

Professional Learning and Collaboration

Janet A. Greer

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Chair: Walter D. Mallory

William J. Glenn

Michael J. Mondak

Travis W. Twiford

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ABSTRACT

The American education system must utilize collaboration to meet the challenges and demands our culture poses for schools. Deeply rooted processes and structures favor teaching and learning in isolation and hinder the shift to a more collaborative paradigm. Professional learning communities (PLCs) support continuous teacher learning, improved efficacy, and program implementation. The PLC provides the framework for the development and enhancement of teacher collaboration and teacher collaboration develops and sustains the PLC. The interpersonal factors that influence collaboration make it difficult to implement and preclude the use of any systematic directions to develop a PLC successfully. However, research has identified emerging strategies that could guide the development of collaborative cultures for school improvement. The researcher designed this case study to describe collaboration in the PLC of an elementary school. The study focuses on collaborative behaviors, perceptions, influences, barriers, and strategies present in the school. The researcher utilized the Professional Learning Community Organizer (Hipp & Huffman, 2010) in the analysis of the data. Hipp, Huffman and others continued the research started by Hord (1990) and identified PLC dimensions and behaviors associated with those dimensions. The PLCO included behaviors aligned with the initiating, implementing, and sustaining phases of each dimension of a PLC. Structure and process, trust and accountability, and empowerment emerged as important themes in the observed PLC. The sequential path to teacher empowerment began with the development of structure and process. Teachers developed trust in each other by demonstrating accountability required by those structures and processes. Trust provided opportunities for risk taking and leadership to emerge. The teachers and administrators demonstrated their commitment

to the vision and worked collaboratively for the learning success of all students. The data provided evidence of administrators and teachers making decisions to solve problems and improve instruction based on the vision. The PLC of the elementary school observed demonstrated development at the implementing and sustaining levels. The teachers and administrators worked collaboratively over time to improve teacher practice resulting in improved student learning. The opportunity to utilize the PLC for continuous growth by challenging the new norms and embracing risk taking remains.

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CHAPTER 1

The Problem

The culture of isolation that typifies American education cannot meet the increasing demands of a changing society (Lortie, 1975; Berman & McLaughlin, 1978; Sarason, 1983; Darling-Hammond, 1984; Achinstein, 2002). Research consistently supports the need for educators to move from professional isolation to collaboration in order to identify concerns and solutions, implement appropriate strategies, and adjust teaching based on student learning results (Achinstein, 2002). However, the effects of the entrenched culture of isolationism through the structures and processes present in the field of education continue to hinder the development and sustenance of collaborate school cultures (Sarason, 1996; Lortie, 1975; DuFour, DuFour, & Eaker, 2005; Little, 1990).

Professional educators influence teacher efficacy, continuous professional learning, and successful program implementation by learning together in a professional learning community (PLC) environment (Rosenholtz, 1989; Louis, Marks, & Kruse, 1996; Hausman & Goldring, 2001; Darling-Hammond, 1997; Schmoker, 2006; Hord & Sommers, 2008). Researchers consider PLCs necessary for sustaining substantive school improvement (DuFour & Eaker, 1998; Louis & Marks, 1997; McLaughlin & Talbert, 2001; 2006). The PLC provides the framework for the development and enhancement of teacher collaboration and teacher collaboration develops and sustains the PLC (Guskey & Huberman, 1995; Little, 2003).

The researcher utilized this case study, Professional learning and collaboration, to describe collaboration in the PLC of a school with continuously improving student learning as indicated by school data. The researcher analyzed actions and perceptions of administrators

and teachers to construct the description.

Background of the Problem

The review of the literature framed collaboration as a social, organizational, and procedural phenomenon. The three aspects interact differently every time an organization implements collaboration making the process consistently unique. Educators can collaborate successfully if they understand that many interpersonal factors influence the process.

Templates and protocols manage the process, not the learning. The team's persistent focus on the learning success of each student directs meaningful, focused, and collective teacher learning in a PLC (Vescio, Ross, & Adams, 2008). Administrator and teacher collaborative behaviors reflecting the school's focus and commitment interact in each of the five dimensions of a PLC. Researchers (Hord, 1997; Hord & Sommers, 2008; Hipp & Huffman, 2003; 2010) identified the following as dimensions of a PLC: shared and supportive leadership, shared values and vision, collective learning and application, shared personal practice, and supportive conditions.

Professional development of educators through collaboration in a PLC occurs in the context of the school. The social interactions in this context can diminish or promote professional learning (Little, 1982; 1990; 2003; Sawyer & Rimm-Kaufman, 2007). Sawyer and Rimm-Kaufman (2007) believe the school environment, educators' perceptions of the school environment, and the social interactions that occur within that environment influence learning. When professional educators embrace conflicting opinions, strategies, and value systems through thoughtful questioning and collaborative activities, they make de-privatized practice and teacher empowerment possible (Levine & Marcus, 2010).

Schools demonstrate their readiness for collaboration with specific organizational practices. These practices address school leadership, purpose, and environment. Practices include utilizing a leadership base of teachers and administrators and embracing a shared mission and vision aligned to student learning. Additionally, interactions of the professional staff occur in a culture that expects and supports ongoing learning and experimenting (Little, 1982; Hord & Sommers, 2008; Barth, 2006).

Goddard, Goddard & Tschannen-Moran (2007) based their study on research identifying schools as symbiotic organizations. These organizations require teacher involvement in school decisions regarding school improvement, curriculum, instruction, and professional development. These organizations build professional communities, reach desired school goals, and sustain change over time (Hausman & Goldring, 2001; Louis & Kruse, 1995; Louis, Marks & Kruse, 1996; Louis & Marks, 1997). Goddard, Goddard & Tschannen-Moran (2007) hypothesized that the effect of collaboration on professional practice affected student learning as well. Their research findings indicated that teacher collaboration for school improvement related positively to student achievement.

Hipp, Huffman, Pankake, & Olivier (2008) defined a PLC as the professional staff learning together for the purpose of improved student learning. The process of collaboration within the structure of the PLC facilitated professional learning. They stated that effective leadership in a PLC acts with urgency, learns from experiences, embraces diversity, demonstrates resiliency under pressure, realizes that change is a process, and supports staff and students. Their research identified commonalities shared by two sustained PLCs. Both learning organizations focused on student learning. The leadership bases of both PLCs included teachers and administrators. Both PLCs had shared visions and values based on student learning. Both

PLCs provided a culture where teachers and administrators learned together. Both PLCs encouraged risk taking and experimentation.

The process of collaboration involves human interactions. Therefore, learning communities should expect conflict to happen and should welcome and use this conflict for learning improvement instead of avoiding it or ignoring it (Achinstein, 2002). In her research, Achinstein (2002) identified conflict, border politics, and ideology as realities critical to PLCs, and she uncovered great variations in the way PLCs managed these processes. The study revealed that processes ranged from maintaining stability and the status quo to encouraging ongoing inquiry and change. The way PLCs utilized these processes influenced organizational learning and change. Achinstein (2002) challenged stable, caring PLCs to embrace controversy while maintaining their stability.

Rationale for the Study

Researchers widely acknowledge that PLCs positively influence professional learning (DuFour, DuFour, & Eaker, 2005; Goddard, Goddard, and Tschannen-Moran, 2007). However, practitioners often use the term PLC indiscriminately (Hord, 1997; DuFour, DuFour, Eaker, & Many, 2006). Individuals and teams in successful PLCs develop and implement processes as they hone skills and build efficacy. “If researchers are accurate in maintaining that professional learning communities (PLCs) are the best hope for school reform, then school leaders must learn how to facilitate systemic processes to develop these professional cultures” (Hipp & Huffman, 2010, p. 1).

How do teams interact to successfully impact daily practice resulting in quality teaching? Little (2003) identified the importance of recognizing social interactions and the context of

professional learning. This case study, Professional learning and collaboration, provided a description of collaboration in a PLC through observations of social interactions and perceptions of social interactions. The researcher constructed the descriptions using data collected from observations, surveys, interviews, and focus group inquiries regarding team interactions.

Theoretical Framework

PLCs emerged from organizational theory focused on how humans relate to one another. Hipp & Huffman (2010) characterized the concept as results oriented in an educational setting: professional educators work together to construct their own learning for the purpose of improved student learning. Hipp & Huffman (2010) reaffirmed the common practices of a PLC originally identified by Shirley Hord (1997) through her extensive search of the literature. These practices include, "...shared leadership, continuous inquiry and learning, shared practice, creation of collaborative structures and relationships, and an undeviating focus on student learning as the ultimate desired outcome" (Hipp & Huffman, 2010, p.13).

The researcher utilized the Professional Learning Community Organizer (PLCO) (Table 1) developed by Hipp & Huffman (2003; 2010) as the PLC framework in this study. This framework utilizes Fullan's (1995; 2005) change model to identify and organize PLC development for sustained school improvement. The PLC experiences change through the phases of initiation, implementation, and sustainability as it develops. The PLCO (Hipp & Huffman, 2003; 2010) described the administrator and teacher behaviors for each dimension of the PLC in the initiating, implementing, and sustaining phases of change. Behaviors identified reflect the collaboration required for professional educator teams to construct learning needed for sustained student learning improvement.

Research Questions

The overall guiding question of the research is: What does collaboration look like in the PLC of a school? The subordinate questions are:

- 1) What types of collaboration behaviors do teachers and administrators exhibit?
 - a) Interview Question: What expectations for meetings encourage collaboration?
 - b) Focus Group Question: How is collective learning accomplished?
- 2) What do teachers and administrators perceive as the goal(s) of collaboration in PLCs?
 - a) Interview Question: What is needed for successful collaboration?
 - b) Focus Group Question: How do you utilize collaboration to achieve your vision?
- 3) What factors inhibit or promote collaboration in a PLC?
 - a) Interview Question: What is needed for successful collaboration?
 - b) Focus Group Question: What systems, resources, and relationships support collaboration?
- 4) What strategies do administrators and teachers use to overcome barriers to collaboration?
 - a) Interview Question: How are school or team conflicts addressed?
 - b) Focus Group Question: What happens when there is disagreement between or among members about how to solve a problem?

Methodology

For this case study, Professional learning and collaboration, the researcher utilized case study methodology focused on the school PLC as the unit of analysis and collaboration as the embedded unit of analysis. The researcher selected case study methodology appropriately because the inquiry included only how and why questions regarding collaboration in a PLC implemented in a specifically selected school. This case study described a single bounded system

to understand how the parts work together for the good of the whole system. This aligned with case study characteristics presented by Yin (2009), Merriam (1998), and Johnson & Christensen (2004).

Limitations

This research demonstrated limitations consistent with limitations of case study research. The researcher focused on collaboration in a single school, so the descriptions cannot be generalized to all school PLCs. The researcher utilized protocols that relied on self-reported data. The professional educators who participated in the study demonstrated pride and commitment to their vision, each other, and the school throughout the data collection process. The professional school staff knew the researcher as a Division administrator. This knowledge may have influenced their comfort with sharing concerns.

The data collection protocols and procedures presented potential limitations. The researcher experienced staff reluctance to participate in the survey. Two participants declined to respond to several items. The researcher considered this reluctance reflective of loyalty to their school and their teams.

Merriam (1998) contends that perceptions held by the participants affect the face of practice that the participants reveal and the connections the participants make with the researcher. The final picture processed by the researcher reflects the information provided by the participants. The researcher-utilized data the participants provided for the description of collaboration in River Run's PLC.

Definitions

Professional Learning Community (PLC): Professional educators work collectively and purposefully to create and sustain a culture of learning for all students and adults. The PLC includes five dimensions: supportive and shared leadership; shared values and visions; collective learning and application; shared personal practice; supportive conditions for structure and relationships (Hipp & Huffman, 2010).

Supportive and shared leadership: Leaders must be democratic teachers and share leadership, power, and decision-making with teachers. Everyone is a leader and a learner. Administrators must be willing to facilitate and build capacity of all to lead and learn (Klein-Kracht, 1993; Louis & Kruse, 1995; Sergiovanni, 1994).

Collective learning and application: Inquiry is developed through reflective dialogue and creates community, forces debate, and promotes understanding and appreciation of the work of others (Senge, 1990; 2000; Louis & Kruse, 1995; Sergiovanni, 1994; Hord, 1997; Hipp & Huffman, 2010).

Shared values and vision: The vision is a mental image of what is important to the organization and the individuals in the organization. It is developed by the staff and is the standard by which all decisions about teaching and learning are made. The vision always focuses on student learning and the importance of each student. The vision is used to establish norms that reflect the values of the staff for professional behavior in the building (Louis & Kruse, 1995; Hipp & Huffman, 2003; 2010).

Supportive conditions: There are physical and human conditions necessary to support PLCs. Having time, place, proximity to peers, norms of behavior, schedules, policies and

processes for communicating, collaborating, and continuous learning are among the required physical conditions. The willingness of team members to work together for improved student learning includes their willingness to accept growth-producing feedback. Team members must have the knowledge and skill necessary for quality teaching. Being able to trust, support, and interact positively and purposefully with others are among the required human qualities and capacities (Boyd, 1992; Louis & Kruse, 1995; Hord, 1997; Hipp & Huffman, 2010).

Shared personal practice: Frequent and ongoing peer observations and reflective conversations about teaching practices are important norms of PLCs. These focused interactions among peers encourage and provide opportunities for teachers to work diligently, utilize best practices, keep up with current research, and help every teacher be as good as the best teacher in the building (Louis & Kruse, 1995; Sergiovanni, 1994; Huffman & Hipp, 2008).

Professional Learning Community Organizer (PLCO): A re-conceptualization of Shirley Hord's (1997) five dimensions of a PLC, the PLCO supports sustainability of school improvement efforts through a fluid process emphasizing continuous improvement. Collaboration reflected in specific behaviors of administrators and teachers indicate school movement through the phases of change (Fullan, 1995; 2005) as the PLC strives for sustained, continuously improving student learning and school improvement (Hipp & Hoffman, 2010).

PLCO Initiating Phase: The phase in which a school connects a change initiative to student needs based on the school's values and norms (Hipp & Huffman, 2010).

PLCO Implementing Phase: The phase shows evidence of high expectations and shared leadership. Student learning gains are initially realized because of feedback and support. Setbacks usually occur causing an implementation dip (Hipp & Huffman, 2010).

PLCO Sustaining Phase: The phase in which the change initiative becomes embedded and accountability and commitment for student learning is evident throughout the school community. This phase is critical to sustained student learning and school improvement (Hipp & Huffman, 2010).

Collaboration: Collaboration is a process that facilitates learning by providing practitioners of differentiated abilities opportunities to discuss debate, observe, and share practices (Lave & Wenger, 1991; Wenger, 1998; Levine & Marcus, 2010).

Face of Practice: The face of practice is the parts of teaching or collaborative work that teachers make visible to other teachers in and through their interactions with each other and the material environment (Little, 2003).

Transparency of Practice: Transparency of practice is the degree of specificity with which those parts of teaching or collaborative work teachers make visible to other teachers in and through their interactions with each other and the material environment (Little, 2002).

Conflict: Conflict is both a situation and a process in which views and behaviors are perceived to be incompatible. Engagement in conflict through dialogue is a normal and essential dimension of a functioning PLC. Conflict can create the context for learning and the ongoing renewal of community (Achinstein, 2002).

Border Politics: These are the micro-political processes used to negotiate membership and beliefs

of a given community (*Achinstein, 2002*).

Ideology: For teachers, ideology defines the framework of shared values about education, schooling, and students. It includes an orientation about student learning and outcomes, beliefs about how schools should reform and change, and conceptions about the relationship between school and society (*Achinstein, 2002*).

Significance of the Study

How the structure and focus of teachers' collaborative activities facilitate and constrain teacher learning (Levine & Marcus, 2010) linked different kinds of collaboration to school improvement. Levine & Marcus (2010) provided a clear description of the symbiotic relationship shared by collaboration and professional learning communities. The other studies in the review of the literature provided insights into different aspects of this symbiosis.

The researcher designed Professional learning and collaboration to describe collaboration in a PLC. The researcher utilized the PLCO (Hipp & Huffman, 2010) as a framework to observe collaboration and the practitioners' perceptions of collaboration in that PLC. The descriptions supported current research and provided insights for the PLC of River Run Elementary and the researcher.

Overview of the Dissertation

Professional learning and collaboration is a case study designed to describe collaboration in the PLC of River Run Elementary. The dissertation focuses on one overall guiding question: What does collaboration look like in a professional learning community? Huffman and Hipp (2003; 2010) utilized research reviewed and conducted by Shirley Hord as well as their own

research to develop the Professional Learning Community Organizer (PLCO), a framework that identified behaviors of administrators and teachers in each dimension of the PLC. This research utilized the PLCO (Huffman and Hipp, 2003; 2010) to organize observed teacher and administrator perceptions and behaviors regarding collaboration in the context of the dimensions of a PLC.

CHAPTER 2

Review of the Related Literature

The researcher reviewed literature for the purpose of analyzing theories and research on collaboration in PLCs. Studies included in this review focused on collaboration used for professional learning. The research addressed processes and applications of processes used by teams to collaborate. The researcher connected the selected studies to each other through the framework of the PLCO (Huffman & Hipp, 2003; 2010). The PLCO identifies administrator and teacher collaborative behaviors in the six dimensions of PLCs.

The review of literature supported the identification of collaboration as critical to Professional Learning Community (PLC) development and the sustainability of practices influencing learning required for PLC success. The research addressed the critical importance of sustaining reform by understanding and utilizing the change process.

Identification of the Dimensions of a PLC

The dimensions of a PLC and the behaviors reflected in each dimension for the purpose of this research reflect a longitudinal study spanning 12 years. Shirley Hord, Senior Research Associate, led the original study conducted by the Southwest Educational Development Laboratory (SEDL), and funded by the United States Department of Education from 1995-2000. Huffman & Hipp (2000; 2002; 2003; 2010) and others continued the research based on the results of the original study.

