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An Examination of the Perceptions Leading to the Sustainability of Professional Learning Communities in a Rural School District

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An Examination of the Perceptions Leading to the Sustainability
of Professional Learning Communities in a Rural School District

By
Mildred T. Bankhead-Smith

A Dissertation Submitted to the
Gardner-Webb University School of Education
In Partial Fulfillment of the Requirements
For the Degree of Doctor of Education

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2012

Approval Page

This dissertation was submitted by Mildred T. Bankhead-Smith under the direction of the persons listed below. It was submitted to the Gardner-Webb University School of Education and approved in partial fulfillment of the requirements for the degree of Doctor of Education at Gardner-Webb University.

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Abstract

An Examination of the Perceptions Leading to the Sustainability of Professional Learning Communities in a Rural School District. Bankhead-Smith, 2012: Dissertation, Gardner-Webb University, Professional Learning Community/Teacher Leaders/Principal Leaders/Professional Development/PLCA-R Assessment

Principals and teacher leaders are expected to provide many learning opportunities for the colleagues with which they work and for the students they teach. The model employed to empower teachers to grow in the education profession and improve collaboration among colleagues and facilitate collegial conversation is the Professional Learning Community (PLC). The PLC model is exercised in many schools throughout the United States. As schools employ the PLC model, levels of leadership change, and teachers may or may not grow professionally. Though schools attempt to implement positive change, the sustainability of professional development can be in jeopardy.

This non-experimental, quantitative study is designed to investigate principals', assistant principals', and teachers' perceptions of PLCs as opportunities for sustainable, effective professional growth within the district. The study applies the use of PLC Assessment-Revised (PLCA-R) online survey. The PLCA-R (Oliver, Hipp, & Huffman, 2008) was utilized to determine perception and sustainability of PLCs.

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Chapter 1: Introduction

Background of the Study

A rural school district in North Carolina implemented Professional Learning Communities (PLCs) under the leadership of the school superintendent during the 2008-2009 school year. The purpose was to expand collaboration, to avoid low levels of rigor in lesson plans, to improve low performance among African American students, and to diminish teacher and staff dissatisfaction of school culture in some schools in the district (NC Teacher Working Conditions Survey, 2010).

PLCs are driven fundamentally by the needs of the students, the school, and the interests of participants themselves, enabling adult learners to expand on content knowledge and practices that are directly connected with the work of their students in the classroom (Nelson, Deuel, Slavit, & Kennedy, 2010). Participating in regular meetings creates opportunities for teacher interaction and has served to decrease the sense of inherent isolation while increasing feelings of collegiality among teachers and staff member. The fundamental foundation of the PLC is the ability to participate in collegial conversation without conflict. According to Nelson et al. (2010) and their work with over 30 PLCs, collaboration and professional development must occur among teachers. Doolittle, Sudeck and Rattigan's (2008) observations of PLCs, elicited similar findings in their study.

Yet, deeper issues of trust and equity remained. Although a cadre of coaches (PLC teacher leaders) emerged as catalysts for collaborative work in the district and increased teacher proficiency to facilitate group work and professional development, leadership capacity at other levels of the system remained underdeveloped. For example,

teachers feel a lack regarding empowerment and opportunities for leadership. Teachers are allowed to facilitate the work and the professional development but are told specifically how each task must be completed. The teachers would like to see some flexibility in how tasks are presented to facilitate collaborative work and professional development. Progress was made at the beginning of the 2010-2011 school year in schools throughout the district; teachers and staff members were allowed to take on the leadership roles. During the opening of school, teachers led the opening sessions, delivered book talks, and were referenced as the teacher experts in the areas in which they had experience and expertise. At the end of the 2010-2011 school year, the turnover of the staff was approximately 25%, according to the human resource representative of the studied school district (B. Faris, personal communication, October 10, 2011). The level of sustainability of the PLCs is now in jeopardy. Teachers want to share their experiences and be seen as leaders and as a part of the decision-making process. In the past, decisions have been made without the opinions of those who then must carry out the task or lead the professional development.

Purpose of the Study

The purpose of this non-experimental quantitative research study was to analyze the practices of the core principles and characteristics of PLCs in a rural school district. The aim of the study was to determine the perceptions of sustainability of the PLC as it was used in the district and to examine the model relative to future use.

As the district continues its efforts to build sustainable learning communities, there is a concern for the strategies and resources used to maintain all of the schools within the district as PLCs. What does the implementation of the PLC look like for a

school? What factors are taken into consideration during the planning process for PLCs? Where does a school begin? Is the implementation of the PLC achieving what district leaders intended? Although many schools call themselves PLCs and often have teams identified within their schools as PLCs, PLC activities are not occurring. Sustainability is based upon knowing what to do and then doing it well. However, experience has found that most PLC teams need assistance in achieving the aims of the PLC. Hence the questions above help to guide teams in planning and implementation.

Regrettably the results are most school and district reform efforts have been generally unsuccessful in providing the leadership, understanding, and motivation required to empower the school's staff to make significant and lasting changes (Fullan, 1997; Lindle, 1996). Hence, sustainability is impaired. Some research suggests that the development of PLCs as an organizational strategy could make school reform more successful and sustainable (DuFour, 2003). This involves each school determining the particular strategies and model components needed to meet the specific needs of the individual school and, most important, the needs of the students. Impact cannot be considered separately from purpose. In other words, what is the impact? What is the school striving to achieve in the PLC process? PLCs are a means to an end: The goal is not to be a PLC, but to put the model in daily practice (Morrissey, 2000). The PLC in name only with no plan of action is not progressive; PLCs must function with goals and objectives. One of the key purposes of the PLC is to enhance staff effectiveness as professionals and leaders for the ultimate benefit of students.

In education circles, the term PLC has become commonplace. The term is used with a variety of meanings: extending classroom practice into the community; bringing

community personnel into the school to enhance the curriculum and learning tasks for students; and engaging students, teachers, and administrators simultaneously in learning, to suggest just a few (DuFour, 2003). The PLC is focused on three big ideas: (1) ensuring students learn, (2) creating a culture of collaboration and (3) focusing on results (DuFour, 2003). With this in mind, the district has implemented PLCs throughout all of its schools.

The term PLC is self-defining. For this reason, according to Hord (1997), there is no universal definition of a PLC. It is important to understand how PLCs fit into the larger context of school improvement. Subsequently, PLCs are but one tool within the school improvement framework. Therefore, it also is imperative that the PLC framework be explored, as well as other activities used along with PLCs to improve student achievement (Bezzina & Testa, 2005). The focus of a PLC is the students' needs.

As an organizational arrangement, the PLC is seen as a powerful staff-development approach and a potent strategy for school change and improvement (DuFour, 2004; Bezzina, 2006). Persons at all levels of the educational system are concerned about school improvement; state department personnel, intermediate service agency staff, district and campus administrators, teacher leaders, parents, and school community members are all interested and concerned about the success of the school as a whole (Bezzina, 2006). During the 80s, Rosenholtz (1989) introduced the issues and furthered the discussion of teacher workplace issues and teaching quality. These discussions maintained that teachers who felt supported in their own ongoing learning and classroom practice were more committed and effective than those who did not receive such confirmation (Huebner, 2009). Support by means of teacher networks,

cooperation among colleagues, and expanded professional roles increased teacher efficacy in meeting students' needs. Further, Rosenholtz (1989) found that teachers with a high sense of their own efficacy were more likely to adopt new classroom behaviors and also more likely to stay in the profession (NCDPI, 2010).

McLaughlin and Talbert (1993) confirmed Rosenholtz's findings, suggesting that when teachers had opportunities for collaborative inquiry and the learning related to it, they were able to develop and share a body of wisdom gleaned from their experience. Adding to the discussion, Darling-Hammond (1996) cited shared decision-making as a factor in curriculum reform and the transformation of teaching roles in some schools. In such schools, structured time is provided for teachers to work together in planning instruction, observing each other's classrooms, and sharing feedback. These and other attributes characterize PLCs.

According to DuFour (2003, 2004), PLCs facilitate an assurance that students are learning, a culture or climate of collaboration, and an emphasis on results. PLCs become the catalyst to improve the efficiency of the school community in helping all students learn essential literacy and other academic skills (DuFour, 2003, 2004). DuFour (2003, 2004) states that powerful professional learning is embedded in the routine practices of the school when teachers are organized into teams, provided time to meet during the school day, and given specific guidelines for engaging in activities that focus on student achievement. According to DuFour, Eaker & DuFour (2005) a teams' dialogue should center on these three critical questions, related to big ideas:

1. What is it we want our students to learn?
2. How will we know when each student has learned it?
3. How can we improve on current levels of student achievement? (p. 15)

The “big ideas” that represent the core principals and characteristics of PLCs identified by DuFour (2004) to guide the work of PLCs are as follows:

1. A purpose of clarity and focus on learning
2. A culture of collaboration
3. A focus on results. (p. 8-10)

How do these principles guide schools’ efforts to sustain the PLC model until it becomes deeply embedded in the culture of the school? Through the examination of the literature, data collection, and analysis, ways to sustain PLCs emerged. This study adds to our knowledge about the effects of accountability, leadership, and the development of environments that support learning and can be sustained. The following questions and hypotheses were utilized by the researcher to direct the focus of the study.

Research Questions

1. Is there a difference between teacher and principal perceived Shared and Supportive Leadership of PLC?
2. Is there a difference between teacher and principal perceived Shared Values and Vision of PLC?
3. Is there a difference between teacher and principal perceived Collective Learning and Application of PLC?
4. Is there a difference between teacher and principal perceived Shared Personal Practice of PLC?
5. Is there a difference between teacher and principal perceived Supportive Conditions - Relationships of PLC?
6. Is there a difference between teacher and principal perceived Supportive Conditions – Structures of PLC?

7. What is the relationship of teacher and administrator perceptions regarding Shared and Supportive Leadership, Shared Values and Vision, Collective Learning and Application, Shared Personal Practice, Supportive Conditions – Relationships, Supportive Conditions – Structures?

Research hypotheses. The following research hypotheses were used to provide a guide for this study:

H1. There is no significant difference between teacher and principal perceived Shared and Supportive Leadership of PLC.

H2. There is no significant difference between teacher and principal perceived Shared Values and Vision of PLC.

H3. There is no significant difference between teacher and principal perceived Collective Learning and Application of PLC.

H4. There is no significant difference between teacher and principal perceived Shared Personal Practice of PLC.

H5. There is no significant difference between teacher and principal perceived Supportive Conditions – Relationships of PLC.

H6. There is no significant difference between teacher and principal perceived Supportive Conditions – Structures of PLC.

H7. The overall relationship of teacher and administrator perceptions, Shared and Supportive Leadership, Shared Values and Vision, Collective Learning and Application, Shared Personal Practice, Supportive Conditions – Relationships, Supportive Conditions – Structures will not show significant differences.

Significance of the Study

The significance of the study provides insight about perceptions of principals and teachers use of DuFour's PLC model and whether or not the PLCs are being sustained within the district. This study provides insight into an actual, ongoing school district's professional development and improvement initiative. The success of the study affects all stakeholders involved. The district is able to consider long-term strategic sustainable change as a result of this study. Finally, this study provides significance for the district because it provides a model for the future, as well as research-based change initiatives that can be considered and implemented. The research review and data analysis provide the district a sustainability guide for PLCs.

Limitations of the Study

1. The study was limited to one year.
2. Due to being a staff member, teachers may not have provided the needed information to provide answers to all of the research questions.
3. New teacher/staff members in the study may not have had a full understanding of PLCs.
4. The perception of structures and communication at the district schools was limited by the responses the principal or teacher was willing to disclose in the survey.
5. The utility of the results from the study varied based upon the responses provided in the survey.

Delimitation of the Study

The data may not be used to assume that all schools claiming to function as PLCs function in the same manner.

Definitions of the Terms

The researcher had no control over the authenticity of the definition of a PLC (Stoll et al., 2005; Williams, Brien, Sprague, & Sullivan, 2008). The following definitions offer a range of ways to describe a PLC:

- Educators committed to working collaboratively in ongoing processes of collective inquiry and action research to achieve better results for the students they serve (DuFour, DuFour, Eaker, & Many, 2006).
- An ongoing process through which teachers and administrators work collaboratively to seek and share learning and to act on their learning, their goal being to enhance their effectiveness as professionals for students' benefit (Hord, 1986).
- A strategy to increase student achievement by creating a collaborative school culture focused on learning (Feger & Arruda, 2008).
- Team members who regularly collaborate toward continued improvement in meeting learner needs through a shared curricular-focused vision (Reichstetter, 2006).
- A group of people sharing and critically interrogating their practice in an ongoing, reflective, collaborative, inclusive learning-oriented, and growth-promoting way (McREL, 2003).
- An inclusive group of people, motivated by a shared learning vision, who support and work with each other to inquire on their practice and together learn new and better approaches to enhance student learning (Stoll et al., 2005).

Sustainability. The ability to produce deep improvement that last and spreads

within a school or a school district (Hargreaves & Fink, 2004).

Teacher Autonomy. The ability of teachers to have personal independence and the capacity to make moral and ethical decisions and act on them for the benefit of the students whom they teach (Kries, 1986).

Summary

Because PLCs have been indicated as a *best practice* that leads to the professional development of educators and an increase in student achievement, there is a need to understand how PLCs can be sustained. The study of school principals', administrators', and teachers' perceptions will lead to an understanding about how to sustain schools through leadership changes and evolution.

Chapter 2: Literature Review

Professional Learning Communities

A review of literature relevant to the development and implementation of PLCs is multifaceted in nature (Huffman, 2003). The purpose of PLCs is to provide a high-quality collaboration model to help teachers and schools to increase the engagement of students in the classroom due to the increased collaboration of teachers (Bezzina & Testa, 2005). Every learning community does not function the same way in every school.

University and school faculty teacher education programs recognize that learning, grounded in research and practitioner knowledge, occurs best in a real-world setting. Within the ability to generate new knowledge, schools benefit from multiple stakeholders (NCATE, 2008). Blending expertise and resources through redesign and restructuring supports the complex missions of PLCs. Professional development schools agree to be intentional and transparent in meeting the needs of a diverse body of students through their focus on building learning communities (Doolittle et al., 2008). Agreement with professional development school goals becomes critical in bridging reform strategies that close the research and practice gaps identified by teachers.

Through most of the 20th century, the educational system modeled its leadership style on a top-down vision of school leaders (Mulford, 2003). The principal was seen as the ultimate leader within a school, making all of the necessary decisions whether managerial or educational in nature (Cuban, 2001; Hord & Hirsh, 2009). Calls for educational reform have all included an increased emphasis on the importance of teacher leadership and teacher quality in school improvement initiatives. The actual roles teachers have taken on as leaders in schools have evolved over the years, with shifts in direction and focus. The infusion of PLCs in schools throughout the United States places

teachers in leadership roles (Sparks, 2002). These roles provide the classroom teacher with empowerment and ownership of what the student will learn through collaboration with others, teachers, and their learning communities (Terry, 2002). Prior to the 1980s, the principal was seen as the sole leader of a school, a manager making decisions alone (Cuban, 2001). This top-down approach to dealing with educational issues was called into question during the 1980's education reform initiatives (National Commission on Excellence in Education, 1983; The Holmes Group, 1986, 1990, 1995; National Commission on Teaching and America's Future, 1996). It was at this time that a focus on leadership shifted to the possibilities of roles that teachers could play in improving school success (Elmore, 2000).

Observation of public school partners sometimes lacked practical or collaborative strategies that allowed for refocusing energies and articulating priorities (Doolittle & Rattigan, 2007; Murphy & Meyers, 2008). Observation also revealed that schools, in general, struggled with meeting the multiple priorities generated by the intensification of the No Child Left Behind Act (U.S. Department of Education, 1995) benchmarks. Further, Fullan (2007) and Reeves (2004) reported the absence of leaders who are highly skilled in the change process; Housman and Martinez (2001) found that teachers and principals in low-performing schools tended to work in isolation from one another rather than working with each other in a PLC.

