One of the things that I actually have stressed in the last two years...and I spoke specifically about this to the staff...is that I consider every one of you leaders. This place only runs because every one of you does what you need to do, at different levels and different times of day, because you're a leader. It's not about power of who's in charge. We all, if we're working collaboratively, have that. One person can't do it all. I'm not that talented."
(P1)

A majority of the teachers on the staff have long-standing tenure at the school. One teacher shared in her interview, "This is my twenty-third year. The staff here is kind of a long-term staff. We haven't had a lot of teacher turnover, and what teacher turnover we do have, it usually is retirement or they've moved to a different city..." She went on to describe the school's culture in this way: "...the teachers are the leaders in the building. And it has always been group decision-making. Way back when, we always

rearranged the staff meetings so that we all sat at the same table. It's like Knights of the Round Table...and that culture has still remained.” (T1)

The leadership opportunities in School A are numerous. Staff members serve on a multitude of committees, including an Environmental Education Committee and a Multi-tiered Systems of Support (MTSS) Committee. Teachers organize and lead camp outings with students and parents, and they help the principal build the master schedule. Staff members also take on after-school leadership roles such as safety patrol sponsors, bus monitors, grounds beautification, and organization of a Choices Fair. “Everyone pitches in,” one teacher remarked. “See a need, fill a need.” (T2)

School B

With 443 students, School B has the largest enrollment of the five schools in this study. It is one of six elementary schools in a mid-sized school district in South-Central Kansas. School B has utilized the DuFour model for professional communities for seven years, and currently holds weekly PLC meetings for collective inquiry among teachers. Since the implementation of PLCs, student test scores have steadily improved from what the principal called “mediocrity” in 2005 to building-wide Standard of Excellence in both reading and math in 2009 and 2010. Last year, School B adopted the Literacy First reading process in an effort to close the remaining achievement gap for struggling readers. The building has also placed increased emphasis on character development and behavior expectations.

Weekly PLC Meetings

School B's school district implemented professional learning communities during the 2004-2005 school year. The kick-off included two days of training with Richard and Rebecca DuFour. In order to secure time for collective inquiry and teacher collaboration, the building principals rearranged the master schedules so that grade-level teachers had common planning time. Teachers across the district have participated in weekly PLC meetings ever since.

In their weekly meetings, teachers from School B use data to assess student progress toward their learning goals. They collaborate about instructional strategies and make plans for the students who have met their academic goals. They plan intervention strategies for students who have not met their academic goals. A teacher from School B described the process in this way: "We meet every week at a certain time, so we know what's coming and we plan for it. We look at more data than we ever have before because we are trying to see what children are making it and what children are not making it. And why they aren't making it and what we can do to help them, whether it's math or reading or maybe behavior." (T4)

The teachers at School B believe that the work accomplished in PLC meetings translates into improved practice in the classrooms. "We're pinpointing more of the data, and we make decisions [about teaching] based on the data," (T4) shared a teacher. A colleague concurred, "Just for example, in our fifth grade PLCs, we talk about, like I've said, 'Oh, they're not getting this.' You know, or 'My scores are lower in this area.' And then we go and we talk about it. My teacher next door might say, 'Well, this is what I

did.’ So, I would come back and review a lesson or restructure a lesson because of that conversation.” (T5)

Rise to Excellence

The results of the 2006-2007 state assessments indicated that only two-thirds (66.7%) of School B’s students were proficient in reading and three out of four (75.3%) were proficient in math. The results for economically disadvantaged students were even lower with 64.8% showing proficiency in reading and 71.3% in math. However, scores began improving the following year, and by 2009 and 2010, School B was awarded building-wide Standard of Excellence awards in both reading and math with 85 to 90% of the students demonstrating proficiency. Additionally, the scores of economically disadvantaged students increased in equal measure.

The principal is very proud of the achievement gains. He lists strong academic vision, improved student behavior, purposeful hiring, and teacher collaboration as factors that may have contributed to the school’s success. He stated, “The story of [our school] is actually a climb academically from mediocrity to trying to achieve excellence.” (P2)

Literacy Program

In an effort to bring more students to proficiency in reading, School B recently implemented the Literacy First reading program. Literacy First is a research-based, systematic reading process that provides a continuum for reading skills instruction and aligns teachers’ instructional practices (<http://www.literacyfirst.com/>). The process includes a comprehensive site analysis, student data compilation, professional

development for teachers, professional development for the principal and a site specialist, and personalized consulting resources.

Teachers use the Literacy First assessment data to plan two hours of reading instruction daily and to monitor students' progress. As one teacher explained, "...we have our really nice print-outs from Literacy First that show us where each kid is and we watch the growth and we can form our groups individually in our classrooms from that." (T4) She continued, "The first hour is learning centers, reading centers, and the second hour is whole-group reading. It's pretty broken down systematically, like, the first ten minutes I do a read-aloud and then I go into the word wall, and then we do whole group, and then we finish up with another read-aloud. We're really seeing great results from the data."

School B has a Literacy Resource Specialist (LRS) who serves as an instructional coach for the reading program. The responsibilities of the LRS include collecting data in classroom walk-throughs, monitoring student progress, assisting teachers with data analysis, and consulting with teachers about their literacy lessons. The Literacy First resource room is home to a large data wall, which is a focal point for student progress monitoring. As one teacher described, "We have a big data wall...and we're constantly moving each kid on there. We have them kind of coded on there. So each kid is moving so we can see where they're at. And then when we want to form target groups and stuff, we can go on and say, 'Okay, whoa! We have a big chunk [of students] that is missing this skill. We need to pull them and we need to work on that.' So the data wall really just puts it into place." (T5) The principal explained that the data wall also serves as a tool

for teacher accountability. “[The teachers] have to move their data over. So if you haven’t seen a team or a teacher coming in to move their data based upon continuous monitoring, it would be pretty obvious.” (P2)

Leadership Focus: Behavior First

The principal at School B places great emphasis on student behavior. When asked about his vision for learning, he said, “We talk about behavior over all...and specifically that our students will be the very best behaved...we have high expectations for them.” (P2)

The first line in School B’s mission statement addresses positive character traits. It says, “Kids will use and staff will model the character traits respect, responsibility, caring, and trustworthiness.” In their interviews, the principal and teachers from School B discussed the importance of character and positive behavior with as much enthusiasm as they discussed high academic achievement. “We really want to be here to enhance learning, but first we need to build who they are as a person. All that behavior, character education kind of stuff we also tie in on a daily basis with our reading and writing and math,” (T4) reported a teacher.

During his six year tenure at School B, the principal has focused on strengthening interpersonal connections—improving positive relationships between students and staff. One way he has done this is through purposeful hiring. “When I came six years ago, I thought that I needed a bunch of disciplinarians.... Actually, I realized after not very long that I was going to need to look for something completely different. I want there to be structure, but ultimately, I want people that are achievement oriented, that make

connections with kids, and I didn't need a bunch of mini drill sergeants running around.”
(P2)

Both the principal and the teachers credit their training in the Love and Logic[®] program with marked improvement in staff/student relationships. Love and Logic[®] is a method of working with students which was developed by Fay, Cline, and Fay (<http://www.loveandlogic.com/>). Love and Logic[®] provides a framework for educators intended to promote healthy teacher/student relationships and positive school-wide discipline. Essential skills include neutralizing student arguing, delaying consequences, and handing the child's problem back using empathy and consequences. The principal explained, “One of the reasons we do Love and Logic is based upon our need to provide clear boundaries for kids. We were having trouble dealing with disruptive students when I first got here. I think now that we've had kids for five or six years, they're used to [our way] of doing things.” (P2)

School B's sustainable PLC, systematic reading program, and focus on student behavior have likely contributed to its rise to excellence. When asked, the principal was hesitant to credit the school's success to his own leadership or to any one thing. He said, “That's a good question. Everyone says that leadership matters, and I know leadership matters. But I can't honestly tell you that we do this, this, this, and this. I mean, I see the results. We were in the mid 60s and now were somewhere in the upper 80s or low 90s on assessments, so it's working.” (P2)

School C

School C is a third-through-fifth grade building in a small district in Central Kansas. It houses 175 students with three classes per grade level. The elementary school was constructed in 1956 and renovated in 2005. The renovated facility boasts a gymnasium, updated library, computer lab, writing lab, resource classroom, and conference rooms. Their motto is “Student-Centered Learning Achieved through Community Commitment.” School C has a strong character education program, a commitment to collective inquiry through data analysis, and a high level of teacher accountability.

Sealed with a Handprint

The first thing a visitor to School C will notice is that the interior hallways are covered in handprints in bright primary colors. The handprints are a source of pride for School C’s staff members and students because they represent the school’s focus on character education. At the beginning of each school year, staff and students are invited to place their handprints on the walls as a symbol of their commitment to the character traits agreed upon by the community. The core beliefs of the school include the statement, “We promote good character attributes as a part of student learning.”

The slogan, “We think our kids are SCHARRP!” helps students remember the character traits. The letters in the acronym represent self-discipline, caring, honesty, attitude, respect, responsibility, and perseverance. All of the teachers in the school use common language when teaching these attributes. Once a month, the whole school gathers for an assembly to promote a different character trait. A character rap, complete

with actions, is sung at all character assemblies. In addition, all staff members have committed to building relationships with students by greeting them every morning with handshakes and eye contact.

Teacher Accountability

Accountability is an important part of School C's culture. The principal has high expectations for staff members, and the teachers hold themselves and one another accountable to school-wide expectations. The principal holds teachers accountable in a variety of ways, including classroom walk-throughs, collecting of assessment data, collecting of meeting notes, informal conversations, and regularly-scheduled meetings. Teachers describe his techniques as "gentle nudges," (T7) "little uncomfortable twinges," (T7) and "keeping us on our toes." (T9) A teacher elaborated, "With Mr. Simmons*, he's not a nag about it. But he's just always got us thinking about it. Just having the accountability and being aware of what needs to be done." (T7) Another teacher explained, "Mr. Simmons floats around from group to group to see what we're doing, visit with us, and interact with us." (T8) Another added, "Just following up throughout the week, and if we stray from that, he's going to give us guidance of where we need to go." (T9)

The principal explained that he frequently visits classrooms during the school day to check for instructional fidelity. "The teachers are used to that. They don't even bat an eye. They know if I'm just coming in to watch, they just keep on rolling. I just come in and sit down or go to the back of the room, life goes on, teaching continues." (P3) He explained his high expectations in this way: "You need to have tight goals and loose

roles. I don't think you need to have someone standing over you with a stick, beating you in the head to get you to do something." (P3)

The teachers also hold one another accountable. One teacher explained, "There's a peer pressure here unlike anywhere I've ever been to do very, very well, and to be a hard worker. To be the best you can every single day because, frankly, your colleagues hold you accountable to that." (T7) Another teacher concurred, "A [School C] teacher is a hard worker. If you're not willing to step up, this probably just isn't the right fit for you. As new people come in, they look around and quickly realize we're hard working here." (T8)

Leadership Focus: Data Dan

The teachers at School C demonstrate a strong commitment to collective inquiry. The teachers meet weekly to discuss student progress and to analyze data to assess students' needs. A teacher explained, "We have an hour and a half span where we can get together and look at test results, pare it down to the benchmarks...see how the kids are doing, how we're doing teaching different things, and what we might need to tweak to help out the students." (T8)

The teachers at School C credit their principal for their competence in data analysis. They affectionately refer to him as Data Dan*. Something that sets School C apart from the other cases in this study is the frequency with which the principal is involved in data analysis. Teachers meet twice a month with the principal to discuss student progress and to plan collaboratively. "Usually two Thursdays a month we're in here with Mr. Simmons and digging through data or looking at different MTSS things,"

(T7) stated a teacher. “Not that we often say it, but we think of him as Data Dan because he just really understands. I’m not necessarily a numbers person. I’m driven by him...to get more into that and try to understand more fully.” (T9) Another teacher concurred, “He’s probably one of the strongest principals I’ve ever had for data, for pushing people to use their data to make good decisions.” (T7)

When asked about his moniker (Data Dan), the principal laughed and gave credit back to the teachers. “Somebody mentioned that, huh? Yeah. I set aside the time to where we talk about [data]. But analyzing is not new to these people. They’ve been doing it for a long time, and my job is just to get them the data they need and guide them in a direction to where they start the discussions. From there, they take off and go.” (P3)

School D

School D is one of two elementary schools in a small, rural district. It houses two classes per grade-level in kindergarten through sixth grade. A characteristic that makes School D unique among the cases in this study is the self-directedness of the teacher collaboration. The school is also defined by strong teacher leadership in the form of a highly-functioning building leadership team.