The decades-long history of failed reform effort generated the need for the SEDL study (Hord, 1997; Hipp & Huffman, 2010). The political and social context of the 1960s, 1970s, and 1980s influenced the processes and content of instruction and disturbed the stability and security

of many teachers. The instructional and social needs of students and the high expectations of stakeholders demanded significant changes in education. The changing national needs required difficult and complex changes in the existing educational processes to address them (Lortie, 1975; Fullan, 1982; Darling-Hammond, 1984; Sarason, 1983).

Berman and McLaughlin (1998) identified the importance of teachers working together to address learning needs through a review of the Rand Change Agent Study. National data reviewed in the study indicated that successful change in schools occurred when teachers learned together through doing. Successful school change happened when teachers had clear guidelines of their role, their responsibilities, and the resources available to them in solving classroom problems. Required changes happened in school districts that supported the continuous growth of teachers and administrators.

Continuous growth requires the willingness and the ability of the individuals and the system to change constantly (Louis & Miles, 1990; Hord, 1997). Research articulated the complexity of the change process necessary to move teachers from isolation to collaboration, the difficulties involved in affecting that change, and the results of that change. Successful change depends on the interactions involved in the process, the purpose of these interactions, and the facilitation guidelines utilized for these interactions (Fullan, 1982, 2010; Hall & Hord, 1987; Hord & Sommers, 2008).

Hord (1997) utilized her own learning experiences to focus her thinking. This included experiences in an organization modeled after the learning organization described by Senge (1990) and SEDL research surrounding other successful school improvement efforts. Hord believed that schools had to be ready to change before any reform efforts could be implemented,

nurtured, and sustained. Hord described change-ready schools as, "...those that value change and seek changes that will improve their schools" (Hord, 1997, p.7).

PLCs emerged as hopeful structures for educational reform. Multiple researchers identified PLC characteristics necessary for reform achievement (Kleine-Kracht, 1993; Leithwood, 1997; Louis & Kruse, 1995; Prestine, 1993; Sergiovanni, 1994; Wignall, 1992) but provided no clear understanding of how to start and sustain a PLC (Hord, 1997). The researchers designed the SEDL study, *Creating communities of learners: The interaction of shared leadership, shared vision, and supportive conditions*, to define and describe a professional learning community, relate what happens when a school staff collaborates for continuous improvement, and document how PLCs develop (Hord, 1997).

The first phase of the study (1995-1998) included a literature review and a selection of school sites for the study. The literature review, conducted during the first year of the study, identified the necessary dimensions of an academically successful PLC. They included supportive and shared leadership (Kleine-Kracht, 1993; Leithwood, 1997; Louis & Kruse, 1995; Prestine, 1993), collective learning and application of learning (Louis & Kruse, 1995; Senge, 1990; Sergiovanni, 1994), and shared values and vision (Isaacson & Bamberg, 1992; Louis & Kruse, 1995). The review also identified supportive conditions, including physical conditions and people capacities (Louis & Kruse, 1995), and shared personal practice (Louis & Kruse, 1995) as necessary dimensions of a PLC.

During the second year of phase one, SEDL staff identified twenty PLC schools demonstrating some characteristics of the required dimensions. At the same time, SEDL selected twenty-five professional educators with varied experiences to be co-developers. The co-

developers spent a year together learning about the study, their role in the study, and each other through collaboration and networking (Hipp & Huffman, 2000).

The second phase began during the third year of the study with the goal of creating PLCs with the identified dimensions. The co-developers determined PLC readiness of the selected schools within each dimension. Seven schools demonstrated mid-high levels of readiness to change in the dimensions of leadership, vision, and supportive conditions. The researchers identified the emerging integration of these three dimensions as change-ready.

Only twelve schools remained to begin Phase III, the final phase of the study. Of those 12, only 6 schools exhibited exemplars and non-exemplars of the identified PLC attributes (Hipp & Huffman, 2000). The phases of change (Fullan, 1982; 1995) utilized in the model included initiating, implementing, and institutionalizing. The extended study recognized that institutionalizing did not address the need for constant monitoring and adjustment to sustain any achieved change. The researchers renamed the institutionalizing phase the sustaining phase (Fullan, 2005) in response to this realization (Hipp & Huffman, 2010). Fullan (2005) supported the necessity of shared vision and values in terms of the sustainability of reform efforts. Sustained change requires continuous improvement efforts driven by shared values (Fullan, 2005).

Hord (1997) identified critical attributes of each of the five dimensions of a PLC because of further investigation. The researchers adapted Hord's (1997) original model to accommodate the shared nature of many of the attributes among the dimensions. The attributes described PLC development across the phases of change (Hipp & Huffman, 2010). The researchers identified the five dimensions of a PLC as shared and supportive leadership, shared values and vision,

collective learning and application, shared personal practice, and supportive conditions both in structures and in relationships (Hipp & Huffman, 2003).

Collaboration

This section of the literature review examined collaboration in the areas of program implementation, teacher learning, PLC advancement, student learning, and conflict. Real-life applications provided a description of the holistic and symbiotic nature of collaboration in context. This section supported the importance of collaboration in the process of continuous improvement.

The administrator and teacher behaviors needed to develop all five dimensions across the phases of change require collaboration. Collaboration facilitates student and teacher learning by providing practitioners of differentiated abilities opportunities to discuss, debate, observe, and share practices (Lave & Wenger, 1991; Wenger, 1998; Levine & Marcus, 2010). The skills necessary to collaborate provide the building blocks of a PLC and the means for continuous improvement (DuFour, DuFour, Eaker, & Many, 2006). Teachers working together to identify concerns and solutions, implement appropriate strategies, and adjust their teaching based on student learning results positively impact teacher efficacy, continuous professional learning, and successful program implementation. Teachers collaborating in a PLC strengthen teaching and learning conditions (Little, 1990, 1993, 2003; Louis & Kruse, 1995; Rosenholtz, 1989; Schmoker, 2004; Darling Hammond, 1997; Hord & Sommers, 2008).

Teacher Collaboration and Current Studies

Collaboration and Program Implementation

The social-organizational perspective stating that individuals develop meaning based on

how they perceive the school environment and the social interactions occurring within that environment framed the study, Teacher collaboration in the context of the Responsive Classroom approach (Sawyer & Rimm-Kaufman, 2007). This study focused on how a specific program implementation influenced collaboration in a PLC and how collaboration influenced the program implementation.

The Social and Academic Learning Study (SALS) conducted by a team of researchers from the University of Virginia included six public schools with similar demographics in a northeast urban school district. SALS focused on the implementation effect of Responsive Classrooms (RC), a specific intervention program designed to produce teacher change for improved student learning. RC implementation included teacher training in the use of practices and resources that promote reflection, collegiality, and best practices. Teachers utilized the training to provide instruction aligned with each child's physical, social, and cognitive development for optimal learning. Three of the six schools started their second year of RC implementation and the remaining three comparison schools did not implement RC.

The mixed method study included quantitative and qualitative measures and data analyses. The quantitative measures included five questionnaires designed to assess attitudes, beliefs, and classroom practices. The qualitative measure included interviews of administrators and administrative staffers responsible for improving curriculum programs within the school. The administrator and administrative staffer interviews included questions designed to determine how administrators defined teacher collaboration, the types of collaboration teachers engaged in and with whom, and the means by which the administration promoted and/or supported collaboration in schools. The results showed that teachers at RC schools reported more formal

collaboration than teachers at comparison schools, but no significant difference in informal collaboration.

Teachers collaborated more frequently on student-centered topics (materials, discipline, activities) than teacher focused topics (objectives/methods, evaluation, approach w/ families, room organization). The teachers in RC and comparison schools identified similar barriers to collaboration. They identified lack of personal and collegial time and lack of administrative priority as barriers most frequently. The teachers in both groups identified shared educational language as a barrier least frequently. A greater numbers of teachers in RC schools trained in RC approach used RC resources and practices than teachers not trained in RC. The teachers who reported using RC resources reported a higher frequency of collaborating informally, placed a greater value on collaboration, and experienced involvement in decision-making. Teacher of all levels of experience who shared a high number of goals and values with their colleagues reported using informal collaboration frequently and perceived fewer barriers to collaboration. The study connected RC implementation to teacher collaboration.

The study related what happened when a school staff collaborated for continuous improvement. The researchers expected the less experienced teachers to perceive fewer barriers to collaboration and therefore collaborate more frequently. The findings indicated that shared goals and values influenced the frequency of collaboration and the perception of fewer barriers. According to researchers, Sawyer and Rimm-Kaufman (2007), the findings provided a richer understanding of collaboration as a social process underlying the development of an academic learning community. This coincided with Hord's (1997) view that schools must be change-ready in order to successfully develop and sustain a PLC, and that every dimension of a PLC required professional educators to have the attitude and ability to collaborate (Hipp & Huffman, 2010) .

The limitations of the study identified by the researchers included the quantitative design.

The study measured the frequency and not the quality of collaboration. The study did not capture different types of collaboration. The study relied on self-reported data from teachers and lacked baseline data.

Collaboration and Teacher Learning

Thomas H. Levine and Alan S. Marcus studied the kinds of teacher collaboration most likely to improve what teachers and ultimately students learn during their time in school. How the structure and focus of teachers' collaborative activities facilitate and constrain teacher learning (2010) framed teacher collaboration in the context of communities of practice (Lave & Wenger, 1991; Wenger, 1998). The study identified the face of practice as that which teachers choose to share (Little, 2003; Grossman & Richert, 1988), and the clarity and concrete detail of what they share (Little, 2003). The researchers established that the specificity and content of talk about practice shaped individuals opportunities to learn from their work with others.

The principal and all six teachers from the school selected for the study voluntarily attended collaboration meetings focused on analyzing student data and using protocols to discuss social and academic issues three to five times a week. The school opened with 129 freshmen, 70% free and reduced lunch status and 38% categorized as ESOL. The researchers collected data primarily from field notes of the 37 meetings and collaborative work documents over the 1st year. They also conducted 20 interviews and observed 79 hours of classroom instruction.

The researchers identified specific meeting types based on the structure and intended focus of the meetings. Coding data identified how frequently different types of talk occurred at different types of meetings. The researchers identified two different factors regarding

collaboration and professional learning. The structure and focus of the collaborative activity influenced how much teachers could learn and how they could learn it. Quantitative and qualitative analyses provided support for the argument that intentional choices about structure and focus both facilitate and constrain what teachers can learn from collaborative work.

Protocols provided both time and prompts and pushed teachers to make their teaching public, but teachers chose what they shared and how much they shared. The opportunity for teachers to effectively monitor and adjust their practice through reflection depended on the protocol. Instruction-focused, protocol-guided collaborative activities emerged as best for learning in areas of classroom management and pedagogy. Instruction-focused, strongly structured collaborative activities emerged as best for learning in areas of pedagogy and assessment, but did not promote transparency of practice. Student-focused, loosely-structured collaborative activities emerged as best for learning in areas of relationships with students and relationships with parents. Meetings without structure limited teacher opportunities to talk about practice and share detailed descriptions of practices.

When teachers intended to focus on instruction, meetings without structure produced neither as much talk about practice nor detailed descriptions of practice. During student-focused loosely structured collaboration, teachers offered few glimpses of how and why they instruct in the classroom. Teachers did not share results and did not take responsibility for any impact they themselves had on student attendance, behavior, or achievement. This indicated that teacher collaboration without a structure and focus on teacher practice does not prompt teachers to reveal their own classroom practice.

Instruction-focused, protocol-guided collaboration in which teachers chose the specific

content generated the highest number of comments about instruction; however 50% of the comments concerned classroom management. In the instruction-focused, strongly structured collaboration in which principal or the school coach chose the content, only 7.8 % of the comments concerned classroom management. Their findings indicated that the protocol itself does not expand opportunities for collegial learning; a planned and specifically stated sequence of activities geared toward a specifically stated measurable outcome guides both actions and speech. Organized prompts and foci assist teachers in addressing frustrations and challenges normally avoided due to discomfort with conflict. The researchers also found that the time limits negatively influenced teacher elaboration on instruction and lessened the transparency of practice.

Using qualitative and quantitative data, the researchers showed how the focus and organization of the meetings influenced teacher-learning opportunities. Different activities facilitated different types of learning. Any given activity or set of activities left important aspects of instruction unaddressed. Teachers improve schooling when they intentionally structure collaboration and focus it on aspects of their work they can control and want to impact. The intentional decisions about focus and structure may provide teachers with the requirements and the permission to de-privatize their practice and take collective responsibility for their work. Conversations about what they need to learn together, how they will know when they have learned it, and how they are progressing towards proficiency should be ongoing.

Collaboration and Advanced PLCs

Hipp, Huffman, Pankake, & Olivier (2007) conducted Sustaining professional learning communities: Case studies to determine the effects of meaningful collaboration over time on the

development of two professional learning communities. The study extended SEDL's five-year study of the development of PLCs utilizing the two most advanced schools of the original study. The researchers collected qualitative and quantitative data to discover what made these two schools progress to reflect advance learning communities when others did not.

The researchers interviewed teachers of various grade levels, levels of experience, and content areas individually and in small groups. Professional staff completed measures intended to assess beliefs. These measures included the Professional Learning Community Assessment (Olivier, Pankake, Hipp, Cowan, & Huffman, 2005), the revised school culture elements questionnaire (Olivier, 2001), the Teacher Efficacy Beliefs Scale- Collective Efficacy (Olivier, 2001), and the Leadership Capacity School Survey (Lambert, 2003).

The two school populations differed in their ethnic make-up, limited English enrollment, free and reduced lunch membership, state locations, program offerings, economic and social circumstances, organizational structures, community context and level of community resources. However, the two schools demonstrated similarities in the way they operated their PLCs. Both learning organizations critically addressed and assured student learning. Both learning organizations extended their leadership base to include teachers and administrators. Both defined shared visions and values based on student learning. Both provided a culture where teachers and administrators learned together in an environment that encouraged risk-taking and experimentation. Both schools shared similar organizational and adult relationship-building processes.

Even though no systematic directions to successful PLC development exist due to the uniqueness of every situation (Fullan & Miles, 1992), Hipp, Huffman, Pankake & Olivier (2007)

identified emerging strategies that could guide the development of collaborative cultures for improved student learning. The two schools that merged as successful from the SEDL (2000) study demonstrated the collaborative attributes of every dimension of their PLCs over time. As a result, they both sustained their PLCs.

Collaboration and Conflict

Motivated by the lack of research on how members of a learning community really manage conflict and unity, Achinstein (2002) conducted the study, *Conflict amid community: The micro-politics of teacher collaboration*. The study examined how teachers in two separate schools managed conflicts, suppressed or embraced differences, defined community borders, and learned. The researcher found that, "...active engagement in conflict, a dialogue of differences, is a normal and essential dimension of a functioning teacher community. Conflict can create the context for learning and thus ongoing renewal of communities" (Achinstein, 2002, p.422).

The theory that framed the study included micro-political and organizational learning perspectives. As teachers increase their interactions, their expectations for coordination, and their opportunities to examine beliefs and actions in each other's classrooms, they generate positive and negative energy. This energy can challenge institutional norms, spark new ideas, and create an opportunity for organizational learning. When educators question established values, identify and correct errors, and utilize knowledge to make decisions influencing the future, they can transform norms and practices.

The researcher identified conflict, border politics, and ideology as micro-political realities critical to PLC development. Groups establish processes to negotiate differences among

colleagues, establish conditions of membership, and make meaning of values utilized in context. The research exposed great variations in how learning communities shaped these three processes.

This case study utilized ethnographic techniques to observe and explore hidden processes. The researcher conducted the study at two self-identified sites distinguished by collaborative reform efforts. Achinstein (2002) used ongoing interviews with 50 teachers and administrators, observations of formal and informal meetings and interactions, analysis of current and archived documents, and a survey to collect data.

Achinstein (2002) identified many similarities between the two sites. However, the two sites managed conflict, negotiated borders, and defined ideology very differently. The study revealed that the micro-political processes in place to manage conflict, border politics, and ideology varied from school to school. The variance ranged from maintaining stability and the status quo to encouraging ongoing inquiry and change. The way communities navigated their differences influenced organizational learning and change.

The study provided a perspective that differed from the popular consensus-based teacher community perspective. Achinstein (2002) contended that conflict, border politics, and ideology come into play when teachers collaborate. Ignoring them or labeling them dysfunctional minimizes the learning potential collaboration provides and maximizes the dangers failure to question group beliefs and assumptions present. Achinstein (2002) challenged caring, stable communities to embrace controversy constructively.

The study addressed the potential for conflict human interactions present for collaboration in every dimension of a PLC. The need to embrace rather than avoid conflict

influences the school culture, the change process, and the attitudes and abilities of every member of the PLC.

Collaboration and Student Learning

Yvonne L. Goddard, Roger Goddard, and Megan Tschannen-Moran conducted a theoretical and empirical investigation of school collaboration for school improvement and student achievement in public elementary schools (2007). The positive results for teachers in areas of efficacy, attitudes, and trust identified by previous research generated excitement, but outcome indicators of student achievement did not generate the same excitement. Researchers had not established the link between the positive results for teachers and increased student (Louis, Marks, & Kruse, 1996; Tschannen-Moran, 2001).

The study investigated the impact of teacher collaboration for school improvement on student achievement. The study explored whether or not teacher collaboration predicted differences in student achievement among schools. The study targeted outcome variables of fourth grade achievement on state mandated math and reading assessments. The researchers hypothesized that teacher collaboration positively and significantly related to differences among schools in fourth grade achievement on state-mandated assessments of mathematics and reading achievement.