Since the early 1900s, schools have been bureaucratic organizations that placed more emphasis on the enforcement of rules than on the learning of students and practices of teachers (Seyfarth & Bost, 1986). In these bureaucratic organizations, teacher autonomy and isolation from peers were the accepted norms (Cuban, 1993). Although

autonomy has been viewed as a function of a professional position, researchers have questioned the benefits of teacher autonomy, the framework of teacher autonomy, and the impact that teacher autonomy has on student engagement and learning (Pearson & Moomaw, 2005). Teacher autonomy is derived from the nature of the formal structure of schools, which leads teachers to work in isolation within the classroom. Teachers have little professional contact with other teachers or administrators. Such limited contact with other school professionals often results in lower teacher commitment to the mission and goals of the school. There must be a balance achieved between autonomous and collective work with both aimed at improving student learning and encouraging students to graduate from high school (DuFour, 2003, 2004). A balance has been achieved in many schools by structuring PLCs.

Cuban (2006) categorized school reforms as first or second order changes. First order changes are those surface changes that improve current practices through improved efficiency and more effective strategies (Cuban, 2006). Second order changes are those that attempt to alter the basic components of organizations such as structures, goals, and roles. The PLC model represents a second order change as revealed by the substantial and significant changes that occur in relationships, culture, roles, norms, communication patterns, and practices (Cuban, 2006).

The power and effectiveness of PLCs come from their position as communities of continuous inquiry and improvement. In order to help low-performing schools become communities of continuous inquiry and improvement, one must first acknowledge and understand issues that are affecting the school as well as efforts to make improvements (Cuban, 2006). New programs or practices that do not acknowledge and address the

underlying issues will merely scratch the surface. By not acknowledging and addressing the issues of the school, a new program will likely be unable to sustain over time in order to benefit learning.

In 1997, Southwest Educational Development Laboratory's (SEDL) first efforts to understand, describe, and report on PLCs were published. Since that time, the literature has expanded. Reyes, Scribner, and Scribner (1999) referenced the benefits of PLCs in their work with Hispanic schools. In these schools, which were at one time characterized as low-performing, the creation of learning communities assisted staff in overcoming the implementation problems that had accompanied past reform efforts and also increased student achievement. School staff learned to develop their own capacities in order to produce improved student outcomes from year to year, despite increasing changes in their school and surrounding communities that made teaching and learning more challenging (Reyes et al, 1999).

Thiessen and Anderson (1999) discussed means of transforming learning communities in which learning by teachers is connected to school improvement and improved learning for students. By encouraging collaboration, integration, and inquiry in schools, as well as continuous engagement, teachers were supported to challenge the conditions, the relationships, the responsibility, and the control. As a result of these implementations and practices, the teaching and learning can shape a school. Through such ongoing inquiry, schools become stronger, more productive places where teaching improves and increased learning is displayed by all students. DuFour (2002) and Eaker (2003) also highlighted PLCs, encouraging schools to reflect on their collective capacity to address the learning needs of their students. The ongoing improvement efforts can

succeed only when a community of colleagues support each other through the inevitable difficulties associated with school reform. Peter Senge (1990), one of the founding fathers of the learning organization concept in the business sector, recently acknowledged the importance of learning communities in schools. He recognized schools as a meeting ground for learning, dedicated to the idea that all those involved, individually and together, will continually enhance and expand their awareness and capabilities (Newcomb, 2003). Smylie and Hart (1999) reiterated increased student learning is tied to teacher learning and collaboration, and stated: “It has become increasingly clear that if we want to improve schools for student learning, we must also improve schools for the adults who work within them” (p. 1). We have only recently come to understand that student learning also depends on the extent to which schools support the ongoing development and productive exercise of teachers’ knowledge and skills (Astuto, 1993).

Newmann and Wehlage (1995) specifically identified PLCs as a means to an end. They noted that such an arrangement, identified by clear and shared purpose, collaboration, and collective responsibility for student learning, is critical to effective teaching and has a direct effect on the improvement of student learning. Rather than becoming a reform initiative itself, a PLC becomes the supporting structure for schools to continuously transform the PLC through internal capacity. Leithwood, Louis, Anderson, & Wahlstrom (2004) suggested the task is not just to create a school organization capable of implementing the current set of reform initiatives in the context of today’s environments. The task is to design an organization capable of productively responding, not only to such current initiatives in today’s environment but also to the needless number of initiatives, including new definitions of school effectiveness (SEDL, 2011).

One component of effective reform is the consideration of the five dimensions of the PLC.

Five Dimensions of the Professional Learning Community

Supportive and shared leadership. Shared and supportive leadership are exercised when collegial and facilitative participation of the administrator share leadership with the administrative team and teachers on the school staff (DuFour, DuFour, Eaker, & Karhanek, 2004; Hord & Hirsh, 2009). The administrator facilitates the work of the staff and participates in the work without dominating the work being done.

Lucianne Carmichael (1982), the first resident principal of the Harvard University Principal Center, used PLCs in her school. She expressed that sometimes the ability to delegate and share the leadership role is difficult for principals. The task of sharing and delegating becomes a challenge when the staff perceives the principal as the leader with all of the answers to the school's problems. This may make it difficult for the principal to admit he or she may also need some professional development. Supportive leadership of principals in schools is cited as one of the necessary human resources for school-based professionals.

Shared values and vision. All PLC members develop a shared vision based upon their commitment to the needs of the students and their desire to improve the teaching practices or to grow in their own skill and learning (DuFour, 2004; Morrissey, 2000). The value and vision statement is consistently articulated and referenced as PLC work is done. Staff must not only be involved in the process of developing a shared vision but also must be challenged and expected to use that vision as a guidepost in making

decisions about teaching and learning in the school (NCDPI, 2012). In a true learning community, each individual staff member is responsible for his or her actions, but the common good is placed on par with personal ambition. The relationships between staff members should display respect and integrity. Such relationships are supported by open communication, made possible by trust (Fawcett, 1996)

Collective learning and application of learning. PLC members move beyond existing procedures and teaching methods to design strategies for improvement (Thompson, Gregg, & Niska, 2004). The learning applications are very strategic, based upon high standards, the latest research, and best practices. The standards and practices are shared publicly and applied. Research revealed that in PLCs, staff members at all levels of a school work collaboratively to solve problems and improve learning opportunities. As the staff seeks new knowledge and skills, ways to apply the new learning to the ongoing work emerge. The collegial relationship produces the creativity and satisfactory solutions to problems, strengthens the bond between principals and teachers, and increases commitment to improvement efforts (Sergiovanni, 1994).

Supportive conditions. PLCs require two types of conditions for support, structures and collegial relationships (SEDL, 2011). Structures include a number of necessary features to function, such as proximity of staff to one another, communication systems, and time and space for staff to meet and to examine current practice. Time for staff to meet is a critical physical structure of a PLC. All of the members in the learning community should be safe and feel safe. Teachers should be comfortable to collaborate, communicate, learn, make decisions, problem solve, and share their results and products.

Physical conditions and human capacities. The physical and human conditions

support the operation of how and when the PLCs meet and function (Hord, 2004). The administration must allocate time for the staff to collaborate. The size of the school must be taken into consideration. Teachers who are on collaborative teams need to have a physical proximity to one another. Communication structures must be established (Morrissey, 2000). When collaboration and communication are established, collegial conversations about teacher and student learning are facilitated, diminishing the opportunity for teacher autonomy (Morrissey, 2000).

Mission and Vision of a Professional Learning Community

The first step is to create a mission statement that identifies the school's purpose. The first question that the faculty should consider is: What is our mission, our fundamental purpose? For example, the school's purpose may be to identify proven strategies to teach children how to learn (DuFour & Eaker, 1998). The mission statement captures something that people can hold in their minds and hearts as they perform their duties (Leithwood & Beatty, 2009). The purpose of the mission is to have an influence on the day-to-day teaching and learning that takes place in the school.

To make the mission statement relevant, the principal must engage the faculty in a deeper discussion; for example, why do we exist? Typically, teachers will respond that they exist to help all students learn (DuFour, DuFour, & Eaker, 2008; DuFour & Eaker, 1998; Luneburg & Irby, 2006). For example, successful PLCs believe that all students can learn. That statement will only become meaningful if faculties are willing to engage in some deeper questions. If we believe that all students can learn, we expect them to learn. How will faculty respond when students do not learn (DuFour & Eaker, 2005; DuFour, DuFour, Eaker, & Karhanek, 2004)? Other deeper questions that faculty must

engage in to create a mission statement include: What does it mean to help students learn how to learn (Bellanca & Brandt, 2010)? How do students organize their time and their materials? How do they work together? A PLC involves all stakeholders working together, including students. What kind of skills do students have to work together? What kind of skills do they have to understand themselves, to identify their individual learning styles, and to evaluate their work? How good are they in applying their learning to other contexts in the school and outside? And how do students use technology and other resources in order to learn on their own?

After clarifying the school's mission, the next step is to develop a vision. A vision is an attempt to describe the school that faculty members are hoping to create. In an exemplary school, students (a) accept responsibility for their learning, decisions, and actions; (b) develop skills to become more self-directed learners as they progress through the grades; and (c) actively engage in and give effort to academic and extracurricular pursuits (Bulach, Lunenburg, & Potter, 2008; Lunenburg & Irby, 2006).

Values and Goals of Professional Learning Communities

The next stage in the process is to develop value statements. At this point, the members of another faculty task force might begin to work with their colleagues to identify shared values--the attitudes, behaviors, and commitments--all teachers would pledge to demonstrate so as to move the school closer to their shared vision. The board of education, support staff, administrative team, students, parents, and community members, also engage in discussions concerning the attitudes, behaviors, and commitments the school needs from them to advance the vision. For example, what attitudes, behaviors, and commitments must the board of education make to enable the school to achieve the

vision statement? What attitudes, behaviors, and commitments must the parents make to become contributors toward creating the school that is described in the vision statement?

The process continues until all stakeholders are addressed.

Challenges of Developing a Professional Learning Community

Establishing a PLC is not an overnight process. Many educators that do not practice PLCs often list the following excuses as resistance to beginning PLCs in their institutions: 1) "We don't have time," 2) "PLCs will not translate to improved learning," 3) "We're not sure how to do it right," 4) "My community won't understand," and 5) "There is no research to show PLCs work" (Edutopia, 2010). Administrators say it's too difficult to provide the necessary hours, but hundreds of schools are making it happen. Some have late-start mornings giving teachers a chance to meet with their groups before students arrive for class while others re-work the schedule so teams can have planning time together. Schools get creative and ask teachers for help. There is not one right way to set up a PLC.

The Dynamics of Administration and Faculty Participation in the Professional Learning Community

Creating a collaborative environment has been described as the one of the most important factors for successful school improvement initiatives. Many contemporary school reformers continuously push for the increased opportunities for teacher collaboration (Goddard, Goddard, & Tschannen-Moran, 2007; School improvement in Maryland, 2010). Student achievement is likely to be greatest where teachers and administrators work together, in small groups and school-wide, to identify sources of student success and then struggle collectively to implement school improvement (School

Improvement in Maryland, 2010). Creating and sustaining change requires creating a critical mass of educators within the school who are willing and able to function as change agents (Hargreaves & Fink, 2003).

Perhaps the single most important characteristic of an effective educational leader is their ability to provide instructional leadership. Ironically, studies suggest that as many as 75% of current principals are not skilled as instructional leaders (Darling-Hammond & McLaughlin, 2011). Superintendents and principals are demonstrating instructional leadership when they devote time and energy to improving the quality of teaching and learning (Fink, 2000; Leithwood et al., 2004). Instructional leaders have a commitment to the academic success of all students, especially those that are struggling to learn (DuFour, 2005).

Principals should understand the importance of providing feedback that encourages both teachers and students (Hattie & Timperley, 2007). Successful principals will engage the entire school with continuous messages about what a good teacher does and the quality of work expected from students. In this type of environment, success is often measured in terms of the gains made by students in learning (Kuh, Kinzie, Buckley, Bridges, and Hayek, 2006). Most experts agree that instructional leadership goes beyond the simple communication of expectations (Sparks, 2002). Principals, and often superintendents, spend considerable time in the classroom not only observing but also participating in teaching students (Harwell, 2003). Instructional leaders are not there to undermine the traditional role of the teacher; rather, they are there to provide teachers with support and guidance.

Supported leadership is necessary for a professional community to emerge.

According to Hargreaves and Fink (2006), certain indicators demonstrate effective leadership. Leadership, whether emanating from principals or site-based teams, must focus on school improvement, collegiality, shared purpose, continuous improvement, and structural change (Fullan, 1993). Collaborative organizational leadership structures provide a design for improving the organization's capacity to utilize information and improve communication effectively (Cohen, 1991). Hargreaves (2007) contended that schools have singular identification with departments at grade-level groupings and that they are highly political in nature. Professional control restructures schools' shared norms, values, and beliefs. Norms, beliefs, and values in the professional workplace act to create internal social control mechanisms for stronger structures than do traditional models of normative control (Abott, 1991; Angle & Perry, 1983).

Shared decision-making, collaboration, vision, and facilitation are expected leadership behaviors for PLCs (Liontos, 1993; Roger, 1995). Yet, leadership behaviors of today's administrators are often described as hierarchical, routine, structure-based, and power-centered (Asikainrn & Routama, 1997; Hetrick, 1993; Vaille, 1989). Assistant principals have a variety of job responsibilities that center around assisting "in all matters assigned by the principal" (Weller & Weller, 2002, p. 14). Generally, the number one task that falls to the assistant principal is discipline (O'Neil, 2002; Weller & Weller, 2002); however, filling out paperwork; conferencing with parents, students, and faculty; coordinating professional development activities; evaluating personnel; developing the school semester schedule; and working with community services are other common responsibilities. The assistant principal may be in a position to assist the principal effectively by becoming an important member of the school leadership team (OECD

Project, 2007). Despite the move to empower and include all faculty members in PLCs, little research has been completed on the impact of the leadership style of assistant principals (Senge, 1990; SEDL, 2011).

Collecting, Analyzing, and Using Data to Identify School Needs

Effective school improvement processes are cyclical, with no clear beginning or end. The school improvement cycle was developed by Shewhart (1939), whose initial realm of application was statistics and industry (Learning Points, 2004; Rinehart, 1991):

This cycle contains four major activities:

Plan: Develop a plan for improvement.

Do: Implement the plan.

Study: Evaluate the impact according to specific criteria.

Act: Adjust strategies to better meet criteria. (p. 3)

Table 1 guides the staff on how to focus on data throughout the school improvement cycle, rather than on intuition, tradition, or convenience. Intentional efforts elicit profound change in what administrators and teachers have used in the past to drive their decision making regarding student learning.

Table 1

How to Improve Decision Making Using Data

Decision Making Based on Intuition, Tradition, or Convenience	Data-Driven Decision Making
Scattered staff development programs	Focused staff development programs as an improvement strategy to address documented problems/needs
Budgetary decisions based on prior practice, priority programs	Budget allocations to programs based on data-informed needs
Staff assignments based on interest and availability	Staff assignments based on skills needed as indicated by the data
Reports to the community about school events	Organized factual reports to the community about the learning progress of students
Goal-setting by board members, administrators, or teachers based on votes, favorite initiatives, or fads	Goal-setting based on data about problems and possible explanations
Staff meetings that focus on operations and the dissemination of information	Staff meetings that focus on strategies and issues raised by the local school's data
Parent communication via twice-a-year conferences at elementary "open houses" and newsletters	Regular parent communication regarding the progress of their children
Grading systems based on each teacher's criteria of completed work and participation	Grading systems based on common criteria for student performance that reports progress on the standards as well as work skills
Periodic administrative team meetings focused solely on operations	Administrative team meetings that focus on measured progress toward data-based improvement goals

Note. Based on North Central Research Educational Laboratory (NCREL) Toolbelt

As the staff examines the data, despite good intentions, not every intervention will be successful for every child, and at times the efforts will not lead to the desired results anticipated. But with rigorous measurement of our work, informed decision making, and a willingness to change, the improvement process is ongoing. This occurs when schools and teams within evaluate how interventions, such as using new teaching techniques and building in time for added learning opportunities for students, affect student learning. With this information, practices are reconstructed; plans are renewed, and leaders try again. The intent is to work to continuously improve (NCREL, 2000).

