PROFESSIONAL LEARNING COMMUNITY: INCREASING EFFICACY FOR STUDENT SUCCESS

By

Cathleen M. Benedict

A dissertation submitted to

The Graduate School of Education

Rutgers, The State University of New Jersey

in partial fulfillment of the requirements

for the degree of

Doctor of Education

Graduate Program in Teacher Leadership

written under the direction of

Dr. Alisa Belzer

and approved by

_____

Dr. Alisa Belzer, Chair

_____

Dr. Peter Bastardo

_____

Dr. Daniel Battey

New Brunswick, New Jersey

May 2014

Abstract

From the federal government, to individual states and independent school districts, there is a call for students to achieve to high standards and to have access to high-quality instruction; these goals cannot be achieved without effective school improvements. There is a growing body of evidence that supports the idea that schools organized as professional learning communities (PLCs) maintain the consistency necessary to support its elements and have a positive impact on student achievement.

The main purpose of this study was to document what happens when the grade level meetings of a fourth grade instructional team transition from work based primarily on information distribution and administrative tasks to meetings where topics are driven by data and organized within the dimensions of a professional learning community. Also explored were the changes that occurred for the teachers as a result of their participation.

A purposeful sample comprised of staff members who participated in the fourth grade team meetings for the 2012-2013 academic year at an elementary school served as the basis for this selection. This group consisted of three general education classroom teachers, a reading specialist, a basic skills instructor, and the vice principal, for a total of six participants. It was the combination of me as the teacher researcher as well as the use of my professional context as the research site that was critical to the process.

As much of the literature regards a process of inquiry as central to school reform, a practitioner inquiry-based format to the study was applicable. Data was collected from interviews, surveys, and observations of grade level meetings. These data were used to describe and interpret the fourth grade team's perceptions of the operations, processes, and outcomes of their grade level meetings with regard to the research-based principles

of PLCs. The procedures were inclusive of the organizational factors that can contribute to or limit successes within a professional learning community.

The results suggest the implementation of an educational framework to guide the meetings, the use of protocols to explore and analyze student data, and the group's creation of norms were critical to the success of the work of the professional learning community. The research design enabled the participants to collaboratively reflect on teaching and learning, explore research-based practices in the fourth grade, and make changes to instructional practices to benefit fourth grade students.

Acknowledgements

Moral purpose sets the context; it calls for people to aspire to greater accomplishments.
Fullan, 2001

I believe there is a science to teaching. Yet there is an art to the profession, too. While curricular content is important, it is the way in which you perform the act that allows students to learn from you, to trust you, and-years later-to remember you fondly. For me, those who have encouraged, inspired, and mentored me along the way have enabled me to be the best educator I could have ever hoped to be…and I am forever grateful.

My dissertation is dedicated to my parents, Peg and Jim Benedict. Both worked hard to be sure their four daughters received a college education, as we were encouraged to pursue our dreams. For me, they instilled a love of learning and the moral spirit needed to be a role model for my students and to love what I do. I could not have asked for better parents. I thank you with all my heart. "My biggest fans…"

There are people you meet in life that leave an imprint forever on your heart. I credit my friend and colleague, Aurora Laudati, with teaching me to have patience as an elementary teacher and to realize that not all children learn the same way and that all students will remember how you treated them. Thank you, Aurora. "Because I knew you, I have been changed for good..."

I am extremely appreciative of the participants in this study, our PLC-Iris B., Collette Jancerak, Jennifer Mineo, Trish Schell, Renee Sudol, and Tina Theodoropoulos. I am happy you were a part of this journey. I believe what we accomplished has set a precedent for educators wanting to pursue professional learning communities in their own contexts. I am forever grateful to each of you.

Everyone needs people in their lives who believe in them even when things seem overwhelming. I have deep sense of gratitude for two people who helped me with 'structure' through the dissertation process, and in more ways than one. Barbara Kellner and Dick Kellner, thanks for believing in me and in my work.

I feel a deep sense of gratitude to my Teacher Leadership colleagues whom I met through our Ed.D. journey at Rutgers University. Not only are they fellow educators, I also believe we will be life-long friends.

My dissertation committee: Dr. Alisa Belzer, Dr. Peter Bastardo, and Dr. Daniel Battey; I am forever grateful. Thank you so much for the interest you took in my study from its stage as a proposal to the final dissertation. You saw where the study could lead and I thank you for your guidance throughout the process.

And finally, to my favorite people in the whole world…my nieces and nephews…you make me so happy and proud.

Somebody said it couldn't be done, but she with a chuckle replied,
That "maybe it couldn't," but she would be one who wouldn't say so till she'd tried.
So she buckled right in with the trace of a grin on her face if she worried, she hid it.
She started to sing as she tackled the thing that couldn't be done…
And what do you know, she did it.