The researchers utilized student and teacher data from one large urban school district located in the Midwestern United States for this study. L. Goddard, Roger Goddard, and Megan Tschannen-Moran distributed anonymous teacher surveys, half with questions relating to collaboration and half with questions relating to other areas, at faculty meetings. 2,536 students, 452 teachers, and 44 principals participated. The anonymity of the surveys prevented the

collection of any demographic data and grade level membership. A six-item Likert-type scale measured teacher collaboration. The first item questioned the extent to which teachers worked collectively to influence specific types of decisions; the five remaining items identified collaborative areas. They included planning school improvement, selecting instructional materials, evaluating curriculum and programs, determining professional development needs and goals, and planning professional development activities (Yvonne L. Goddard, Roger Goddard, and Megan Tschannen-Moran, 2007). The researchers determined an aggregate mean score of all items for each school. Further analysis supported making teacher collaboration operational for school improvement as a factor score for each school.

Student control variables included gender, race/ethnicity, socio-economic status, and prior student achievement. The dependent variables were fourth-grade students' scaled scores on state-mandated mathematics and reading assessments. The researchers administered the assessments in the spring, one month after surveying the teachers. The study utilized hierarchical linear modeling (HLM) to analyze the data. At level one, the researchers adjusted for the effects of student demographics and prior achievement when determining average levels of school achievement. This revealed a significant and negative association between student learning and minority status and student learning and disadvantaged socioeconomic status. The researchers reported that their within-school model included dummy variables for student gender, race and free and reduced lunch status and a continuous variable representing prior-year academic achievement.

The researchers added a dummy variable for missing prior achievement. They perceived the mobility within districts resulted in missing data for 14% of the students in the study. The researchers modeled and included the effects of school socio-economic status, proportion of

minority students, and size as controls for aspects of organizational context to help explain student achievement differences among schools. At level two, the researchers set only the prior achievement slopes to vary randomly among schools, because the slopes indicated this variable had a statistically significant variance among schools. The researchers fixed the effects of the other student-level predictors, as these slopes did not vary significantly. In the final analysis, researchers standardized all school-level predictors to have a mean of zero and a standard deviation of one.

The researchers used two unconditional models to test the variance of teacher collaboration and student achievement among the schools: Variation Between Schools in Teacher Collaboration (n=452 teachers and 47 schools) and Variation Between Schools in Students' Mathematics and Reading Achievement (n= 2,536 students in 47 schools). The study identified teacher collaboration to be a statistically significant predictor of variability among schools in both mathematics and reading achievement.

The study associated a one-standard deviation increase in the extent to which teachers collaborated on school improvement with a .08 SD increase in average school mathematics achievement and a .07 SD increase in average school reading achievement. Thus, the research identified teacher collaboration for school improvement as a significant positive predictor of differences among schools in student achievement. The results of this study associated teacher collaboration and increased levels of student achievement.

In the conclusion of the study, Yvonne L. Goddard, Roger Goddard, and Megan Tschannen-Moran (2007) discussed the indirect relationship connecting teacher collaboration for instructional improvement and student achievement. They stated that professional learning

resulting in improved instructional practice might be the most important outcome of teacher collaboration. They do not feel it is unreasonable to speculate that teacher collaboration fostered student learning related to differences among schools in both mathematics and reading achievement.

The limitations of the study identified by Yvonne L. Goddard, Roger Goddard, and Megan Tschannen-Moran (2007) included the limited generality of the results. The restricted range of schools in the sample restricted the variability in the social context, the collaborative practices, and achievement data studied. The researchers recommended a broader representation of these factors for future studies.

This section of the literature review examined collaboration in the areas of program implementation, teacher learning, PLC advancement, conflict, and student learning. The research described collaboration in the context of real-life applications of studies designed to improve student learning from various perspectives. The studies reinforced the importance of the organization's willingness to change attitudes and improve abilities to collaborate for continuous teacher learning as the profession moves from a culture of isolation to a culture of collaboration.

Collaboration within the Dimensions

The attributes of every dimension of the PLC as identified by Hipp and Huffman (2010) reflect the importance of collaboration. This section of the literature review organizes the collaborative characteristics of the research studies already examined in this review of the literature within the dimensions of a PLC. The structure provides a view of the holistic nature of the dimensions as evidenced by their shared attributes through the content of the studies.

A theoretical and empirical investigation of school collaboration for school improvement

and student achievement in public elementary schools (2007), conducted by Yvonne L. Goddard, Roger Goddard, and Megan Tschannen-Moran focused on the link between collaboration and improved student learning. This research focused on student outcomes and did not specifically address the dimensions. Therefore, the study will not be reviewed in the context of the individual dimensions but as a support for the development of all the dimensions of a PLC.

Supportive and Shared Leadership

Research identified PLC leaders as democratic teachers who share leadership, power, and decision-making. The PLC requires everyone to lead and learn. Administrators facilitate and build the capacity of all to do so. The shift necessary to make supportive and shared leadership possible includes changing the reality of leadership in a school. Members must understand leadership as a concept that requires specific individual behaviors necessary to achieve a shared vision. (Rainey, 1997; Klein-Kracht, 1993; Louis & Kruse, 1995; Sergiovanni, 1994).

Linda Lambert (2003) defined leadership as purposeful participation in building one's own knowledge and skills and the knowledge and skills of others. She addressed the purposive nature of leadership by including the need to build reciprocal relationships supporting shared leadership and professional learning for every member of the PLC. Administrators must build leadership capacity and facilitate teacher learning, and teachers must commit to continuous learning necessary to meet student-learning needs. Administrators and teachers must continuously collaborate to learn and lead with a purpose reflective of their commitment to student learning (Lambert, 1998; Hipp, 2004; Olivier, Pankake, Hipp, Cowan, & Huffman, 2005).

Through an extensive analysis of interviews conducted at the two highest performing

schools remaining at the end of the SEDL study, researchers identified required behaviors in the dimension of shared leadership. The behaviors included nurturing leadership among staff, shared power, authority, and responsibility, broad-based decision-making that reflects commitment and accountability, and sharing information (Hipp & Huffman, 2003; 2010). In order for continuous improvement in teacher and student learning to occur, these behaviors, attitudes and abilities necessary for change must be part of the culture of the school. Each of the reviewed studies demonstrated behaviors in the dimension of shared leadership.

Teacher Collaboration in the Context of the Responsive Classroom Approach

Sawyer & Rimm-Kaufman (2007) identified the attributes of broad-based decision-making and nurturing leadership among staff in this study. The school provided a focused opportunity to learn along with extended opportunities to gain expertise through voluntary collaboration. Teachers learned and helped others learn increasing the capacity of the organization.

How the Structure and Focus of Teachers' Collaborative Activities Facilitate and Constrain Teacher Learning

Levine & Marcus (2010) documented how the principal and all of the faculty members shared leadership, power and decision making in this study. The principal and the teachers demonstrated their commitment to improve student learning continuously by voluntarily attending weekly meetings throughout the school year. Utilizing specific protocols to analyze student-learning data, they monitored and adjusted teaching practices. Fullan (2002) defined leadership as increasing the ability of the organization to improve. The willingness of the faculty of the school in the study to collaborate purposefully helped their school as well as other schools

impacted by the study improve.

Sustaining Professional Learning Communities: Case Studies

Hipp, Huffman, Pankake & Olivier (2007) examined the impact of meaningful collaboration over time on a PLC in this study. The researchers selected the two schools involved in the study because they demonstrated sustained progress in their PLC development. The study identified several operational characteristics in the dimension of Supportive and Shared Leadership shared by two schools of very different make-ups. Both schools critically addressed student learning through collaboration. Both schools demonstrated true involvement in broadening their leadership base to include teachers and administrators. Individual behaviors reflected the necessary commitment to build reciprocal relationships required for all-inclusive leading and learning.

Conflict Amid Community: The Micro-politics of Teacher Collaboration

Achinstein (2002) studied the role of collaboration in teacher learning. The study addressed the dimension of Supportive and Shared Leadership through the examination of the collaboration process. Making meaning of shared values requires a willingness to embrace conflict and an ability to facilitate productive interactions. This process can provide learning opportunities required for capacity building that leads to school improvement.

Shared Values and Vision

The individuals in the PLC express what they value as important in the vision of the PLC. The staff must develop the standard and apply it to all decisions about teaching and learning. The vision focuses on student learning and the importance of each student in the process of learning.

The staff utilizes the vision to establish norms for professional behavior reflective of PLC values. The vision provides the inspiration and motivation needed to move the organization forward (Issacson & Bamburg, 1992; Louis & Kruse, 1995). PLC members create a shared vision by collaboratively melding individual visions into one vision. All members embrace this vision, which reflects the PLC's total commitment to student learning (DuFour & Eaker, 1998; Moller & Pankake, 2006; Hipp & Huffman, 2010).

The SEDL study identified attributes in the dimension of shared values and vision. They included espoused values and norms; focus on student learning, high expectations, and a shared vision that guides teaching and learning (Hipp & Huffman, 2003; 2010). Continuous improvement in teacher and student learning require embedded visibility of the attitudes and abilities necessary for change in the school culture.

Teacher Collaboration in the Context of the Responsive Classroom Approach

Sawyer & Rimm-Kaufman (2007) focused on the impact of broad-based decision-making and nurturing leadership on student learning in this study. Teachers who shared a high number of goals and values with their colleagues placed a greater value on collaboration and a greater involvement in decision-making. This demonstrated the symbiosis of the dimensions. All of the reviewed studies reflected attributes in the dimension of shared vision and values. The studies revealed the overlapping nature of collaboration and the attributes of each dimension.

How the Structure and Focus of Teachers' Collaborative Activities Facilitate and Constrain Teacher Learning

Levine and Marcus (2010) examined the processes that guide collaboration for continuous teacher learning in this study. The study revealed the overlapping attributes necessary

to embed high expectations for improved teacher learning and shared responsibility for all leading and learning in the culture. The focus on capacity building for the purpose of improved student learning demonstrated what was important to the organization. The need to understand the impact of collaboration on teacher learning demonstrated commitment and responsibility for the increased learning capacity of the school.

Sustaining Professional Learning Communities: Case Studies

The two schools included in the study conducted by Hipp, Huffman, Pankake & Olivier, (2008), defined their shared visions and values based on student learning. They accomplished this through their ability to appreciate their individual visions and values and facilitate the collaborative development of a shared vision reflecting shared values. Collaboration provided opportunities for the discussion, debate, and sharing necessary to accomplish this. Shared decision-making and leadership, attributes of supportive and shared leadership, reveal themselves as necessary in the dimension of shared values and vision as well.

Conflict Amid Community: The Micro-politics of Teacher Collaboration

Through this study, Achinstein, (2002) addressed the sharing of attributes and the role of collaboration in the dimensions of supportive and shared leadership and shared values and vision through the examination of the collaboration process. Making meaning of shared values requires a willingness to embrace conflict and an ability to facilitate productive interactions. This process can provide learning opportunities required for capacity building that leads to school improvement. The organization needs a clear vision to facilitate productive interactions necessary to make conflict meaningful.

Collective Learning and Application

Inquiry developed through reflective dialogue creates community, forces debate, and promotes understanding and appreciation of the work of others (Senge, 1990; Louis & Kruse, 1995; Sergiovanni, 1994; Hord, 1997; Hipp & Huffman, 2008). Learning together provides opportunities for members of a PLC to build trusting relationships and develop an identity (Sergiovanni, 1994). This practice embeds teacher learning as an integral part of the school culture (Hipp and Huffman, 2010). A commitment to continuous learning in a PLC includes participating in meaningful, job-embedded professional development. Collaborative job-embedded learning for teachers provides opportunities for purposeful planning, implementing, reflecting and sharing best practices across teams and schools. Continuous teacher learning leads to improved student learning. Improved student learning is the focus of the PLC (Wood & McQuarrie, 1999; Blankenstein, Houston, & Cole, 2007; Olivier, 2001).

The SEDL study (2000) identified attributes of the dimension of collective learning and application. They included sharing information, seeking new knowledge, skills, and strategies, and working collaboratively to plan, solve problems, and improve learning opportunities (Hipp & Huffman, 2003; 2010) Continuous improvement in teacher and student learning occurs in a culture that demonstrates the attitudes and abilities necessary for change.

Teacher Collaboration in the Context of the Responsive Classroom Approach

Sawyer & Rimm-Kaufman (2007) focused on teacher collaboration and program implementation. The implementation provided new learning for all study participants. The study focused on how collaboration influenced teacher- learning necessary for program implementation, and how program implementation influenced collaborative practices. By

observing how program implementation influenced collaboration, the researchers gained insights into the overlapping nature of the attributes. Shared values and goals influenced the frequency of collaboration and the willingness of participants to participate in decision-making.

How the Structure and Focus of Teachers' Collaborative Activities Facilitate and Constrain Teacher Learning

Levine and Marcus (2010) built this study on the premise that the quantity, specificity, and content of talk about practice shapes individuals opportunities to learn from their work with others. The principal and the faculty members shared leadership, power, and decision-making. Their consistency in utilizing specific protocols to analyze student learning data to monitor and adjust teaching practices demonstrated the sharing of information and collaborative planning and problem solving needed for increased student learning. This study identified specific combinations of collaborative structures and foci that best facilitated differentiated learning and application.

Sustaining Professional Learning Communities: Case Studies

Hipp, Huffman, Pankake & Olivier (2007) studied two learning organizations that critically addressed and assured student learning. Effective professional development and learning structures reflected a collective commitment to learning. Everyone shared the responsibility for learning. Collective teacher learning and application was focused on student learning.

Conflict Amid Community: The Micro-politics of Teacher Collaboration

In this study, Achinstein (2002) focused on conflict inherent in the process of

collaboration. The study posited that the ability of a school to learn and change depended on how conflict was managed in every dimension of the PLC. Achinstein (2002) contended that ignoring conflict, border politics, and ideologies limits organizational learning. The findings of this research support productive collaboration in all dimensions of a PLC. The focus is on process and will be addressed in Supportive Conditions.

Shared Personal Practice

Important norms of a PLC include frequent and ongoing peer observations and reflective conversations about teaching. This focused interaction among peers encourages and provides opportunities for teachers to work diligently, utilize best practices, keep up with current research, and help every teacher be as good as the best teacher in the building (Louis & Kruse, 1995; Sergiovanni, 1992; Huffman & Hipp, 2007). Hipp & Weber (2008) found this to be the least evident element in PLCs they investigated. Hord (1997) identified the process of peer observations and feedback as critical to individual and organizational capacity building. Teachers identify de-privatization of practice (Luis & Kruse, 1995) as more evaluative than helpful. Judith Warren Little (2003) addressed the face of practice, what teachers chose to share with each other, as a factor influencing capacity building. The PLC must address the lingering culture of isolationism in all dimensions of the PLC.

The attributes identified included peer observations to offer knowledge, skills, and encouragement, feedback to improve instructional practices, sharing outcomes of instructional practices, and coaching and mentoring (Hipp & Huffman, 2003; 2010). Continuous improvement in teacher and student learning occurs in a culture that demonstrates the attitudes and abilities necessary for change.

Hipp and Weber (2008) identified shared personal practice as the least evident dimension studied. Teacher collaboration in the context of the Responsive Classroom approach (Sawyer & Rimm-Kaufman, 2007) provided a focused opportunity to learn and extended opportunities to gain expertise through voluntary collaboration. Teachers learned, helped others learn, and increased the capacity of the organization.

How the Structure and Focus of Teachers' Collaborative Activities Facilitate and Constrain Teacher Learning

Levine & Marcus, (2010) studied how the principal and the faculty members utilized specific protocols to analyze student learning data to monitor and adjust teaching practices. The study identified the impact of structure and focus on professional learning with collaboration. A protocol can force teachers to interact and share, but the teacher determines the content shared and the detail with which it is shared. Intentional decisions about focus and structure may provide teachers with the requirements and the permission to de-privatize their practice and take collective responsibility for their work.

Sustaining Professional Learning Communities: Case Studies

In this study, Hipp, Huffman, Pankake & Olivier, (2007) documented the individual behaviors reflecting the necessary commitment to build reciprocal relationships required for all-inclusive leading and learning.

Conflict Amid Community: The Micro-politics of Teacher Collaboration

Achinstein, (2002) examined how making meaning of shared values requires a willingness to share, discover, and seek to understand the ideologies and practices of others.

This process can provide learning opportunities required for capacity building needed for school improvement.

All of the studies included opportunities and examples of shared practice. The teachers determined the content and the details of the sharing. The interplay with other dimensions included the required attitudes and abilities necessary for change to occur and the motivation and commitment necessary to improve student learning through improved professional practice.

Supportive Conditions

PLCs require the support of physical and human conditions. Physical conditions include time, place, peer accessibility, norms of behavior, schedules, policies, and processes for communicating, collaborating, and continuous learning. The human conditions include a willingness to work together for improved student learning and the ability to accept growth-producing feedback. Additional human conditions include the attitudes and ability to gain the knowledge and skill necessary for quality teaching, trust and support others, and interact positively and purposefully with others (Boyd, 1992; Louis & Kruse, 1995). Each of the studies demonstrated the importance of the attributes in the dimension of supportive conditions.

Summary

This review of the literature analyzed theories and research on professional learning in communities using the conceptual framework of the PLCO (Huffman & Hipp, 2003; 2010) (Table 1). This review of the literature presented the development of these dimensions, the identification of the attributes of each dimension, and research supporting the relevance of their selection. The research revealed the importance of collaboration to teacher learning in a PLC and documented collaborative behavior in the attributes of every dimension.