Data are key to continuous improvement. Planning must include the use of data to provide insight and focus for the school improvement goals. The “plan” must be strategic. Data trends reveal strengths and weaknesses in the system and should be used to drive the intervention. What schools “do” is actually collect data, to examine where the deficiencies lie. Through collaborative reflection, leaders "study" the feedback offered by the data and attempt to understand what changes should be made, then "act" by improving the strategies, to produce increased growth of staff and students (NCREL, 2001).

Understanding what data reveals about how well a school is performing relative to school and district goals is a first step in data analysis (Learning Points, 2004). Seeking to understand why data looks like it does is the second component. Principals need to model for staff and train staff to regularly collect, analyze, and use data to inform instruction (Oliver & Hipp, 2006). Principals solicit the input from teachers to understand where the gaps in the curriculum lie, to consider how students are learning, and to pinpoint where to begin to address the performances of students (Leithwood, Louis, Anderson, & Wahlstrom, 2010).

Faculty Roles in Professional Learning Communities

One of the main roles of the school leadership team is to support the collaborative, coordinated efforts to improve student learning that are key in a PLC (Morrissey, 2000). For example, the team should monitor formal collaborative structures and teacher pairings for observation as well as monitor how the coaching and mentoring are functioning within the school across the grade-level or across-grade teams. To provide support and interventions, regular planning and problem-solving meetings should

be scheduled weekly and/or monthly to evaluate how well committees and leadership councils are working. The team should ask to what extent these structures help teachers exchange feedback about instructional practices and if the focus is positively affecting student outcomes (Eaker, 2002). McREL (2003) stated that, “In schools that successfully sustain improvement, time, teams, and other school structures support of shared practice and inquiry is essential” (p. 2). Classes are scheduled to create common planning periods for teams of teachers to meet. Specific school days are scheduled as half days for students to allow teachers time for professional learning. Opportunities may be provided for teachers to observe and share feedback with one another. Teams may coordinate integrated lessons and ideas, such as science and math fairs or community outreach projects.

In the past few decades, there has been a great deal of research and writing about PLCs for teachers (DuFour 2003 & 2004; Lieberman & Miller, 2007; McLaughlin & Talbert, 1993; Vescio, Ross, & Adams, 2008). It has become clearer that teachers learn in communities that are long-term and collaborative, which necessitates enabling policies that are shaped by the people who are involved in the routines of schools and have an investment in their renewal (Darling-Hammond & McLaughlin, 2011). In important ways, this type of reform for schools and teaching may be the most significant idea we have had in decades. The most effective way to improve teaching quality, however, is a contentious issue, largely because the political elements of teacher effectiveness are still a topic of debate (Goe, Bell, & Little, 2008). While numerous studies and policy proposals have addressed teacher inputs concerning factors such as salary, education level, and certification requirements in an attempt to improve teacher effectiveness, a number of

recent reports and meta-analyses question the relationship between teacher inputs and teacher quality (Darling-Hammond & Youngs, 2002; Wenglinsky, 2004). According to Wenglinsky (2004), "Research has not consistently demonstrated a link between teacher inputs, such as salaries and education levels, and student outcomes, such as scores on standardized tests" (p. 6). Instead, research has proven the opposite, by contending that teacher impact on student achievement is less dependent on teacher inputs and more a function of daily, classroom-level curriculum and instructional decision-making (Graham 2007; Joyce & Showers, 2002; Hiebert & Stigler, 2000; Wenglinsky, 2004). Teachers are a primary school-based link to student achievement, and pedagogical decision-making is important in the teacher-student interaction; the federal support of teachers' professional improvement represents a logical and important investment (Graham, 2007). For school-based leaders working to maximize student learning and achievement, identifying opportunities to encourage and support classroom-level teacher improvement is a top priority (Graham, 2007). This is especially true at the middle school level, where issues of student learning and teacher quality are in question (Graham, 2007). In a review of data from the Third International Math and Science Study (TIMSS), Heller et al. (2002) noted that, in mathematics and science, U.S. fourth-graders reached a higher achievement level than their peers in almost every other developed nation (Hiebert & Stigler, 2000). By the eighth grade, U.S. students had slipped to the middle of the list of nations and under-performed even students from several less-developed nations. Some researchers attributed this drop in achievement to teacher quality issues in the middle grades, resulting in part from uneven state licensing practices (Cooney, 1998; Heller et al., 2002). According to Cooney (1998), "Because of practices in teacher preparation,

licensure and assignment to classrooms, too many teachers in the middle grades have too little knowledge of the subjects they teach" (p. 5). For the middle school principal, supporting teacher improvement is critical.

Shared Values and Practice

The dynamic interaction of shared practice and collective inquiry is perhaps the most essential aspect of a PLC (King, 2002). This critical ingredient involves teachers using the same practices and opening individual teaching practices to scrutiny through activities such as peer coaching. It also involves teachers continually evaluating the effectiveness of their teaching strategies in light of new programs and practices and considering the needs, interests, and skills of their students (Zemelman, Daniels, & Hyde, 2005). The teacher practices should be guided by the school vision and improvement plan and motivated by a desire to expand expertise.

Shared practice and collective inquiry help sustain improvement by strengthening connections among teachers, stimulating discussion about professional practice, and helping teachers to build on one another's expertise (Sebring, Allensworth, Byrk, Easton, & Luppescu, 2006). Ongoing questioning and investigation of practice helps staff members stay well informed and develop a body of knowledge that can be used to improve student learning. Teachers and administrators maintain a culture of ongoing inquiry in a variety of ways by participating in study groups, pilot-testing new programs, sharing insights gained from workshops and conferences, and joining professional associations (U.S. Department of Education, 1995).

Shared and Supportive Leadership

The success of a PLC depends on supportive relationships that have room for

honest discussion and examination of professional practices. Supportive relationships flourish in an environment that builds trust by strengthening connections through a variety of social and professional activities from the faculty picnic to dialogue sessions on books. In combination, these activities create a foundation that sustains improvement over the hills and valleys of change (McREL, 2003).

In schools that successfully sustain improvement, time, teams, and other school structures support shared practice and inquiry. For example, classes are scheduled to create common planning periods, particular schooldays are extended to bank time for professional learning, formal opportunities are available for teachers to observe and provide feedback to one another, and teams coordinate activities such as science fairs or service learning projects. A variety of communication structures (e.g., meetings to discuss problem areas and new ideas, school-wide announcements, and distribution of information) are used to keep everyone informed and involved. Even the physical arrangement of the school--for example, where teachers' classrooms are in relation to one another--is maximized to reduce isolation and increase teacher interaction (Hord, 1997).

DuFour and Eaker (1998) recommend a process for developing shared value statements. Each group begins by examining the vision statement and identifying what each group must do to bring it into existence. For example, what can the board of education, the superintendent, the principal, the teachers, the parents, and the students do to advance the school toward the vision statement? Each group works in two teams of five. When all the ideas are listed, the five members review each individual idea. The ideas are shared between the two teams in each group. All ideas generated by each group are then broken down into four, five, or six general themes or categories. The groups do

not need to have hundreds of value statements. A handful of value statements are most effective. Throughout this process, it is more powerful to articulate behaviors than beliefs (DuFour, DuFour, & Eaker, 2008). It is more important that each group articulate what they are prepared to do than what they believe.

Three important attributes of distributed leadership support the development of strong school communities and focused on improving student learning through teacher collaboration. These are a) a leader's recognition and use of internal intellectual and experiential resources, b) differentiated top-down and lateral decision-making processes, and c) culture building through dialogue and collaborative inquiry (Nelson, Deuel, Slavit, & Kennedy, 2011). Examining each of these attributes provides insight into effective leadership practices that support teacher collaboration and PLC work.

Perceptive leaders seek, recognize, and use teachers' expertise. Nelson et al. (2011), define expertise as subject knowledge and pedagogical skills, as well as self-knowledge of what one does well and what one needs to learn more about. Every school includes educators who are opinion leaders or individuals with specific expertise. Sometimes, these qualities are comingled; at other times, they aren't. This is notable because status in schools isn't always due to individuals with expertise or those aligned with goals for teaching and learning. In some schools, teachers and school leaders acquire status because of friendship, longevity and tenure, or bonds made from a shared experience.

Teachers and other leaders in schools with distributed leadership have status because they are constantly learning and then using and sharing what they've learned to support students. Status is attributed by colleagues because of a shared commitment to

and knowledge of good teaching, understanding students, and engaging in collaboration with others (Teacher Leadership Exploratory Consortium, 2008). In school-based collaborative work, expertise also extends beyond subject and pedagogical expertise to include other types of knowledge such as data analysis, high-level questioning skills, action research, and knowledge of students and the community.

Impact of Collaboration and Conversation

The success of a PLC depends on supportive relationships that have room for honest discussion and examination of professional practices (Hord & Hirsch, 2008). Supportive relationships flourish in an environment that builds trust by strengthening connections through a variety of social and professional activities. Sharing is a critical component of learning communities (Hord, 1997; Leo & Cowan, 2000; Morrissey, 2000). A truly productive collaboration leads not only to individual reflection on instructional practice but also to conversation among collaborators about what they have learned. It is an indicator that teachers have moved to de-privatize their practices and accept their own vulnerability as learners as well as teachers (Meyer, 2002).

A PLC is composed of collaborative teams whose members work interdependently to achieve common goals linked to the purpose of learning for all (All Things PLC, 2011). The team is what drives the PLC effort and the fundamental building block of the organization. It is difficult to properly emphasize the importance of collaborative teams in the improvement process. It is equally important, however, to emphasize that collaboration does not lead to improved results unless people are focused on the right issues (Cuban, 2008). Collaboration is a means to an end, not the end itself. In many schools, staff members are willing to collaborate on a variety of topics as long as

the focus of the conversation stops at their classroom door. In a PLC, collaboration represents a systematic process in which teachers work together interdependently in order to impact their classroom practice in ways that will lead to better results for their students, for their team, and for their school (Fullan, 2006). Collaboration proposes critical questions: 1) What knowledge, skills, and disposition must each student acquire as a result of this course, grade level, and/or unit of instruction? 2) What evidence will we gather to monitor student learning on a timely basis? 3) How will we provide students with additional time and support in a timely, directive, and systematic way when they experience difficulty in their learning? 4) How will we enrich the learning of students who are already proficient? 5) How can we use our SMART (specific, measureable, attainable, realistic and timely) goals and evidence of student learning to inform and improve our practice? (All Things PLC, 2011).

Structured professional collaboration that focuses on improved instruction benefits both teachers and students (Alliance for Excellent Education, 2008). School staff members who aspire to grow through PLCs can start by learning how to more effectively use the opportunities they have to work together (Bronwell, Adams, Sindelar & Waldron 2006).

While collaboration is an important component, a learning community implies more than opportunities for collaboration. Hart (1998) suggested collaboration does not guarantee increased efficiency, effectiveness in schooling, or empowerment of students and families. However, collaboration does foster group work and decision making. At its best, collaboration facilitates the education of children and youth, enabling educators to have access to expanded knowledge, resources, and creative alternatives for action

(Pounder, 1998). However, when the collaboration is framed around a shared vision and is focused on student achievement, as in a learning community, there are benefits and opportunities for school reform. According to Morham (1994), when schools commit to becoming professional learning communities, the school structure and culture are positively affected overtime. Goodell, Parker, and Kahle (2000) found that teachers who participated in a systemic change program had positive feelings about making instructional changes and were persistent when faced with challenges.

Involvement in action research resulted in more reflective practitioners, more systematic problem solvers, and more thoughtful decision-makers (Sparks, 2002). Roberts and Wilson (1998) found that when teachers participate in assessment moderation (group collaboration on analyzing student work) several results occur. They concluded that participation (a) adds significantly to teachers' skills for assessing students, (b) enhances teachers' ability to evaluate and improve teaching, (c) significantly increases teachers' access to useful ideas, (d) enhances the quality of learning for students, (e) improves teaching in non-project areas, and (f) supports beginning teachers (Roberts & Wilson, 1998). Regarding the work of new teachers on PLCs and collaboration, Louis, Marks, and Kruse (1994) found a direct link between collaboration and a teacher's sense of responsibility for his/her students and a sense of participating in a learning community. Newmann and Wehlage (1995) found a positive connection between collaborative learning communities and student achievement. Smylie, Lazarus, and Brownlee-Conyers (1996) found that teacher autonomy, which was contrary to the interdependence of a learning community, had a negative impact on student achievement.

Potential Problems with Collaboration

The complexity of school culture and teacher collaboration cannot be underestimated. Research indicated that the collaborative work might be ambitious or superficial. Conflicts among individuals could arise and micro-political battles could ensue (Little, 2003). A shared like-mindedness (negative) could be counterproductive to the organization. A collaborative PLC must respect the passions, interests, and dissents of the individual. The structural conditions of time, space, responsibility, and dispersed leadership must be accompanied with openness for improvement, trust, respect, and communication.

The research suggests that it is essential that a shared vision of teaching and learning permeate a collaborative environment. Conflicts in fundamental beliefs could lead to disappointment and disillusionment. For collaboration to be effective, it is important to seek issues or problems in which a shared vision or genuine interest is evident (Evans-Stout, 1998). According to Barott and Raybould (1998), collaboration does not end conflicts or difficulties. Instead, it brings the difficulties to light and seeks to address them. However, a collaborative approach to vision could intrude on the norm of autonomy, a teacher's sense of independence to make decisions alone and act on them, causing jealousy and resistance (Barott & Raybould, 1998).

Sustainability and Shared Leadership

The concept of sustainability has been touted as an excellent educational component because the preservation of the environment depends on ecological awareness, which depends on education. According to Moacir Gadotti (2010), a concrete way to start this debate inside our schools is to have an eco-audit in order to discover

where exactly schools have been unsustainable. It is very simple: we only have to trace every action taken and compare these data with the principles of sustainability. It is not difficult to identify where the issues are in the curriculum. Successful, concrete educational practices are revealed as well as where integrating the concepts of sustainability need to be increased (Goadotti, 2010). A new educational practice requires a new pedagogy. In recent years, there has been an insistence on the need for an eco-pedagogy, namely pedagogy appropriate to education practices based on sustainability.

Sustainability is not a simple phenomenon to attempt to assess and measure. It has only been in the last two decades that there has been an emphasis on making decisions that better incorporate the social, economic, and environmental aspects of the concept. Therefore, published research is limited within this field of investigation and debate. Sustainability is not coming into focus in the field of education. Sustainability, in general, is a much-contested concept and can be interpreted within different theoretical paradigms. Davidson (2011) provided a political economic classification to categorize the different types of sustainability, which included neoliberal, liberal, social democratic, and radical. The different theoretical interpretations of sustainability shape its interpretation and application, and in turn, the choice of principles and criteria to operationalize the phenomenon (Clarke, 2009).