Finding the Time.

School D is similar to the other school sites in this study in that the teachers collectively analyze data to make instructional decisions. They target students, collaborate on strategies, and develop lesson plans together. The thing that makes School D unique is that the master schedule allows for only one collaboration day every other month. Teachers at School D agree that collective inquiry needs to be frequent,

deliberate, and on-going, so they find the time on their own. “We do not have a specific collaboration time which is very difficult. I think we need that, but with the support staff that we have and the budget cuts that have happened; we just don’t have the people to cover the students so we can leave and make that happen.” (T10) The teacher went on to explain, “We get it done on our plan time, after school, before school, and during lunch.” (T10) Another teacher concurred, “The teachers totally take it upon themselves. We have to make our own time to make those conversations happen.” (T12) And they do. The researcher happened to observe a group of teachers engaged in collective inquiry when she arrived for a scheduled interview. A team of teachers was huddled in a classroom after school hours when the researcher arrived. Later, during the interview, the teacher referenced the coincidental observation, “As far as day-to-day collaborating, you saw us. I mean, it just happens!” (T12)

Building Leadership Team

School D has a building leadership team that is truly the backbone of the school. The team is comprised of the principal and three teachers from different grade levels. They work together to facilitate collective inquiry, to plan professional development, and to steer the school’s development of a multi-tiered system of support (MTSS) for students. They have regularly-scheduled meetings to discuss the direction of the instructional program. One teacher described the team’s leadership in this way: “For all of the important things we work on, we have the building leadership team.” (T12) When asked about the process for planning professional development for the school, the teachers unanimously credited the building leadership team. “Our building leadership

team...before any collaboration day, they always meet and work out what needs to be done.” (T10) Another teacher added, “The BLT has a huge role. They really make a lot of decisions.” (T11)

The team members have completed MTSS training and are working to lay the groundwork for the implementation of tiered intervention. A BLT team member explained, “We know that we have to have certain things in place before we can fully implement the three tiers and have the support we need.” (T10) She added, “The rest of the staff [members] are learning it all from us. We have to have their buy-in; otherwise it’s not going to go anywhere. So, we try and get them on board and hopefully they’ll jump on. If they don’t jump on, we’ll try something different.”

Leadership Focus: Handing it Over

The principal at School D is a masterful delegator. Like Principal A, she encourages shared leadership in her building. But for Principal D, shared leadership means more than *sharing leadership*. It means, as the principal herself described it, “handing it over.” She purposefully selects staff members for leadership tasks based on their skill sets and experience, provides them with professional development opportunities to support their expertise, and then completely turns over responsibility to the people she’s chosen.

When asked about the leadership opportunities in her school, one teacher replied, “Teachers here take leadership in everything. We’re not afraid to make decisions. Monica* trusts us to do the right thing, and we don’t let her down.” (T10) She continued,

“[Our principal’s] biggest strength is putting people in the right spots and then getting out of the way.”

The after-hours collaboration witnessed by the researcher and the strong cultural presence of the aforementioned building leadership team support the assertion that the principal “hands it over.” The teachers at School D are self-directed, collaborative, and confident. This is likely due to the willingness of their leader to delegate.

School E

School E is a traditional elementary neighborhood magnet school in a large, urban school district. It serves 316 students in grades Pre-K through five. The school facility was built in 1954. At its dedication, a portrait of the school’s namesake was presented to the school by her niece. The school’s namesake was credited with being the first public school teacher in the city. Her portrait remains in the school’s lobby to this day.

Improvements were made to the building in 1974, 1989, and 2003. The building now boasts a science lab, library media resource center, instrumental music room, multi-purpose room, and an inner courtyard. School E has a traditional academic program, strong parent involvement, and a principal who is perceived as being a strong instructional leader.

Traditional Neighborhood Magnet

The traditional magnet concept was developed at the request of parents who wanted a more traditional, back-to-basics learning environment. As a traditional magnet, School E has a rigorous academic program which includes reading, composition, grammar, penmanship, spelling, mathematics, and social studies. It also has a structured,

school-wide discipline plan and high expectations for student behavior. The discipline philosophy is based on the expectation that quality learning takes place in a structured and disciplined atmosphere. There is also a standardized dress code for students.

The school is considered a neighborhood magnet school because all children who live in the attendance area may choose to attend. Other students across the district must go through a magnet application process in order to attend.

Parent Involvement

As a traditional magnet school, School E has high expectations for parent involvement. The faculty and staff encourage parents to have a high level of interaction with the school. An invitation to parents on the school's website lists a number of ways for parents to get involved, including:

- Supporting children at home by showing interest and enthusiasm
- Stressing the importance of school work and behavior
- Providing children with time and space for homework
- Attending parent-teacher conferences
- Participating in PTO and school committees.

Parents also sign a compact committing to the following assurances: They will encourage their children to discuss academic work at home, notify the teacher of concerns that arise, help their children understand the importance of math and reading, and make sure their children attend school regularly.

School E's principal praised the parents in her community; "Yes, we expect a lot from them, and they expect a lot from us, but in the end we remember that we're all in it for the good of the kids. They really rise to our expectations." (P5)

Leadership Focus: Strong Instructional Leadership

The teachers at School E perceive their principal as a strong instructional leader and a driving force behind the school's success. Specifically, the teachers credit her for being knowledgeable and involved in the instructional program, securing instructional time, and promoting fidelity in the delivery of the curriculum.

When discussing the principal's involvement in the instructional program, a teacher explained, "She brings us in to either give us new things to look into and think about, or she brings up things we've discussed before and checks how far we've progressed." (T14) She added, "She's always right in the middle of things, guiding us along. Usually just asking questions or guiding, not saying the kid absolutely needs this or the kid absolutely needs that." Another teacher stated, "We actually talk about instruction with her—instead of everybody walking into a classroom, closing the door, and doing their own thing." (T16)

Several teachers remarked on the principal's purposeful planning of instructional time: "She built the master schedule to allow for parallel blocks. Each grade level has their own block schedule that they work out of where we have three solid blocks for core instruction." (T15) Another said, "It's her organization and scheduling that make her so good." (T16)

School E's teachers also perceive the principal to be a strong curriculum leader. Specifically, they spoke about her ability to promote fidelity in the delivery of the curriculum. One teacher said, "We have a pacing guide in place that tells us what to teach, when to teach it, and what resources are available to do it—and she goes into every room and makes sure we're on the same path, doing the same thing." (T15) Another concurred, "She checks our stuff. She does pop in. She does walk-throughs. Sometimes she comes in and sits down in a class for a long period of time. It's good." (T14)

School E's motto is "Excellence in Education through a Traditional School Environment. Their excellence in achievement, despite an 81% poverty rate, is likely impacted by factors such as the traditional academic program, strong parental commitment, and an effective instructional leader.

Summary

The purpose of this chapter was to describe the unique characteristics of the five school sites selected for this study. Each school had its own culture; each principal had his/her own leadership strengths. The vignettes were designed to provide the reader with a vivid description of each case. Chapters Five and Six will describe the findings and conclusions for this study.

Chapter Five: Data Analysis

Introduction

This chapter presents an analysis of the data collected pertaining to the following research questions:

1. What types of principal behaviors are most meaningful in supporting professional learning communities?
2. How do the eight dimensions of learning-centered leadership (Murphy, et al, 2006) intersect with the support of professional learning communities?

The chapter begins with a description of the procedures for analyzing the data. It then provides tables and narrative explanation of the patterns and themes emerging from the data. First, the patterns from the analysis of the six critical attributes of PLCs are presented—followed by a summary of those patterns. Then the patterns from the analysis of the eight dimensions of learning-centered leadership are presented—followed by a summary of those patterns. All patterns found across the PLC attributes and learning-centered leadership frameworks are then analyzed to determine themes across the cases that explain the most meaningful behaviors of principals in supporting PLCs.

Procedures for Analyzing the Data

The data for this study came primarily from the interview transcripts; however, field notes, documents, and artifacts were also used during data analysis to clarify understanding and to verify findings. A detailed description of the data analysis procedures is provided below.

Field Notes

The researcher recorded field notes for each of the participant's interviews. Prior to the interviews, details about the participants and the setting were noted. Information about the participants included name, school, years of experience and current position. Information about the setting included the date and time of interview as well as the interview location.

During the interviews, brief notes were made only if the researcher probed for further information or inserted clarifying questions. A majority of the field notes were recorded immediately following the interviews to avoid unnecessary distractions for the participants and the researcher. Notes included detailed observations about the physical setting as well as the researcher's reflections about the process.

The entire collection of field notes was reviewed before the analysis of the interview transcripts began. The field notes were read again during the data analysis to provide clarification about patterns and themes that were established. They also provided background information for constructing the case descriptions in Chapter Four.

Documents and Artifacts

Documents play an important role in the data collection process when conducting a case study (Yin, 1994). Before beginning one-on-one interviews, the researcher obtained permission to access the pertinent documents from the teachers and principals at each school. Requested documents and artifacts included mission and vision statements, goal statements, school-wide assessment plans, student assessment samples, documentation of student grouping, PLC meeting agendas, PLC meeting minutes, photos,

videos, and other documentation of professional learning community progress. Working closely with each site's principal, the researcher scheduled the retrieval of such documents independent of other data collection activities (Yin, 1994). Other documents were also retrieved via the Kansas Department of Education's website, the district's website, and the schools' websites.

All documents and artifacts were catalogued and labeled. They were reviewed after the initial reading of the interview transcripts to provide clarification and to verify statements made by participants. They were reviewed again throughout the data analysis to assist the researcher in finding patterns and themes. The documents and artifacts also provided important background information for the case descriptions in Chapter Four.

Interviews

All interviews were recorded with a digital voice recorder. Each voice recording was downloaded onto a compact disc, checked for clarity, and transcribed. Participants were asked to review their transcripts for accuracy prior to coding.

The conceptual frameworks for the study were the centerpiece for managing the data (as first discussed in Chapter One). The data were first analyzed for the six critical dimensions of PLCs. Secondly; they were analyzed for the eight dimensions of learning-centered leadership. Finally, the patterns revealed in the first two stages of analysis were examined for themes that integrated the two frames of PLC attributes and leadership dimensions.

Creswell (2007) stated that the steps of qualitative data analysis are, "reducing the data into meaningful segments, assigning names for the segments, combining the data

into broader categories or themes, and displaying and making comparisons into broader categories and themes” (p. 148). Once the transcripts were read in their entirety, the researcher began a process of highlighting units of data such as phrases, sentences, or paragraphs and assigning them to initial coding categories under the main codes of PLC attributes (P) and learning-centered leadership dimensions (L).

Table 5-1 Main Coding Categories

(P) Professional Learning Community Attributes	(L) Learning-Centered Leadership Dimensions
P1 Shared Mission and Vision	L1 Vision for Learning
P2 Collective Inquiry	L2 Instructional Program
P3 Shared Leadership	L3 Curricular Program
P4 Action Orientation	L4 Assessment Program
P5 Collective Learning	L5 Community of Learning
P6 Focus on Results	L6 Resource Acquisition and Use
	L7 Organizational Culture
	L8 Social Advocacy

In classifying the data, the researcher remained faithful to the exact words of the participants. The next step was cutting and pasting the marked passages into Microsoft Excel files based upon the definitions of the sub-codes (P1 through P6 and L1 through L8).