Table 1 *Professional Learning Community Organizer*

	DIMENSIONS	Initiating	Implementing	Sustaining	Results
ADMINISTRATOR AND TEACHER ACTIONS	Shared and Supportive Leadership	-Nurturing leadership among staff -Sharing Information	-Sharing power, authority, and responsibility	-Broad based decision making for commitment and accountability	
	Shared Vision and Values	-Espoused values and norms	-Focus on students -High expectations	-Shared vision guides teaching and learning	
	Collective Learning and Application	-Sharing student data -Dialogue	-Collaboration using data relating to student learning needs -Planning -Problem solving	-Application of knowledge, skills, and strategies based on data	
	Shared Personal Practice	-Observation and encouragement	-Sharing outcomes of practice -Offering feedback -Mentoring and coaching	-Analysis of student work and related practices	
	Supportive Conditions Structures	-Assessment and identification of the need for systems and processes	-Appropriate use of systems and resources	-Maximum utilization of systems and processes	
	Supportive Conditions Relationships	-Caring relationships	-Trust and respect -Recognition and celebration	-Risk taking -unified effort to embed change	
					STUDENT LEARNING AND SCHOOL IMPROVEMENT

(Hipp & Huffman, 2010)

CHAPTER 3

Methodology

Chapter 3 discusses the overall research plan utilized to address the main research question of this study. What does collaboration look like in a professional learning community? The research plan included an overview of research methodology, the procedures for conducting the study, and the presentation of results. Research methodology included the purpose of the study, research design rationale, and specific methodology choice. The researcher described the role of the researcher and discussed the guiding framework for data collection and analysis. Procedures included site selection process, description of participants, and identification of procedures used to assure confidentiality. The researcher described issues of entry, reciprocity, and ethics as well as data collection techniques, and explained the data analysis process. The qualitative narrative provided the structure for the presentation of results.

Purpose of the Study

The study observed and described collaboration as it occurs in a professional learning community (PLC) of an elementary school. This study involved observing, interviewing, surveying, and conversing with individual teachers, teacher teams, and administrators. A review of documents, achievement data, and artifacts provided the information needed to describe the PLC accurately. The researcher conducted the study in a natural setting with no manipulation of variables. The researcher did not establish a hypothesis prior to the study. The researcher used the information gathered from the literature and research study reviews to shape and inform the study and guide the collection and analysis of data.

Rationale for the Research Design

Multiple overt and hidden procedural, relational, and cultural factors influence PLC implementation in schools and contribute to the uniqueness of each PLC (Little, 1982, 1990; 2003; Levine and Marcus, 2010; Hipp, Huffman, Pankake and Olivier, 2008). Therefore, a rich narrative describing an operational PLC and collaboration within that PLC requires data gathered in multiple ways from multiple sources. This inquiry observed and described a PLC focused on continuously improving student learning. The researcher utilized multiple sources to observe, record, and analyze data documenting collaborative behaviors and perceptions of teachers and administrators in an operational PLC. The researcher utilized the framework provided by the PLCO (Huffman and Hipp, 2003; 2010) to connect the data to research and provide opportunities for increased understanding of collaboration in a PLC.

For this research study, Professional learning and collaboration, the researcher utilized case study methodology, and focused on the school PLC as the unit of analysis and collaboration as the embedded unit of analysis. The researcher used how and why questions regarding collaboration in a PLC over which the researcher had no control, making case study methodology appropriate. The researcher observed and described a single bounded system to understand how the parts work together for the good of the whole system. This aligns with case study characteristics as presented by Yin (2009), and Merriam (1998).

The instruments used to collect and analyze data and describe the PLC included the Professional Learning Community Organizer (Huffman & Hipp, 2003; 2010) and the Professional Learning Community Assessment (PLCA-R) (Appendix A). Both instruments influenced the design of the study, the development of questions, the choice of participants, and

the presentation of findings.

Role of the Researcher

As the data collection and analysis instrument in qualitative research (Merriam, 1998), the researcher learns a great deal about a situation through participation or immersion. The researcher must know and be able to demonstrate the characteristics of what is being studied (Lincoln and Guba, 1985). Theoretical sensitivity, or the researcher's awareness of the subtleties of the data collected and insight to give meaning to the data, comes from professional interactions with the phenomenon (Strauss and Corbin, 1990). The level of familiarity needed to develop credibility (Eisner, 1991; Patton, 1990) can also develop biases that need to be acknowledged and addressed (Wolcott, 1994).

The researcher developed the required knowledge base, understanding, and appreciation for collaborative learning in a PLC over time through professional learning experiences as a professional educator and instructional leader. These experiences included successful participation and completion of the National Staff Development Council Leadership Academy, the experience of opening a new elementary school, and the facilitation of PLC development in the new school. The results of these experiences include student learning gains and teacher growth that require continuous improvement in order to meet increasing expectations. The researcher approached this study with open eyes and an open mind in order to learn how a continuously improving PLC operates. The researcher reflected on personal biases during the data gathering and analysis and documented them.

Procedures

Researchers conducting qualitative research often use the strategy of purposeful

sampling. According to Patton (1990), in depth studies provide appropriate opportunities for utilization of purposeful sampling. What does collaboration look like in a professional learning community? The researcher selected a PLC that provided the best opportunities to study collaboration (Merriam 1998). The criteria for selecting the site included continuously improving student learning data, stability of faculty, on-going PLC professional development, and stability of student membership.

This study defined a professional learning community as professional educators working in a collective and purposeful manner to create and sustain a culture of learning for all students and adults (Hipp & Huffman, 2010). This study defined collaboration as a process that facilitates this learning by providing practitioners of differentiated abilities opportunities to discuss, debate, observe, and share practices (Lave and Wenger, 1991; Wenger, 1998; Levine and Marcus, 2010).

Selection of the Participants and Assurances of Confidentiality

The participants included the current principal, the former principal, and the teachers of River Run Elementary School. Each formal participant signed an informed consent document. The document included an explanation of the research study, an assurance of anonymity for participants and the school in the final report, a statement requiring only voluntary participation in the study, and authority to withdraw from the study at any time without fear of retribution.

The researcher selected River Run Elementary as the site for the study because of a review of data that evidenced their progress as a professional learning community. The researcher utilized the Professional Learning Community Rubric (PLC-R) designed by Hall and Hord (2006) to determine suitability. The processes and procedures employed at River Run and the satisfaction of the community with those processes in all the dimensions identified by Hall

and Hord (2001) and supported by Hipp and Huffman (2010) supported the appropriateness of its selection as the site for the study.

The school focused on student learning through quality teaching. Individual and whole-school teams made informed, data based decisions about teaching and learning utilizing systems for data collection and review. The school staff dedicated a full year to the development of a shared school vision that guides school decisions. School programs reflect the inclusion of community stakeholders in efforts to support, continue and extend learning opportunities. Reflective dialogue and teacher capacity building result in changes in instruction and assessment. Staff and student populations at River Run Elementary remain stable, and student-testing data indicates continuous improvement as accountability requirements increase over time. The systems in place for communication with all members of the school community are consistently monitored and adjusted in response to feedback from stakeholders. Celebrations reflect the progress that has been made as well as on-going efforts to address student learning as a whole school.

Before beginning the collection of data at the school site, the researcher sought and received approval to conduct the study from Virginia Polytechnic Institute and State University International Review Board and the school district in which River Run is located. The researcher informed the principal about the study and provided assurances regarding the impact of the study on the school through dialogue and written communications. The assurances included respecting the integrity of the mission, goals, schedules, and instructional processes, and daily routines of the school. The researcher reviewed and respected them throughout the study. The activities associated with the study did not disrupt the daily routines of the school. The identities of the

participants and the school remained anonymous, and the principal received a copy of the completed study.

Creating a safe and effective environment included building trust and effectively communicating verbally and in writing details about the study. The details included the purpose of the study, the research objectives, and the reasons for selecting their site. The researcher also provided the details of conducting the study. These details included participation options, permission forms, and information regarding data collection, analysis and reporting. This information included procedures for participant input reflecting their rights, wishes and interests.

Data Collection

The researcher collected the data for this case study during the month of April 2011 utilizing surveys, interviews, focus groups, and observations as the data collection techniques. The researcher used a hand-held digital recorder as the recording device for interviews to facilitate the expediency and accurateness of the transcriptions. Participants chose to complete paper and pencil or on-line surveys. The researcher provided a choice to facilitate expediency and accurateness of the data collected and added anonymity for participants.

Survey Procedures and Protocols

The researcher used the Professional Learning Communities Assessment-Revised (Olivier, Hipp, and Huffman, 2010) to survey the teachers and administrators. The purpose of the original Professional Learning Community Assessment (PLCA) (2003) was to assess the perceptions of school principals, staffs, and stakeholders regarding the critical attributes of the five dimensions of a PLC identified by Hord (1997). The first field test included seventy-six expert educators selected to respond to forty-four questions to determine each statement's

importance and relevance as it related to PLCs at the school level. The developers provided response choices of High, Medium, and Low. Respondents rated ninety-eight percent of the items highly relevant; only one item received a medium rating. The second field test utilized forty-five statements; one of the original statements was divided into two statements. The developers distributed four-point, forced-choice Likert scale surveys ranging from 4=Strongly Agree to 1= Strongly Disagree to schools. The schools returned 247 usable surveys.

Olivier, Hipp, and Hoffman utilized factor analysis to provide evidence of construct validity using a series of statistical procedures for the total sample of respondents (n=247). Cronbach's Alpha internal consistency reliability coefficients were computed for the factored subscales of the measure. For the 5 factored subscales, the Alpha coefficient ranged from a low of .83 (Collective Learning and Application and Supportive Conditions – Relationships and Structures) to a high of .93 (Shared Values and Vision). Thus the instrument yielded internal consistency (Alpha coefficient) reliability for the factored subscales. Factor analyses used Varimax procedures with principal components and Orthogonal rotations. The researchers used general decision rules to retain items on particular favors. (Huffman, J. and Hipp, K., 2003, pp. 73-74).

Olivier, Hipp and Huffman reviewed and confirmed the internal consistency of the dimensions on the PLCA in 2008. The Cronbach Alpha reliability coefficients for factored subscales (n=1209) were as follows: Shared and Supportive Leadership (.94); Shared Values and Vision (.92); Collective Learning and Application (.91); Shared Personal Practice (.87); Supportive Conditions- Relationships (.82); Supportive Conditions-Structures (.88); and a one-factor solution (.97). In addition, Olivier, Huffman, and Hipp (2010) recognized the

importance of collection, interpretation, and use of data for focused student learning improvement. Referring to Hord and Hirsh's (2008) findings regarding the importance of teacher learning preceding student learning, the researchers identified the importance of intentional teacher learning based on data-driven student learning needs. As a result, the researchers integrated seven new statements within the PLC dimensions to identify focused professional learning practices. A process replicating the first field test of the PLCA verified the seven new statements. The researchers utilized a three-point rating scale, and participants rated all seven statements high. This resulted in the inclusion of all seven new items in the PLCA-R (Olivier, Huffman, and Hipp, 2010, p.30-31).

Interview Procedures and Protocols

The researcher conducted interviews during planning times or scheduled times before and after school. The researcher and the persons being interviewed agreed on time and place of interviews prior to the interview. The researcher utilized a purposive sample to select the three teachers to interview. Factors considered in the sample-included experience in teaching, experience with school planning, prior leadership experience, and grade level. Additionally, the researcher interviewed the current principal and the former principal. The researcher recorded all interviews on a hand-held digital recorder, stored the recordings at the researcher's home for analysis, and destroyed them at the conclusion of the study. Instructional time was not be impacted.

The guiding questions used in the interviews were:

1. How critical is collaboration to student learning success?

- a. Probes: How do you know? Has your practice changed because of collaboration?
Have you seen changes in the professional practice of others because of collaboration?
2. What expectations for meetings encourage collaboration?
 - a. Probes: How do you document collaborate activities? How are meetings structured? Who determines the expectations? How are leaders identified and developed? How are decisions made?
3. What is needed for successful collaboration?
 - a. Probes: What processes and procedures do you utilize? Does collaboration always look the same?
4. How are school or team conflicts addressed?
 - a. How are ideas shared by members implemented? What process is used to prepare new team members? What happens when there is disagreement between or among members about how to solve a problem?

Direct Observation Procedures and Protocols

Selected activities for observation included a team meeting. The researcher recorded data with a hand-held digital recorder and analyzed the data using the Professional Learning Community Organizer (Hipp and Huffman, 2010). Dialogue revealed understandings and assumptions about topics being discussed would be examined. The range, breadth, and factors influencing participant views can become apparent (Wodak and Krzyzanowski, 2008). This will add a dimension to the reality of PLCs and collaboration at River Run Elementary that surveys alone cannot provide.

Focus Group Procedures and Protocols

The researcher utilized purposive sampling to create a focus group of five people: a K-1 teacher, a 2-3 teacher, and a 4-5 teacher, a special education teacher, and a specialist. The researcher asked participants to discuss guiding questions listed in the focus group procedures and protocol section as a group. The researcher recorded discussions on a digital, hand-held tape recorder and analyzed the discussions in a timely manner. The researcher recorded all recordings on the hand-held digital tape recorder, stored them at the researcher's home until the completion of analysis, and destroyed them at the conclusion of the study. The researcher guarded instructional time to avoid impact. The researcher asked the participants the listed questions.

1. Focus Group Question: How is collective learning accomplished?
 - a. Probes: How is the learning focus determined? How do teachers share their learning?
2. Focus Group Question: How do you utilize collaboration to achieve your vision?
 - a. Probes: How is the learning focus determined? How do teachers share their learning?
3. Focus Group Question: What systems, resources, and relationships support collaboration?
 - a. Probes: Are they sufficient to meet school goals? Is collaboration valued? How do you know
4. Focus Group Question: What happens when there is disagreement between or among members about how to solve a problem?
 - a. Probes: How are different beliefs about learning identified and addressed? Does conflict help or present an obstacle to continuous improvement?

Data Analysis Procedures and Protocols

The researcher recorded, transcribed, and analyzed the interviews, observation of the team meeting, and the focus group discussions through the process of inductive qualitative content analysis. This added a dimension to the reality of PLCs and collaboration at River Run Elementary that surveys and observations alone cannot provide. The coding process utilized by the researcher provided an enhanced description of collaboration in a professional learning community. The researcher analyzed and grouped the recorded text of discussions by topics revealed by the text (Cresswell, 2003) which determined the final codes of this descriptive case study.

CHAPTER 4

Description of Data Collection

The case study, Professional Learning and Collaboration, described collaboration in the context of a PLC of an elementary school. The research questions identified the perceptions of teachers and administrators in an established PLC regarding the purpose, process, and effectiveness of collaboration in the school setting. The researcher described the data collection process utilized in the study and constructed a collective response to each research question using the data collected. The data provided a description of the PLC and collaborative behaviors within the six dimensions of the PLC identified by the PLCO (Huffman & Hipp, 2003; 2010).

Selection of River Run Elementary

The Professional Learning Community Development Rubric (PLCD-R) (Table 2) created by Hipp and Huffman (2003) supported the selection of River Run Elementary as an appropriate site for the study. The PLCD-R described behaviors of change-ready schools considered open to collaboration. Hord described change-ready schools as “those that value change and seek changes that will improve their schools” (Hord, 1997, p.7). Hall and Hord (2006) and Hipp and Huffman (2003; 2010) incorporated the identified behaviors into the six dimensions of a PLC.

The documents and data of River Run Elementary available on the school website and in school data documents at the school depicted behaviors of a school open to collaboration. The school focused on continuously improving student learning through quality teaching. The professional staff utilized a data collection and review system at the individual and whole-school team level to make data-based decisions regarding learning and teaching. The staff had dedicated a full year to developing a shared school vision to guide school decisions.

Educators used reflective dialogue to direct improvement in instruction and assessment practices and build teacher capacity while student testing data revealed that student learning improved even as accountability requirements increased. The school profile data documented the stability and homogeneity of the staff and student populations. School programs reflected the inclusion of community stakeholders in efforts to support, continue, and extend learning opportunities, and the school records documented feedback from stakeholders used to monitor and adjust the systems in place for communication with all members of the school community. The school traditions also included celebrations reflective of the value the school placed on learning achievement and continuing efforts to address student learning.

Conducting the Study.

The researcher gained insights about River Run Elementary PLC development from conversations with the administrators, Mrs. Holiday and Mrs. Leonard. The researcher met with both administrators separately and gained the perspective of both regarding the development of the PLC. The PLC development commenced in the 2006-07 school year. A slight decline in summative test data for the 2005-2006 school year provided the catalyst. Evelyn Holiday, the principal, and Mrs. Leonard, the assistant principal, presented the PLC concept to the staff and provided materials, guidance, and learning support for the planned implementation. The staff welcomed the opportunity. During the first year, the staff developed a vision and mission statement and systematically reviewed PLC development literature. Grade-level and all-school teams met regularly to assess the current reality, determine learning goals, and monitor and adjust instruction based on learning data. The staff continued to identify, implement, monitor and adjust their PLC processes based on their experiences and student learning data during the 2008-2011 school years. A change in the leadership team occurred during the 2010-2011 school year. The School Division selected Mrs. Holiday, who had served as River Run's principal since 2000,

Table 2 Professional Learning Community

Rubric				
Dimensions	Not Initiated	Initiation (starting)	Implementation (doing)	Institutionalization (embedding)
<p>SHARED AND SUPPORTIVE LEADERSHIP Administrators share power, authority, and decision making, while promoting and nurturing leadership.</p>	<p>Leadership is held by school administrators; staff are not empowered around issues of teaching and learning.</p>	<p>Pockets of leadership exist beyond school administrators; staff are nurtured and encouraged to take leadership roles.</p>	<p>Leadership is prevalent across the school; staff share power, authority, and responsibility around issues of teaching and learning.</p>	<p>Leadership and decision making are broad-based; empowerment exists around issues of teaching and learning; staff are committed and accountability.</p>
<p>SHARED VALUES AND VISION The staff share visions that have an undeviating focus on student learning and support norms of behavior that guide decisions about teaching and learning.</p>	<p>A school vision, values, and plan do not exist, or do not involve stakeholders; there is a lack of focus on student learning.</p>	<p>Values and norms are espoused; a collaborative process exists for developing shared values and vision; some focus exists on student learning, but efforts are not aligned.</p>	<p>Shared vision and a set of values exist that reflect high expectations for student learning; efforts are aligned.</p>	<p>A shared vision and set of values is “lived” across the entire school community, and guide decisions, policies, and programs related to teaching and learning.</p>
<p>COLLECTIVE LEARNING AND APPLICATION The staff share information and work collaboratively to plan, solve problems, and improve learning conditions.</p>	<p>Collective learning does not exist; staff does not show evidence of learning from one another to meet diverse student needs.</p>	<p>Staff meet to share information and discuss issues of teaching and learning; staff begin to dialogue and act on their learning to meet diverse student needs.</p>	<p>Staff meet regularly to collaborate and problem solve around teaching and learning; staff show evidence of learning from one another to meet diverse student needs.</p>	<p>Staff share information and work together to seek new knowledge, skills, and strategies; staff apply new learning to their work and search for solutions to address student needs.</p>
<p>SHARED PERSONAL PRACTICE Peers meet and observe one another to provide feedback on instructional practices, to assist in student learning, and to increase human capacity.</p>	<p>Staff work in isolation, do not observe one another, offer feedback, or share practices with one another.</p>	<p>Some staff work collaboratively to observe and encourage one another, offer feedback, or share practices with one another.</p>	<p>Staff work collaboratively, observe one another offer feedback, and formally and informally share outcomes of new practices to improve student learning.</p>	<p>Formal and informal mentoring and coaching programs exist; staff observe one another and provide feedback; staff regularly review student work together and share instructional practices.</p>
<p>SUPPORTIVE CONDITIONS (STRUCTURES & RELATIONSHIPS) Include systems & resources to enable staff to meet and examine practices and student outcomes. Include respect, trust, norms of critical inquiry and improvement, and positive, caring relationships</p>	<p>Systems and resources are not sufficient to promote staff and student learning. Efforts do not exist that promote change in the culture of the school, such as caring, trust, respect, a sense of safety, and recognition and celebration of efforts and achievement.</p>	<p>The need for adequate systems and resources is considered to address staff and student learning. Some efforts exist that promote change in the culture of the school, such as caring, trust, respect, a sense of safety, and recognition and celebration of efforts and achievement</p>	<p>Systems and resources are appropriate, in most cases, to increase staff and student learning. Staff and students are committed to promote change in the culture of the school, such as caring, trust, respect, a sense of safety, and recognition and celebration .</p>	<p>Innovative efforts result in systems and resources that impact continual staff and student learning. The school community promotes sustained and unified efforts to take risks to embed change in the culture of the school, such as caring, trust, respect, a sense of safety, and recognition and celebration.</p>

to be the principal of a new school in the Division. The School Division selected Mrs. Leonard, who was the assistant principal of River Run since 2004, to be principal of River Run Elementary. The selections occurred in December of 2010. This case study described their PLC in the fifth year of its development and included both administrators in the data collection.