Andy Hargreaves and Dean Fink have written key works on the topic of sustainable change and leadership (Hargreaves 2007; Hargreaves & Fink, 2003, 2004; Hargreaves & Goodson, 2006). Sustainability refers to planning and preparing for succession. From the first day of implementation of a school improvement task or model, the leader insures staff members are trained so that if the leader is not available during

day-to-day work, the work of education can continue. This applies to leaders training others to lead in the event the leader abruptly departs; the school can continue to function (Hargreaves & Fink, 2004). Incoming principals and teacher leaders are groomed, prior to assuming a school or implementing a curriculum model, about how to continue important reforms that exist within a system, as well as how to handle necessary new change. According to Hargreaves and Fink (2003), “Sustainable educational leadership and improvement preserves and develops deep learning for all that spreads and lasts in ways that do no harm to and indeed create positive benefit for others around us now and in the future” (p. 17). Sustainability addresses how particular initiatives are developed without compromising the development of others in the surrounding environment, currently and in the future (Hargreaves & Fink, 2003). According to Hargreaves and Fink (2003), sustainable leadership must be nurtured and shared, promote cohesive diversity, develop the leadership and honor of others, and learn from the best of the past to facilitate sustainability within learning communities in preparation for the future.

Sustainable leadership within a school/district must distribute the leadership among the staff (Hargreaves & Fink, 2003). In a complex world, no one leader, institution, or nation can control everything without help (Hargreaves & Fink, 2003). The leader must be able to describe what leadership exists and provide direction for future leaders to sustain successes within a school or district. Sustainable leadership develops the talents within, promotes diversity, and recognizes and rewards the organization’s leadership talent. The principals of sustainable leadership do not allow the depletion of materials and the overuse of the leadership talent (Hargreaves & Fink, 2003). By not allowing the overuse of leadership talent(s), leaders are encouraged to take care of

themselves. At all cost, innovation overload is avoided. The energy levels of staff and leaders are more likely to remain energized. The objective of sustainable leadership is to use good practical judgment and to be resourceful, so that time and money are not wasted (Hargreaves & Fink, 2003).

Summary of the Literature Review

PLCs have become one of the most discussed ideas in education today (DuFour, 2004). Many K-12 schools are working to become PLCs in the hope that student learning will improve when adults commit themselves to talking collaboratively about teaching and learning and then take action that will improve student learning and achievement (Thompson, Gregg, & Niska, 2004).

A school must understand and practice the five disciplines of a learning organization to be a PLC. Leadership plays a significant role in the ability of a school to become a PLC that enhances student learning (Thompson et al., 2004).

The concept of a PLC is based on a premise from the business sector regarding the capacity of organizations to learn. PLCs were modified to fit the world of education (Dufour 2003; Fullan, 1997). The concept of a learning organization has become part of a learning community that strives to develop collaborative work cultures for teachers. Over the past 20 years there has been a paradigm shift gathering momentum with regard to the professional development of teachers (Finley, 2000).

Professional development is fueled by the complexities of teaching and learning within a climate of increasing accountability (Berry, Turchi, Johnson, Hare, & Owens, 2003). High-stakes accountability reform moves professional development beyond merely supporting the acquisition of new knowledge and skills for teachers. Many

elementary, middle, and high schools are working to become PLCs (Sparks, 2002). Schools do so with the hope that student learning will improve when adults commit themselves to talking collaboratively about teaching and learning. The collegial conversations allow actions to take place that improve student learning and achievement (Burney & Elmore, 2000).

In order for schools to become PLCs, the five disciplines of a learning organization must be understood by faculty and staff members involved in the PLC (DuFour, 2006). The disciplines are 1) Supportive and Shared Leadership; 2) Shared Values and Vision; 3) Collective Learning and Application of Learning; 4) Supportive Conditions; and 5) Physical Conditions and Human Capacities (Hipp & Huffman, 2003; Huffman 2003; Morrissey, 2000). The leadership elicited by the principal plays a significant role in the ability of a school to become a PLC that enhances student learning by ensuring the five disciplines are understood and embraced by the learning community (DuFour & Eaker, 2005).

The trend toward establishing PLCs in schools does not evolve without struggles. DuFour (2004) expressed great disappointment in the fact that some individuals with any interest in schools are now calling themselves PLCs. These individuals include grade level teams, subject area teams, as well as state departments of education portraying their work in terms of PLCs. However, using the term PLC does not demonstrate that a learning community, in fact, exists. DuFour (2004) warned, “The term has been used so ubiquitously that it is in danger of losing meaning” (p. 6). In order to prevent the PLC model from the same dismal end as other well-intentioned reform, DuFour (2004) recommended that educators continually reflect on the ways they are working to place

solidly student learning and teacher collaboration into the culture of the schools. Most importantly, educators must critically examine the results of their efforts in terms of student achievement (DuFour, 2004).

Schools interested in implementing PLCs can begin to shift the organization and structure of their professional development efforts toward integrating teacher learning into communities of practice. The goal of educators to meet the educational needs of their students through collaboratively examining their day-to-day practice is always the priority (NCDPI, 2006).

To demonstrate results, PLCs must be able to state distinctively expected outcomes, in terms of data, indicating changed teaching practices and improved student learning (Public Education Network, 2004). This is a struggle for some schools, an issue that has not yet been established as common practice. Schools as learning organizations and PLCs seem to have the capacity to offset two of the three change forces that threaten the sustainability (Giles & Hargreaves 2002). They can learn how to halt the evolutionary loss of personnel by renewing their teacher cultures, distributing leadership, and planning for leadership succession (Giles & Hargreaves, 2002). They can also learn to manage their relationships with the community, other schools, and the district by curbing arrogance, involving the community in decision-making, and resisting the temptation to ask for too many things at one time.

Educational and instructional leaders should have a moral obligation to ensure that they are responsible leaders by contributing to the sustainability of leadership in the profession (Fullan, 2001). One of the leading educational reforms to best carry out this responsibility is the development of PLCs. PLC concepts have been and are the future

for improving schools and school districts. Through properly developed PLCs, school leadership teams, and collaborative groups, schools can make significant improvements in student achievement, leadership development, and sustainability of those initiatives that have proven successful (All Things PLC, 2011). One advantage to establishing and maintaining PLCs is to develop leadership capacity in the school environment (SEDL, 2003).

Administrators are viewed as leaders of leaders and teachers are viewed as transformational leaders (DuFour, Eaker, & DuFour, 2005). If members of PLCs are to command staying power of internal and external changes that exist about them, leadership development must be a purposeful, planned, and a formal part of their culture. PLCs lay the foundation for developing leaders and leadership capacity (Lunenburg, 2010). PLCs lead the way for critical creative forces, which will continue the focus on school improvement in spite of who the leader may be (DuFour, DuFour, Eaker & Many 2006).

Chapter 3: Methodology

Problem to be Addressed

The implementation of PLCs has proven to be a best practice to enhance collaboration, collegiality, and teacher leadership. As a result of principals delegating and sharing leadership responsibilities of the school, schools are sustained and continue to function when there is a change in leadership. The researcher examined how the perception of PLCs led to the sustainability of PLCs and practices in the district. This study examined and compared the principals, administrators, and teachers' perceptions of sustainability in the district. The researcher also compared the sustainability of elementary, middle, and high schools.

The researcher used the non-experimental quantitative research method, applying the selection of convenience. The data was used to determine the level of sustainability within the district. This research was employed to address several research questions.

Research Questions

The following questions were utilized by the researcher to direct the focus of the study:

1. Is there a difference between teacher and principal perceived Shared and Supportive Leadership of PLC?
2. Is there a difference between teacher and principal perceived Shared Values and Vision of PLC?
3. Is there a difference between teacher and principal perceived Collective Learning and Application of PLC?
4. Is there a difference between teacher and principal perceived Shared Personal

Practice of PLC?

5. Is there a difference between teacher and principal perceived Supportive Conditions - Relationships of PLC?

6. Is there a difference between teacher and principal perceived Supportive Conditions – Structures of PLC?

7. What is the relationship of teacher and administrator perceptions regarding Shared and Supportive Leadership, Shared Values and Vision, Collective Learning and Application, Shared Personal Practice, Supportive Conditions – Relationships, Supportive Conditions – Structures?

Research hypotheses. The following research hypotheses were used to provide a guide for this study:

H1. There is no significant difference between teacher and principal perceived Shared and Supportive Leadership of PLC.

H2. There is no significant difference between teacher and principal perceived Shared Values and Vision of PLC.

H3. There is no significant difference between teacher and principal perceived Collective Learning and Application of PLC.

H4. There is no significant difference between teacher and principal perceived Shared Personal Practice of PLC.

H5. There is no significant difference between teacher and principal perceived Supportive Conditions – Relationships of PLC.

H6. There is no significant difference between teacher and principal perceived Supportive Conditions – Structures of PLC.

H7. The overall relationship of teacher and administrator perceptions, Shared and Supportive Leadership, Shared Values and Vision, Collective Learning and Application, Shared Personal Practice, Supportive Conditions – Relationships, Supportive Conditions – Structures will not show significant differences.

Participants

The participants in the study consisted of 139 (N = 139) teachers and administrators, from 21 elementary, middle, and high schools located in a rural school district during the 2011-2012 school year. All of the schools in the district were included in the study. The perceptions of sustainability of principals, assistant principals, and teachers by grade level (elementary, middle, and high school) were examined by the researcher.

Limitations and Delimitations

Five limitations were indicated in the study. 1) The study was limited to one school year. The study collected data from a group of district members only for the 2011-2012 school year. 2) The district members may not have provided the needed information to all of the questions, due to the researcher being a staff member. 3) Each year, new teachers and staff members are employed by the district. New and current staff members who consented to participate may not have had a full understanding of PLCs. The lack of understanding may have been due to the lack of experience working in a PLC. 4) The perception of structures and communication at the district schools may have been limited by the responses the administrative team and teachers were willing to disclose in the online survey. 5) Finally, the utility of the data may have varied based upon the responses provided by principals, administrators and teachers.

The delimitation of this study was the researcher might not be able to use the data to assume all schools claiming to function as a PLC function in the same manner.

Survey Instrument

After permission was granted by Gardner-Webb's IRB, the PLC Assessment-Revised (PLCA-R, 2008) survey instrument was used to collect the data for this study (Appendices A and B). Approval was granted to use the instrument (see Appendices C and D for Request Form and Approval). The PLCA-R survey is a revision of the initial PLC Assessment (2003). The PLCA was revised in 2008 resulting in the current survey PLCA-R. The refinement of the PLCA-R instrument added seven statements, which addressed the use of data practice at the school level (Oliver et al., 2009). The survey was created to assess everyday classroom and school-level practices related to identified dimensions of PLCs (Olivier, Hipp, & Huffman, 2003, Olivier & Hipp, 2010).

The instrument has been administered to professional staff in numerous school districts at various grade levels throughout the United States (Olivier & Hipp, 2010). Educators and researchers have used the tool to help determine the strength of practices within each PLC dimension in their own schools and districts. Because of the use, a variety of dimension of internal consistency results have been obtained. The most recent analysis of the PLCA-R confirmed internal consistency, using the Cronbach's Alpha for reliability. An analysis of the descriptive statistic for each item of the PLCA-R resulted in a high mean response of 3.27 within the collective learning and application dimension to a low of 2.74 within the share personal practice dimension (Oliver et al., 2009). The reliability of the instrument was constructed using the Cronbach's alpha to indicate a coefficient for item consistency.

The PLCA-R utilizes a 4-point, forced Likert scale with a range of 1 to 4: 1-Strongly Disagree, 2-Disagree, 3-Agree and 4-Strongly Agree. The Likert scale is non-comparative and only measures a single trait. The responders were asked to indicate their level of agreement with a given statement by use of the ordinal scale. The survey was composed of 52 questions. Questions 1-11 were designed to collect data about shared and supportive leadership. Questions 12-20 were designed to collect data about shared values and vision. Questions 21-30 were designed to collect data about collective learning and application. Questions 31-37 were designed to collect data about shared personal practices. Questions 38-46 were designed to collect data about supportive conditions and structures. Questions 47-52 were designed to collect data about the facility in which staff member work as well as the communications systems within a school. At the end of each section of questions, responders were allowed to write additional comments.

Eight demographic, closed-ended questions were added to the survey. These questions gained information about years of service, level of education, perceptions of PLCs, perceptions of administrators and teachers, the number of PLCs activities in which administrators and teacher participated, as well as perceptions of the effectiveness of PLCs. One open-text question was added: What is the purpose and function of the PLC at your school? This question provided insight about what teachers and schools are actually doing to sustain PLCs.

The questions the participants responded to elicited survey scores that were the dependent variable in the study. There were two independent variables in the study. Independent Variable 1 was category of responders: principals, administrators, and

teachers. Independent Variable 2 was the type of schools in the study: elementary, middle and high school.

The PLCA-R survey and content questions were created by Dr. Dianne F. Oliver who is currently employed with the University of Louisiana at Lafayette – Educational Foundations and Leadership. Permission to use the survey instrument was granted (Appendices C and D).

Procedure

The study was conducted during the 2011-2012 academic year and relied on quantitative measures to address the research questions. In an attempt to identify the relationship between the perceptions of the PLC activities and sustainability, teachers were asked to complete a survey concerning the PLC activities in which they participate. Participants were provided informed consent, indicating consent to participate in the survey electronically. The informed consent form was placed at the beginning of the online survey. The informed consent form was placed in the survey as opposed to collecting each individual signature due to the unspecified number of participants in the district participating in the study. The participant selected “I agree to participate” after reading the informed consent form to allow completion of the survey and to grant consent.

The participants received a “second opportunity” reminder by email requesting their participation in the survey one week from the initial request. The participants received a “third opportunity” reminder by email requesting their participation in the survey one week from the second reminder. The survey closed one week after the third request. After receiving approval of the study, the administration of the survey was done

during the spring 2012 school term. The survey was administered using the online format to the certified staff members and administrative team members at each school in the district. The researcher monitored the results and comments. Feedback was provided to participants via email or phone call at the participant's request.

The online survey was obtained from SEDL (Southwest Educational Development Laboratory). The survey was administered to 21 schools in the district. The individuals responding to the survey were elementary, middle, and high school teachers and administrators.

Method of Analysis

At the conclusion of data collection, the data was analyzed using descriptive techniques. The purpose of descriptive statistics was to examine the distribution of values for single variables in order to gain understanding of the research problem and in order to guide research questions. The descriptive statistics were derived using the Statistical Package for Social Sciences (SPSS). In addition to descriptive statistics, independent *t*-tests, an Analysis of Variance (ANOVA), and the Pearson Product-Moment Correlation were determined. Coefficients (Pearson's *r*) were calculated (Green, Salkind & Akey, 2000).

The survey data for this study was analyzed using descriptive statistics and measures of central tendency. Each survey item was analyzed separately to create a score for a group of items. Descriptive statistics are appropriate when the "purpose is merely to describe a set of data" (Graham, 2007, p. 5). Because of the district size, descriptive statistics were the most appropriate tool in addressing the four research questions. Survey results were used to (a) identify the features of PLC activities that demonstrate a

significant relationship with changes in teachers' content and pedagogical knowledge and skills and instructional practices and (b) identify any variation in the features of PLC activities, based upon responses by individual schools, teacher responses by grade level taught, and by subject taught (Graham, 2007).

Independent sample *t*-test was used to compare mean scores of the PLCA-R survey for administrators and teachers. Analysis of variance (ANOVA) was used to compare the mean scores of the PLCA-R survey for elementary, middle, and high schools.

The ANOVA was conducted to examine the differences on each factor of the PLCA-R perception survey. The ANOVA examined the difference in results on principal perception, administrator perception, and teacher perception by school. The ANOVA also examined differences between elementary, middle, and high school perceptions on the PLCA-R survey.