Table 5-2 PLC Sub-codes with Definitions and Examples from Text

Code	PLC Attributes	Definition	Data example (excerpt from transcript)
P1	Shared Mission	"Shared understanding, common values, and a collective commitment to guiding principles that articulate what the people in the school believe and what they seek to create"	"There are really several visions that we have, and one of them is very focused on student achievement." P1
P2	Collective Inquiry	"method of improvement, growth, and renewal; requires that school staff at all levels are engaged in processes that collectively seek new knowledge among staff and application of the learning to solutions that address students' needs"	"We have purposely set up structures within our schedule and everything surrounding our school to make sure that we have times for people to collectively analyze data." T2
P3	Shared Leadership	"requires the collegial and facilitative participation of the principal who shares leadership—and thus, power and authority—by inviting staff input and action in decision-making"	"And a lot of that's left up to the teams and the team leaders to facilitate even though I'm there." P3
P4	Action Orientation	"members of a professional learning community turn aspirations into action and visions into reality;" "application of the learning to solutions that address students' needs"	"We went from pulling a lot of our own resources to teach the standards to purchasing research-based materials and narrowing our focus." P1

Code	PLC Attributes	Definition	Data example (excerpt from transcript)
P5	Collective Learning	"school staff at all levels are engaged in processes that collectively seek new knowledge among staff;" "a persistent discomfort with the status quo and a constant search for a better way"	"Every grade level gets 90 minutes of professional development with an instructional coach every other week. That is our focus data talks." P5
P6	Focus on Results	"PLC efforts are assessed on the basis of results rather than intentions;" "involves the review of a teacher's behaviors by colleagues and includes feedback and assistance activity to support improvement"	"There is a peer pressure here unlike anywhere I've ever been to do very, very well, to be a hard worker, to do the best you can every single day because, frankly, your colleagues hold you accountable to that." T7

Table 5-3 Learning-Centered Leadership Sub-codes with Definitions and Examples from Text

Code	Leadership Dimension	Definition	Data example (excerpt from transcript)
L1	Vision for Learning	Leadership in developing vision, articulating vision, implementing vision, and stewarding vision	"So, there's a lot of talk about setting goals, setting achievable goals." P4
L2	Instructional Program	Knowledge and involvement of the instructional program, hiring and allocation of staff, and securing of instructional time	"It made more sense to provide that support to third grade because they had the most need. So, your support is based on need, not necessarily which person feels more comfortable working with a particular teacher or a particular time of the day. It's all based on the students' needs." P2

Code	Leadership Dimension	Definition	Data example
L3	Curricular Program	Knowledge and involvement of the curricular program, expectations, standards, and curricular alignment	"Have one curriculum. Have a set of curriculum that you're going to use, a set of resources for tiered interventions that you're going to use, and provide very, very specific training about how to implement that curriculum." P1
L4	Assessment Program	Knowledge and involvement in the assessment procedures, communication of data, and use of data	"We made our data transparent." P3
L5	Communities of Learning	Support of professional development and a community of professional practice, anchoring the school in the community	"Every grade level gets 90 minutes of professional development with an instructional coach every other week." P5
L6	Resource Acquisition and Use	Acquisition, allocation, and use of resources to support student learning	"We went from pulling a lot of our own resources to teach the standards to purchasing research-based materials and narrowing our focus." P1
L7	Organizational Culture	Production emphasis, accountability, development of a personalized learning environment, focus on continuous improvement	"We serve all students and we're all a part of the system that helps improve instruction for all." T16
L8	Social Advocacy	Stakeholder involvement, focus on diversity, environmental context and ethics	"There is a big push for globally-aware kids about the issues that are facing and more facing today's society." T1

The researcher continued to revisit the assigned coding categories, making changes to the definitions of the coding categories as appropriate. Once the data were

coded, copied, and pasted into Excel documents, they were sorted by position (teacher and principal) and color coded by school.

Following the organization of the data, the researcher continued to analyze by going back to the original transcripts to get a sense of the whole database. It was important to reread the transcripts in their entirety several times, make notes of details, and write memos in the margins describing ideas or key concepts that emerged (Creswell, 2007). The data analysis consisted of reading, describing, classifying, and interpreting. The coding process fragmented the data into separate categories, and then a synthesis of the data involved piecing these fragments together to construct patterns and themes. The researcher identified patterns across the PLC attributes and across the leadership dimensions; the final analysis examined the intersection of these two frameworks.

During the entire analysis, consideration was given to units of data that could not be coded using the two analytic frameworks. A final review indicated that all but a small percentage of the data could be accounted for by using the two frameworks. No new emergent codes were warranted. The un-coded data consisted only of personal anecdotes shared by participants that the researcher deemed unrelated to PLCs, leadership, or the work of the school pertinent to this study.

The interview responses were analyzed by another researcher to establish consensus on the coding. The peer researcher had no stake in the outcome of this study. The peer coding involved five percent of the interview responses. Agreement was established on 82% of the data coded by the peer. After a revision of the coding definitions for clarity, the peer researcher coded another five percent sample. The rate of

consensus after revisions was 90%. The researcher attributes the remaining 10% to the fact that the coding categories were not mutually exclusive. Concepts such as collective inquiry, shared leadership, and collective learning have overlapping definitions and similar meanings. Therefore, the units of data would rarely be categorized into distinct categories with 100% consensus.

Data Presentation

The data from this study are presented in narrative text and tables. The tables include a definition of each sub-code from each of the two main codes (P and L), patterns that emerged for each sub-code, and direct quotes from the interview transcripts. Quotes were used to increase clarity and provide more detailed descriptions of the patterns. The patterns were derived by interpreting concepts that were repeated consistently among participants. The patterns were summarized and tallied to indicate the number of participants expressing a related concept. The tallies are not indicative of the level of strength or importance; rather, they indicate the common perceptions across the cases.

Patterns and Themes Emerging From the Data

Six Critical Attributes of PLCs (Main Code P)

Patterns that emerged from the data included those related to the six critical attributes of PLCs as defined in the conceptual framework for this study (DuFour and Eaker, 1998; Hord, 1997). Thus, under the main code (P), the six attributes were identified as the six sub-categories for coding the data: Shared mission and vision (P1), collective inquiry (P2), shared leadership (P3), action orientation (P4), collective learning (P5), and results orientation (P6).

Shared Mission and Vision. DuFour and Eaker (1997) defined shared mission and vision as shared understanding, common values, and a collective commitment to guiding principles that articulate what the people in the school believe and what they seek to create. Hord (1997) defined it as an unwavering commitment to student learning that is consistently articulated and referenced in the staff's work. The participants in this study were asked to describe shared mission and vision of their schools. They were also asked to describe the principal's role in the development of the shared mission and vision.

All of the participants paraphrased their school's mission and/or vision statements with ease. While the responses contained minor differences, a number of terms were used consistently: student achievement, community, character, safe environment, individual services, high expectations, and student-centered. A majority of the teachers and principals from all five buildings stated that principals, teachers, and other staff members had input in the development of the mission and/or vision statements.

Table 5-4 Patterns for the Sub-code of Shared Mission and Vision (P1)

Sub-code (P1) Shared Mission and Vision	Patterns	Evidence (examples from transcripts)
<p>Definition - "shared understanding, common values, and a collective commitment to guiding principles that articulate what the people in the school believe and what they seek to create;" "an unwavering commitment to student learning that is consistently articulated and referenced in the staff's work"</p>	<p>All participants paraphrased their school's mission and/or vision statement when asked. (15 teachers, 5 principals)</p>	<p>Basically we want to make sure the children are in a safe environment. That's one of our main goals, and that they are nurtured through their academics, physical abilities, and social abilities, and we do that through individual services from special ed. to counseling services to anything else that would help meet these children's needs. P2</p>
	<p>Participants used the following common terms when paraphrasing their mission and/or vision statements: *student achievement (5) *community (3) *character (3) *safe environment (2) *individual services (3) *high expectations (3) *student-centered (3)</p>	<p>Student-centered learning through community commitment. We are accountable to providing quality education in a positive environment, and we want the kids to become life-long learners and continue to contribute to our society. P1</p>
	<p>A majority of the teachers and principals stated that staff members had input in the development of a mission and/or vision statement. (13 teachers from 5 schools, 5 principals)</p>	<p>We spent a great deal of time coming up with our vision, and we broke into groups and then we dissected and put together and came up with one that we're really satisfied with. T6</p>

Collective inquiry. Collective inquiry is a method of improvement, growth, and renewal (DuFour and Eaker, 1998). It requires school staff at all levels to collectively seek new knowledge and application of learning to solutions that address students' needs (Hord, 1997). Participants in the study were asked to discuss opportunities in their schools for collective inquiry. In response, the participants enumerated a number of structured forums for collectively analyzing students' needs. They mentioned collaboration time, weekly PLC meetings, school improvement meetings, professional development meetings, and study groups. Participants from four of the five school stated that times for collective inquiry were built into the master schedule on a regular basis. Participants also indicated that collective inquiry happened informally—during plan times and around the water cooler.

All of the participants mentioned the use of assessment data analysis as a strategy for collectively analyzing students' needs. There were a variety of assessments discussed, including universal screeners, diagnostic assessments, formative assessments, and summative assessments such as the Kansas State Assessments. A majority of the teachers and principals stated that they made instructional decisions based upon the data. The types of instructional decisions included grouping of students for instruction, staffing decisions, and selection of curriculum materials.

Over half of the participants stated that they used collective inquiry times such as PLC meetings and study groups to share successful teaching strategies with one another. One teacher said, "That's where the PLC works together so we can see and share. You

know, ‘What works for you?’ and ‘Hey, I have this thing I’m trying and if you want you can use it.’”

Table 5-5 Patterns for the Sub-code of Collective Inquiry (P2)

Sub-code (P2) Collective Inquiry	Patterns	Evidence (examples from transcripts)
Definition - "method of improvement, growth, and renewal; requires that school staff at all levels are engaged in processes that collectively seek new knowledge among staff and application of the learning to solutions that address students' needs."	Teachers and principals from 4 of 5 schools mentioned that times for collective inquiry are built into the school schedule on a regular basis. (11 Teachers, 3 Principals)	We have purposely set up structures within our schedule and everything surrounding the school to make sure that we have times for people to do that (collectively analyze students' needs). T2
	A majority of the participants gave examples collective inquiry that occurred during non-scheduled times. (8 teachers, 3 principals)	Day to day, we make our own time to make those conversations happen. I mean, it happens during our plan time. T11
	All participants mentioned the use of assessment data analysis as a strategy for collectively analyzing students' needs. (16 teachers, 5 principals) Types of assessment data included universal screeners, diagnostic assessments, formative assessments, and summative assessments.	We take a look at the data that we have from AIMSWeb or wherever it may be, state assessment data, MAP data, all of those different pieces, and we look and say, "Okay, these kids need this." T7
	A majority of the teachers and principals stated that they made instructional decisions based upon their collective analysis of students' needs. (15 teachers, 5 principals) Types of instructional decisions included grouping of students, staffing decisions, and selection of curriculum materials.	We look at their reading levels and we place them into a high reading group and a low reading group. And that drives what I do in those two groups--what levels we read at, what projects we do, etc. T3
	Over half of the teachers and two principals stated that a benefit collective inquiry was the collaborative sharing of successful teaching strategies among teachers. (10 teachers, 2 principals)	Teachers became more collaborative in sharing materials and practices of what's working for them and also being able to say, "Hey, I've tried this and this and this, and it's not working. What are some more things I can try?" P3

Shared leadership. Shared leadership is a critical attribute of PLCs. It requires the collegial and facilitative participation of the principal who shares leadership—and thus, power and authority—by inviting staff input and action in decision making (Hord, 1997). Participants in this study were asked to describe the leadership opportunities in their schools. All of the participants discussed membership or participation in school committees as examples of shared leadership. Participants from different schools had different committee lists, but some common examples included building leadership teams, school improvement teams, and technology committees. Nearly every participant reported that their principals encouraged teacher leadership and delegated leadership tasks to teachers.

Other patterns identified were in the area of decision-making. Two similar concepts emerged. The first was that principals encourage or allow team decision-making. Over half of the participants gave examples of decisions that had been made by a team or a consensus-building process. The second was that principals sought staff input. Half of the participants mentioned times that their principals had asked teachers for input before making decisions.

Lastly, when participants were asked to give examples of leadership opportunities, nearly half of them gave examples of teachers teaching other teachers. For example, one teacher reported, “I’m stronger in math than my cohort, and she’s stronger in reading than me, so we kind of mix. Then we have a teacher who is very tech savvy, so we just kind of all sit down and look at the next week or so and help each other out.”