Initial Processes

Introduction of the study. River Run Elementary faces the mountains, providing a view that inspires thinking. The placement of the school also requires visitors to walk a distance to the front door. As the researcher walked the distance from the parking lot to the front door, she reflected on the inspiration and the required effort provided by the very setting of the school, thus connecting both thinking and effort with River Run Elementary before ever entering the building.

The researcher began the collection of data during a scheduled staff meeting. The invitation to participate in the meeting provided the opportunity to explain and discuss the study with the staff. The researcher accepted the challenge to engage these professional educators in the research project and secure their participation during the highly stressful time before end-of-year assessments.

The tone of the initial meeting relayed a sense of purpose and professionalism regarding improved student learning from those in attendance. The meeting's agenda reflected the staff's systematic approach to teaching and learning necessary for continuous improvement. Everyone present focused on the presentation, listening intently to shared PLC research and the specific reasons for the selection of their PLC for the study. Three teachers demonstrated possible eagerness to participate through facial expressions and body language, but the majority of the

teachers provided no verbal or non-verbal indications of their intentions to participate. The researcher reviewed the informed consent document verbally and visually, provided copies for those in attendance, and scheduled a date for collecting them. The staff applauded at the conclusion of the summary of the presentation, a response that encouraged and relieved the researcher.

Informed consent collection. Twenty of the thirty-five staff members indicated their interest in the interview, focus group, and team observation opportunities by completing and returning the informed consent forms. This occurred after the principal, Mrs. Leonard, reiterated assurances of anonymity at a staff meeting and through email for all who agreed to participate. The researcher extended the original deadline for the submission of the forms to make sure all interested teachers had an opportunity to participate.

The researcher provided all staff members with a link to the online survey. To reaffirm the assurance of anonymity for those preferring a hard copy of the survey, the researcher attached a blanket direction stating that the completion and return of the survey indicated informed consent to participate. Seventeen of the 35 River Run teachers chose to complete the survey. Both administrators readily agreed to participate in the study and provided the signed informed consent forms without additional prompting.

The Interviews

Teacher interviews. The researcher scheduled individual meetings held in different venues with the three interview participants. The researcher conducted one interview in a classroom, one in a conference room, and one in an office. Each participant selected the location of her interview. The three teachers participating in the interviews displayed an eagerness to

share their school pride and their insights with the researcher. Their answers reflected the school's emphasis on collaboration for student learning.

The researcher omitted certain characteristics in the descriptions that could identify the teachers participating in the interviews to safeguard the anonymity of the participants further, and the teacher names are fictitious. Rather the descriptions of the teacher participants included in this study focus on the individual accounts of collaborative experiences shared with the researcher.

The researcher interviewed Sarah Brown, an early childhood teacher, Delia Rutherford, a resource teacher working with students in grades kindergarten through five, and Paula Fowler, an upper elementary teacher. Sarah, Delia, and Paula provided the informed consent paperwork, and together they represented a cross section of the instructional positions of the school.

Sarah Brown, a third year teacher, joined the River Run Elementary team two years ago. Her answers and her tailored appearance reflected her attention to detail and her pride in being a River Run teacher. She stated, "I could say that un-categorically this school hits it out of the park in terms of working together."

It became apparent very quickly that Sarah had high expectations for both herself and others and that she felt confident about meeting the expectations of the shared vision as a team. Sarah saw lack of reflection as an obstacle to change and further described that as "not looking at self, and seeing how you can be part of a greater good. It is not about you. What we're here for is for students." This belief, coupled with her description of herself as one who learned from others and contributed to the growth of others, reflected her perception of the collaborative culture of River Run Elementary. Sarah described the bottom line as "We're workers. We are people that are working together. We embrace sharing."

Paula Fowler, a veteran teacher, joined the River Run Elementary team prior to 2005. Her relaxed demeanor and reflective answers to questions conveyed an intrinsic confidence and a calm ownership of the focus that contributed to River Run's academic success. She stated, “We have an expectation that every child in this building [is] our child....We all take ownership of every child.”

Paula’s smile, the texture of her casual skirt and sweater, and the unobtrusive sound of her shoes as she entered the room relaxed the atmosphere and encouraged immediate engagement. Paula’s membership in River Run's PLC from the beginning contributed to the depth of her answers and her level of efficacy. In describing the information used when the team focused on specific questions or concerns raised by team members, Paula stated, “We make sure ...we have something to go on, like observations as well as all the data we’ve collected.” The collaboration in Paula’s team focused on the real problem, asking if the students “had a bad day and the computer wasn’t working for them or is it really some sort of deficiency?”

Paula valued collaboration because she experienced the positive impact of teacher collaboration on student learning. Her reflections provided the researcher with additional evidence of River Run's collaborative culture. Paula described that even though everyone on her team-taught a different subject to all the students on that grade level, “You have to really be able to say, well, for the better of the group, what's best for students? We will plan our core extension times, or the way we switch, and we focus on one subject.”

Delia Rutherford, a four-year veteran of River Run Elementary, earned her master's degree and secured her certification as a specialist in a specific instructional area. Delia’s initial experience at River Run concentrated on students in the primary level, but had changed for the current school year. The leadership team selected her to fill an instructional position designed to

support student learning in kindergarten through fifth grade.

Delia's demeanor and appearance depicted a "teacher on a mission" mindset. She responded thoroughly and thoughtfully to the interview questions at a fast, but not hurried, pace. Delia demonstrated pride in being a member of the River Run team and in what she had accomplished. She framed this by sharing that one teacher said, "Wow you do all this? Oh, I'm going to start doing this now." Delia recognized that her credibility with upper grade teachers was something she had to earn. Delia shared that when someone asks her for something, "I try to get it to them, to try to develop that level of trust, so they know that I'm responsible, and that I take my job seriously, and that I'm doing what's best for the students."

Delia understood that her ability to influence student learning through collaboration with the upper grade teachers depended on establishing that credibility. She focused on "engaging the team[s] as much as possible" and doing whatever it took to "gauge the needs of the team and what they want from me." Delia also expressed her belief that impacting student learning through collaborating effectively with one teacher created a way to "get people on board to do more collaborating with me...to spread the good word about what I'm doing."

The Focus Group

Setting and membership. The researcher conducted the focus group session in the school conference room on a teacher workday. The researcher approached the session with some trepidation, as teachers covet workday time and assertively prevent outsider use of it. The researcher, armed with a digital tape recorder and an abundance of miniature candy bars for the participants, announced the beginning of the session and waited for participants to arrive. The focus group participants included teachers from every team: K-1, 2-3, 4-5, special education and specialists. These teachers arrived with energy, positive attitudes, and a willingness to share their

pride and their ownership of student learning success. The participants represented a cross-section of the teaching staff. The researcher used pseudonyms (Susan More, Countess Starks, Holly Cullen, Morgan Edwards, and Krista Daniels) to identify the participants in order to protect their anonymity.

Common understandings. Participant responses indicated their perception of a common understanding of the processes and procedures utilized at the school to improve student learning through shared practice. All expressed agreement with meeting norms. Holly Cullen stated that the norms included having “a goal and an agenda to follow (Speaker 3, p. 1).” Holly added that the process for sharing data across the building included putting all data on “the H-drive so it could be looked at together. Not just each person’s classroom, but the entire grade level or other group levels (Speaker 3, p. 1).”

The focus group identified two types of collaborative meetings: planning and data. Morgan Edwards identified the actions prompted by the meetings as the defining attribute: “At the data meetings, we go over the data specifically and then at the planning meeting we talk about instruction more (Speaker 1, p. 3).” Morgan Edwards added that planning meeting collaboration included “talking about data at the same time because if there are students with issues or needs and there’s a certain thing that worked for one teacher, other teachers will use that to help later with the same type of lesson (Speaker 1, p. 3).”

The participants highlighted the importance of using dialogue and debate to share learning strategies for improved teaching and learning with an abundance of references. Countess Starks provided one such reference: “Teams plan their lessons together, and during that planning time they talk about what worked, what didn’t work. That’s another way they share

their strategies (Speaker 4, p. 2).”

The teachers understood the administration’s expectation of professional sharing included individual pursuits of extended learning. Krista Daniels described this expectation as an opportunity, “to share what we’ve learned ...if we do something individually, we then share that information globally (Speaker 2, p. 3).” The members identified graduate classes over a semester or individual professional learning opportunities as appropriate for sharing with each other at River Run Elementary.

Outcomes. The focus group members provided succinct and complete responses. Their level of comfort and trust in answering the research questions and the depth of their answers increased as the meeting progressed in the group setting. As one teacher answered a question, another provided additional information that built on the first response. When asked how teams utilized collaboration to achieve the school’s vision, Susan More reiterated that the school’s vision “gives us all a main focus for all children to succeed as lifelong learners (Speaker 3, p. 3).” Susan added that every child in the school, “no matter if the child is in that person’s class or not” is the responsibility of every teacher, and the only way to achieve that was by, “working as a team to get that child to succeed if there is a problem (Speaker 3, p. 3).” Holly Cullen added information that supported the importance of vision. She stated, “Each class ...develop[s] a vision and mission (Speaker 4, p. 3).”

Teachers participating in the focus group provided additional insights regarding collaboration at River Run Elementary. Their input indicated that they perceived teacher collaboration resulted in improved student learning and led to student empowerment.

Team Meeting

Primary grade team meeting. One team agreed to be observed during a team meeting. The researcher identified the four members of the team with pseudonyms (Stockard Phillips, Linda Coleman, Evelyn Zawadski, and Nadia Allende) to protect the anonymity of the team members. The level of comfort with the observation among the participants varied at the beginning of the session, which took place in a classroom normally utilized for the team's meetings. The members of the team became so engrossed in the meeting as the observation progressed that the researcher seemed to become an invisible part of the environment.

The meeting started out with a deviation from the established procedures, as Stockard Phillips, who was not the team leader, introduced a concern. Her concern centered on the time allocated and scheduled for reading intervention. The reading intervention time coincided with time allocated for speech intervention for students most in need of support in both areas. The concern centered on the results of the inconsistent attendance of the students in the reading intervention sessions, including, "It's like they're lost (Speaker 1 p. 1)." Miss Phillips gave specific reasons for describing it in this way. She said, "It's disruptive in the sense that they're coming into my class too early... or missing one day and not knowing what to do the next day."

The response to the issue indicated that team members were practiced in addressing concerns as a team. Team members offered several scenarios for consideration; all team members participated in the discussion. Linda Coleman suggested, "Should we move our core extension time (Speaker 2, p. 1)?" Core extension time is a 30-minute period in the schedule of every elementary school in the School Division designated for additional instruction in any core area. The primary team at River Run chose to address reading two days a week during this time.

Evelyn Zawadski suggested getting the speech teacher to “either take the kids right before, or right after, or something (Speaker 3, p. 2).” Stockard Phillips, who voiced the concern initially expressed, “They can’t be in-between (Speaker 1 p. 2).” This teacher worked with the students who experienced the greatest challenges learning to read.

The conversation focused on the challenge this teacher faced compared to the other teachers on the team until Nadia Allende reframed it. Nadia asked asked, “Do we know the names of the children who are being pulled out of your room (Speaker 4, p. 3)?” Nadia humanized the problem and related it to the vision by directly connecting it to the students affected. The team identified the children and the speech pullout days. The identification of critical information enabled the team to hear another suggestion from Evelyn Zawadski, “So I’m thinking if she does speech on certain days, maybe we could put core extension on the two days ... she’s not doing speech (Speaker 3, p. 3).” The team then decided to adjust the schedule and provide both reading and speech intervention on days without interference.

The rest of the planning meeting centered on informational items and decisions regarding procedural issues related to student learning. Evelyn Zawadski relayed information gathered at a technology meeting she attended. The technology specialist requested that each teacher complete a survey regarding his/her current school and personal technology resources. Evelyn relayed, “She wanted information from that survey- who has a Mac, who has iPods, iPads ... did you get that email (Speaker 3, p. 5)?” In response, Stockard Phillips questioned the request. She asked, “Are they gauging that because are they trying to order those for us? What’s the reason? I always like knowing why we are doing surveys (Speaker 1, p. 6).” This willingness to question requests indicated to the researcher that the school culture affirmed questioning all-school decisions and requests.

In the midst of discussing data collection regarding technology resources, Evelyn Zawadski, who attended the technology meeting, relayed an instructional strategy given by the technology specialist. The strategy, designed to engage the children in using a digital camera in a meaningful way, provided an opportunity for students to take the individual class pictures. Evelyn explained, “Have your first person stand by the door or whatever and the next kid takes the picture, and then that kid stands by the door and the next kid takes the picture so that you make it around (Speaker 3, p. 9).” The team agreed that it would be an easy way for students to accomplish a technology requirement while engaged in co-constructing their learning environment. This segment of the team meeting provided authentic documentation of how data meetings included elements of planning meetings.

The team then discussed the placement of students in classrooms for the 2011-2012 school year. The discussion provided an example of a topic not immediately related to current instructional planning but definitely related to student learning. Evelyn Zawadski identified the changes made to the process, designed for parent input on student placement. She noted, “They’re not just going to write a letter this year -- they’re going to check what kind of teacher their child would benefit from having – strengths you know (Speaker 3, p. 13).” The principal agreed to attend the team placement meeting. Linda Coleman verbalized the need to review parent input prior to the meeting, to “have that information ahead of time (Speaker 2, p. 14).”

The teachers demonstrated their understanding that placement influenced student learning as well as their ease in asking for what they needed to do this most effectively. The team members shared their beliefs about allowing parent input as a factor in teacher selection. Nadia Allende referred to allowing parent input as possibly opening “Pandora’s box (Speaker 4, p. 16).” Linda Coleman stated, “I don’t think we should do this at all. I mean it’s like when your

son got into middle school, you didn't get to say, 'Oh well, my son fits best with this teacher (Speaker 2, p. 16).'" After much discussion regarding the cons of parent input into student placement, Evelyn Zawadski added, "Nine times out of ten, you're putting a kid in a room and it's aligning pretty much with the parents' thinking(Speaker 3, p. 19)." The teacher humanized the problem, connected it to the vision, and diffused the issue.

Mrs. Leonard, the principal, demonstrated her willingness and ability to listen to the concerns of the staff regarding parent input into teacher selection. Her responses to the "what-if" questions the staff asked and her final statement in the communication to parents reflected this. Evelyn Zawadski said, "She [Mrs. Leonard] wrote at the very end that the administration only has the final say on every student placement (Speaker 3, p. 17)."

Survey Data

Collection instrument. Seventeen members of the professional staff at River Run Elementary participated in a survey. The researcher provided the seventeen members of the professional staff with on-line and paper and pencil copies of the PLCA-R, Professional Learning Community Assessment – Revised (Olivier, 2003; Hipp & Huffman, 2010). The PLCA-R contained a series of questions for each of the dimensions of a PLC. The survey included the PLC dimensions of Shared and Supportive Leadership, Shared Values and Vision, Collective Learning and Application, Shared Personal Practice, Supportive Conditions - Relationships, and Supportive Conditions - Structures. Participants shared their perceptions of the River Run Elementary PLC in the dimensions using the four-point, forced-choice Likert scale survey. Response choices included 1= Strongly Disagree (SD); 2 = Disagree (D); 3 = Agree (A); and 4 = Strongly Agree (SA).

Descriptive statistics. Olivier (2003) calculated scaled scores by averaging items related to each of the PLC dimensions. Olivier calculated the mean scores and standard deviation across the six dimensions of a PLC (Table 1). One participant chose to answer only half the items on the survey. The researcher omitted this participants' data from Table 3 but included this data in Appendix 2. The researcher calculated the response percentages of 4- Strongly Agree (SA); 3- Agree (A); 2- Disagree (D); and 1- Strongly Disagree (SD) for individual items in each dimension. This data is included in Appendix A.