The Pearson Product-Moment Correlation Coefficient was used to determine the relationship, if any, between principal, administrator, and teacher perception on each factor of the PLCA-R perception survey. The Pearson's *r* was used to examine the relationship of perception among the elementary, middle, and high schools.

Because the intent of this study was to gather data that provided an in-depth look into perceptions, it was important to use multiple data analysis methods to tease out the information being sought. According to Morgan (1998), when applying combined uses of quantitative methods, the goal is to use each method so that it contributes something unique to the researcher's understanding. The information obtained through the various forms of quantitative research created a partnership that expanded the richness of the

data. Through the expanded understanding of perceptions of the participants, explanations of the research questions were appropriately captured. The study was designed to gather detailed data from participants and different settings.

The researcher used this design to focus on the exploration and description of the occurring phenomenon within the identified settings. This method is particularly useful when one needs to understand some specific problem or situation in great depth and allows for the identification of cases rich in information--rich in the sense that a great deal can be learned from a few examples of the phenomenon in question (Patton, 1990).

Demographics

The district studied was located in a southeastern school district and serves a population of students with limited diversity: White - 67%, African-American - 20%, Hispanic - 8%, and other - 5%. The district studied consisted of 21 schools (two primary schools, 11 elementary schools, four middle schools, three high schools, and one alternative school). In this study, the two primary schools were categorized as elementary schools. The alternative school was categorized as a high school. The school district was divided into three learning areas (areas 1, 2, and 3). For 3 years prior to the study, the number of students in the district was approximately 12,491 students. The district's students have consistently met or exceeded growth expectations in the state's "ABCs" accountability program. In addition, the district's 2010 SAT average of 1048 exceeded the national average by 31 points and the state average by 40 points.

Summary

The method selected in this study was employed to answer several research questions. The study was approached using a non-experimental quantitative research

method applying selection of convenience. The use of descriptive statistics, including *t*-test, ANOVA, and Pearson Product-Moment Correlation Coefficient were used to determine differences and the possible causal relationship between perceptions of sustainability among administrators and teachers. The researcher was able to examine the differences and possible relationships of sustainability among elementary, middle, and high schools. The data for the analysis was extracted from the PLCA-R survey instrument. The presentation of the data in Chapter 4 addresses the general demographic information collected, as well as the research questions. The data are reported in Chapter four. The summary and discussion of the findings, along with conclusions, implications for practice, and recommendations for research, are addressed in Chapter 5.

Chapter 4: Results

Introduction

The results of this study are presented in three sections. The first section consists of the demographic data of participants who responded to the PLCA-R survey. The second section is divided into four subsections addressing each of the research questions and includes statistical analysis and actual results. Finally, the third section summarizes the results.

Data Collection

The PLCA-R assessment survey was sent to 500 (N = 500) elementary, middle, and high school teachers and building administrators in 21 (n = 21) schools in a rural North Carolina school district. One-hundred forty-five (N = 145) or 29% of the participants responded to the survey. A total of six (n = 6) surveys were incomplete and were eliminated.

Therefore, 10 principals (n = 10), 55 (n = 55) elementary school teachers, 39 (n = 39) middle school teachers, and 35 (n = 35) high school teachers for a total of 139 (N = 139) or 27.8% completed surveys for this study.

The demographic data consisted of six general background questions that provided insight into characteristics of the participants. They identified: 1) years of administrative experience, 2) years of teaching experience 3) number of years experience in the district, 4) level of education, 5) grade level responsible for, and 6) PLC attendance.

Two questions identified teacher and administrator perceived effect and understanding of PLCs. The two questions were regarded effectiveness of PLCs and

understanding of PLCs.

Lastly the results of the PLCA-R assessment, a 52-question, 4-point Likert scale survey were administered to answer the research questions and research hypotheses. The research questions were:

1. Is there a difference between teacher and principal perceived Shared and Supportive Leadership of PLC?
2. Is there a difference between teacher and principal perceived Shared Values and Vision of PLC?
3. Is there a difference between teacher and principal perceived Collective Learning and Application of PLC?
4. Is there a difference between teacher and principal perceived Shared Personal Practice of PLC?
5. Is there a difference between teacher and principal perceived Supportive Conditions - Relationships of PLC?
6. Is there a difference between teacher and principal perceived Supportive Conditions – Structures of PLC?
7. What is the relationship of teacher and administrator perceptions regarding Shared and Supportive Leadership, Shared Values and Vision, Collective Learning and Application, Shared Personal Practice, Supportive Conditions – Relationships, Supportive Conditions – Structures?

The following research hypotheses were used to provide a guide for this study:

H1. There is no significant difference between teacher and principal perceived Shared and Supportive Leadership of PLC.

H2. There is no significant difference between teacher and principal perceived Shared Values and Vision of PLC.

H3. There is no significant difference between teacher and principal perceived Collective Learning and Application of PLC.

H4. There is no significant difference between teacher and principal perceived Shared Personal Practice of PLC.

H5. There is no significant difference between teacher and principal perceived Supportive Conditions – Relationships of PLC.

H6. There is no significant difference between teacher and principal perceived Supportive Conditions – Structures of PLC.

H7. The overall relationship of teacher and administrator perceptions, Shared and Supportive Leadership, Shared Values and Vision, Collective Learning and Application, Shared Personal Practice, Supportive Conditions – Relationships, Supportive Conditions – Structures will not show significant differences.

Reporting of the Data

The researcher pursued data collection after permission was granted by the Gardner-Webb University Institutional Review Board to conduct research (see Appendix A). The researcher requested and received an electronic list of the all principals, assistant principals, and teachers in the district from the education data director for the current 2011-2012 school year.

Participants were informed of the purpose of the study, methodology, procedures, risks, benefits, and confidentiality with the right to discontinue the survey at any time (see Appendix E). The participants were also provided with the researcher's information

and the researcher's chairperson/advisors contact information for further questions and discussion. Each person received a copy of the informed consent form electronically. By continuing with the survey, each participant was informed that by completing the survey he/she was providing an electronic signature to complete the survey anonymously.

Number of years experience working in the district. Participants reported 56 (n = 56), or 40%, being in their 1st to 5th year experience in the district. Participants reported 34 (n = 34), or 24%, being in their 6th to 10th year of experience in the district, 26 (n = 26), or 19%, being in their 11th to 15th year in the district, and 23 (n = 23), or 17%, in their 16th to 20th year of experience in the district. Results are presented in Table 2.

Table 2

Number of Years Experience Working in the District

	0-5	6-10	11-15	16-20	Total
Principals	5 (50%)	2 (20%)	1 (10%)	2 (20%)	10
Elementary	21 (38%)	11 (20%)	11 (20%)	12 (21.8%)	55
Middle	20 (51.3%)	14 (35%)	4 (10.3%)	1 (2.6%)	39
High School	10 (28.6%)	7 (20%)	10 (28.6%)	8 (22.9%)	35
Total Percent	56 (40%)	34 (24%)	26 (19%)	23 (17%)	

Level of education. Participants reported 73 (n = 73), or 53%, earned Bachelor's Degrees and 62 (n = 62), or 45%, earned Master's Degrees. Only 4 (n = 4), or 2%, reported Doctoral Degrees (see Table 3).

Table 3

Level of Education

	Bachelors Degree	Masters Degree	Ed. D.	Ph. D.	Total
Principals	0	8 (80%)	1 (10%)	1 (10%)	10
Elementary Teachers	31 (56%)	23 (41.8%)	0	1 (1.8%)	55
Middle School Teachers	24 (61.5%)	14 (35.9%)	1 (2.6%)	0	39
High School Teachers	18 (51.4%)	17 (48.6%)	0	0	35
Total Percent	73 (53%)	62 (45%)	2 (1.5%)	2 (1.5%)	

Number of years participating in PLC activities. Participants reported 81 (n = 81), or 58%, of being in their 1st to 5th year participating in PLC activities. Participants reported 40 (n = 40), or 29%, being in their 6th to 10th year participating in PLC, 6 (n = 6), or 4%, and 2 (n = 2), or 1.5%, reported being in their 16th to 20th year of participating in PLC activities. Results are reported in Table 4.

Table 4

Teachers – Number of Years Participating in PLC Activities

	0-5	6-10	11-15	16-20	Total
Elementary School	36 (65.5%)	14 (25.5%)	3 (5.5%)	2 (3.6%)	55
Middle School	24 (61.5%)	14 (35.9%)	1 (2.6%)	0	35
High School	21 (60.0%)	12 (34.3%)	2 (5.7%)	0	39
Total Percent	81 (58%)	40 (29%)	6 (4%)	2 (1.5%)	

Professional learning community participated in the most by teachers. As seen in Table 5, 40 (n = 40), or 72.7%, of the elementary teachers indicated the PLC participated in the most is by grade level. Six (n = 6), or 10.9%, of the elementary teachers indicated the PLC participated in the most was the content area. Only nine (n = 9), or 16.4%, indicated the attendance of both grade level PLC and content PLC meetings.

Two (n = 2), or 5.2%, of middle school teachers did not indicate which PLC was participated in the most. Ten (n = 10), or 25.6%, of middle school teachers indicated the PLC participated in the most was grade level. Eight (n = 8), or 20.5%, of middle school teachers indicated the PLC participated in the most is the content area. Finally, 19 (n = 19), or 48.7%, of teachers indicated participating in both grade level and content area PLC activity.

One (n = 1), or 2.9%, of the high school teachers indicated participating in grade level PLC the most (see Table 5). Thirty (n = 30), or 85.7%, of high school teachers indicated participating in content area PLC the most. Finally, four (n = 4) or 11.4% of

high school teachers indicated participating in both grade level and content PLCs.

Table 5

PLC Participated in the Most by Teachers

	Grade Level	Content/Core	Both - Grade level & Content	Do not participate in PLC	Total
Elementary School	40 (72.7%)	6 (10.9%)	9 (16.4%)	0	55
Middle School	10 (25.6%)	8 (20.5%)	19 (48.7%)	2 (5.2%)	35
High School	1 (2.9%)	30 (85.7%)	4 (11.4%)	0	39
Total Percent	51(37%)	44(32%)	32(23%)	2(1.5%)	

Teacher perceptions of teacher individual understanding of PLCs.

Differences were reported in teachers' perceived understanding of PLCs (see Table 6).

Specifically, 24 (n = 24), or 43.6%, of elementary teachers indicated their understanding of PLCs to be "very well" as compared to middle level 18 (n = 18), or 46.2%, and high school 18 (n = 18), or 51.4%.

Differences were reported in teachers' perceived general understanding of PLC. Specifically 29 (n = 29), or 52.7%, of elementary teachers indicated their general understanding of PLC to be "general" as compared to middle level 18 (n = 18), or 46.2%, and high school 17 (n = 17), or 48.6%

Differences were reported in teacher who indicated there was no understanding of PLC. Specifically two (n = 2), or 3.6%, of elementary teachers indicated there was no understanding of PLC as compared to middle level three (n = 3), or 7.7%, and high school teachers did not indicate a lack of understanding PLC.

Table 6

Teachers' Perceptions of Teacher Understanding of PLCs

	Understand PLCs Very well	Understand PLCs – general	Do not understand PLCs	Total
Elementary School	24(43.6%)	29(52.7%)	2(3.6%)	55
Middle School	18(46.2%)	18(46.2%)	3(7.7%)	35
High School	18(51.4%)	17(48.6%)	0	39
Total Percent	60(43%)	64(46%)	5(4%)	

Teacher perceptions of administrative understanding of PLCs. With respect to perceived administrative understanding considered “very well” of PLCs, differences were reported by grade levels. Elementary teachers reported 29 ($n = 29$), or 52.7%, as compared to middle level 18 ($N = 18$), or 46.2%, and high school 18 ($n = 18$), or 51.4%, respectively.

In general, understanding of PLC differences were also reported by grade level; elementary reported 29 ($n = 29$), or 52%, as compared to middle level 18 ($n = 18$), or 46.2%, and high school 17 ($n = 17$) or 48.6%. The results are displayed in Table 7.

Table 7

Teachers' Perceptions of Administrative Teams' Understanding of PLCs

	The administrative team understands PLCs very well	The administrative team understands PLCs	The administrative team does not understand PLCs
Elementary School	29(52.7%)	24(43.6%)	2(3.6%)
Middle School	17(43.6%)	21(53.8%)	1(2.6%)
High School	16(45.7%)	16(45.7%)	3(8.6%)
Total Percent	62(45%)	61(44%)	6(4%)

PLCA-R Assessment results. The section is divided into four subsections to address each of the research questions and includes statistical analysis and actual results.

1. Is there a difference between teacher and principal perceived Shared and Supportive Leadership of PLC?
2. Is there a difference between teacher and principal perceived Shared Values and Vision of PLC?
3. Is there a difference between teacher and principal perceived Collective Learning and Application of PLC?
4. Is there a difference between teacher and principal perceived Shared Personal Practice of PLC?
5. Is there a difference between teacher and principal perceived Supportive Conditions - Relationships of PLC?

6. Is there a difference between teacher and principal perceived Supportive Conditions – Structures of PLC?

7. What is the relationship of teacher and administrator perceptions regarding Shared and Supportive Leadership, Shared Values and Vision, Collective Learning and Application, Shared Personal Practice, Supportive Conditions – Relationships, Supportive Conditions – Structures?

Descriptive statistics are reported including the means and standard deviations for principals as seen in Table 8.

Table 8

Descriptive Statistics: Administrators

	Minimum	Maximum	Mean	Std. Deviation
Shared and Supportive Leadership	2.90	4.00	3.37	.44
Shared Values and Vision	3.00	4.00	3.27	.34
Collective Learning and Application	3.00	4.00	3.30	.35
Shared Personal Practice	2.20	4.00	2.94	.58
Supportive Conditions - Relationships	2.40	4.00	3.18	.48
Supportive Conditions – Structures	2.40	4.00	3.22	.54

Descriptive statistics are reported including the means and standard deviations for all teachers as seen in Table 9. Descriptive statistics for each level of teachers were gathered separately.

Table 9

Descriptive Statistics: Elementary, Middle and High School Teachers

	Minimum	Maximum	Mean	Std. Deviation
Shared and Supportive Leadership	1.00	4.00	2.96	.56
Shared Values and Vision	1.20	4.00	3.00	.47
Collective Learning and Application	1.00	4.00	3.01	.47
Shared Personal Practice	1.00	4.00	2.85	.49
Supportive Conditions - Relationships	1.00	4.00	3.01	.56
Supportive Conditions – Structures	1.00	4.00	2.86	.46

1. Is there a difference between teacher and principal perceived Shared and Supportive Leadership of PLC?

Specifically, the Independent sample *t*-test $M = .44, t(134) = 2.326, p = .021$ rejected the null hypothesis at the $p < .05$ level of significance as seen in Table 10.

Table 10

Independent Sample t-Test: Shared and Supportive Leadership

	<i>t</i>	df	Sig.(2-tailed)	Mean Difference
Shared and Supportive Leadership	2.33	134	.02	.44*

Note. $p < .05$

2. Is there a difference between teacher and principal perceived Shared Values and Vision of PLC?

An independent sample *t*-test was administered to test for statistically significant differences of mean scores of the PLCA-R survey for administrators and teachers for perceived Shared Values and Vision of PLC. The results, $M = .30$, $t(134) = 1.84$, failed to reject the null hypothesis at the $p < .05$ level of significance (see Table 11).

Table 11

Independent Sample t-test: Shared Values and Vision

	<i>t</i>	df	Sig.(2-tailed)	Mean difference
Shared Values and Vision	1.84	134	.07	.30

Note. $p < .05$

3. Is there a difference between teacher and principal perceived Collective Learning and Application of PLC?

An independent sample *t*-test was administered to test for statistical significant differences of mean scores of the PLCA-R survey for administrators and teachers for perceived collective learning and application of PLC. The results, $M = .31$, $t(134) = 1.94$,

failed to reject the null hypothesis at the $p < .05$ level of significance. These results are displayed in the following table.