Table 5-6 Patterns for the Sub-code of Shared Leadership (P3)

Sub-code (P3) Shared Leadership	Patterns	Evidence (examples from transcripts)
<p>Definition - "requires the collegial and facilitative participation of the principal who shares leadership--and thus, power and authority--by inviting staff input and action in decision-making"</p>	<p>All participants discussed participation on committees as an example of teacher leadership. (16 teachers, 5 principals) Common examples of committees included building leadership teams, school improvement teams, and technology committees.</p>	<p>We have a building leadership committee. We have a technology committee. We have a PBIS committee. Then we have a crisis committee, and he doesn't say we have to, but he highly encourages us to be a part of at least one committee. T15</p>
	<p>Half of the participants mentioned that their principals seek staff input before making decisions. (7 teachers, 3 principals)</p>	<p>Jim asked for feedback from the rest of us that were on the team, and we had a pretty open and honest discussion about who we thought would be a good representative. T1</p>
	<p>Over half of the participants mentioned that their principals encourage or allow team decision-making or consensus on decisions. (8 teachers, 3 principals)</p>	<p>But, as we interview those teachers, we do that as a team. It's not my decision. We do a team thing on that. P3</p>
	<p>Nearly every participant reported that their principals encourage teacher leadership and delegate leadership responsibilities to teachers. (13 teachers, 4 principals)</p>	<p>I feel we're encouraged during staff meetings to speak up. T5</p>
	<p>Nearly half of the participants gave examples of teachers teaching other teachers. (8 teachers, 1 principal)</p>	<p>I'm stronger in math than my cohort, and she's stronger in reading than me, so we kind of mix. Then we have a teacher who is very tech savvy, so we just kind of all there sit down and look at the next week or so. T8</p>

Action orientation. When members of a professional learning community turn aspirations into action and visions into reality, the organization is said to have an action orientation (DuFour and Eaker, 1998). Action orientation is also defined as the application of learning to solutions that address students' needs (Hord, 1998). Participants in this study were asked to describe changes in instructional practice that had occurred as a result of the work of the professional learning communities' work in their schools. They responded with a number of "actions" that had been implemented to address students' needs.

A majority of the participants reported that their schools had implemented a multi-tiered system of support (MTSS) to address students' needs. Under the umbrella of MTSS, common terms to describe this action included Tier I, Tier II, Tier III, intervention strategies, and enrichment strategies. Participants from four of the five schools reported that they had made adjustments to the daily schedule to address students' needs.

A majority of the participants reported that they had changed the way students were grouped for instruction in order to meet their needs, and a majority also mentioned that they had made changes to their repertoire of instructional strategies to address students' needs. Lastly, participants from all five schools gave examples of special programs that had been implemented to address students' needs. These programs included mentoring programs and after-school programs.

Table 5-7 Patterns for the Sub-code of Action Orientation (P4)

Sub-code (P4) Action Orientation	Patterns	Evidence (examples from transcripts)
<p>Definition - "members of a professional learning community turn aspirations into action and visions into reality;" "application of the learning to solutions that address students' needs"</p>	<p>A majority of the participants reported that their schools had implemented a multi-tiered system of support to address students' needs. (11 teachers, 3 principals)</p>	<p>I'd say the MTSS (multi-tiered system of support) has probably change things the most. We had to restructure our reading to better meet the needs of some of our low kids that don't necessarily qualify for special ed. T2</p>
	<p>Participants from 4 of the 5 schools reported that they had made adjustments to the daily schedule to address students' needs. (4 teachers, 2 principals)</p>	<p>When we built the master schedule, when we built the blocks, it was all based on student data, which actually made it easy. P1</p>
	<p>A majority of the participants reported that they had made changes to the way students were grouped for instruction in order to address students' needs. (12 teachers, 3 principals)</p>	<p>We watch the growth and we can form our groups individually in our classroom from that. T16</p>
	<p>A majority of the participants mentioned that they had made changes to their instructional strategies to address students' needs. (10 teachers, 4 principals)</p>	<p>I think it's definitely changed practices in the classroom. T14</p>
	<p>Participants from all 5 schools gave examples of special programs that had been implemented to address students' needs. (5 teachers, 2 principals) Examples include a mentoring program and after-school programs.</p>	<p>We have a TAP program after school that helps the kids that aren't special ed. but they just need that extra little bit of help, so we offer that after school and that comes from, you know, all of the data. T4</p>

Collective learning. Collective learning exists when staff members at all levels are engaged in processes that collectively seek new knowledge among the staff (DuFour and Eaker, 1997). Hord (1998) added to this definition, "...a persistent discomfort with the status quo and a constant search for a better way." When participants in this study described the professional learning in their schools, they gave a variety of examples forums for professional learning. These included PLC meetings, in-service days, study group meetings, mini-workshops, and professional conferences. However, there was one common idea that emerged from an interpretation of nearly all of the responses together: collective learning was a result of teachers teaching one another. One teacher stated, "I share a lot with my teaching partner and we bounce ideas off of her, or I bounce ideas off of her. Then the discussion, the processing, the thinking. If we see something that we think will work in our building, we talk about it. We research it. We look at it."

Table 5-8 Patterns for the Sub-code of Collective Learning (P5)

Sub-code (P5) Collective Learning	Patterns	Evidence (examples from transcripts)
Definition - "school staff at all levels are engaged in processes that collectively seek new knowledge among staff;" "a persistent discomfort with the status quo and a constant search for a better way"	Nearly all of the participants stated that collective learning was a result of teachers collaborating with other teachers (or teachers teaching teachers). (15 teacher, 3 principals)	But I think instructionally, probably the biggest thing, actually, is just the opportunity to sit down with a colleague for an hour and talk. Talk about what you're doing, talk about what worked, talk about what didn't work, and how you can do it better, and having an educational discussion. T9

Focus on results. Professional learning communities' efforts are assessed on the basis of results rather than intentions (DuFour and Eaker, 1997). A focus on results involves the review of teachers' behaviors by colleagues and includes feedback and assistance activity to support improvement (Hord, 1998). Participants in this study were asked to describe ways that their schools focused on results. Two main patterns emerged. First, participants from four of the five school sites mentioned that peer accountability helped their teams to reach desired results. One teacher described the peer accountability in this way: "We can be confrontational, and that's maybe not the right word, but in a positive way and be caring at the same time. And it is a professional conversation and not a personal conversation."

The second pattern pertained to the use of assessment data. A majority of the participants stated that they used assessment data to measure whether desired results were being reached. "I mean, we see the results. We were in the mid 60s and now we're at somewhere in the upper 80s or low 90s on assessments, so it's working."

Table 5-9 Patterns for the Sub-code of Focus on Results (P6)

Sub-code (P3) Focus on Results	Patterns	Evidence (examples from transcripts)
<p>Definition - "PLC efforts are assessed on the basis of results rather than intentions;" "involves the review of a teacher's behaviors by colleagues and includes feedback and assistance activity to support student improvement"</p>	<p>Participants from 4 of the 5 school sites mentioned that peer accountability was helping their teams to reach desired results. (7 teachers, 3 principals)</p>	<p>There are times where, as a leadership team, we're like, "Okay, we need to get back on the stick. We need this, this, and this to start happening." Maybe a team or some data is not looking as good as it should, so we sometimes have to give a little kick in the butt and say, "Hey!" T9</p>
	<p>A majority of the participants stated that they used assessment data to measure whether they were reaching desired results. (11 teachers, 2 principals)</p>	<p>On my wall I have a three-year trend of where we are with our reading scores as a building. We use the red, white, and blue and look at it by tested indicator, and then I started going, "Well, let's see what's happening building-wide, grades three, four, and five. Are there any commonalities with a particular indicator across the board? If so, is this a continuous trend over time?" P3</p>

Summary of Patterns across Professional Learning Community Attributes

A summary of the twenty patterns found across the six PLC attributes can be found below.

Table 5-10 Summary of Patterns across Six PLC Attributes

Critical Attributes of Professional Learning Communities (P)
Shared Mission and Vision (P1)
a. Participants could paraphrase their mission and/or vision statements.
b. Repeated terms from the mission/vision statements included student achievement, community, character, safe environment, individual services, high expectations, and student-centered.
c. Principals, teachers, and other staff had input in the development of mission/vision statements.
Collective Inquiry (P2)
a. Principals assured that times for collective inquiry were built into the daily schedules.
b. Teachers collectively analyzed data to assess students' needs.
c. Instructional decisions were based upon collective analysis of students' needs.
d. Teachers shared successful teaching strategies while engaging in collective inquiry.
Shared Leadership (P3)
a. Committee membership was a significant way that teachers shared leadership.
b. Shared decision-making was a significant way that teachers shared leadership.
c. Principals routinely considered teachers' input when making decisions.
d. Principals frequently delegated leadership tasks to teacher leaders.
e. Teachers shared leadership by teaching one another.
Action Orientation (P4)
a. Schools turned their visions into actions by implementing multi-tiered systems of supports for students.
b. Schools made adjustments to their daily schedules to address students' needs.
c. Teachers changed the way students were grouped for instruction to address their needs.
d. Teachers used different instructional strategies to address students' needs.
e. Schools implemented special programs such as mentoring programs and after-school programs to address students' needs.
Collective Learning (P5)
a. Collective learning occurred when teachers taught one another.
Focus on Results (P6)
a. Peer accountability helped schools reach their desired results.
b. Results of progress toward goals were measured with assessment data.

Eight Dimensions of Learning-Centered Leadership (Main Code L)

Patterns that emerged from the data also included those related to the eight dimensions of learning-centered leadership as defined in the conceptual framework for this study (Murphy, et al., 2006). Thus, under the main code (L), the eight dimensions were identified as the eight sub-categories for coding the data: Vision for Learning (L1), Instructional Program (L2), Curricular Program (L3), Assessment Program (L4), Community of Learning (L5), Resource Acquisition and Use (L6), Organizational Culture (L7), and Social Advocacy (L8).

Vision for learning. Murphy et al. (2006) define vision for learning as leadership in developing, articulating, implementing, and stewarding vision. When asked about mission and vision, the principals from all five of the school sites were able to clearly articulate their vision for learning. For example, Principal 3, without looking at notes, said, “We identified the common things that we really stood for, which were our high expectations for kids, our belief in character education, having a caring and compassionate environment in which to learn, a safe and secure environment in which to learn, and providing the resources and opportunity for kids to learn.”

A majority of the participants from all five schools reported that the building principals facilitated the development of the school’s mission and/or vision statements. “She had us meet in the library and told us that were going to be working on core beliefs. We were to write down at our table three or four things that we believed in strongly for our school,” explained a teacher.

Lastly, a majority of the participants stated that the principals sought staff input in the development of the mission and/or vision statement. One participant said, “We all worked together to help create that.”

Table 5-11 Patterns for the Sub-code of Vision for Learning (L1)

Sub-code (L1) Vision for Learning	Patterns	Evidence (examples from transcripts)
Definition - leadership in developing vision, articulating vision, implementing vision, and stewarding vision	Principals from all 5 schools articulated their vision for learning.	Our vision is very focused on student achievement. It is to have 80% of our kids, through core instruction, doing very well in school while meeting the expectations of our higher kids and enriched interventions for our lower kids. P1
	A majority of teachers and principals from all 5 schools stated that the building principals facilitated the development of the mission and/or vision statement. (14 teachers, 5 principals)	I think that he was asking us, what do we want from our school? What do we want to be known for? And he just kind of started it off with a question and we all just kind of went from there. T1
	A majority of the teachers and principals stated that the principals sought staff input during the development of a mission and/or vision statement. (13 teachers from 5 schools, 5 principals)	We spent a great deal of time coming up with our vision, and we broke into groups and then we dissected and put together and came up with one that we're really satisfied with. T1

Instructional program. Learning-centered leaders have knowledge of and involvement in the instructional program (Murphy et al., 2006). This includes the hiring and allocation of staff and securing of instructional time. In discussing their professional learning communities, the participants in this study made statements about this leadership dimension. Participants from all five schools reported that the principal was

knowledgeable about effective instructional strategies. Participants from all five schools also stated that the principal was involved in the school’s instructional program. Nearly half of the participants talked about the principal’s knowledge of the students’ instructional needs. Lastly, participants from all five cases stated that the principal built the master schedule.

Table 5-12 Patterns for the Sub-code of Instructional Program (L2)

Sub-code (L2) Instructional Program	Patterns	Evidence (examples from transcripts)
Definition - knowledge of and involvement in the instructional program, hiring and allocation of staff, and securing of instructional time.	Participants from all five schools mentioned the principal's knowledge about instructional strategies. (7 teachers, 2 principals)	She is there to give input, especially if it's intervention strategies, because she has a background in special ed, so she has more knowledge about that. T2
	Participants from all five schools mentioned the principal's knowledge about the school's instructional program. (8 teachers, 4 principals)	He is always right in the middle of our meetings, kind of guiding us along. He made the suggestion recently that how the third grade teachers have organized their Tier II time is how we all should be headed. T6
	Nearly half of the participants mentioned the principal's knowledge about students' instructional needs. (7 teachers, 2 principals)	She really knows the students well, so we can bring up names and be like, "Oh, we're worried about this." And she's like, "Oh yeah. I know that kid. I can see what that could be a concern. What can we do to help?" T15
	Participants from all five schools stated that the principal built the master schedule. (4 teachers, 4 principals)	Interviewer: What role, if any, does the principal play in encouraging improved practice? Participant: I'd say with purposeful scheduling. T1

Curricular program. Murphy et al. (2006) reported that learning-centered leaders have knowledge of and involvement in the curricular program, expectations, standards, and curricular alignment. Participants in this study made reference to this leadership dimension when answering questions about PLCs.