Table 3

Descriptive Statistics for Professional Learning Community Assessment (Revised)

Scale (N=16)	Mean	s.d.
Supportive Conditions Structures	3.34	0.35
Supportive Conditions Relationships	3.53	0.41
Shared Values & Vision	3.46	0.45
Collective Learning and Application	3.42	0.48
Shared Personal Practice	3.27	0.48
Shared & Supportive Leadership	3.42	0.28

The responses provided by the participants indicated their perception of how the dimensions of the PLCA-R (Olivier, 2003; Hipp & Huffman, 2010) aligned with the dimensions of the PLC of River Run Elementary. The participants perceived the dimensions of Supportive Conditions-Relationships and Shared Vision and Values as most aligned and the dimension of

Shared Personal Practice as least aligned.

The participants indicated strong disagreement with only one item in the PLCA-R (Olivier, 2003; Huffman & Hipp, 2010): Staff members have accessibility to key information. The dimension of Shared and Supportive Leadership included this item. The administrator implemented a change in the process used to collect and use parent input in class placement, and that change-generated concern. The data collected indicated that the culture embraced addressing all-school team issues more readily than individual team issues. The teachers participating in the team meeting expressed the need to receive information necessary to make placement decisions prior to meeting with the principal. The other teachers may share this same concern.

Research Questions

Question One: What Types of Collaboration Behaviors Do Teachers and Administrators Exhibit?

Mrs. Holiday and Mrs. Leonard told the researcher through conversations how the carefully planned PLC implementation steps began at River Run. Initially, the administrators provided the materials, guidance, and learning support the staff needed to affirm the PLC opportunity. During the first year, the staff developed a school vision and mission statement and systematically reviewed PLC development literature. The team members developed trust in each other as they utilized these processes and were accountable for their actions. The staff continued to identify, implement, monitor and adjust their PLC processes based on their experiences and student learning data during the 2008-2011 school years.

Structured meetings, both large group and small group, provide the venue for collaborative planning and reflection. The meeting processes are established and implemented,

as referenced by participants throughout the data collection process. The team members employ well-known processes to identify, implement, and monitor procedures, structures, and skills necessary to work together to achieve their school vision. The research participants stressed the importance of establishing clarity regarding procedures and expectations before any collaboration takes place. Delia Rutherford in an interview stated that “at the beginning of the year, everybody sets up their team norms and the expectations (Speaker 1, p. 1).” Krista Edwards, a focus group member, said that there is, “an expectation that you're going to come to a meeting and you're going to have *ideas*. It's expected of you (Speaker 5, p. 6).” Mrs. Holiday, the first administrator, noted that team members are expected to “share team norms... reflect on anything discussed last week... touch base on this week... talk about student achievement, what worked, what didn't (Speaker 1, p.2).” In response to a question regarding a requirement for collaboration, Mrs. Holiday identified the importance of “people coming to the meetings on time [and] prepared (Speaker 1, p.3).”

Agendas identify the purpose of all staff or team meetings in writing. The administration or the team can determine the purpose, and participants know the purpose of the meeting in advance. As Sarah Brown said, “There's no guess work; we know, going into the meeting, that we're looking at X or Y (Speaker 2 p.2).” They understand that preparation is necessary for collaboration at meetings. Sarah added, “Prior planning prevents poor performance. So if we're planning, then we're doing what we need to do ... to be effective (Speaker 2, p.2).”

Teams may include the whole staff or individual grade levels. Delia Rutherford described various levels of team membership: “We meet as a team, grade level teams, and then we meet in our staff meetings,” and described the purpose as “all centered on student learning (speaker 1, p1).” The purpose of a team meeting is sometimes driven by the purpose of a staff meeting, e.g.

a staff meeting may share the parameters for collecting input from all schools requested by the School Division.

Administrators expect teams to provide authentic input based on discussion when responding to such requests. The opportunity and expectation of involvement in the process is evident in the statement provided by Sarah Brown during her interview in regards to a specific example of this:

“And of course there was a grumble in the room and she [Administrator] said, ‘Don't tell me to put it on there. Look as a team. Go back. Look at it.’ At what we're doing, what we're adding and what's appropriate, and what's not (Speaker 2, p. 2).”

Meeting purpose determines whether the collaborative discussions center on data or planning as the teams address student-learning needs. Mrs. Leonard, the second administrator, explained what data are required: “They would bring data from their quick checks or their unit end test,” using the data to “compare it in a nonthreatening way and then talk about the instructional strategies they used (Speaker 2, p. 1).” Holly Cullen, a member of the focus group, articulated the de-privatized practice of sharing data across grade levels. In the statement, “The whole grade level's information would be with each teacher on the H-drive so it could be looked at together (Speaker 3, p. 1),” Holly identified the existence of a specific method for sharing data. The data available was not limited to “just each person's classroom, but the entire grade level or other group levels (Speaker 3, p. 1).”

Student learning needs at the grade level and the readiness of team members to collaborate for continuous improvement determine the level of administrator involvement in

individual team meetings. Less successful teams in sharing strategies that yield high learning results receive more direction from the administration. Mrs. Leonard reflected this in the quotation, “So meetings [with teams experiencing difficulties collaborating] were a little bit more administrator-led because we were really pulling apart the curriculum and honing down to specific objectives (Speaker 2, p. 1).”

The administration or the team determines the focus of the meeting. Data collection depends on the focus of the meeting. Meeting procedures include completing a team sheet, which covers each core curriculum area, to summarize the meeting. The administrators and the meeting participants receive a copy of the summary.

The calendar influences meeting expectations. Mrs. Holliday said, “I determine the expectation...that every child would pass the SOLs or continue to improve their score [but] teachers set goals for the weekly meetings (Speaker 1, p. 2).” Planning with the end in mind for formative and summative assessments requires teams to develop and follow pacing guides and consistently assess areas of team and student needs and concerns. Mrs. Leonard, the second administrator, verbalized the alignment as, “...they’re all following the same pacing guides...they’re all giving the same assessments generally in the same time frame and for the most part teaching it... in the same way in the interview (Speaker 2, p. 1).” In addition, this administrator shared the need for clear expectations regarding, “What do we expect of the teachers by the end of the year or the end of a cycle or unit or whatever (Speaker 1, p. 7)?”

Question Two: What Do Teachers and Administrators Perceive as the Goals of Collaboration in a PLC?

Participants consistently identified increased student learning as a focus of their PLC.

When asked how teams utilized collaboration to increase student learning, Susan More, a focus group member, reiterated that the school vision “gives us all a main focus for all children to succeed as lifelong learners (Speaker 1, p.3).”

Team members increased their learning and leading capacity through understanding, implementing, monitoring, and adjusting processes critical to collaboration. The team members internalized the processes to participate effectively in meetings, identify group goals, and make group decisions. This provided time and structure necessary to build trust and demonstrate collective accountability for the learning of all students. With administrative support, teachers increased their learning and leading skills.

Administrators and teachers perceived that increased student learning requires increased teacher learning. Teachers identified improved teacher practice as a goal of collaborating in PLCs. An example of one such reference provided by Mrs. Leonard is, “Teams plan their lessons together and during that planning time they talk about what worked, what didn’t work. That’s another way they share their strategies (Speaker 1, p. 2).”

Teachers identified a supportive administrator as critical to successful collaboration. Mrs. Holiday said that she facilitated the development of meeting processes needed to examine data and plan with the end in mind. Mrs. Leonard said, “...trust is not where it needs to be in some teams (Speaker 2, p. 4).” Referencing one particular example, she noted, “It took a lot of work...a lot of honest discussions....[and that is] why we’re not where we need to be (Speaker 2, p.5).”

Countess Starks, a focus group member, reflected that using structured processes required by the administrators led to the development of trust and accountability. In order to work

collaboratively, she explained that everyone has to demonstrate an “ability and a willingness to change, reframe your thinking, cease doing something that is not working and do something different ...to be open to new ideas...to be flexible (Speaker 2, p.7).”

Paula Fowler, an interview participant, expressed appreciation for administrator involvement in meetings. She said that the administrator “puts it into perspective. Like, ‘Yes, that can work. No, that can't work. Maybe these people can work. No, they have too many other things they need to do (Speaker 1, p. 3).’”

The team members readily stated the collective vision in terms of expectations. A teacher synthesized the collective responsibility for the vision and standards: “You’re not only accountable because of the standards of learning...but because it’s everyone’s student.” Paula Fowler explained that the mantra of deciding to do something, “for the better of the group,” is based on “what’s best for students? It is not necessarily what’s best for what we think or what’s best for me (Speaker 3, p. 4).”

Successful collaboration at River Run requires that everyone knows the current reality and knows what it should look like in the end. Delia Rutherford identified trend data as important and stressed that everyone has to know “what happened last year, what’s going on in the future (Speaker 1, p. 5)?” in order to effectively plan. The established team norm for recording meeting discussions adds to the readily available baseline information. Holly Cullen stated that keeping a record of what was discussed allowed the team members to “speak intelligently as to what works and what doesn’t work (Speaker 3, p.7).”

Question Three: What Factors Inhibit or Promote Collaboration in a PLC?

The researcher observed that participants established trust through the use of processes

for collaboration. The participants developed a personal understanding of collaboration that empowered them to learn and lead more effectively. Teachers stated their understanding of collaboration in their responses to the interview questions. Sarah Brown identified the “ability to share what you are doing well and learn from others, too (Speaker 2, p.5)” as a requirement of collaboration. Delia Rutherford relayed an example of process: “Collaboration can be with one person or with the whole team (Speaker 1, p. 3).” Paula Fowler presented an example of trust and accountability with the statement, “Sometimes it’s even as simple as an idea....I’d really like to try this...and we try it...and we’ll come back later and discuss it (Speaker 3, p. 6).” Empowerment develops over time. Paula added, “It’s not just our grade levelWe really try and branch out to other people in the building helping us figure out the best way (Speaker 3, p. 6).”

The participants’ understanding of collaboration also led to the identification of factors that inhibit or promote collaboration in a River Run Elementary PLC. The teachers held themselves and each other accountable for student learning.

Sarah Brown expressed this as, “We all take ownership of every child (Speaker 2, p. 4).” The teams utilize processes that structure and support teamwork. Holly Cullen identified “establishing those norms before a group gets working together...so they understand how they are going to behave...and revisit them frequently (Speaker 3, p.7)” as necessary for building and using social skills and processes of teamwork. This reflects the perception of a culture of teamwork in place at River Run Elementary.

Collaboration requires the individual and collective accountability of administrators and teachers to adhere to team norms. Paula Fowler stated, “Everything we do, we record (Speaker 3, p. 9).” The norms provide effective process guides for communication before, during, and after

the meetings. Expected member behaviors include knowing the purpose and content of the meeting, coming prepared to participate, and demonstrating flexibility and openness to new ideas. Mrs. Holiday identified an important PLC process expectation as “people coming to the meetings on time [and coming] prepared” and asserted that being prepared to be a teacher at River Run Elementary includes mastery of “the skills to give instruction (Speaker 1, p. 3).” This relates to accountability and trust, as does the need to be open to new ideas. Sarah Brown expressed this as, “For me, what gets in the way of any change is not being reflective; not looking at self and seeing how you can be part of a greater good (Speaker 2, p.5).”

Teachers at River Run believe that they can influence the learning of all students, and they act on this belief. Paula Fowler stated, “We really try to work together [to provide] what is needed...where that child learns best (Teacher 3, p.2).” Sarah Brown said, “They really passionately feel that all hands on deck make a lighter load (Speaker 2, p. 7).”

Mrs. Leonard addressed the importance of hiring people who share the beliefs of the staff, especially regarding collaborative teamwork and individual and group accountability for adhering to norms and supporting the learning of all students. She stated, “The team has the biggest responsibility in filtering that person into our culture because that’s where again that relationship has to be built (Speaker 2, p. 5).”

Sarah Brown said that collaboration and teamwork were “already in the culture of the school. I watched them in order to learn it.” She said, “I feel loved and appreciated. I think that when you feel loved and appreciated, you'll work harder (Speaker 2, p.7).” Working together requires social processes and skills. Paula Fowler added, “Everyone has to get along...You have to put your differences aside and be able to get along (Speaker 3, p.7).” Delia Rutherford

extended that statement, saying, “You’re not in a classroom now... you’re on a team (Speaker 1, p. 4).”

Question Four: What Strategies Do Administrators and Teachers Use to Overcome Barriers to Collaboration?

Teachers and administrators identified barriers to collaboration through their answers to this question and their collective descriptions of collaboration throughout the data collection process. Participants identified the inability and refusal to follow team processes, to embrace the school vision and beliefs, and to value teamwork as sources of conflict. Additional sources of conflict included the inability or refusal to recognize the importance of relationships, and/or to demonstrate flexibility in thinking and practice.

Mrs. Leonard identified the use of discussion to identify the reality of conflict. She said, “We talk a lot about perception and how perception is reality... and if the perception of the person is making them feel like there is conflict (Speaker 2, p. 5).” Delia Rutherford described the process used to resolve a school conflict regarding student recognition for SOL scores. Teachers had the opportunity to discuss differing perspectives on the issue. The staff recognized the differing perspectives and generated possible solutions that would address all perspectives. Lead teachers led discussions in team meetings and shared ideas generated with the leadership team. The administrator and the lead teachers on the leadership team selected the final solution. The staff resolved the conflict through a process that recognized and reflected the perspectives of all in the selection of a solution.

Mrs. Holiday referred to the use of Baldrige tools: “We do plus deltas and write a phrase about what’s going well and what could be done to improve, [and] we work through root cause

analysis,” when a problem arises. She added that in cases where disagreements occurred, “Sometimes people just if they disagree, they stay quiet.” In cases where participants identify the level of disagreement as a five on a one to five scale, “We talk about it again...and [sometimes] we have had to reconvene (Speaker 1, p. 5).”

Sarah Brown referred to the development and implementation of norms to make sure everyone knows that “this is how the meetings are run; this is how they go.” Sarah relayed how her team solved a problem. She said, “You can either change something, or you can let it fall apart.” She added the importance of addressing an issue together: “What do we have to come to grips with? What are we not doing?” This teacher identified accepting the current reality and identifying needed outcomes as important factors in the conflict resolution. As an example, she referenced a desired outcome “...we weren’t going to have...that’s not going to change, that’s finite, at least right now.” Acceptance generated solutions. She added, “We kind of restructured [our thinking] (Speaker 2, p. 3).”

Susan More stated, “We’re set up like a think tank....we’re saying, ‘Okay, here’s the problem, now let’s come up with some solutions (Speaker 1, p. 3).” Learning and growing include conflict. Morgan Edwards added, “You think everyone’s going to be in a circle singing Kumbaya. It’s not going to work like that...real change comes through adversity (Speaker 4, p.11).”

Mrs. Leonard identified the introduction of a new member to the team as a barrier to collaboration. She stated, “That is probably an area of growth for us, truly (Speaker 2, p. 9).” However, strategies are in place to address induction including those used in selecting new team members and those used in including those selected in the culture of the school. Mrs. Holiday

said, “We have a strong mentoring program... and because our teams meet weekly at least twice, that person is inducted into that group right away. And our mentor really helps that new teacher daily (Speaker 1, p. 4).” Paula Fowler summarized it saying, “We just kind of mold them right in to what we need to do. And if they have questions, I think anybody's open to answering them. We're all in it together (Speaker 3, p.7).”

Summary

The survey data supported the data collected through the interviews, focus group discussion, and team meetings. The researcher presented the data describing collaboration as it occurred in the PLC of River Run Elementary. The professional educators who participated in the case study consistently conveyed their perception that they developed team collaboration through team processes and continuously improved team processes through collaboration.

The administrative team demonstrated leadership required to introduce the concept and provide the necessary structure and training for PLC development. They transitioned appropriately to shared leadership as processes evolved and team members developed and implemented norms and processes necessary to learn and work together purposefully at differentiated rates. The administrators charged the teams with developing a school vision statement and supported them in accomplishing this, and the participants readily shared their awareness of the vision of River Run Elementary and their focused commitment to achieving the vision through teamwork. Team members challenged and questioned administrative decisions directly but constructively. Administrators expected, supported, and facilitated questions, challenges, and shared leadership.

The participants demonstrated their individual commitment to the team purpose of

achieving the school vision by adhering to norms and processes and honing required skills in team meetings. Likewise, the participants shared their perceptions that team members developed individual and collective trust while accountability measures provided clear evidence of individual commitment to team purpose. Team processes used accountability measures to monitor and adjust instruction. In turn, adjustments that resulted in learning gains for team members and students strengthened team trust. Teams demonstrated empowerment when they reached out to other teams both to learn and teach for the purpose of improved student learning through improved teacher learning. Participants described team development as differentiated and changing over time. The researcher described qualitative and quantitative data regarding collaboration in the PLC of River Run Elementary as perceived by the participants of the case study.

CHAPTER FIVE

Data Analysis

Chapter Five of the case study, Professional Learning and Collaboration, provides the analysis of the data collected and used to develop a description of collaboration in the PLC of River Run Elementary School. The researcher used interviews, a focus group, a team meeting, and a survey in this case study to observe collaboration and gather data necessary to describe what collaboration looks like in this existing PLC.

The Professional Learning Community Organizer (PLCO) developed by Hipp and Huffman (2010) identified the administrator and teacher behaviors required for the PLC to progress through the six dimensions of a PLC. The researcher observed, recorded, analyzed, and connected the data collected to the framework of the PLCO (Hipp and Huffman, 2010). The researcher used this framework to describe the PLC and collaboration within the PLC of River Run Elementary, and she provided a summary description of collaboration in the PLC.

Research Questions

What Types of Collaboration Behaviors Do Teachers and Administrators Exhibit?