Table 12

Independent Sample t-test: Collective Learning and Application

	<i>t</i>	df	Sig.(2-tailed)	Mean Difference
Collective Learning and Application	1.94	134	.06	.31

Note. $p < .05$

4. Is there a difference between teacher and principal perceived Shared Personal Practice of PLC?

An independent sample *t*-test was administered to test for statistically significant differences of mean scores of the PLCA-R survey for administrators and teachers for perceived Shared Values and Vision. The results, $M = .10$, $t(134) = .58$, failed to reject the null hypothesis at the $p < .05$ level of significance as presented in Table 13.

Table 13

Independent Sample t-test: Shared and Personal Practice

	<i>t</i>	df	Sig.(2-tailed)	Mean Difference
Shared Values and Vision	.58	134	.57	.10

Note. $p < .05$

5. Is there a difference between teacher and principal perceived Supportive Conditions - Relationships of PLC?

An independent sample *t*-test was administered to test for statistical significant

differences of mean scores of the PLCA-R survey for administrators and teachers for perceived supportive conditions and relationships of PLC. The results, as reported in Table 14, $M = .18$, $t(134) = .93$, failed to reject the null hypothesis at the $p < .05$ level of significance.

Table 14

Independent Sample t-test: Supportive Conditions - Relationships

	<i>t</i>	df	Sig.(2-tailed)	Mean Difference
Supportive Conditions - Relationships	.93	134	.36	.18

Note. $p < .05$

6. Is there a difference between teacher and principal perceived Supportive Conditions – Structures of PLC?

An independent sample *t*-test was administered to test for statistical significant differences of mean scores of the PLCA-R survey for administrators and teachers resulting in a statistical significant difference for Supportive Conditions – Structures of PLC. Specifically, the Independent sample *t*-test results, $M = .38$, $t(134) = 2.46$, $p = .021$, rejected the null hypothesis at the $p < .05$ level of significance (see Table 15).

Table 15

Independent Sample t-test: Supportive Conditions - Structures

	<i>t</i>	df	Sig.(2-tailed)	Mean Difference
Supportive Conditions – Structures	2.46	134	.02	.38*

Note. $p < .05$

7. What is the relationship of teacher and administrator perceptions regarding Shared and Supportive Leadership, Shared Values and Vision, Collective Learning and Application, Shared Personal Practice, Supportive Conditions – Relationships, Supportive Conditions – Structures?

An analysis of variance (ANOVA) was used to compare the mean scores of the PLCA-R survey for elementary, middle, and high schools (see Table 16). Mean differences were found between groups (principals, elementary, middle, and high school teachers) for Shared and Supportive Leadership, Shared Values and Vision, and Supportive Conditions – Structures. Post hoc results based on the Bonferonni adjustment revealed that for Shared and Supportive Leadership, principals, on average, scored higher than high school teachers ($M = .52, p = .05$), but no other mean differences were found.

Post hoc results based on the Bonferonni adjustment revealed that for Shared Values and Vision, principals, on average, scored higher than middle school teachers ($M = .43, p = .05$) but no other mean differences were found. Post hoc results based on the Bonferonni adjustment revealed that for Supportive Conditions – Structures, principals, on average, scored higher than high school teachers ($M = .52, p = .0013$), but no other mean differences were found.

Table 16

ANOVA – Comparison of PLCA-R for the Teacher Groups

<i>Outcome</i>	<i>SS</i>	<i>Df</i>	<i>MS</i>	<i>F</i>	<i>P</i>
Shared and Supportive Leadership	2.51	3	.84	2.82	.04*
Shared Values and Vision	1.91	3	.64	3.00	.03*
Collective Learning and Application	1.66	3	.55	2.62	.05
Shared Personal Practice	.67	3	.22	.92	.43
Supportive Conditions-Relationships	1.21	3	.40	1.29	.28
Supportive Conditions-Structures	2.53	3	.84	4.26	.007*

Note. $p < .05$

The Pearson Product-Moment Correlation Coefficient (r) was used to determine the relationship, if any, between principal and teacher perception on each factor of the PLCA-R perception survey. The Pearson's r was used to examine the relationship of perception among the elementary, middle, and high schools. Results can be interpreted as follows, and similarly for other groups and tables. For principals, there was a positive, significant correlation between Collective Learning and Application and Shared Values and Vision. This indicates that principals answering higher in Collective Learning and Application also tend to answer higher on Shared Values and Vision; the relationship is strong ($r = .90$).

Both the teachers and principals were asked to respond to the one open-text question. The data were analyzed manually by frequency of descriptions provided by the participants. The themes the researcher calculated were collaboration, lesson planning, data/results/assessment, student engagement, support, profession development, and attendance of PLCs. Each time one of the themes was mentioned in the open-text response, the researcher recorded the response.

Principals and assistant principals indicated data/results/assessment 90% (n = 9) and lesson planning 60% (n = 6) were the focus and purpose of the PLCs at their school. Elementary teachers indicated collaboration and lesson planning were the focus and purpose of PLCs at their school. Middle school teachers indicated collaboration, 72% (n = 28) and lesson planning, 38% (n = 15) were the focus and purpose of PLCs at their school. High school teachers indicated collaboration 57% (n = 20) and lesson planning, 34% (n = 12) were the focus and purpose of PLCs at their school. Over all the combined group of principals and teachers (n = 139) indicated the purpose and function of the PLC was collaboration, 61% (n = 85), and lesson planning, 48% (n = 67).

Both the teachers and principals were asked to respond to the one open-text question (see Table 17). The data were analyzed manually by frequency of descriptions provided by the participants. The themes the researcher observed were: collaboration, lesson planning, data/results/assessment, student engagement, support, professional development, and attendance of PLCs. Each time one of the themes was mentioned in the open-text response the researcher recorded the response.

Table 17

Themes - Frequency of Descriptive Responses to the Open-Text Question

	Collabo- ration	Lesson Planning	Data, Results, Assessme nt	Student Engage- ment	Support	PD	Do not attend
Principals & Administra- tors (n=10)	4(40%)	6(60%)	9(90%)	2(20%)	4(40%)	4(40%)	0
Elementary School Teachers (n=55)	33(60%)	34(62%)	16(29%)	18(33%)	12(21%)	15(27%)	0
Middle School Teachers (n=39)	28(72%)	15(38%)	3(1%)	7(17%)	8(20%)	7(17%)	5(13%)
High School Teachers (n=35)	20(57%)	12(34%)	11(31%)	9(26%)	3(1%)	11(31%)	3(1%)
Total (n=139)	85(61%)	67(48%)	39(28%)	36(26%)	27(19%)	37(27%)	8(1%)

Summary

The researcher conducted a non-experimental research study of convenience, to examine the perceptions of professional learning communities in a rural school district. The data were collected using the PLCA-R survey instrument, public internet data, and interactions with district members. The data were segregated and analyzed using the SPSS data package. The mean data and *t*-test was presented with regard to statistical differences and similarities between each group surveyed (administrators, elementary, middle and high school teachers). Specifically the ANOVA was utilized for variances and the Pearson Product was used to determine relationships of the data collected.

Regarding the seven research questions and hypotheses, the study revealed the significance of the instructional leader in the establishment and development of the PLC. Findings concerning each research question and hypotheses are discussed in Chapter 5.

Chapter 5: Discussion

Introduction

The purpose of this study was to investigate the perceptions of PLCs in relation to sustainability in a rural school district. The perceptions were solicited from the principals and teachers in the school district. Through the use of the Professional Learning Community Assessment – Revised (Oliver, Hipp & Huffman, 2008), responses were obtained from 145 respondents. However, 139 (N = 139) of the respondents supplied completed surveys. The following research questions and hypotheses were answered:

1. Is there a difference between teacher and principal perceived Shared and Supportive Leadership of PLC?
2. Is there a difference between teacher and principal perceived Shared Values and Vision of PLC?
3. Is there a difference between teacher and principal perceived Collective Learning and Application of PLC?
4. Is there a difference between teacher and principal perceived Shared Personal Practice of PLC?
5. Is there a difference between teacher and principal perceived Supportive Conditions – Relationships of PLC?
6. Is there a difference between teacher and principal perceived Supportive Conditions – Structures of PLC?
7. What is the relationship of teacher and administrator perceptions regarding Shared and Supportive Leadership, Shared Values and Vision, Collective Learning and Application, Shared Personal Practice, Supportive Conditions –

Relationships, Supportive Conditions – Structures?

Research hypotheses. The following research hypotheses were used to provide a guide for this study:

H1. There is no significant difference between teacher and principal perceived Shared and Supportive Leadership of PLC.

H2. There is no significant difference between teacher and principal perceived Shared Values and Vision of PLC.

H3. There is no significant difference between teacher and principal perceived Collective Learning and Application of PLC.

H4. There is no significant difference between teacher and principal perceived Shared Personal Practice of PLC.

H5. There is no significant difference between teacher and principal perceived Supportive Conditions – Relationships of PLC.

H6. There is no significant difference between teacher and principal perceived Supportive Conditions – Structures of PLC.

H7. The overall relationship of teacher and administrator perceptions, Shared and Supportive Leadership, Shared Values and Vision, Collective Learning and Application, Shared Personal Practice, Supportive Conditions – Relationships, Supportive Conditions – Structures will not show significant differences.

In Chapter 5, an overview of the findings is provided. The themes that emerged during the analysis of the findings from this study provided the framework for the discussion, using guiding principles, grounded theory, and studies (DuFour, 2003). The researcher summarized the findings in relation to each theme as they correlated to each

research question. The findings were related to current research of PLCs and address the implications ascertained from the study. In this chapter, reviews of the limitations of the study are addressed, opportunities for further studies are discussed, and conclusions are drawn from the study.

Analysis

This study examined the perceived perceptions of administrators and teachers of all grade levels (elementary, middle, and high school), leading to the perceived sustainability of PLCs. Administrators and teachers are the driving factors for institutionalizing sustainable PLCs at the school level. The most important factor in sustainability is the professional growth of the school staff. Shared leadership, discussion, and interaction provide professional learning opportunities for the nurturing of educational strategies and professional growth, leading to sustainability. According to Darling-Hammond (1996, 1998, 2002, 2011), professional development is the core of the practice of improvement. When teachers and principals share leadership in a school, both the adults and the students benefit (Duel et al., 2011). Teachers gain an increased level of collective responsibility, an increased desire to share strategies, and an increased sense of professionalism.

Effective PLCs support the optimum educational environment for students. The quality of the teacher is an important predictor of a student's success (Darling-Hammond, 1998). When teachers are provided the opportunity to collaborate, they are provided the opportunity to reveal strategies that promote professional development, leading to the sustainability of the PLC. The most promising strategy for sustainability, as well as school improvement, is the opportunity and the ability of schools to operate as PLCs.

The finding of this study, from the administrators' perspective, was that PLCs do promote and sustain ongoing professional development and growth. There was not significant correlation among teachers.

Multiple themes emerged throughout the process of data collection. One open-text prompt was posed to the administrators and teachers: *Describe the purpose and function of the PLC at your school.* Throughout the process of data collection and analysis, the following themes emerged: 1) Collegial Conversation/Collaboration 2) Lesson Planning/Instructional 3) Common and Formative Assessment – Data/Results 4) Student Engagement 5) Peer Support 6) Professional Development and 7) Do not attend PLCs. From the respondents who participated in the PLCA-R survey, the themes revealed the activities that sustain PLCs, based upon the principals of DuFour, DuFour & Eaker (2008).

Throughout the data collection and the open-text response, participants revealed collaboration and leadership support to be the most important factors of the PLC experience. The research that supports PLCs reveals the importance of Collaboration.

Findings

One-hundred thirty-nine (N = 139) participants completed the PLCA-R. Ten Principals, 55 elementary teachers, 39 middle school teachers and 35 high school teachers responded to the Likert scale test, which included one open-text question. Data were reported using descriptive ordinal data. The ordinal data were analyzed and reported as percentages of the extent of agreement measures of central tendency and measure of variability. The data was used to answer the following research questions and hypotheses:

1. Is there a difference between teacher and principal perceived Shared and Supportive Leadership of PLC?

H1. There is no significant difference between teacher and principal perceived Shared and Supportive Leadership of PLC.

As stated in Chapter 4, an independent sample *t*-test was administered to test for statistical significant differences of mean scores of the PLCA-R survey for administrators and teachers resulting in a statistical significant difference. Specifically, the independent sample *t*-test, $M = .44$, $t(134) = 2.326$, and $p = .021$, rejected the null hypothesis at the $p < .05$ level of significance.

Based upon the data, teachers perceived learning community members work together to clarify what each student must learn, monitor student learning in a timely manner, and provide systematic interventions that ensure students receive support. Teachers and administrators stated clarity must be provided for the educator as well as the student. The participants also stated that multiple strategies to be implemented often become overwhelming due to the introduction of more than three to four strategies in one year. The teachers specifically indicated the lack of understanding of Phil Schlechty's levels of engagement, Kagan strategies, literacy/reading, reading plus, and addressing the common core strategies etc., as overwhelming. However, with opportunities to have collegial conversations, the initiatives become better understood and less overwhelming. The participants' perceptions were that PLCs provide clarity and focus on learning, leading to sustainability.

According to DuFour (2003), PLCs are supported by shared values, trust and respect, and shared norms. With this foundational structure, teachers and principals are

able to clearly state the purpose of the work to be done. When principals and teachers understand the clarity of purpose, PLCs are more likely sustained. When clarity of purpose is understood, the following questions are addressed: 1) Why do we exist? 2) What must we become to accomplish our purpose? 3) How must we behave to achieve our vision? and 4) How will we mark our progress? (DuFour, 2003). As schools or workgroups articulate the answers to these four questions, they develop clarity of focus in identifying their fundamental purpose, their directions, a collective commitment, and clear priorities. From this foundation, the learning community can develop and grow (DuFour, 2003).

2. Is there a difference between teacher and principal perceived Shared Values and Vision of PLC?

H2. There is no significant difference between teacher and principal perceived Shared Values and Vision of PLC.

As stated in Chapter 4, an independent sample *t*-test was administered to test for statistical significant differences of mean scores of the PLCA-R survey for administrators and teachers for perceived Shared Values and Vision of PLC. The results, *t*-test $M = .30$, $t(134) = 1.84$, failed to reject the null hypothesis at the $p < .05$ level of significance.

Through analysis of the PLCA-R and the open-text question, the focus on learning is significant. Principals and teachers revealed through perception data the focus on learning is a critical issue among those who responded to the PLCA-R survey. Teachers revealed that it is important to receive professional development, and it is important to allocate time to develop lessons based upon results that cater to the needs of the students. Principals revealed the importance to having teacher-principal collegial

conversations, teacher-teacher collegial conversations, and training from within the district that can lead to sustained student-focused learning.

Although described in different terms, collective focus on student learning (Kruse, Louis, & Bryk, 1994); collective learning and application (Hord, 1997); reflective professional enquiry (Stoll et al., 2005); and a focus on learning for all (DuFour, 2006) are key characteristic of PLCs.

The focus should be on student learning, teacher learning, and on the learning of individuals within the PLC, as well as the PLC as a group. Successful PLCs recognized and valued the knowledge individuals brought to the learning community. As new learning occurs, it is shared through professional dialogue and by de-privatizing practice.

3. Is there a difference between teacher and principal perceived Collective Learning and Application of PLC?

H3. There is no significant difference between teacher and principal perceived Collective Learning and Application of PLC.

As stated in Chapter 4, an independent sample *t*-test was administered to test for statistical significant differences of mean scores of the PLCA-R survey for administrators and teachers for perceived collective learning and application of PLC. The results, *t*-test $M = .31$ $t(134) = 1.94$, failed to reject the null hypothesis at the $p < .05$ level of significance.