A majority of the participants stated that the principal was involved in the selection of curricular resources for the school. Nearly half of the participants reported that their principals, in addition to assisting in the selection process, also took steps to promote fidelity in the use of curricular resources. For example, a teacher reported, “[The principal] is very clear—there’s not room for pet projects anymore or things that don’t fit the curriculum.” Lastly, participants from four of the five schools reported that the principal took leadership in the alignment of the curriculum.

Table 5-13 Patterns for the Sub-code of Curricular Program (L3)

Sub-code (L3) Curricular Program	Patterns	Evidence (examples from transcripts)
Definition - knowledge and involvement of the curricular program, expectations, standards, and curricular alignment	A majority of the participants stated that the principal was involved in the selection of curricular resources and/or the promoting fidelity in the use of curricular resources. (8 teachers, 3 principals)	We have a set of curriculum that we use, a set of resources for tiered intervention that we use, and she's provided very, very specific training about how to implement that curriculum. T4
	Participants from four of the five schools mentioned that the principal had a role in curricular alignment. (4 teachers, 4 principals)	He expects us to align our grade level and look at what our standards are and know that terminology is changing with Common Core, so I have to get used to that. T8

Assessment program. Learning-centered leaders have knowledge of and involvement in the school's assessment procedures, communication of data, and use of data (Murphy et al., 2006). The interviews in this study revealed a number of patterns associated with this leadership dimension.

A majority of the participants discussed the principal's general knowledge about assessment data. For example, "He is very wise on data and the state scores and all that stuff." A majority of the teachers and principals gave examples of times when the principal encouraged or required teachers to analyze data to assess students' needs. A teacher explained, "He's probably one of the strongest principals I've ever had for data, for pushing people to use their data to make good decisions." A majority of the participants stated that the teachers in their school are required to discuss their assessment data with the principal.

Another pattern that emerged was that the principals themselves engage in data analysis. Nearly half of the participants discussed the principal's knowledge about their students because of the principal's analysis of data. Lastly, participants from three of the five schools reported that the principal had taught the teachers how to analyze data. For example, "He likes the power of what the numbers show, and consequently, he's teaching us how to use them to make decisions."

Table 5-14 Patterns for the Sub-code of Assessment Program (L4)

Sub-code (L4) Assessment Program	Patterns	Evidence (examples from transcripts)
Definition - knowledge and involvement in the assessment procedures, communication of data, and use of data	A majority of the participants discussed the principal's knowledge about assessment data. (10 teachers, 4 principals)	We think of him as Data Dan because he just really understands the data. T7
	A majority of the participants gave examples of times when principal encouraged the use of assessment data to analyze students' needs. (12 teachers, 4 principals)	At the beginning of the year, he talked about the importance of collaboration and data, data, data. T3
	A majority of the participants stated that teachers in their school are required to discuss their student assessment data with the principal. (10 teachers, 3 principals)	At some point in time, teachers are going to be meeting with me about their Literacy First data. They're going to be meeting with me about their STAR math results. I'm going to be the one that they are talking with. P2
	Nearly half of the participants discussed the principal's knowledge about students because of the principal's analysis of data. (6 teachers, 3 principals)	I think just knowing that he is going to look at the data too and help us in making sure that we're seeing the kids that he does. T6
	Participants from three schools said that the principal has taught the teachers how to analyze data. (6 teachers, 1 principal)	He has sometimes taken the teacher's name off and the student's name off and we look at it and we go over it, and we talk about what does that mean. T9

Communities of learning. Murphy et al., (2006) explained that learning-centered leaders support professional development and a community of professional practice. Participants in this study were asked to describe their principal's role in professional development. A number of patterns emerged under this sub-code.

A majority of the participants stated that the principal asked for teacher input when making professional development decisions. In some cases, this input was solicited through surveys; in other cases, the teachers provided input through committee work or informal discussions. However, a majority of the participants stated that professional development topics were ultimately decided by building-level and district-level administrators who considered teachers' input.

Three patterns emerged associated with the facilitation of professional learning activities. Over half of the participants mentioned that the principal encouraged teachers to facilitate, or lead, professional learning activities. A majority of the participants stated that teachers do facilitate professional learning activities throughout the school year. Half of the participants reported that the principal facilitated professional development activities as well.

Table 5-15 Patterns for the Sub-code of Communities of Learning (L5)

Sub-code (L5) Communities of Learning	Patterns	Evidence (examples from transcripts)
Definition - support of professional development and a community of professional practice	A majority of the participants stated that the principal asks for teacher input when making professional development decisions. (10 teachers, 4 principals)	They do some surveys about what are people's needs once or twice a year. T10
	A majority of the participants stated that professional development topics were administratively-driven. (12 teachers, 4 principals)	PD here really does come down from the district office in terms of our areas of focus. T11
	Over half of the participants mentioned that the principal encourages teachers to facilitate professional development activities. (11 teachers, 2 principals)	Maybe Stephanie who is really quiet but is excellent at teaching writing and she's probably not going to volunteer, but he knows that. He'll say, "Hey, could you do a mini session on writing?" T4
	Half of the participants stated that the principal facilitates professional development activities. (8 teachers, 2 principals)	Instead of the principal standing up there...going over the same thing, he'll break it up into different teams and the teams will come up with a fun activity or game and then you'll share that with the whole group. T9
	A majority of the participants stated that teachers facilitate some professional development activities. (13 teachers, 5 principals)	That's probably where we get as much individual opportunity to learn, sharing among ourselves. We have some really good experts; they just don't consider themselves experts. They don't have to travel 50 miles, so you know, you're not seen as an expert within your own local community, but they are good. T4

Resource acquisition and use. Learning-centered leaders acquire and use resources to support student learning (Murphy et al., 2006). Interestingly, the participants in this study made little mention of the principal’s role in this area. In fact, a majority of the participants made no mention of the principal’s role in resource acquisition or use. However, three of the five principals discussed the importance of hiring effective staff. “I want people that are achievement oriented, that make connections with kids. I tend to hire teachers with a lot of the same characteristics. They’re high achievers,” stated one principal.

Table 5-16 Patterns for the Sub-code of Resource Acquisition and Use (L6)

Sub-code (L6) Resource Acquisition and Use	Patterns	Evidence (examples from transcripts)
Definition - acquisition, allocation, and use of resources to support student learning	A majority of the participants made no mention of the principal's role in resource acquisition and use.	
	3 of the 5 principals discussed the importance of hiring effective staff.	A big role for me is to get the right people on board to help me do this because it's not going to be done by me alone. P2

Organizational culture. Learning-centered leaders work to develop a personalized learning environment; they foster a culture that supports continuous improvement and accountability (Murphy et al., 2006). The participants in the study were not asked explicitly to describe the cultures of their schools; however, in their conversations about PLCs, several patterns about organizational culture emerged.

A majority of the participants perceived that the principal had high expectations for the teachers. Additionally, over half of the participants reported that teachers were

held accountable to the principal. Participants from three schools also described peer pressure among the staff as part of the school's culture. "We have always had very high expectations for our kids, but more important, very high expectations of ourselves and each other, and I think that's what has made us successful," said one participant.

Nearly half of the participants reported that the principal promoted a caring and supportive school. A teacher described the principal's impact on culture in this way: "He really has a lot to do with that because he's got that positive support at the top, and we all feel that. It trickles down [from him] to the teachers and to the kids." A majority of the participants stated that having a student-centered principal was important to the school's culture. For example, "He's got very high standards and puts kids first. Everyone knows he expects us to do what we need to do to get learning done." Lastly, nearly half of the participants perceived shared leadership as an important part of the organizational culture. Succinctly summarized by a teacher, "We're all in this together."

Table 5-17 Patterns for the Sub-code of Organizational Culture (L7)

Sub-code (L7) Organizational Culture	Patterns	Evidence (examples from transcripts)
Definition - development of a personalized learning environment, focus on continuous improvement, accountability	A majority of the participants perceived that the principal had high expectations for teachers. (11 teachers, 4 principals)	I think he's got very high expectations for all of us and he expects us to do what we need to do to get the learning done. T6
	Over half of the participants reported that teachers were held accountable to the principal. (8 teachers, 4 principals)	She just makes sure that we're accountable, that we keep looking at the results of the entire school, of our grade level, of our class, of our individual students. T13
	Nearly half of the participants reported that the principal promoted a caring/supportive school culture. (9 teachers, 2 principals)	He's got that positive support at the top and we all feel that, and it trickles down into our kids from the teachers. T3
	Over half of the participants stated that having a student-centered principal was important to the school's culture. (11 teachers, 1 principal)	Mr. Hunt is probably the best principal I've ever worked for. Students are first for him, and everyone sees that. T6
	Participants from three schools described the staff member's high expectations for themselves and their peers as part of their school's culture. (5 teachers, 2 principals)	There is a peer pressure here unlike anywhere I've ever been to do very, very well, to be a hard worker, to do the best you can every single day because, frankly, your colleagues hold you accountable to that. T7
	Nearly half of the participants perceived shared leadership as an important part of the school's culture. (5 teachers, 4 participants)	We always rearranged the staff meetings so that we all sat at the same table. It was like a long table, it's like the Knights of the Round Table. T1

Social Advocacy. According to Murphy et al., (2006), learning-centered leaders promote stakeholder involvement and focus on issues such as diversity, ethics, and environmental context. The interviews for this case study revealed only one pattern related to social advocacy. Over half of the participants gave examples of ways their schools focused on social diversity issues. These issues included poverty, mobility, English language proficiency, and family structure. A principal explained his school’s focus on English language learners—“We’ve seen changes in the neighborhood, demographics of the neighborhood, and there is a need for us to be more explicit with what we’re doing in order to meet the kids’ needs.”

Table 5-18 Patterns for the Sub-code of Social Advocacy (L8)

Sub-code (L8) Social Advocacy	Patterns	Evidence (examples from transcripts)
Definition - stakeholder involvement, focus on diversity, focus on environmental context, and ethics	Over half of the participants gave examples of ways their schools have focused on social diversity issues. (7 teachers, 4 principals) Social diversity issues included poverty, mobility, English language proficiency, and family structure.	We're probably a model community of the Ruby Payne family situation in that we have high poverty; about 70% of our kids are on free and reduced lunches. A lot of single-parent homes. And just knowing and understanding what those kids do and then trying to teach them the language of middle class in order to be successful. T9

Summary of Patterns across Learning-Centered Leadership Dimensions

A summary of the twenty-eight patterns found across the six PLC attributes can be found below.

Table 5-19 Summary of Patterns across Eight Leadership Dimensions

Learning-Centered Leadership Dimensions (L)
Vision for Learning (L1)
a. Principals could articulate their vision for learning.
b. Principals facilitated the development of their schools' mission and/or vision statements.
c. Staff members had input in the development of mission/vision statements.
Instructional Program (L2)
a. Principals had knowledge about effective instructional strategies.
b. Principals were involved in the schools' instructional programs.
c. Principals had knowledge about the students' instructional needs.
d. Principals were involved in the building the schools' master schedules.
Curricular Program (L3)
a. Principals were involved in selection of curricular materials.
b. Principals promoted fidelity in the use curricular materials.
c. Principals participated in curriculum alignment.
Assessment Program (L4)
a. Principals had knowledge about assessment data.
b. Principals encouraged teachers to analyze data to assess students' needs.
c. Teachers found it useful when principals discussed their students' assessment data with them.
d. Principals were knowledgeable about their students because of their analysis of data.
e. Principals taught teachers how to analyze assessment data.
Community of Learning (L5)
a. Teachers facilitated professional development activities.
b. Principals encouraged teachers to facilitate professional development activities.
c. Principals facilitated professional development activities.
d. Central office administrators and principals usually selected professional development topics.
e. Principals asked teachers for input when making professional development decisions.

Resource Acquisition and Use (L6)
a. Principals felt that it was important to hire effective staff.
Organizational Culture (L7)
a. Teachers perceived that their principals had high expectations for them.
b. Teachers reported that accountability to the principal was a significant element of the culture of their school.
c. Teachers reported that their principals promoted a caring/supportive culture.
d. Teachers reported that having a student-centered principal was important to the school's culture.
e. Teachers described the staff member's high expectations for themselves and their peers as part of their school's culture.
f. Teachers perceived shared leadership as an important part of school culture.
Social Advocacy (L8)
a. Schools focused on social diversity issues such as poverty, mobility, English language proficiency, and family structure.