Administrator Behaviors

The administrators of River Run Elementary believed that continuous teacher learning in a PLC would result in continuous student learning. Their belief aligned with the research supporting the belief that learning together in a PLC provides the environment necessary to impact teacher efficacy, continuous professional learning, and successful program implementation (Darling-Hammond, 1997; Hausman & Goldring, 2001; Hord & Sommers,

2008; Louis, Marks, and Kruse, 1996; Rosenholtz, 1989; 2008Schmoker, 2006).

The administrators developed a sequential plan for PLC development. During the first year, the administrators required the teachers to participate in opportunities to learn and to apply skills necessary for PLC development. The skills included developing a vision and mission statement and committing to achieve them. The skills also included establishing team goals aligned with the vision and establishing and implementing team norms with fidelity. This supports the research of Berman & McLaughlin (1998) who stated that successful school change happened when teachers had clear guidelines of their role, their responsibilities, and the resources available to them in solving classroom problems.

River Run Elementary administrators recognized the skills team members needed for planning instruction, using data to reflect on both team and individual progress toward goals, and monitoring and adjusting instructional practices collaboratively. The administrators systematically provided teachers with the resources and support necessary to learn the skills. The administrators provided clear expectations for behavior and instituted an accountability system to monitor progress regularly. This aligns with the research stating that successful change depends on interactions in the processes, the purpose of the interactions, and the guidelines provided for the facilitation of the interactions (Fullan, 1982, 2010; Hall & Hord, 1987; Hord & Sommers, 2008).

Administrators demonstrated a willingness to listen to teachers as the PLCs developed and differentiated the support provided to teams based on the level of team readiness. Because in a PLC administrators must be willing to facilitate and build the capacity of all to lead and learn, their actions aligned with research indicating that a shift necessary to make supportive and

shared leadership possible includes changing the reality of leadership in a school. The concept of leadership requires such specific individual behaviors to achieve a shared vision (Rainey, 1997; Klein-Kraft, 1993. Louis & Kruse, 1995; Sergiovanni, 1994).

The administrators demonstrated their willingness and ability to change as they supported the teachers through the change process. Mrs. Holiday stated, “I’ve been become much more collaborative instead of talk-down management (Speaker 1, p. 3).” The realization that everyone changes aligns with the belief that continuous change requires the willingness and ability of the individuals and system to change constantly (Louis & Miles, 1990; Hord, 1997).

Teacher Behaviors

The teachers affirmed the vision of learning success for all students. They believed that continuous teacher learning in a PLC would result in improved student learning. They had high expectations of themselves, and they valued teamwork and reflective practice. Sarah Brown identified the lack of reflection as an obstacle to change and described the lack of reflection as “not looking at self and seeing how you can be part of a greater good (Speaker 2, p. 5).”

The teachers developed, implemented, and followed meeting norms and processes as they worked together to achieve the vision. As teacher knowledge regarding team processes developed, so did teacher expectation for administrator accountability. The teachers expected and required the administrators to be accountable for identifying the purpose of staff or team meetings in advance and in writing. The administrators and other team members held each other accountable for coming to meetings prepared and on time.

The behaviors of the teachers reflected the research (Fullan, 1982; Hall & Hord, 1987; Hord & Sommers, 2008) regarding the requirements for successful change. The teachers

interacted within the structure of processes that had specific purposes, and they required themselves, each other, and the administrators to adhere to the guidelines facilitating their interactions.

As a result, the teachers developed trust as they demonstrated their commitment to student learning and to each other by being accountable for their actions. As Paula Fowler said, “We have an expectation that every child in this building [is] our child...We all take ownership of every child (Speaker 3, p.1).” The teachers collaborated more effectively as they monitored and adjusted processes, consistently demonstrated reliability, and improved their individual effectiveness as members of a team. This supported the research regarding impact of the school environment, teachers’ perception of the school environment, and the social interactions within that environment on the development of meaning (Sawyer & Rimm-Kaufman, 2007).

What Do Teachers and Administrators Perceive as the Goal(s) of Collaboration in a PLC?

The River Run Elementary data supported the researcher’s identification of three goals of collaboration. The participants identified increased student learning and improved teacher practice and leadership development as the goals of collaboration. Their responses indicated a collective focus on increased student learning. The developing, implementing, monitoring, and adjusting of the team processes by team members provided learning and leading capacity-building opportunities.

Participants also provided insights into collaboration and expectations. The teachers understood the administration’s expectation of professional sharing to include individual pursuits of extended learning. Krista Daniels described this expectation as an opportunity “to share what we’ve learned...If we do something individually, we then share that information globally

Speaker 5, p. 3).” Krista added that there is “an expectation that you're going to come to a meeting and you're going to have ideas. It's expected of you (Speaker 5, p. 6).” Sarah Brown put it this way: “Prior planning prevents poor performance. So if we're planning, then we're doing what we need to do ... to be effective (Speaker 2 p. 2).”

Mrs. Leonard described the progression of shared leadership. She said, “And quite frankly there are times when I don’t feel like I even need to be in the room because they are...working so integrally with each other and having their discussions and I'm just a bystander, which is... great. That’s where we want it to go. But you have... to be able to step back...and let them take the helm (Speaker 2, p. 6).”

The importance and relevance of these goals supports the research discussed in Chapter 2. Goddard, Goddard, & Tschannen-Moran (2007) identified improved instructional practices as possibly the most important outcome of teacher collaboration. Hipp, Huffman, Pankake, and Olivier (2008) identified addressing and assuring student learning and purposefully broadening the leadership base as critically important outcomes. Fullan (2002) stated that building leadership capacity exerted a critical influence on community improvement, teacher learning, and improved student learning.

What Factors Inhibit or Promote Collaboration in a PLC?

The researcher described the culture of River Run Elementary as collaborative based on participant responses and researcher observations. Because the staff valued teamwork and the administration embedded time and support for collaboration into the daily schedule collaboration was promoted. Sarah Brown synthesized the collective responsibility for the vision and standards: “You’re not only accountable because of the standards of learning...but because [the child is] everyone’s student (Speaker 2, p.3).” Paula Fowler explained that the decision to do

something “for the better of the group,” is based on “what’s best for students...It’s not necessarily what’s best for what we think or what’s best for me (Speaker 3, p.3).” This supported the research of Sawyer & Rimm-Kaufman (2007) who found that shared goals and values influenced the frequency of collaboration and fostered the perception of fewer barriers.

The River Run Elementary team clearly shared the collective vision in terms of expectations. This supported the research of Hord (1997) and Hipp & Huffman (2010) reflecting the influence of attitude and skill level on productive collaboration. In order to work collaboratively, Countess Starks noted that teachers have to demonstrate an “ability and a willingness to change, reframe your thinking, cease doing something that is not working and do something different; ...to be open to new ideas...to be flexible (Speaker 2, p. 7).” Sarah Brown identified the “ability to share what you are doing well and learn from others, too (Speaker 2, p. 5)” as a requirement of collaboration. Delia Rutherford said, “When someone comes to me and asks me for something, I try to get it to them, to try to develop that level of trust so that they know that I'm responsible and that I take my job seriously and that I'm doing what's best for their students (Speaker 1, p.4).”

Levine and Marcus (2010) identified structure, focus, i.e., measureable outcomes and structured plans, and time as factors that influenced collaboration. Specificity and content of talk about practice, what teachers choose to share (Little, 2003; Grossman and Richert, 1988) and the clarity and concrete detail of what they share (Little, 2003) also impact collaboration. Support for this research included what Paula Fowler observed: “Well, we make sure that we come in with what we're going to talk about ahead of time....We know whenever we're coming to the meeting that we're not going to be all over the place (Speaker 3, p.5).”

The participants described differentiated levels of team development. The teams with the most longevity have developed the relationships necessary to collaborate. One administrator related, “I think it [collaboration] looks very different depending on the stage in which each team is in.” When asked if collaboration has resulted in changed professional practice, Mrs. Leonard said, “That’s still a growing piece, and I think that’s probably one of the last things to come. You know there’s the trusting piece, the discussion piece, the change in your own classroom and then the change among the team (Speaker 2, p. 6).” Paula Fowler from a grade level experiencing very little personnel change noted, “And so, it's not just our grade-level and everything stays in our grade-level. We really try and branch out to other people in the building helping us and figuring out the best way (Speaker 3, p. 6).” This supports the research of Sawyer & Rimm-Kaufman (2007) identifying collaboration as a social process underlying the development of a learning community.

That segues into the impact of conflict on learning and continuous improvement. Sarah Brown said, “I think that the real change comes through adversity...when you're in a crisis mode [with] people, you really get to see what they're really made of (Speaker 2, p. 3).” Sarah reported “not being afraid to address practices that aren’t working (Speaker 2, p.3),” as a factor that contributed to the effectiveness of the team PLC. This supports the research of Achinstein (2002), who identified the positive impact of conflict on continuous growth in a PLC and identified embracing conflict while maintaining the caring, stable environment of a constructive PLC as essential to successful collaboration.

The River Run participants identified the inability or refusal of members to follow team processes, embrace the school vision and beliefs, or value teamwork as sources of conflict that impeded collaboration. Sawyer & Rimm-Kaufman (2007) identified the first steps in developing

a learning community as understanding and addressing collaboration as a social process (Sawyer & Rimm-Kaufman, 2007).

Collaboration develops empowerment needed for PLC sustainability. Moving more people to empowerment, and presenting challenges beyond the team and school level are the opportunities for growth available to the members of the River Run Elementary PLC.

What Strategies Do Administrators and Teachers Use to Overcome Barriers to Collaboration?

Mrs. Leonard identified use of discussion as a strategy to eliminate barriers. Members of the focus group shared an example of how the River Run Elementary PLC used discussion to address a conflict that impeded collaboration. Teachers discussed and acknowledged different perspectives on a particular issue and generated possible solutions together. The leadership team considered all solutions provided and selected the final solution. The process used discussion (interactions) to understand perspectives and generate solutions (purpose of interactions) in a focused and structured manner (guidelines for facilitating interactions). This supported research that identified collaboration as the process, not the goal of a PLC. Rather, the goal is enhanced student achievement (Gusky & Huberman, 1995; Little, 2003). Collaboration and PLCs share a symbiotic relationship, and their function defines them. Collaboration provides process while the PLC provides structure (DuFour, DuFour, Eaker & Many, 2006; Sawyer & Rimm-Kaufman, 2007). Additionally, the interactions, purpose of the interactions, and guidelines for facilitating the interactions determine the outcome of the change (Fullan, 1982, 2010; Hall & Hord, 1987; Hord & Sommers, 2008). The data collected from the River Run Elementary participants supported this research. The research identified the importance of navigating the interactions required to move educators from isolation to collaboration.

Connection to PLCO

Hipp, Huffman, Pankake & Olivier (2003) identified descriptions of collaborative behaviors in every PLCO (Huffman and Hipp, 2010) Dimension. The administrator and teacher behaviors described in the responses to research questions reflect characteristics of all Dimensions of the PLCO (Huffman and Hipp, 2010). The researcher created the description of collaboration in the River Run Elementary PLC from the data. The researcher analyzed the collaborative behaviors provided by the data to the collaborative behaviors identified in the PLCO (Huffman and Hipp, 2010).

Shared and Supportive Leadership

The Dimension of Shared and Supportive Leadership addressed the information about sharing and decision-making, authority and responsibility, and commitment and accountability of a PLC. The River Run Elementary data supports the identified characteristics of this dimension in the PLCO (Huffman and Hipp, 2010) at either implementing or sustaining phases. The teachers and administrators consistently shared their commitment to student learning in all data collected. Participants affirmed that teachers provided input for many school decisions.

Some participants in the survey perceived staff accessibility to key information as problematic. The researcher noted that multiple survey participants indicated strong disagreement with only one statement: Staff members have accessibility to key information (Hipp & Huffman, 2010). The participants in the interviews, focus group, and team meeting provided no data identifying this area as problematic.

Shared Values and Vision

The collected data indicated the presence of a collaboratively developed vision and shared values that support teaching and learning behavior norms. All stakeholders embraced high expectations and used data to align their actions with the vision. While the participant responses to the survey do reflect minimally the perception that pressure to perform on standardized tests negatively influences the focus on student learning, the data collected supports the identified characteristics of this dimension in the PLCO (Huffman and Hipp, 2010) at implementing or sustaining phases.

Collective Learning and Application

The Dimension of Collective Learning and Application addressed collaboration, planning and problem solving as well as knowledge, skills, and strategies. The team meeting as observed, recorded, and analyzed provided an example of how a PLC team used collaboration to solve problems, demonstrating their focus on the vision during this process. The focus group provided an example of how the school PLC collaborated to solve an all-school problem in conjunction with the administrators, who identified knowledge, skills, and attitudes necessary for effective teaching as criteria for hiring new teachers. The collected data supported the identified characteristics of this dimension in the PLCO (Huffman and Hipp, 2010) at implementing or sustaining phases.

Shared Personal Practice

The Dimension of Shared Personal Practice addressed observation, review and feedback, sharing outcomes of practice, and mentoring and coaching. The participants shared data describing a commitment to change and a willingness to share. The culture of the school

demanded reflective practice and focused on team improvement rather than individual blame. Student learning data drove reflective practice, and the administration provided the embedded time and support necessary to make data analysis effective.

Data identified the differentiated developmental level of teams. For example only one team identified sharing strategies with other teams in the building. An administrator noted the key role teams played in bringing new teachers into the culture but identified the enculturation process as problematic. The survey data identified teachers' perceptions of their PLCs to be least aligned with the PLCO in this dimension. The data supports the identified characteristics of this dimension in the PLCO (Huffman and Hipp, 2010) at the implementing stage.

Supportive Conditions – Relationships

The Dimension of Supportive Conditions (Relationships) addressed respect and trust, norms of behavior, and caring school relationships. The data revealed the development of norms focused on the vision and accountability measures to ensure their use. Process implementation provided opportunities for the development of trust and skills, leading to empowerment. The development of collaborative skills depended on team trust. Data strongly demonstrated the commitment to the vision and the belief that the responsibility for the learning success of each student belonged to every teacher. Learning concerns belonged to the teachers, not the students. The data supports the identified characteristics of this dimension in the PLCO (Huffman and Hipp, 2010) at the implementing and sustaining phase.

Supportive Conditions – Resources

The Dimension of Supportive Conditions (Structures) addressed systems and resources in place to monitor and adjust practices for improved student learning. The data revealed a

systematic approach for developing and implementing processes to collaborate for student learning success. The PLC monitored and adjusted the processes as needed based on student learning data. The teams also developed and implemented systems to monitor accountability and feasibility of processes used.

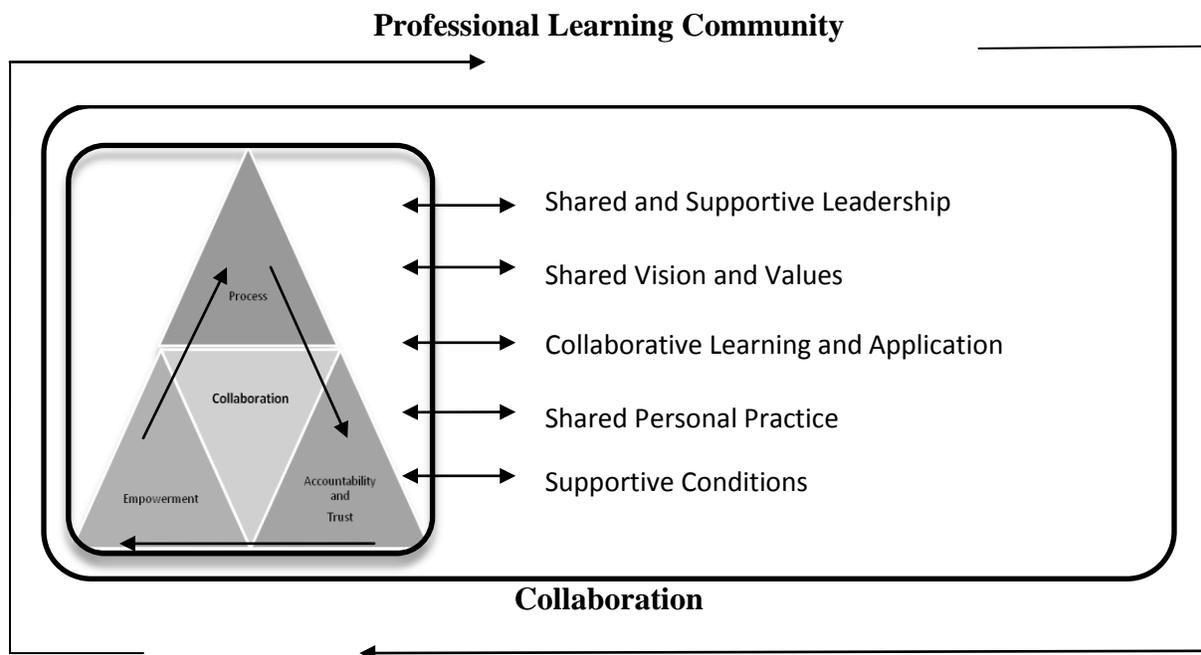
The Conceptual Model

The conceptual model captures the interdependency of processes, accountability and trust, and empowerment as the essential element of collaboration in the data collected. At each dimension of a PLC, processes provided a structure and a requirement for interpersonal interactions. Accountability measures provided evidence that individual team members could depend on each other and help each other. This allowed team members to develop the trust needed to take risks and become empowered to learn, lead, and collaborate effectively. The continuing development of the River Run PLC depends on the continuing development and use of collaboration. The researcher identified the administrators' recognition of the importance of collaboration in PLC development and their foresight to support the tandem development of both.

Collaboration at River Run Elementary

The themes of process, accountability and trust, and empowerment surfaced in the responses to all research questions. They emerged as the woven fabric of River Run's collaboration. The River Run Elementary team viewed continuous student learning improvement and goal achievement as a product of collaboration. Individuals collaborated with each other to make sure all students learn. The professional educators at River Run Elementary clearly identified with the vision, expectations, and success of the school.