The findings supporting Research Question 3 were also answered from the responses gleaned from the open-text questions by principals, assistant principals, and teachers.

Principals and teachers responded that collaboration is a significant part of

sustaining PLCs. During PLC collaboration, principals, assistant principals, and teachers prepare common and formative assessments, review data, review lesson plans, and share instructional strategies. Collaborative cultures, which by definition have close relationships, are indeed powerful. But, unless they are focusing on the right issues, they may end up being powerfully wrong. Collective learning and application for principals ($M = 2.94$, $SD = .35$), middle ($M = 2.88$, $SD = .52$) and high school ($M = 2.99$, $SD = .49$) were significantly similar. Collective learning and application for elementary teachers was significantly different ($M = 3.07$, $SD = .40$).

Based upon the descriptive statistical data, teachers within the district indicated collaboration occurs. The highest level of collaboration was occurring among elementary teachers who responded to the data. Elementary school teachers indicated the attendance of both content and team PLC activities more often than middle school and high school teachers. High school teachers indicated a higher attendance of content/core area PLCs than team activities.

Teachers who share personal practice develop mutual assistance and support rather than working in isolation, which is the practice of many traditional closed-door classrooms. Bolam, McMahon, Stoll, Thomas, and Wallace (2006) described a teacher learning community, as opposed to a traditional community, as one in which teachers collaborate to reinvent practice and share professional growth.

Hipp and Huffman (2003) identified collaboration and problem solving as a critical attribute of effective PLCs, finding that as teachers shared information and developed processes whereby they worked collaboratively, they became more successful in applying strategies that worked well for students. In sharing personal practice, teachers

discuss, analyze, give and receive feedback, and focus on student learning. Collaborative practices are developed and sustained by strong supportive relationships built on trust, respect, and understanding. Darling-Hammond (1998), stated that teachers who spend more time together studying teaching practices are more effective at developing higher-order thinking skills and have a higher success rate of meeting the needs of diverse learners.

4. Is there a difference between teacher and principal perceived Shared Personal Practice of PLC?

H4. There is no significant difference between teacher and principal perceived Shared Personal Practice of PLC.

As stated in Chapter 4, an independent sample *t*-test was administered to test for statistical significant differences of mean scores of the PLCA-R survey for administrators and teachers for perceived Shared Values and Vision. The results, *t*-test $M = .10$, $t(134) = .58$, failed to reject the null hypothesis at the $p < .05$ level of significance (see Table 13).

Principals and teachers indicated in order to sustain the PLCs within the district, the teacher must know the results from the previous year(s) of students and predicted scores in order to plan. All school-improvement initiatives are focused on the critical results with the goal in mind of improving student learning and achievement and they stress the belief that improvement is part of the overall culture of all school beliefs, values, and practices. The teachers and principals emphasized the role of collecting data and reviewing data that establishes a foundation for decision-making, problem solving, and inquiries. Questions 29 and 30 are pertinent to this consideration: Question 29: Staff

members collaboratively analyze multiple sources of data to assess the effectiveness of instructional practices and question, and Question 30: Staff members collaboratively analyze student work to improve teaching and learning, provided some insight about how the teachers who participated in the survey, focus on results to sustain the PLCs in which they participate. Principals' responses to Questions 29 and 30 mean averages were higher than all of the teacher groups. The average mean for principals was 3.15 ($M = 3.15$). The elementary school teachers indicated the average mean of 3.05 ($M = 3.05$). The middle school average indicated the average mean of 2.82 ($M = 2.82$). The high school teacher average was 28.3 ($M = 2.83$) indicating the use of data to drive instruction is very similar for middle and high schools in the district.

Determining if and how the efforts of educators are resulting in improvements is an aspect of the PLC that cannot be overlooked (Sparks, 2002). In order to focus on learning, student attainment of knowledge and skills must be consistently considered and examined. A reflective cycle must be initiated that allows that "every teacher team participates in an ongoing process of identifying the current level of student achievement, to establish a goal to improve the current level, working collaboratively to achieve that goal, and providing evidence of progress" (DuFour, 2004b, p. 10).

Focusing on results requires careful monitoring of all students. Data are an integral part of how PLCs do business and must become an integral part of the school culture (Assessment Reform Group, 1999). Without the process of turning data into information that is needed to support learning, a foundational component of the PLC is missing (Data Driven Decision Making, 2004). It is only with the inclusion of data that the actions and activities of a PLC are focused on learning and improved student

achievement (Little, Gearhart, Curry, & Kafka, 2003).

According to one study on literacy and numeracy, “Highly effective PLCs understand the critical importance of different types of assessment data” (Ontario - The Literacy and Numeracy Secretariat, 2007, p. 2). PLCs monitor student development and success through the use of effective common and formative assessments. Decisions are made based on assessment practices that include observation, review of student work, and the results of the data (Kirk & Jones, 2004; SEDL, 2010).

5. Is there a difference between teacher and principal perceived Supportive Conditions - Relationships of PLC?

H5. There is no significant difference between teacher and principal perceived Supportive Conditions – Relationships of PLC.

As stated in Chapter 4, an independent sample *t*-test was administered to test for statistical significant differences of mean scores of the PLCA-R survey for administrators and teachers for perceived supportive conditions and relationships of PLC. The results, *t*-test $M = .18$ $t(134) = .93$, failed to reject the null hypothesis at the $p < .05$ level of significance.

The second supportive condition is supportive relationships. The development of relationships take time, especially when working with a new staff or when leadership changes. In order for the development of relationships to form, there must be respect, trust, and established norms of inquiry. The relationships among administrators, teachers, and students must be positive and nurturing.

6. Is there a difference between teacher and principal perceived Supportive Conditions – Structures of PLC?

H6. There is no significant difference between teacher and principal perceived Supportive Conditions – Structures of PLC.

As stated in Chapter 4, an independent sample *t*-test was administered to test for statistical significant differences of mean scores of the PLCA-R survey for administrators and teachers resulting in a statistical significant difference for Supportive Conditions – Structures of PLC. Specifically, the Independent sample *t*-test, $M = .38$ $t(134) = 2.46$, $p = .021$, rejected the null hypothesis at the $p < .05$ level of significance.

Schools must have supportive conditions in order to enable change. School size, how close staff members are to the colleges they collaborate with the most, needed supplies and resources, and time built in to have collegial conversation are all part of the supportive structure that allows a PLC to be sustained. Supportive conditions viewed by Hord (1997) also require structural conditions as well as collegial relationships. As schools are supported structurally allowing the ease of PLCs to be established, positive cultural changes in the way schools operate begin to become common and natural. Concerning successful PLC implementation, progress is often slow due to the existing school structures, however the development of the purposeful PLCs must become the goal of the improvement process (Fullan, 1997).

7. What is the relationship of teacher and administrator perceptions regarding Shared and Supportive Leadership, Shared Values and Vision, Collective Learning and Application, Shared Personal Practice, Supportive Conditions – Relationships, Supportive Conditions – Structures?

H7. The overall relationship of teacher and administrator perceptions, Shared and Supportive Leadership, Shared Values and Vision, Collective Learning and

Application, Shared Personal Practice, Supportive Conditions – Relationships, Supportive Conditions – Structures will not show significant differences.

An analysis of variance (ANOVA) was used to compare the mean scores of the PLCA-R survey for elementary, middle, and high schools. Mean differences were found between groups (principals, elementary, middle, and high school teachers) for Shared and Supportive Leadership, Shared Values and Vision, and Supportive Conditions – Structures. Post hoc results based on the Bonferonni adjustment revealed that for Shared and Supportive Leadership, principals, on average, scored higher than high school teachers ($M = .52, p = .05$) but no other mean differences were found.

Post hoc results based on the Bonferonni adjustment revealed that for Shared Values and Vision, principals, on average, scored higher than middle school teachers ($M = .43, p = .05$) but no other mean differences were found. Post hoc results based on the Bonferonni adjustment revealed that for Supportive Conditions – Structures, principals, on average, scored higher than high school teachers ($M = .52, p = .0013$) but no other mean differences were found.

Implications of the Findings

One implication is perceived sustainability is promoted through the use of PLCs. The research supported evidence provided by the participants. The findings elicited from the study were supported by the most current research (DuFour, Eaker, & DuFour, 2005). To promote reform that matters, a positive impact on student learning is imperative. Educational leaders must be realistic and begin the process of implementing changes that will support continuous growth of the staff. This research makes a contribution to understanding the perceptions and sustainability of PLCs at the level of principles,

administrators, and teachers.

As perceptions and sustainability are examined, it is important to look at the entire process of the systematic approaches to change. We must learn what it means to work together in the face of time constraints and differences in understandings and interests relative to our content (professional development through PLCs). Lack of time and the lack of awareness of the systemic forces that impact change are critical issues in teacher development (Fullan, 1999; Fullan & Miles, 1992). Time restraints and lack of awareness can be significant issues for professional developers as well. Teachers understand collaborative inquiry involves risk-taking. To avoid awkward situations, norms are deliberately established to facilitate safe structures for engaging in this risky, transformative growth. The use of data grounded in inquiry in the content of the work along with protocols help deal with apprehensions and constraints, creating space for all members to participate.

PLCs provide the foundation for professional development. The data in this study revealed the perceptions the administrators and teachers had who responded to the PLCA-R survey. Their perceptions were that PLCs support collaboration, peer support, meaningful/relevant learning, and empowerment, and promote change within the district.

Limitations and Delimitations

The PLC study was limited to 1 year. As a result of the time constraint, the data collected can only be applied to the specific population from which the data was collected. The researcher's beliefs prior to the study were, due to being a staff member, teachers may not provide the needed information to provide answers to all of the research questions.

This proved to be a possible reason for the low rate of response to the PLCA-R survey. The researcher also attributed the low rate of response to “survey fatigue” within the district. Within the district, teachers had been surveyed on numerous occasions using the online format. Some of the surveys were presented to the staff in written form prior to the implementation of the PLCA-R assessment survey. Surveys were placed in teachers boxes. Teachers were often asked to confirm their completion of a survey by signing a “survey-completed sheet” in the main office of their school or by emailing to confirm their responses were submitted. Several of the surveys teachers were asked to complete occurred during the same month and week the researcher asked participants in the district to consent to participate the PLCA-R assessment survey. Teachers submitted concerns via email and asked questions about the survey: 1) “Is this a district mandated survey?” 2) “Who asked you to conduct this survey?” 3) “How anonymous is this survey?” and 4) “I have completed five surveys this month; I choose not to participate.”

As new teachers matriculate into the district, their first year of employment is spent learning the culture of the school and how to manage their classrooms. The participation and understanding of the PLC will take time and active participation. It is imperative that both new and experienced teachers encourage each other. The sustainability of the PLC relies on the constant and strategic collaboration across the content/core subject areas as well as collaboration and planning within the teams of teachers.

Concerning delimitations, the researcher neither assumed nor used the collected data to assume that all PLCs function in the same manner. PLCs are implemented based upon the needs of the students and the mission and goal of each school.

The researcher did not have control over the authenticity of the responses provided. Due to the survey being anonymous, there was no way to verify the responses of the participants. Principals and teachers were not mandated to participate in the PLCA-R assessment survey. Their participation was strictly voluntary. The number of participants in the survey was 139 (N = 139).

The perception of structures and communication at the district schools was limited by the responses the principals or teachers were willing to disclose in the survey. Teachers may not have revealed their true perceptions in the survey for several reasons. The researcher provides the following possibilities for the lack of disclosure: 1) fear of retaliation, 2) the perceptions of the group who responded to the PLCA-R does not represent the district population, and 3) the survey was not important to the participant.

The utility of the results from the study varied based upon the responses provided in the survey. The researcher was relying upon the response of the participants to reveal the answers to the research questions. Without the needed responses, the questions went unanswered. In order to present a more robust study, the researcher could seek permission to conduct the survey for the district in the future, requesting the district mandate participation.

Recommendations for Future Research

Recommendations for future researchers to consider are research studies that analyze the development of administrators and teachers. The principals and assistant principals are not the only sources of leadership in schools. It may be beneficial to include the instructional coaches who guide each core area of learning.

This study could be replicated with schools from different geographic regions to

increase a broader perspective about PLCs and the perception of sustainability.

Mandating participation on the district level of all principals, administrators, instructional coaches, and teachers from the schools would improve the broader perspective and validity of the findings, as well as offer more evidence for the best model of school leadership to build strong, sustainable PLCs.

Additional studies might elicit additional qualitative questions and methods to describe in-depth issues that may not have been addressed in the study about school leadership from all sources and how each source affects the school's professional culture. The results of this study affirm principals and teachers in the district employee the use of PLCs. The participants who responded indicate clarity, focus, culture, and results have a significant impact on the perceptions and sustainability of the PLC.

Summary

PLCs are just one of many educational models employed to improve the success of adult and student learners. The guiding force and success of PLCs rely on the leadership employed at the district and school level. Teachers, who have a positive perception of leadership, participate in the PLCs, collaborate with their peers, and understand set goals are more likely to be effective educators.

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Appendix A

IRB Approval to Conduct Research



THE INSTITUTIONAL REVIEW BOARD
of
GARDNER-WEBB UNIVERSITY

This is to certify that the research project titled
An Examination of the Perceptions Leading to the Stainability of Professional Learning Communities in a Rural School District

being conducted by Mildred T. Bankhead-Smith

has received approval by the Gardner-Webb University IRB. Date 1-31-12

Exempt Research

Signed [Signature]
Department/School/Program IRB Representative
[Signature]
Department/School/Program IRB Member

Expedited Research

Signed _____
Department/School/Program IRB Representative

Department/School/Program IRB Member

IRB Administrator or Chair or Institutional Office

Non-Exempt (Full Review)

Signed _____
IRB Administrator

IRB Chair

IRB Institutional Officer

Expiration Date _____

IRB Approval:
 Exempt Expedited Non-Exempt (Full Review)

Appendix B
PLCA-R Survey Instrument

Professional Learning Communities Assessment – Revised Directions:

This questionnaire assesses your perceptions about your principal, staff, and stakeholders based on the dimensions of a professional learning community (PLC) and related attributes. This questionnaire contains a number of statements about practices which occur in some schools. Read each statement and then use the scale below to select the scale point that best reflects your personal degree of agreement with the statement. Shade the appropriate oval provided to the right of each statement. Be certain to select only one response for each statement. Comments after each dimension section are optional.

Key Terms:

- Principal = Principal, not Associate or Assistant Principal
- Staff/Staff Members = All adult staff directly associated with curriculum, instruction, and assessment of students
- Stakeholders = Parents and community members

Demographic questions for Principals & Assistant Principals

How many years have you served as a Principal / Assistant Principal?	Options: 1. 0-5; 2. 6-10; 3. 11-15; 4. 16-20	select one (pull-down menu)
How many years have you served in your current position?	Options: 1. 0-5; 2. 6-10; 3. 11-15; 4. 16-20	select one (pull-down menu)
How many years have you work in the Moore County School district?	Options: 1. 0-5; 2. 6-10; 3. 11-15; 4. 16-20	select one (pull-down menu)
What is your highest level of education?	Options: 1. Bachelors Degree; 2. Masters Degree; 3. Ed.D; 4. Ph.D.	select one (pull-down menu)
What grade levels are you responsible for?	Options: 1. Pre-K-5; 2. 6-8; 3. 9-12; 4. Alternative school	select one (pull-down menu)
How often do you attend the grade level PLC meetings?	Options: 1. Once a week; 2. Twice a week; 3. Three times a week; 4. Four times a week	select one (pull-down menu)
How effective are the PLCs at your school?	Options: 1. Very effective; 2. Effective; 3. Not Sure; 4. Very little effectiveness; 5. Not effective	select one (pull-down menu)
How well do you think your staff understands PLCs?	Options: 1. Very well; 2. Some understanding; 3. Not sure; 4. Very little understanding; 5. Not at all	select one (pull-down menu)

Open-text question: Describe the purpose and function of the PLC at your school?