Patterns Disaggregated by School Site

When the interview data were disaggregated by school site, the researcher noted that School D differed from the other schools in eleven of the forty-eight identified patterns. These patterns could be identified among the statements of the participants from four of the five school sites, but neither the teachers nor the principal from School D mentioned anything in regards to these leadership behaviors during their interviews. The table below summarizes the anomalous patterns when disaggregated by the individual schools.

Table 5-20 Selected Patterns Disaggregated by School Sites

Patterns	Number of Participants for each School Site Who Discussed Pattern				
	A	B	C	D	E
P2a. Times for collective inquiry were built into the daily schedules.	2	4	5	0	3
L2a. Principals had knowledge about effective instructional strategies.	3	3	4	0	4
L2c. Principals had knowledge about the students' instructional needs.	4	3	2	0	2
L3a. Principals were involved in selection of curricular materials.	3	3	3	0	4
L3b. Principals promoted fidelity in the use curricular materials.	3	3	3	0	2
L4c. Teachers found it useful when principals discussed their students' assessment data with them.	1	3	5	0	5
L4d. The principals were knowledgeable about their students because of their analysis of data.	2	2	3	0	3
L5c. Principals facilitated some professional development activities.	2	4	2	0	1
L7a. Teachers perceived that their principals had high expectations for them.	3	2	5	0	5
L7c. Teachers reported that their principals promoted a caring/supportive school culture.	3	4	1	0	4
L7d. Teachers reported that having a student-centered principal was important to the school's culture.	2	2	3	0	4

As mentioned in the case descriptions in Chapter Four, School D does not have time for collective inquiry built into the master schedule; the teachers carve out their own time for these collaborative conversations. This information was disclosed by all of the participants at the time of the interviews and was not unexpected in the data. However, the other anomalies, all ten of which fell under the main code of learning-centered leadership dimensions (L), were unexpected.

Themes Derived from the Intersection of Six Critical Attributes of PLCs and Eight Dimensions of Learning-Centered Leadership

After examining hundreds of pages of interview transcripts through two different analytical frameworks, forty-eight patterns emerged. The final step in the analysis was to examine the patterns revealed in the first two stages of analysis to identify themes that integrated the two frames of PLC attributes and leadership dimensions. Seven themes emerged.

Table 5-21 Themes Emerging from the Intersection of PLC Attributes and Learning-Centered Leadership Dimensions

Themes Emerging from Intersection of PLC Attributes and Learning-Centered Leadership Dimensions	
1	In professional learning communities, principals and teachers share a mission and/or vision for learning.
2	The principal's knowledge and involvement in curriculum and instruction are important in the support of PLCs.
3	The principal's knowledge and involvement in the assessment program are important in the support of PLCs.
4	Shared leadership is important in the support of PLCs.
5	Collective learning among principals and teachers is important in professional learning communities.
6	Professional learning communities address the needs of all learners.
7	The principal's influence on culture is important in support of professional learning communities.

Theme one. In professional learning communities, principals and teachers share a mission and/or vision for learning. Not surprisingly, this theme was derived from an intersection of the PLC attribute, shared mission and vision (P1), and the leadership dimension, vision for learning (L1). Theme one was supported by patterns P1a, P1b, P1c, L1a, L1b, and L1c, which revealed that principals and teachers in professional learning communities collaboratively develop and articulate their mission/vision statements.

Table 5-22 Patterns Contributing to Theme One

Theme	Patterns for PLC Attributes (P) Contributing to Theme	Patterns for Leadership Dimensions (L) Contributing to Theme
In professional learning communities, principals and teachers share a mission and/or vision for learning.	P1a Participants could paraphrase their mission and/or vision statements.	L1a Principals could articulate their vision for learning.
	P1b Repeated terms from the mission/vision statements included student achievement, community, character, safe environment, individual services, high expectations, and student achievement.	L1b The principals facilitated the development of their schools' mission/vision statements.
	P1c Principals, teachers, and other staff had input in the development of mission/vision statements.	L1c Staff members had input in the development of mission/vision statements.

Theme two. The principal’s knowledge and involvement in curriculum and instruction are important in the support of PLCs. This theme was derived from the intersection of the PLC attribute, collective inquiry (P2) and the leadership dimensions of instructional program (L2), curricular program (L3), and resource allocation and use (L6). Theme two was supported by patterns P2a, L2a, L2b, L2c, L2d, L3a, L3b, L3c, and L6a as shown in the table below.

Table 5-23 Patterns Contributing to Theme Two

Theme	Patterns for PLC Attributes (P) Contributing to Theme	Patterns for Leadership Dimensions (L) Contributing to Theme
The principal's knowledge and involvement in curriculum and instruction are important in the support of PLCs.	P2a Principals assured that time for collective inquiry was built into the school's schedules.	L2a Principals had knowledge about effective instructional strategies.
		L2a Principals were involved in the schools’ instructional programs.
		L2c Principals had knowledge about the students’ instructional needs.
		L2d Principals were involved in the building the schools’ master schedules.
		L3a Principals were involved in the selection of curricular materials.
		L3b Principals promoted fidelity in the use of curricular materials.
		L3c Principals participated in curricular alignment.
		L6a Principals felt that it was important to hire effective staff.

Theme three. The principal’s knowledge and involvement in the assessment program are important in the support of professional learning communities. This theme was derived from the intersection of the PLC attribute, focus on results (P6), and the leadership dimension of assessment program (L4). Theme three was supported by patterns P6b, L4a, L4b, L4c, L4d, and L4e which revealed that principals not only had knowledge about assessments in general, but they had knowledge about the students in their schools due to analysis of data and discussions with teachers about student data.

Table 5-24 Patterns Contributing to Theme Three

Theme	Patterns for PLC Attributes (P) Contributing to Theme	Patterns for Leadership Dimensions (L) Contributing to Theme
The principal's knowledge and involvement in the assessment program are important in the support of PLCs.	P6b Results of progress toward goals were measured using assessment data.	L4a The principals had knowledge about assessment data.
		L4b The principals encouraged teachers to analyze data to assess students' needs.
		L4c Teachers found it useful when principals discussed their students' assessment data with them.
		L4d The principals were knowledgeable about their students because of their analysis of data.
		L4e Principals taught teachers how to analyze assessment data.

Theme four. Shared leadership is important in the support of PLCs. This theme was derived from and intersection of the PLC attributes, shared leadership (P3) and focus on results (P6), and the leadership dimensions, communities of learning (L5) and organizational culture (L7). Theme four was supported by PLC patterns, P3a, P3b, P3c, P3d, P3e, and P6a. It was supported by the leadership patterns, L5e, L7e, and L7f. The patterns revealed that principals and teachers in professional learning communities share in decision-making, accountability, and leadership tasks.

Table 5-25 Patterns Contributing to Theme Four

Theme	Patterns for PLC Attributes (P) Contributing to Theme	Patterns for Leadership Dimensions (L) Contributing to Theme
Shared leadership is important in the support of PLCs.	P3a Committee membership was a significant way that teachers shared leadership.	L5e Principals asked teachers for input when making professional development decisions.
	P3b Shared decision-making was a significant way that teachers shared leadership.	L7e Teachers described the staff members' high expectations for themselves and their peers as part of their schools' cultures.
	P3c Principals routinely considered teachers' input when making decisions.	L7f Teachers perceived shared leadership as an important part of school culture.
	P3d Principals frequently delegated leadership tasks to teacher leaders.	
	P3e Teachers shared leadership by teaching one another.	
	P6a Peer accountability helped schools reach their desired results.	

Theme five. Collective learning among principals and teachers is important in professional learning communities. This theme was derived from an intersection of the PLC attributes, collective inquiry (P2) and collective learning (P5), and the learning dimension, communities of learning (L5). Theme five was supported by patterns P2d, P5a, L5a, L5c, and L5d. Interestingly, the patterns revealed that, while principals took leadership in the planning of professional development, much of the learning occurred from teachers facilitating professional development activities and teachers sharing effective strategies with one another.

Table 5-26 Patterns Contributing to Theme Five

Theme	Patterns for PLC Attributes (P) Contributing to Theme	Patterns for Leadership Dimensions (L) Contributing to Theme
Collective learning among principals and teachers is important in professional learning communities.	P2d Teachers shared successful teaching strategies while engaging in collective inquiry	L5a Teachers facilitated professional learning activities.
	P5a Collective learning occurred when teachers taught one another.	L5c Principals facilitated professional learning activities.
		L5d Central office administrators and principals usually selected professional development topics.

Theme six. Professional learning communities address the needs of all learners. This theme was derived from the intersection of the PLC attributes, collective inquiry (P2) and action orientation (P4), and the leadership dimension, social advocacy (L8). Theme six was supported by the patterns P2b, P2c, P4a, P4b, P4c, P4d, P4e, and L8a. The patterns revealed a focus on students’ needs and a number of ways that professional

learning communities seek to address those needs. Examples include instructional supports, student grouping, intervention strategies, and special programs.

Table 5-27 Patterns Contributing to Theme Six

Theme	Patterns for PLC Attributes (P) Contributing to Theme	Patterns for Leadership Dimensions (L) Contributing to Theme
Professional learning communities address the needs of all learners.	P2b Teachers collectively analyzed data to assess students' needs.	L8a Schools focused on diversity issues such as poverty, mobility, English language proficiency, and family structure.
	P2c Instructional decisions were based upon collective analysis of students' needs.	
	P4a School turned visions into actions by implementing multi-tiered systems of supports for students.	
	P4b Schools made adjustments to daily schedules to address students' needs.	
	P4c Teachers changed the way students were grouped for instruction to address their needs.	
	P4d Teachers used different instructional strategies to address students' needs.	
	P4e Schools implemented special programs such as mentoring programs and after-school programs to address students' needs.	

Theme seven. The principal’s influence on school culture is important in support of professional learning communities. This theme was derived from the patterns under the leadership sub-codes of communities of learning (L5) and organizational culture (L7). No patterns under the PLC attributes contributed directly to this theme. Theme seven was supported by patterns L5b, L7a, L7b, L7c, and L7d as displayed in the table below.

Table 5-28 Patterns Contributing to Theme Seven

Theme	Patterns for PLC Attributes (P) Contributing to Theme	Patterns for Leadership Dimensions (L) Contributing to Theme
The principal’s influence on culture is important in support of professional learning communities	-	L5B Principals encouraged teachers to facilitate professional development activities.
		L7a Teachers perceived that principals had high expectations for them.
		L7b Teachers reported that accountability to the principal was a significant element of the culture of their school.
		L7c Teachers reported that their principal promoted a caring/supportive culture.
		L7d Teachers reported that having a student-centered principal was important to the school's culture.

Summary

This chapter described the procedures for analyzing the data, the patterns related to the six critical attributes of PLCs as defined in the conceptual framework for this study (DuFour and Eaker, 1998; Hord, 1997), and those related to the eight learning-centered

leadership dimensions as defined by Murphy et al, (2006). It also examined the themes that were derived from an analysis the intersection of the patterns from both frameworks. Chapter Six will discuss the conclusions of this study, including an examination of the over-arching research questions, the significance of the study, implications for practice, and recommendations for future studies.

Chapter Six: Conclusions

Introduction

This study examined the principal's behaviors that were perceived to be important in the support of PLCs in five high performing elementary schools. It also examined the intersection of six critical PLC attributes with eight dimensions of learning-centered leadership. Based on the perceptions of those interviewed, seven themes emerged that addressed the overarching research questions for this study. Aside from discussions of each research question, this chapter includes sections on the significance of the study, implications for practice, and recommendations for future studies.

Discussion of Research Question One

What types of principal behaviors are perceived by principals and teachers to be most meaningful in supporting professional learning communities?

This study found that in professional learning communities, it is important for principals and teachers to share a mission and/or vision for learning. The specific principal behaviors contributing to this theme included: articulating their vision for learning, facilitating the development of their school's mission/vision statements, and assuring that staff members have input in the development of the mission/vision statements.

Secondly, this study affirmed that the principal's knowledge and involvement in curriculum and instruction are important in the support of PLCs (Murphy et al., 2008). The specific behaviors identified as meaningful included: having knowledge about effective instructional strategies, being involved in the school's instructional program,

and overseeing the development of the master schedule to ensure appropriate instructional time. Other behaviors identified as important were being knowledgeable about the students' instructional needs, participating in the selection of appropriate curricular materials, assuring curricular alignment, and working to promote instructional fidelity in the use of curricular materials.