Figure 1

Conceptual Model

Collaboration at River Run began with the process of developing the school vision. Teams focus on the vision of learning powered by the PLC. The professional educators at River Run Elementary identified with the vision, expectations, and success of the school. The clear expectations and specific processes developed, implemented, and monitored over time at River Run Elementary provided a structure that supports collaboration. Collaboration facilitated student and teacher learning through processes. The processes provided opportunities to discuss, debate, and share practices. Expectations regarding teacher and administrator behaviors were established through team-developed norms. Teachers developed trust in each other by demonstrating their willingness and ability to follow through on agreements and meet expectations. Processes provided a systematic way for them to demonstrate their accountability.

Team collaboration differed among teams. The relationships among team members influenced the development of team collaboration. Teams that demonstrated trust in the processes and in each other addressed conflicts and solved problems effectively. Their responses indicated their personal sense of empowerment and their belief in the power of the process.

Empowered team members volunteered to participate in the focus group, team meeting, and interviews. Their belief and their confidence resonated in their answers. Non-responses in the survey implied a hesitancy that was not evident in the other data collection processes. Some teachers demonstrated a reluctance to participate in the survey as well.

Findings

PLCs develop over time. River Run Elementary administrators recognized this and focused on building a collective capacity to collaborate through sequential skill-building processes. The researcher observed the interdependency of processes, accountability and trust, and empowerment responsible for the development of collaboration in the River Run Elementary PLC. The teachers utilized processes to develop skills and skills to improve processes as they systematically learned to collaborate effectively for improved student learning. Accountability measures consistently provided data that allowed the team members to develop trust in each other and recognize their collective capacity. The administrators monitored and then adjusted the amount of support and structure they provided as teams became empowered.

The team PLCs developed at differentiated rates, and the administrator referred to the development of trust as a requirement for development. Required processes provided opportunities for teacher leadership development, and all teams developed and implemented norms for meetings. Teams utilizing processes for conflict resolution effectively demonstrated

empowerment and willingness to adjust practices as needed. The data revealed the need for teachers to have key information to make decisions and prepare for possible conflicts. The collected data indicated that the culture embraced addressing all-school team issues more readily and constructively than individual team issues.

Reflections for Administrators

Collaborative processes have been developed and implemented with great success at River Run Elementary. The PLC dimensions aligned with those of the PLCO (Huffman and Hipp, 2003; 2010), and the data demonstrated continuous improvement in student learning and teacher efficacy. The researcher learned a great deal about PLC development from this research experience.

The research identified some ideas for future focus. Data revealed a possible reluctance to take risks or to change. The commitment to the vision, the students, and the school was powerful; in fact, teachers demonstrated some reluctance to share anything that could reflect negatively on the school. Data revealed an expectation of compliance. Collaboration developed the empowerment needed for River Run PLC sustainability. Moving more people to empowerment and presenting challenges beyond the team and school level may be the opportunities for growth available for the members of the River Run Elementary PLC.

The participants identified data sharing through a designated server drive as the way they shared information among teams. A lack of evidence of sharing practices across teams through peer observations or discussion of demonstrations and conversations about best practices at staff meetings indicated this to be a possible area of growth. The participants' responses indicated a high level of confidence in regards to collaboration at the team level. The participants all

belonged to teams that utilized collaborative practices enthusiastically. Information regarding the existence of teams struggling with collaboration indicated the need for further support.

Collaboration in both the strong and struggling teams might be strengthened through focused interactions designed to share practices and encourage reflection and discussion. Data collected provided no reference to collaboration with other schools in the Division. This might be the next challenge to develop and use processes, accountability, and empowerment for continuous improvement of all dimensions of your PLC through collaboration.

Future Research

The role of the administrators in developing, implementing, and sustaining the PLC revealed the influence of different leadership styles as the PLC developed. The PLC needed a structure that was relatively inflexible in the beginning, but as the PLC developed, it needed more autonomy. As teams became more skillful and increased in confidence, they demonstrated their ability to lead themselves. This required administrators to shift from directive to reflective while remaining completely engaged in the process. A question for future research: How do complementary leadership styles affect the sustainability of systemic change?

The administrator talked about the strong mentoring program at River Run Elementary, adding that the PLC teams transition new teachers into the culture. A question for future research: What impact does a collaborative PLC have on teacher induction and retention?

The process of implementing PLCs began with a need to change due to slightly declining student data. Administrators and teachers embraced the challenge, focused on their vision, and utilized processes to collaborate. Administrators and teachers have demonstrated empowerment and growth through this process. As teams continue to develop trust and empowerment, more

challenges are needed to avoid complacency. A question for future research: How do goals requiring teachers to collaborate beyond their teams and school affect PLC sustainability and student learning?

Reflections of the Researcher

This dissertation documents my learning journey. I began the qualitative research process eagerly, thinking I would create the research, and fully expecting to finish it quickly. I end the process wondering where the years went, knowing the research changed me, and fully respecting the research process. I experienced multiple confidence crises, railed against the system, and finally accepted the challenge, which led to new learning – the real purpose of this exercise. I learned a great deal about collaboration and PLCs, but I learned more about myself, and I feel empowered as a result.

I initially framed dissertation writing as an individual endeavor, not a collaborative experience requiring input from many people. I quickly learned that the process of constructing new learning required connecting with many people through writing, dialogue, and debate. My committee chair introduced this concept to me early in the process through reflective and probing questions. He established immediately that I was the one responsible for the learning. In turn, my reflective and probing questions provided opportunities for problem solving, decision making, and connecting. Writing forced me to focus and process the information to make it meaningful.

Learning developed slowly and deliberately. My skepticism clouded my perceptions regarding what was important. The need to follow specific protocols in writing, researching, and analyzing appeared tedious at first. Utilizing them over time, however, provided systemized processes that resulted in focused efforts. The focus influenced the social interactions, and in

time, I valued the norms, processes, and resulting foci that guided decisions about learning.

The realization that collaboration required the ability and willingness to change constantly created some initial angst; the acceptance of that reality provided freedom to let go and learn. I allowed the interactions, the dialogue, and the data to drive the learning. The weekly meetings with the committee chair, conversations with other committee members, and interactions with colleagues, family members, and participants provided specific feedback, relevant resources, friendship, and support. The diversity of the relationships added flavor to the finished product.

Reading other dissertations, talking with people who were going through the process, and celebrating with people who had finished provided the networking necessary for success. The expectations remained high and attaining them remained possible. The experience supported my belief that learning really does occur in relationships.

My understanding of qualitative research experienced a paradigm shift during the process of writing this dissertation. The actual writing began as a vehicle to capture the thinking of others, but it became the vehicle for processing my own thinking. While tedious and exhilarating, I developed great respect for the research and the process from this hands-on experience. Writing this dissertation created a learning experience unparalleled in my career as a professional educator.

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Appendix A *Professional Learning Communities Assessment - Revised*

Shared and Supportive Leadership		Strongly Disagree		Disagree		Agree		Strongly Agree		Total N
		N	%	N	%	N	%	N	%	
1.	Staff members are consistently involved in discussing and making decisions about most school issues.	0	0	0	0	10	59	7	41	17
2.	The principal incorporates advice from staff members to make decisions.	0	0	0	0	7	41	10	59	17
3.	Staff members have accessibility to key information.	6	35	1	6	10	59	0	0	17
4.	The principal is proactive and addresses areas where support is needed.	0	0	0	0	4	24	13	76	17
5.	Opportunities are provided for staff members to initiate change.	0	0	0	0	10	59	7	41	17
6.	The principal shares responsibility and rewards for innovative actions.	0	0	0	0	7	44	9	56	16
.	The principal participates democratically with staff sharing power and authority.	0	0	0	0	7	41	10	59	17
8.	Leadership is promoted and nurtured among staff members.	0	0	0	0	9	53	8	47	17
9.	Decision-making takes place through committees and communication across grade and subject areas.	0	0	0	0	7	47	8	53	15
10.	Stakeholders assume shared responsibility and accountability for student learning without evidence of imposed power and authority.	0	0	0	0	10	59	7	41	17
11.	Staff members use multiple sources of data to make decisions about teaching and learning.	0	0	0	0	9	53	8	47	17

Appendix A *Professional Learning Communities Assessment - Revised*

Shared Values and Vision		Strongly Disagree		Disagree		Agree		Strongly Agree		Total N
		N	%	N	%	N	%	N	%	
12.	A collaborative process exists for developing a shared sense of values among staff.	0	0	0	0	9	53	8	47	17
13.	Shared values support norms of behavior that guide decisions about teaching and learning.	0	0	0	0	11	65	6	35	17
14.	Staff members share visions for school improvement that have an undeviating focus on student learning.	0	0	1	6	10	59	6	35	17
15.	Decisions are made in alignment with the school's values and vision.	0	0	0	0	8	47	9	53	17
16.	A collaborative process exists for developing a shared vision among staff.	0	0	0	0	7	41	10	59	17
17.	School goals focus on student learning beyond test scores and grades.	0	0	3	18	7	41	7	41	17
18.	Policies and programs are aligned to the school's vision.	0	0	0	0	8	50	8	50	16
19.	Stakeholders are actively involved in creating high expectations that serve to increase student achievement.	0	0	0	0	8	47	9	53	17
20.	Data are used to prioritize actions to reach a shared vision.	0	0	0	0	10	59	7	41	17

Appendix A *Professional Learning Communities Assessment - Revised*

Collective Learning and Application		Strongly Disagree		Disagree		Agree		Strongly Agree		Total N
		N	%	N	%	N	%	N	%	
21.	Staff members work together to seek knowledge, skills and strategies and apply this new learning to their work.	0	0	0	0	8	50	8	50	16
22.	Collegial relationships exist among staff members that reflect commitment to school improvement efforts.	0	0	0	0	10	59	7	41	17
23.	Staff members plan and work together to search for solutions to address diverse student needs.	0	0	1	6	9	53	7	41	17
24.	A variety of opportunities and structures exist for collective learning through open dialogue.	0	0	1	6	10	59	6	35	17
25.	Staff members engage in dialogue that reflects a respect for diverse ideas that lead to continued inquiry.	0	0	1	6	7	41	9	53	17
26.	Professional development focuses on teaching and learning.	0	0	0	0	6	35	11	65	17
27.	School staff members and stakeholders learn together and apply new knowledge to solve problems.	0	0	2	12	8	47	7	41	17
28.	School staff members are committed to programs that enhance learning.	0	0	1	6	8	47	8	47	17
29.	Staff members collaboratively analyze multiple sources of data to assess the effectiveness of instructional practices.	0	0	2	12	11	65	5	29	17
30.	Staff members collaboratively analyze student work to improve teaching and learning.	0	0	2	12	8	47	7	41	17

Appendix A *Professional Learning Communities Assessment - Revised*

	Shared Personal Practice	Strongly Disagree		Disagree		Agree		Strongly Agree		Total N
		N	%	N	%	N	%	N	%	
31.	Opportunities exist for staff members to observe peers and offer encouragement.	0	0	2	13	11	69	3	18	16
32.	Staff members provide feedback to peers related to instructional practices.	0	0	4	25	9	56	3	19	16
33.	Staff members informally share ideas and suggestions for improving student learning.	0	0	0	0	7	44	9	56	16
34.	Staff members collaboratively review student work to share and improve instructional practices.	0	0	3	19	8	50	5	31	16
35.	Opportunities exist for coaching and mentoring.	0	0	0	0	12	75	4	25	16
36.	Individuals and teams have the opportunity to apply learning and share the results of their practices.	0	0	0	0	7	47	8	53	15
37.	Staff members regularly share student work to guide overall school improvement.	0	0	3	19	8	50	5	31	16

Appendix A *Professional Learning Communities Assessment - Revised*

	Supportive Conditions - Relationships	Strongly Disagree		<i>Disagree</i>		Agree		Strongly Agree		Total N
		N	%	N	%	N	%	N	%	
38.	Caring relationships exist among staff and students that are built on trust and respect.	0	0	2	13	11	69	3	18	16
39.	A culture of trust and respect exists for taking risks.	0	0	4	25	9	56	3	19	16
40.	Outstanding achievement is recognized and celebrated regularly in our school.	0	0	0	0	7	44	9	56	16
41.	School staff and stakeholders exhibit a sustained and unified effort to embed change into the culture of the school.	0	0	3	19	8	50	5	31	16
42.	Relationships among staff members support honest and respectful examination of data to enhance teaching and learning.	0	0	0	0	12	75	4	25	16

Appendix A *Professional Learning Communities Assessment - Revised*

	Supportive Conditions - Structures	Strongly Disagree		Disagree		Agree		Strongly Agree		Total N
		N	%	N	%	N	%	N	%	
43.	Time is provided to facilitate collaborative work.	0	0			4		12		16
44.	The school schedule promotes collective learning and shared practice.	0	0			5		11		16
45.	Fiscal resources are available for professional development.			2		4		11		16
46.	Appropriate technology and instructional materials are available to staff.	0	0	1		7		8		16
47.	Resource people provide expertise and support for continuous learning.	0	0	1		5		10		16
48.	The school facility is clean, attractive and inviting.	0	0	1		9		5		15
49.	The proximity of grade level and department personnel allows for ease in collaborating with colleagues.	0	0	1		10		4		15
50.	Communication systems promote a flow of information among staff members.	0	0	1		10		4		15
51.	Communication systems promote a flow of information across the entire school community including: central office personnel, parents, and community members.	0	0							16
52.	Data are organized and made available to provide easy access to staff members.	0	0					6		16

Appendix B *Permission: Professional Learning Community Organizer*

Re: Professional Learning Community Organizer

From: Huffman, Jane <Jane.Huffman@unt.edu>

To: greers5 <greers5@aol.com>

Cc: dolivier <dolivier@louisiana.edu>; kahipp <kahipp@stritch.edu>; huffman <huffman@unt.edu>

Date: Thu, Aug 5, 2010 7:46 am

Janet,

We are pleased you are using our research and tools in your study. You may use the PLCO. Generally I use it to introduce and then summarize the PLC information I am sharing with the school group. Begin on the left with the professional staff, point out the 5 Dimensions and attributes, the 3 phases of change, the external support systems that surround the school, and the goal of student achievement.

This gives a clear and succinct visual of the components of the PLC process.

Good luck.

Janie Huffman

On Aug 3, 2010, at 10:05 PM, "greers5@aol.com" <greers5@aol.com> wrote:

Dear Dr. Olivier, Dr. Hipp and Dr. Huffman,

I am a Virginia Tech graduate student currently pursuing a doctoral degree. The topic of my dissertation is Professional Learning and Collaboration. I am researching how collaboration manifests in a PLC. Your research studies on professional learning and PLCs are included in my literature review. I am requesting permission to use your Professional Learning Community Assessment and your Professional Learning Community Organizer to gather data for the study. Please consider my sincere request and inform me of any requirements necessary to secure your permission at your earliest convenience.

Respectfully,

Janet Greer

Appendix C *Permission: Professional Learning Community Development Rubric*

Dear Janet,

Thank you for your request. Did you locate our PLCDR in our latest book, *Demystifying Professional Learning Communities: School Leadership at Its Best*?

Virginia Tech has an excellent reputation, beyond the sports field as we so often see in the media. In our text, you will also find a formal diagnostic measure, the Professional Learning Community Assessment Revised that several doctoral students and school districts have used in the US and internationally.

You may want to check that out as well. If you choose to use the PLCA-revised,

I will forward your request to Dr. Dianne Olivier, my colleague. If the PLCDR will suffice, you have my blessing!

Thanks, too, for your kind words regarding our work. It has been a passion for us and we continue to be energized by professionals like you who want to make a difference.

Best wishes with your doctoral studies - persist! Let me know if I can be of further help.

Kris

Kristine Kiefer Hipp, Ph.D.
 Professor, Doctoral Leadership Department
 Cardinal Stritch University
 1037 W. McKinley Ave., Room 204
 Milwaukee, WI 53205
 (O) 414-410-4346
 (F) 414-410-4377
kahipp@stritch.edu<<mailto:kahipp@stritch.edu>>

From: greers5@aol.com [greers5@aol.com]
 Sent: Wednesday, April 20, 2011 9:36 AM
 To: Kiefer Hipp, Kristine A.
 Subject: Request for permission to use PLCDR

Dear Dr. Kiefer Hipp, I am a Virginia Tech doctoral student in the process of writing my dissertation regarding professional learning and collaboration. I am requesting your permission to include your Professional Learning Community Development Rubric in my research. I would like to utilize it to support my selection of a particular school as an example of a professional learning community. Thank you for considering my request. I have been greatly inspired by your publications and have shared them with others as well. Have a nice day.
 Sincerely, Janet Greer

Appendix D *Permission: Professional Learning Community Assessment- (Revised)*

Department of Educational Foundations and Leadership

P.O. Box 43091
Lafayette, LA 70504-3

August 4, 2010
Janet Greer

Principal

Buckland Mills Elementary School

10511 Wharfdale Place

Gainesville, VA 20155

Dear. Ms. Greer:

This correspondence is to grant permission to utilize the *Professional Learning Community Assessment- (Revised)* (PLCA-R) as your instrument for data collection in your doctoral study on professional learning and collaboration at Virginia Tech. I am pleased that you are interested in using the PLCA-R measure in your research. I have attached a copy of the *Professional Learning Community Assessment-Revised* (PLCA-R).

Upon completion of your study, I would be interested in learning about your results. If possible, I would appreciate the opportunity to receive raw data scores from your administration of the PLCA-R. This information would be added to our data base of PLCA-R administration. Should you require any additional information, please feel free to contact me.

Thank you for your interest in our research and measure for assessing professional learning community attributes within schools.

Sincerely,

Dianne F. Olivier

Dianne F. Olivier, Ph. D. Assistant Professor

Department of Educational Foundations and Leadership College of Education

University of Louisiana at Lafayette P.O. Box 43091

Lafayette, LA 70504-3091

(337) 482-6408 (Office) dolivier@louisiana.edu