Demographic questions for elementary, middle and high school teachers

How many years of teaching experience do you have?	Options: 1. 0-5; 2. 6-10; 3. 11-15; 4. 16-20	select one (pull-down menu)
How many years have you taught in the district?	Options: 1. 0-5; 2. 6-10; 3. 11-15; 4. 16-20	select one (pull-down menu)
What is your level of education?	Options: 1. Bachelors Degree; 2. Masters Degree; 3. Ed.D.; 4. Ph.D.; Other	select one (pull-down menu)
What subject do you teach?	Options: 1. Art; 2. Band; 3. Chorus; 4. Exceptional Children; 5. Language Arts; 6. Math; 7. Orchestra; 8. Physical Education/Health; 9. Science; 10. Social Studies; 11. Speech & Debate; Other	select one (pull-down menu)
How many years have you taught in your current position?	Options: 1. 0-5; 2. 6-10; 3. 11-15; 4. 16-20	select one (pull-down menu)
How many years have you participated in PLC activities?	Options: 1. 0-5; 2. 6-10; 3. 11-15; 4. 16-20	select one (pull-down menu)
Which PLC do you participate in the most?	Options: 1. Grade level; 2. Content/Core area; 3. Both (Grade level and Content/Core); 4. I do not participate in PLC meetings	select one (pull-down menu)
Rate your understanding of PLCs	Options: 1. I understand PLCs very well.; 2. I understand PLCs; 3. I do not understand PLCs; 4. I have never heard of PLCs	select one (pull-down menu)
How well do you think your administrative team understands PLCs?	Options: 1. The administrative team understands PLCs very well; 2. The administrative team understand PLCs.; 3. The administrative team does not understand PLCs; 4. The administrative team does not talk about PLCs.	select one (pull-down menu)

Open-text question: Describe the purpose and function of the PLC at your school?

Scale:

1 = Strongly Disagree (SD)

2 = Disagree (D)

3 = Agree (A)

4 = Strongly Agree (SA)

Statements		Scale			
	Shared and Supportive Leadership	SD	D	A	SA
1	Staff members are consistently involved in discussing and making decisions about most school issues.	0	0	0	0
2	The principal incorporates advice from staff members to make decisions.	0	0	0	0
3	Staff members have accessibility to key information.	0	0	0	0
4	The principal is proactive and addresses areas where support is needed.	0	0	0	0
5	Opportunities are provided for staff members to initiate change.	0	0	0	0
6	The principal shares responsibility and rewards for innovative actions.	0	0	0	0
7	The principal participates democratically with staff sharing power and authority.	0	0	0	0
8	Leadership is promoted and nurtured among staff members.	0	0	0	0
9	Decision-making takes place through committees and communication across grade and subject areas.	0	0	0	0
10	Stakeholders assume shared responsibility and accountability for student learning without evidence of imposed power and authority.	0	0	0	0
11	Staff members use multiple sources of data to make decisions about teaching and learning.	0	0	0	0
Comments:					

Statements		Scale			
Shared Values and Vision		SD	D	A	SA
12	A collaborative process exists for developing a shared sense of values among staff.	0	0	0	0
13	Shared values support norms of behavior that guide decisions about teaching and learning.	0	0	0	0
14	Staff members share visions for school improvement that have an undeviating focus on student learning.	0	0	0	0
15	Decisions are made in alignment with the school's values and vision.	0	0	0	0
16	A collaborative process exists for developing a shared vision among staff.	0	0	0	0
17	School goals focus on student learning beyond test scores and grades.	0	0	0	0
18	Policies and programs are aligned to the school's vision.	0	0	0	0
19	Stakeholders are actively involved in creating high expectations that serve to increase student achievement.	0	0	0	0
20	Data are used to prioritize actions to reach a shared vision.	0	0	0	0
Comments:					

Statements		Scale			
Collective Learning and Application		SD	D	A	SA
21	Staff members work together to seek knowledge, skills and strategies and apply this new learning to their work.	0	0	0	0
22	Collegial relationships exist among staff members that reflect commitment to school improvement efforts.	0	0	0	0
23	Staff members plan and work together to search for solutions to address diverse student needs.	0	0	0	0
24	A variety of opportunities and structures exist for collective learning through open dialogue.	0	0	0	0
25	Staff members engage in dialogue that reflects a respect for diverse ideas that lead to continued inquiry.	0	0	0	0
26	Professional development focuses on teaching and learning.	0	0	0	0

27	School staff members and stakeholders learn together and apply new knowledge to solve problems.	0	0	0	0
28	School staff members are committed to programs that enhance learning.	0	0	0	0
29	Staff members collaboratively analyze multiple sources of data to assess the effectiveness of instructional practices.	0	0	0	0
30	Staff members collaboratively analyze student work to improve teaching and learning.	0	0	0	0
Comments:					

Statements		Scale			
Shared Personal Practice		SD	D	A	SA
31	Opportunities exist for staff members to observe peers and offer encouragement.	0	0	0	0
32	Staff members provide feedback to peers related to instructional practices.	0	0	0	0
33	Staff members informally share ideas and suggestions for improving student learning.	0	0	0	0
34	Staff members collaboratively review student work to share and improve instructional practices.	0	0	0	0
35	Opportunities exist for coaching and mentoring.	0	0	0	0
36	Individuals and teams have the opportunity to apply learning and share the results of their practices.	0	0	0	0
37	Staff members regularly share student work to guide overall school improvement.	0	0	0	0
Comments:					

Statements		Scale			
Supportive Conditions - Relationships		SD	D	A	SA
38	Caring relationships exist among staff and students that are built on trust and respect.	0	0	0	0
39	A culture of trust and respect exists for taking risks.	0	0	0	0
40	Outstanding achievement is recognized and celebrated regularly in our school.	0	0	0	0
41	School staff and stakeholders exhibit a sustained and unified effort to embed change into the culture	0	0	0	0

	of the school.				
42	Relationships among staff members support honest and respectful examination of data to enhance teaching and learning.	0	0	0	0
Comments:					

Statements		Scale			
Supportive Conditions - Structures		SD	D	A	SA
43	Time is provided to facilitate collaborative work.	0	0	0	0
44	The school schedule promotes collective learning and shared practice.	0	0	0	0
45	Fiscal resources are available for professional development.	0	0	0	0
46	Appropriate technology and instructional materials are available to staff.	0	0	0	0
47	Resource people provide expertise and support for continuous learning.	0	0	0	0
48	The school facility is clean, attractive and inviting.	0	0	0	0
49	The proximity of grade level and department personnel allows for ease in collaborating with colleagues.	0	0	0	0
50	Communication systems promote a flow of information among staff members.	0	0	0	0
51	Communication systems promote a flow of information across the entire school community including: central office personnel, parents, and community members.	0	0	0	0
52	Data are organized and made available to provide easy access to staff members.	0	0	0	0
Comments:					

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Source: Olivier, D. F., Hipp, K. K., & Huffman, J. B. (2010). Assessing and analyzing schools. In K. K. Hipp & J. B. Huffman (Eds.). *Demystifying professional learning communities: School leadership at its Best*. Lanham, MD: Rowman & Littlefield.

Appendix C
PLCA-R Request Form

Professional Learning Community Assessment – Revised

Request Form

CONTACT INFORMATION:

First Name: Mildred
 Last Name: Bankhead-Smith
 E-mail: XXXX
 Mailing Address: XXXX
 City: West End
 State: NC
 Zip: XXXX
 Country: United States
 Tel: XXXX
 Fax:
 Job Title: Middle Grades Science Teacher
 Organization: XXXX County Schools
 University (if applicable): Gardner Webb University at Charlotte NC

Send form to: Dr. Dianne F. Olivier, XXXX
 or email to XXXX

DESCRIPTION OF REQUESTED MATERIAL:

Title = PLC Assessment-Revised
 Source = Demystifying PLCs: School Leadership at Its Best
 Pages = 32-35
 Authors = Olivier D. F., Hipp, K. K., & Huffman, J. B.
 Pub Date = 2010

PROPOSED USE:

The use of the survey instrument will be used to collect data to study the practices of core principles and characteristics of PLCs, in schools to determine their potential sustainability of the PLC model relative to future use.

TIME FRAME:

Until the dissertation is complete

Signature of Requester: (not required if form is emailed; just type name)

Mildred T. Bankhead – Smith _____

November 20, 2011

(Date)

Approval by:

 Dianne F. Olivier, Ph. D.

 (Date)

Appendix D

Approval to Use PLCA-R Instrument



Department of Educational Foundations and Leadership

*P.O. Box 43091
Lafayette, LA 70504-3091*

December 1, 2011

Mildred Bankhead-Smith
Doctoral Student
Gardner Webb University at Charlotte NC

Dear Ms. Bankhead-Smith:

This correspondence is to grant permission to utilize the *Professional Learning Community Assessment-Revised* (PLCA-R) as your instrument for data collection for your doctoral study through Gardner Webb University at Charlotte NC. I believe your research on the practices of core principles and characteristics of PLCs in schools, to determine their potential sustainability of the PLC model will contribute to both the research literature and provide valuable information. I am pleased that you are interested in using the PLCA-R measure in your research.

This permission letter allows use of the PLCA-R through a paper/pencil administration. In order to receive permission for the PLCA-R online version, it is necessary to secure the services through our online host, SEDL in Austin, TX. Additional information for online administration can be found at www.sedl.org. Permission is not granted for other online sources.

Upon completion of your study, I would be interested in learning about your results. If possible, I would appreciate the opportunity to receive an Excel file of raw data from your administration of the PLCA-R (applicable only for paper/pencil version). This information would be added to our data base of PLCA-R administration. Additionally, I would also be interested in learning about your entire study and would welcome the opportunity to receive an electronic version of your completed dissertation research.

Thank you for your interest in our research and measure for assessing professional learning community attributes within schools. Should you require any additional information, please feel free to contact me.

Sincerely,

Dianne F. Olivier

Dianne F. Olivier, Ph. D.
Assistant Professor
Joan D. and Alexander S. Haig/BORSF Professor
Department of Educational Foundations and Leadership
College of Education
University of Louisiana at Lafayette

Appendix E

Request for Permission to Survey the School District

February 1, 2012

To:

Mike Griffin
Chief Finance Officer / Interim Superintendent

Drew Maerz
Educational Data Director

From:
Mildred T. Bankhead-Smith
Graduate Student / Gardner-Webb University
Science Teacher

I am requesting your permission to survey the district using an online survey format. The dissertation study will seek to determine the perceptions of teachers and administrators about the sustainability of Professional Learning communities throughout the district. If permission is granted, the participants will be provided the following consent form at the beginning of the PLCA-R online survey.

Informed Consent Form for an Online Survey

An Examination of the Perceptions Leading to the Sustainability of Professional Learning Communities in a Rural School District

Informed Consent Form

Purpose of the Study:

This study in the field of Curriculum and Instruction is being conducted by Mildred T. Bankhead-Smith a graduate student at Gardner-Webb University- Charlotte NC and a Moore County educator. The purpose of this study is to examine the perceptions of the district teachers and administrators concerning the sustainability of Professional Learning Communities.

What will be done?

Participants will complete an online survey, which will take 15-20 minutes to complete. The specific online survey instrument is the Professional Learning Community Assessment - Revised (PLCA-R) <http://www.sedl.org/pubs/catalog/items/plc01.html>. The survey includes questions based on the dimensions of professional learning communities and related attributes. The questions will address the following: 1. Shared and Supportive Leadership 2. Shared Values and Vision 3. Collective Learning and Applications 4. Shared Personal Practice. 5. Supportive Conditions – Relationships and 6. Supportive Conditions – Structures. The survey contains questions about practices which occur in schools. Participants will be asked to answer the questions using a 1-4 likert scale. The

online survey will also will ask for some demographic information (e.g., Grade level taught, subject, years of experience, education level, understanding of PLC's).

Benefits of this Study:

Participants will be contributing to knowledge about Professional Learning Communities and how they are working in the district. The significance of the study will provide insight about how effective the districts use of DuFour's Professional Learning Community model is working for the district and the schools within the district. This study will provide insight of an actual ongoing school district professional development and improvement initiatives. The success of the study will affect all stakeholders involved. The district will be able to consider long-term strategic sustainable change as a result of this study. Finally this study will provide significance for the district because it will provide a model for the future, as well as research based-change initiatives that could be considered and implemented. The research review and data analysis will provide the district a sustainability guide for professional learning communities.

Risks:

No risks or discomforts are anticipated from taking part in this study. If you feel uncomfortable with any question, you can skip that question or withdraw from the study altogether. If you decide to quit at any time before you have finished the questionnaire, your answers will **NOT** be recorded.

Confidentiality:

Your responses will be kept completely confidential.

IP addresses will **NOT** be captured participants respond to the online survey. Participants will be asked to include a name and an e-mail address **ONLY** if the participant has a question(s) that the researcher is asked to respond too. Names and email addresses will not be stored with data from any survey or included as part of the data collected to conduct this study. Instead, participants will be assigned a participant number, and only the participant number will appear with survey responses. Only the researchers will see individual survey responses and the results of the content analysis. The list of e-mail of participants will be stored electronically in a password-protected folder, until the research is completed. Once all data is collected the email addresses will be deleted. At the end of the research only the written analysis will be shared with the district for review.

Decision to quit at any time:

Participation is voluntary; participants are free to withdraw from this study at anytime. If participants do not want to continue, participants can simply leave the website. If

participants do not click on the "submit" button at the end of the survey, answers and participation will not be recorded.

How the findings will be used:

The results of the study will be used for scholarly purposes only. The results from the study will be presented in educational settings. The results will be initially published at Gardner-Webb University.

By beginning the survey, you acknowledge that you have read this information and agree to participate in this research/online survey, with the knowledge that you are free to withdraw your participation at any time without penalty.

Contact information:

If you have concerns or questions about this study, please contact:

Mildred T. Bankhead-Smith - Researcher

Dr. Ronald Nanney - Dissertation Research Committee chairperson
Gardner – Webb University

Thanks for your Consideration,

Mildred T. Bankhead-Smith
Doctoral Candidate
Gardner Webb-University

Appendix F

District Research Committee Approval to Survey the School **District**

From: Maerz Drew
Sent: Thu 3/8/2012 11:33 PM
To: Bankhead-Smith Mildred
Subject: Fwd: Research Approval

You are approved to conduct your research.

Sent from The iPad of
Drew R. Maerz, Director
Educational Data, Assessment & Research
Instructional Design and Innovation Team
[REDACTED] Schools

Begin forwarded message:

From: "Spence Aaron" <[REDACTED]>
Date: March 8, 2012 10:40:46 PM EST
To: "Maerz Drew" <[REDACTED]>
Subject: Re: Research Approval

Approved. Thank you.

Sent from my iPhone

On Mar 8, 2012, at 2:01 PM, "Maerz Drew" <[REDACTED]> wrote:

Dr. Spence,

The Research Review team has reviewed the request from Mildred Bankhead-Smith to conduct a survey of our teachers on their perceptions of PLCs. We only need your permission to allow her to conduct her study. IF this meets your approval, I will contact Mildred and let her know.

Sincerely,

Drew R. Maerz, Ed.D.

Director of Educational Data, Assessment, & Research
Department of Instructional Design and Innovation
[REDACTED] Schools

"Education is the key to unlock the golden door of freedom."- George Washington Carver

DISCLAIMER OF CONFIDENTIALITY: All email correspondence to and from this address is subject to the North Carolina Public Records Law,

which may result in monitoring and disclosure to third parties, including law enforcement.