This study supported the assertion that the principal's knowledge and involvement in the assessment program are important in the support of PLCs (Murphy et al., 2008). The specific principal behaviors identified as meaningful in this study included being knowledgeable about the types of assessments and uses of data, teaching the instructional staff how to analyze the data to assess students' needs, and encouraging teachers to analyze data. Additional principal behaviors identified as important to PLCs were discussing students' assessment data with the teachers on a regular basis and immersing themselves in the data so that they, too, knew the needs of the students in their buildings.

Much has been written about shared leadership and its importance in professional learning communities (Hipp et al., 2008; Liebman, Maldonado, Lacy, Thompson, & Honawar, 2005; Murphy et al., 2006). This study affirmed the assertion by Liebman et al., (2005) that when all members of the learning community are working as an equal team toward the same goal, the learning community is successful. In this study, the following principal behaviors were perceived to be important under the attribute of shared leadership: considering teacher input when making decisions, delegating leadership responsibilities to teacher leaders, and including teachers in professional development decisions.

One school in this study provided a unique exemplar of shared leadership. The interviews with participants from School D differed from the interviews in the other schools in that eleven of the principal behaviors enumerated by the other participants were unmentioned by School D participants. The eleven anomalous patterns included the principal's knowledge about students' instructional needs, the principal's involvement in the selection of curricular materials, the principal's facilitation of professional development activities, and others as summarized in Table 5-20. Given the review of the literature about the importance of leadership in PLCs; and given the fact that School D had high academic achievement and a sustainable professional learning community; it can be assumed that *someone* at School D assumed those leadership dimensions. The interview data suggested that the leadership responsibilities were assumed by the three teachers on the building leadership team who facilitated collective inquiry, planned professional development, and steered the school's development of a multi-tiered system of support (MTSS) for students (as discussed in the case descriptions).

Hord (1998) asserted that shared authority and decision making are distributed with direction and purpose, not from negligence, unawareness, or lack of responsibility on the part of the principal (Hord, 1998); therefore, it is likely that the building principal purposefully delegated these responsibilities to teacher leaders who possessed the necessary leadership dimensions. It is also possible that the teachers asserted their leadership and were supported by the principal. According to Leo and Cowan (2000), principals in professional learning communities clearly understand their own role, know

where teacher initiative, decision, and action are appropriate, and can handle a certain amount of the "messiness" that is inherent in group decision making.

Although the principal in this case delegated an extraordinary amount of leadership responsibility to the building leadership team, it appears that School D maintained all of its PLC power. This begs the question, "What if a principal lacks some of the leadership dimensions that are meaningful in supporting PLCs? Can the school still have a highly functioning professional learning community?" School D's high achievement and sustainable PLC suggest that it is possible. It is reassuring to consider that if a building principal lacks certain leadership dimensions, other leaders in the organization may assume those responsibilities in order to support the professional learning community's efforts to attain high levels of student learning.

It is also worthy of noting that School D is a small, rural school. It is possible that being small lends itself to more people becoming involved in leadership roles. In small schools, there are often fewer resources—particularly human resources. People are frequently asked to take on a variety of roles outside of their official job descriptions. This may have contributed to the leadership authority of the teachers in this school.

Deep, rich learning evolves when teachers have the forum in which to interact and converse with one another, to pursue intentional learning, to share and test new ideas, to ask questions, to seek clarification, to discuss results, and to determine how to apply knowledge they have acquired in the classroom (Blankstein et al., 2008). This study affirmed that collective learning among principals and teachers is important in professional learning communities. The specific principal behaviors related to collective

learning included thoughtfully planning professional development activities, facilitating professional learning activities, and promoting teacher facilitation of professional learning activities.

In order to foster the necessary conditions for PLCs, principals must create a culture that promotes and encourages inquiry and ensures learning for staff at all levels (Stoll et al., 2006). This study affirmed that the principal's influence on the school's culture is important in the support of professional learning communities. Specific principal behaviors that influenced organizational culture included: having high expectations for teachers, holding teachers accountable to those expectations, promoting a caring and supportive culture, and putting students' needs first.

Discussion of Research Question Two

How do the eight dimensions of learning-centered leadership (Murphy, et al., 2006) intersect with the critical attributes of professional learning communities (DuFour & Eaker, 1998; Hord, 1997)?

An examination of the patterns found across the two conceptual frameworks revealed the seven themes discussed in Chapter Five. Six of the themes were derived from the intersection of at least one PLC attribute and at least one leadership dimension. The over-arching research question can best be answered by addressing these intersections as related to the eight sub-questions below.

How is vision for learning manifested by principals in professional learning communities? Not surprisingly, vision for learning (L1) intersected with the critical PLC attribute of shared mission and vision (P1). In the PLCs in this case study, the

principals could articulate their vision for learning. They facilitated the development of their school's mission/vision statements and included the input of staff members in its development.

The literature on vision for learning supports the inclusion of multiple stakeholders in the development of mission and vision statements (Murphy et al., 2006; DuFour et al, 2006). It is worth noting that the inclusion of multiple stakeholder groups did not emerge as a pattern among the five schools in this study. Participants from only one of the schools reported that the principal had solicited the input of parents and community members in the development of the mission statement. This suggests that it is possible (though, perhaps, not ideal) for a school to have a sustainable PLC and high student achievement without stakeholder input in the mission and vision.

How is instructional programming manifested by principals in professional learning communities? Instructional programming (L2) intersected with the PLC attribute of collective inquiry (P2). This leadership dimension was manifested in the principal's knowledge about effective instructional strategies, the principal's involvement in the instructional program, and the principal's knowledge about students' instructional needs.

In four of the cases, instructional programming was also manifested in a commitment to regularly-scheduled collaboration time within the teachers' duty day. One of the schools in this study (School D) did not have a regularly-scheduled time for collaboration, yet its participants reported that they frequently engaged in collective inquiry. The teachers in School D had committed to "finding the time," and managed to

collaborate on a weekly—sometimes daily—basis during their planning times or before and after school. While this provided evidence that it is possible for PLCs to function without regularly-scheduled collaboration time, the researcher observed evidence of fatigue and declining morale among the participants from School D. For example, a participant explained, “We do not have a specific collaboration time which is very difficult. I think we need that, but with the support staff that we have and the budget cuts that have happened we just don’t have the people to cover....” The participant’s comments and similar statements from her colleagues led the researcher to infer that the PLC would eventually struggle to continue its sustainability without the addition of regularly-scheduled collaboration time. Christman (2008) found that inconsistent availability of collaboration time negatively impacted the institutionalization and sustainability of PLCs. This study lends support to Christman’s conclusion.

How is curricular programming manifested by principals in professional learning communities? Curricular programming (L3) also intersected with the PLC attribute of collective inquiry (P2). This leadership dimension was manifested in the principal’s involvement in the selection of curricular materials, the principal’s promotion of instructional fidelity, and the principal’s involvement in curricular alignment.

How is assessment programming manifested by principals in professional learning communities? Assessment programming (L4) intersected with the critical PLC attribute of focus on results (P6). According to Blankstein et al., (2008), providing teachers access to easily manageable data is not enough to foster teaching and learning. Teachers must also be able to interpret data to determine areas that need improvement. In

this study, assessment programming was manifested in both the principal's knowledge about assessments and the principal's encouragement of data analysis. The interviews for this study also revealed that principals in sustainable PLCs modeled data analysis as a tool for assessing students' needs and taught teachers how to do it. Lastly, teachers found it useful when principals discussed students' assessment data with the teachers.

How are communities of learning supported by principals in professional learning communities? Communities of learning (L5) intersected with the PLC attribute of collective learning (P5). Leo and Cowen (2000) stated that principals in professional learning communities encourage, model, and participate in collective learning. Based on the interviews in this study, the leadership dimension of communities of learning was manifested by the principal in the following ways: facilitation of professional development activities, planning and selection of professional development topics, and sharing leadership of professional development activities with teachers.

How is resource acquisition manifested by principals in professional learning communities? Resource acquisition (L6) intersected with the PLC attribute of collective inquiry (P2) under theme two, which affirmed that the principal's knowledge and involvement in curriculum was important in the support of PLCs. Resource acquisition was mentioned by participants only in the context of hiring effective staff. At first glance, this may imply that acquisition, allocation, and use of resources to support student learning are less important to the support of PLCs than other leadership dimensions. However, that might not be the case. Perhaps the omission of leadership acquisition in the interviews only suggests that it is something the teachers rarely pay attention to. It is

possible that the principals in these schools supported resource acquisition so efficiently and effectively that this dimension went seemingly unnoticed.

How do principals support organizational culture in professional learning communities? Research surrounding PLCs has shown that leadership sets the tone and direction for the school climate and is influential in creating a culture that forces attention on the issues that are truly important to making the school successful for all (Hipp et al., 2008). Organizational culture (L7) did not directly intersect with any of the single PLC attributes; however, the data affirmed that the principal's influence on culture was important in the support of professional learning communities. This leadership dimension was manifested in the principal's high expectations for teachers and high levels of teacher accountability. Teachers also reported that having a caring and supportive principal was important to the school's culture. This supported the work of Thompson, Gregg, and Niska (2004) who found that effective collaborative leaders believe in and display support and respect for the teachers within their buildings. Principals who exhibited care and concern for their teachers modeled the type of relationships that teachers must have with each other in order to work together with the intensity required by the professional learning community. Lastly, this study found that having a principal who was perceived as being "student-centered" was important to the organizational culture. One participant described the perception of a student-centered principal in this way—"When people understand why something is happening, and they see that it really is what's best for the students, then they can support it."

How is social advocacy manifested in professional learning communities?

Social advocacy (L8) intersected most directly with the PLC attribute of action orientation (P4) in this study. According to Hord (1997), PLCs provide teachers with opportunities to develop impactful educational goals for students, as well as to make effective teaching adaptations for their students. In this study, social advocacy was manifested in a focus on diversity issues in the schools. The principals in the five schools for the case study led efforts to address diversity issues such as poverty, mobility, English language proficiency, and family structure in order to meet students' needs.

Significance of the Study

PLCs offer schools the opportunity to create communities of learners aimed at the common goal of high levels of student learning (Blankstein et al., 2008; DuFour et al., 2004; Hord, 1997; Hord & Sommers, 2008). This study provided insight into the behaviors of principals that are perceived to be most meaningful in the support of PLCs. The results of the study were analyzed further to explore how the dimensions of learning-centered leadership intersect with the critical attributes of PLCs.

This study was significant because it provided additional evidence that a shared mission and/or vision are important to the work of professional learning communities (DuFour & Eaker, 1998; Hord, 1997). This study added to the current discourse on this topic by identifying specific principal behaviors that were perceived to be most important in the support of PLCs by the participants from five elementary schools.

This study added to the knowledge base about the importance of the principal's involvement in curriculum, instruction, and assessments in PLCs (Murphy et al., 2008).

It identified the principal's behaviors perceived to be most meaningful in the areas of curriculum, instruction, and assessments. Under instructional programming, this study revealed that principals should be involved in the building of the school's master schedule to secure consistent, duty-free time for teacher collaboration. Interestingly, this study provided an exemplar of a school which engaged in frequent collective inquiry despite having no regularly-scheduled PLC time.

This study also supported the work of Eastwood and Lewis (1992) regarding the importance school culture and provided insight into principal's behaviors that were perceived to positively impact the PLC culture.

The conclusions of this research supported and broadened those of Hipp et al. (2008) and Murphy et al. (2008) in regard to shared leadership. This study revealed a number of ways that principals and teachers shared leadership in support of PLCs, including shared decision-making, committee membership, and peer accountability. It also provided a unique exemplar of a school which sustained its PLC power despite a principal who abdicated much of her authority to teacher leaders who assumed an extraordinary amount of leadership responsibility.

The schools in this research study provided exemplars of the collective efforts of principals and teachers to support and sustain professional learning communities to meet the needs of their students. This case study was significant because it expanded upon the existing research on PLCs and provided readers with practical suggestions concerning how five elementary school principals supported the work of professional learning communities. A strength of this study was that it gathered data from five unique schools.

Readers can therefore compare, contrast, and ponder the similarities and differences among the schools and make their own decisions about transferability based upon the unique characteristics of each case.

The most unique characteristic of this study was its analysis of the intersection of the two conceptual frameworks—PLC attributes and learning-centered leadership dimensions. In a thorough review of the literature on PLCs and leadership, no similar qualitative studies were found. This analysis was significant because it provided new information about how principals and teachers perceived leadership behaviors and their impact on the critical attributes of PLCs.

Implications for Practice

The results of this study have potential to significantly impact practice for both principals and teachers. Given the increased demands of the common core standards, the current cuts to school budgets, and limited funding for professional development, the need for high-quality, in-house professional development is more important than ever. Professional learning communities provide valuable and cost-effective opportunities for collective inquiry, data analysis, collaborative planning, and professional growth.

Principals desiring to develop and support PLCs may glean knowledge from this study that could be applied to their own school settings. This study identified specific behaviors that support the development of a shared mission/vision. It provided the reader with examples of principal behaviors in the areas of curriculum, instruction, and assessments that were perceived to be meaningful in the support of PLCs. It identified behaviors that support shared leadership, collective learning, and organizational culture.

The behaviors of the principals in the study were reflective of the best practice standards for leaders desiring to support PLCs, and therefore were worthy of being modeled.

Frequently schools implement the PLC model for professional development only to fall short in one or more of the critical PLC attributes, thus resulting in something more like “PLC Light” than true professional learning communities. The schools in this study possessed strong action orientation; the work of their PLCs resulted in second-order changes. School leaders desiring to move beyond “PLC Light” and into meaningful second-order change could find valuable exemplars in the pages of this study.

This study could provide guidance for principals desiring to strengthen specific attributes within their own professional learning communities. Principals could study the patterns and themes from this research to identify the leadership behaviors that intersect with areas of weakness within their own PLCs. For example, if a PLC is struggling with the attribute of shared leadership (P3), the school leader could study the patterns under theme four to identify which principal behaviors were perceived to be meaningful in support of shared leadership. This study found that important leadership behaviors in support of shared leadership included asking teachers for input when making decisions, delegating leadership tasks, and creating a culture of high expectations.

If teachers hope to overcome the isolation so often associated with teaching, they need the opportunity to learn from other teachers and to have their own teaching practices reviewed by their colleagues (Hord & Sommers, 2008). Teachers desiring to improve their own contributions to professional learning communities may find suggestions for growth in the pages of this study. The participants in this study participated heavily in

the work of their professional learning communities, and thus, provided insights into the intricacies of PLC membership. Given that all of the cases in this study reported having sustainable PLCs and achieved high levels of learning with high-poverty student populations, they provided worthy exemplars. While this study did not seek to identify teacher behaviors that contributed to the critical attributes of PLCs, the patterns identified under the main code (P) provided valuable insight for teachers. For example, teachers desiring to strengthen their professional learning communities should participate in the development of visions for learning and turn those visions into actions. They should collectively analyze data to assess students' needs, and they should make instructional decisions based upon the collective analysis of students' needs. Teachers should provide their principals with input about decisions and accept leadership responsibilities delegated to them by their principals. Teachers should participate in collective learning by teaching one another and learning from one another. Teachers hold one another accountable for high levels of student learning.

The U.S. education system is entering a whole new era in assessments. The Smarter Balanced Consortium is working to create tests that align with the Common Core Standards for Math and English/Language Arts. These tests will require students to demonstrate 21st century skills not currently assessed by the standardized tests used in most states—critical thinking, problem-solving, communication, and collaboration. It is interesting to note that these 21st century skills closely match the skills being used by teachers in professional learning communities. Perhaps teachers' mastery of these skills will be an important step toward student mastery of these skills. The teachers in this

study certainly provide solid role models for other teachers desiring to improve their critical thinking, problem-solving, communication, and collaboration skills.

Administrator preparation programs aim to provide future principals with the tools they need for effective leadership. These programs should identify practices that support professional learning communities and focus on these leadership dimensions. On-going professional development for practicing school administrators should also focus on the dimensions of leadership that support PLCs.

Implications for Personal Practice

The researcher was drawn to this topic because of its application to her current position as an elementary school principal. The implementation of PLCs in her own school district had resulted in duty-free meeting times and enthusiastic teacher collaboration; however, it had fallen short in terms of meaningful changes in practice. The administrators and teachers had been trained in the specific strategies and structures needed to create PLCs in their schools. They involved multiple stakeholders in the development of school mission and vision statements. Teachers met weekly to share strategies and discuss the needs of students—yet when they returned to their individual classrooms, they often returned to their comfortable routines and habitual instructional practices. The work of the professional learning communities did not result in second-order changes. The researcher was frustrated by what she perceived as “PLC Light” in her own school.

As often happens in qualitative research, the researcher was profoundly impacted by her research in this study. Her thorough review of the literature, interviews with

participants, collection of documents, and informal observations deepened her knowledge of professional learning communities and built her own capacity as a learning-centered leader. The participating principals became informal mentors, and the researcher gleaned many valuable lessons from studying their leadership dimensions. The PLCs in the five research schools provided examples of structures and strategies that the researcher could implement and/or modify for use in her own school. In closing, this study had profound implications for the researcher's personal practice. It aided the researcher in moving her own school beyond "PLC Light."

Recommendations for Future Studies

Recommendation One

This study explored the principal's role in professional learning communities and examined the intersection of critical PLC attributes with learning-centered leadership dimensions. To that end, the interview questions corresponded to the critical dimensions of PLCs (DuFour & Eaker, 1998; Hord, 1997). It would be beneficial to complete a similar case study using interview questions that correspond to another conceptual framework such as the four-point continuum for assessing the stages of a PLC (DuFour et al., 2006). There is much to be learned about leadership and its role in the change process and the sustainability of PLCs.

Recommendation Two

This study identified leadership behaviors that were perceived to be meaningful in support of PLCs. It would be beneficial to complete a similar case study of high-performing schools that do not have sustainable PLCs. Professional learning

communities are one way to improve student achievement, but not the only way. There is more to be learned about the role of the leader in the school improvement efforts, aside from the PLC process.

Recommendation Three

It would be beneficial to complete an in-depth case study on two school's PLC journeys from initiation to institutionalization focusing on the behaviors of the principals. Comparative data about the two schools' stages of PLC functioning and the leadership dimensions possessed by their principals would provide good insights for school leaders interested in initiating the PLC process.

Recommendation Four

One of the critical PLC attributes examined in this study was action orientation. It would be interesting to study the types of actions, especially those that would be considered second-order changes, which have resulted from the work of professional learning communities in schools. It would be beneficial to study the intersection of learning-centered leadership with second-order change.

Recommendation Five

It would be beneficial to examine schools where teachers have assumed PLC leadership responsibilities in place of the building principal (as in the case of School D in this study). It would be interesting to study whether this is occurring in rural/small schools or elsewhere. It would also be interesting to understand which learning-centered leadership dimensions can be successfully assumed by teacher leaders.

Recommendation Six

There is much to be learned about the sustainability of PLCs. It would be beneficial to study schools that have sustained professional learning communities for five or more years. Are the school leaders showing signs of professional fatigue? Are teachers showing signs of fatigue? What are leaders doing to sustain the energy required for the work of PLCs?

Summary

As the demands on educators have increased, the need for effective learning-centered leaders has become imperative. Given that there is a link between professional learning communities and increased student achievement (Blankstein et al., 2008; Darling-Hammond & McLaughlin, 1995; Hord & Sommers, 2008; Marzano, 2003; Newman & Wehlage, 1995), research about learning-centered leaders and their role in PLCs is important. An analysis of the rich information provided by the participants in this case study provided relevant information about professional learning communities and the principal's behaviors perceived to be most meaningful in support of PLCs. In addition, this study provided the reader with a deeper understanding of how learning-leadership leadership intersects with the critical attributes of professional learning communities.

Appendix A

Staff Survey Used to Determine Sustainable PLC Status

(1) Has your professional learning community been functioning for at least two years?

Yes

No

(2) Are the PLC principles (shared mission, collective inquiry, shared leadership, action orientation, collective learning, and focus on results) deeply embedded in the culture of your school?

Yes

No

Unsure

(3) Is the professional learning community a driving force in the daily work of your school's staff?

Yes

No

Unsure

(4) Would you resist attempts to abandon the principles of professional learning communities?

Yes

No

Unsure

Appendix B Interview Guide

Purpose of Study

The purpose of this study is to understand the types of principal behaviors that are most meaningful in producing sustainable professional learning communities. This multi-site case study of teachers and principals from high-achieving, low-income elementary schools will result in a description of principals' behaviors that are likely to contribute to effective and sustainable professional learning communities as perceived by both teachers and principals.

Research Question

The overarching research questions are:

1. What types of principal behaviors are most meaningful in the development of sustainable professional learning communities?
2. How do the eight dimensions of learning-centered leadership intersect with the development of professional learning communities?

Protocol for Interview

Interviewer: Karen Duling

Nature of relationship with interviewees: None of the interviewees work in the same school district as the interviewer. The interviewer has no prior professional or social relationships with any of the interviewees; however, telephone contact was made prior to the face-to-face interview.

Process: Consent will be collected in advance, in person, and in writing. Interviews will be scheduled at times convenient for the participants. Interviews will be scheduled at the school sites before the contract day, after school, or during the interviewees' plan times. All interviews will be recorded on a digital audio voice recorder and transcribed for the purpose of data analysis. Names of participants will be changed for anonymity. The pre-determined interview questions below will serve as a guide for the interview; however, the interviewer may ask clarifying questions or make requests for elaboration on specific topics.

Interview Questions

The interview questions correspond to the critical dimensions of professional learning communities as defined by the synthesis of the frameworks provided by DuFour and Eaker (1998) and Hord (1997): shared mission and vision, collective inquiry, shared leadership, action orientation, collective learning, a focus on results.

Shared Vision and Mission

- Describe the common vision of your school.
- How was the school's vision developed?

Collective Inquiry

- What opportunities exist for staff members to collectively analyze students' needs?
- How are these opportunities encouraged? What role, if any, does the principal play in encouraging collective inquiry?

Shared Leadership

- Describe the leadership opportunities that exist for teachers in your school?
- What role does the principal play in encouraging teacher leadership?

Action Orientation

- Describe changes in practice that have resulted from the implementation of the professional learning community concept in your school?
- How are these opportunities supported? What role, if any, does the principal play in encouraging improved practice?

Collective Learning

- Please describe the professional learning in your school.
- What role does the principal play in professional development activities?

Focus on Results

- Describe the process used for making instructional decisions based upon data?
- What role, if any, does the principal play in encouraging a focus on results?

Appendix C Informed Consent Form

PROJECT TITLE: The Principal's Role in Supporting Professional Learning Communities

APPROVAL DATE OF PROJECT: September 9, 2011

EXPIRATION DATE OF PROJECT: September 8, 2012

PRINCIPAL INVESTIGATOR: Dr. Trudy Salsberry

CO-INVESTIGATOR(S): Karen Duling

CONTACT NAME AND PHONE FOR ANY PROBLEMS/QUESTIONS: Dr. Trudy Salsberry,
tas@ksu.edu

IRB CHAIR CONTACT/PHONE INFORMATION:

- Rick Scheidt, Chair, Committee on Research Involving Human Subjects, 203 Fairchild Hall, Kansas State University, Manhattan, KS 66506, (785) 532-3224.

SPONSOR OF PROJECT: None

PURPOSE OF THE RESEARCH: The purpose of this study is to understand the types of principal behaviors that are most meaningful in producing sustainable professional learning communities.

PROCEDURES OR METHODS TO BE USED: This multi-site narrative case study of teachers and principals from high-performing low-income elementary schools will result in a description of principals' behaviors that are likely to contribute to effective and sustainable professional learning communities as perceived by both teachers and principals. Data collection will include one-on-one interviews, observation, and collection of documents/artifacts.

LENGTH OF STUDY: One face-to-face interview, 30-60 minutes in length

RISKS OR DISCOMFORTS ANTICIPATED: No known risks

BENEFITS ANTICIPATED: This study will seek an understanding of where leadership attributes intersect with the development of sustainable professional learning communities. The study seeks to contribute to the ongoing discourse about the role of principals in developing sustainable PLCs.

EXTENT OF CONFIDENTIALITY: Names of participants will be changed to protect anonymity. Individual results will not be shared.

TERMS OF PARTICIPATION: I understand this project is research, and that my participation is completely voluntary. I also understand that if I decide to participate in this study, I may withdraw my consent at any time, and stop participating at any time without explanation, penalty, or loss of benefits, or academic standing to which I may otherwise be entitled.

I verify that my signature below indicates that I have read and understand this consent form, and willingly agree to participate in this study under the terms described, and that my signature acknowledges that I have received a signed and dated copy of this consent form.

Participant Name: _____

Participant Signature: _____

Date: _____

Witness to Signature: (project staff) _____

Date: _____

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