Adapted from a poem by Edgar Guest (circa, 1915*)*

Table of Contents

List of Tables

List of Figures

Chapter 1: Introduction

From the federal government, to individual states and independent school districts, there is a call for students to "learn to high standards and to have access to high-quality instruction" (McLaughlin & Talbert, 2006, p. 1); however, these goals cannot be achieved without effective school improvements. According to DuFour and Eaker (1998), "The most promising strategy for sustained, substantive school improvement is developing the ability of school personnel to function as professional learning communities" (p. xi). At its core, the concept of a professional learning community (PLC) values teacher leadership and involvement in school improvement efforts through a commitment to making the school a learning organization and a community of inquiry (McLaughlin & Talbert, 2006; Sergiovanni, 1994). Members of a professional learning community have to work interdependently to achieve common goals linked to the purpose of learning for all students as well as teachers (DuFour et al., 2006).

Recently, there has been a rise of interest in making teaching public—That is, teachers talking about what happens in their classrooms with the benefit of learning both from and with each other (Huffman & Hipp, 2003; Reeves, 2008). Schmoker (2006) referred to teacher isolation as the "enemy of improvement" (p. 23). Seemingly, isolation has become a menacing part of our educational system. There is an assumption that individual teachers will automatically and consistently employ effective instruction; yet, there is an attitude within the profession that educational theory and research are "irrelevant, if not useless" (Lieberman & Miller, 2008, p. 20). Typical school culture can work against teachers collaboratively and continuously improving their instructional practices. According to research on teacher improvement, instructional practices are not

typically refined on the job and within the parameters of collaborative, empirical processes. It is not customary within the profession to see teaching, followed by assessment, and then adjustment to instructional strategies based on the results of the assessment as a PLC can offer (Schmoker, 2006).

Essentially, many talented and diligent teachers work within a system in which they continuously employ ineffective practices without receiving appropriate and constructive feedback. This is not to say that teachers do not seek opportunities for improvement, as many teachers attend graduate classes and seminars, often with the objective of improving classroom practices. The problem lies with the percentage of new knowledge that is implemented in classrooms as a result. Miller (2005) noted that even though teachers often make instructional decisions individually, they recognize differences in teaching effectiveness among their colleagues. Miller discerned that teachers who were identified by their peers as "good" were often appalled at the incompetencies of their colleagues. They attributed these incompetencies to the lack of opportunity to collaborate and understood that this could increase the effectiveness of their instructional practices. Similarly, Schmoker (2006) asserted that the majority of ineffective teachers are "potentially quite competent" (p. 28), stressing the idea that the teaching profession denies educators opportunities to study and learn from actions and results. Whether effective or not, many teachers do not have the opportunity to engage in professional discourse that could lead to the sharing of worthwhile strategies or the scrutiny of practices in order to foster improvements leading to effective instruction. A professional learning community can be the venue for teachers to take advantage of such opportunities.

The term professional learning community (PLC) has its origin in the business sector emerging from research on organizational theory and human relations (Hipp & Huffman, 2010). While definitions of professional learning communities vary within the educational arena, Hord and Sommers (2008) asserted that when there is consistent and intentional staff learning within a PLC, an increase in student learning will result. Most definitions assume a well-structured and maintained professional learning community. For example, Hord (1997) identified the following characteristics of professional learning communities: shared and supportive leadership, shared values and vision, collective learning, supportive conditions, and shared personal practice. These characteristics can be used to provide educators with a lens through which to examine their own PLCs for effectiveness or set the stage for initiation (Fullan, 2007).

The idea of teachers working within a learning community is not new. For example, in the early 20th century, John Dewey imagined teacher collaborative work that sounds very similar to the definition of PLCs when he wrote about a model for schools in which teachers engaged in "collective inquiry in order to weigh their practices and innovations against empirical evidence and critical dialogue" (Wood, 2007, p. 282). However, although the idea for professional learning communities has been around for quite some time—and demonstrated to be effective for improving learning outcomes—they are not the norm in many schools and are often misunderstood by educators. Within a PLC, teacher practice is often challenged and changed many times within a culture that may not be open to transformation.

Lieberman and Miller (2008) noted that, on one hand within a PLC, there is a push to increase teachers' knowledge of content and related pedagogies, while on the other

there is the necessity of supporting the processes that promotes teacher learning and community building. The idea of creating intensive and focused opportunities to experiment with teaching strategies and to then learn from the experiences melds teacher learning within a community with the belief of improving instructional practice. However, their enactment is often a challenge and there can be a considerable gap between the ideal and the actuality because of "ambiguity or only a superficial understanding of what must be done" (DuFour & Marzano, 2011, p. 22) when attempting to implement a professional learning community.

Ideally, the members of PLCs are action-oriented. The typical four to seven member team identifies goals and turns their visions for instructional improvement into realities. PLC members expect results and use collective inquiry as a method for action. They strive for continuous improvement and it is assumed that a focus on results leads a professional learning community to develop and pursue measurable objectives that are aligned to the school's and the district's goals for learning. For example, Olivier, Hipp, and Huffman (2010) conducted an empirical study on the evolution of PLCs at Lake Elementary, a school in a rural southern district. Based on the progress of this school over time, the researchers sought to understand how the staff enacted a PLC model as way to sustain improvement efforts. Through a decade of on-site visits and data collection including observations, surveys, interviews, and reviews of artifacts, they documented how the PLC became institutionalized. The researchers identified several factors that led to success and found an abiding commitment to staff and student learning. Challenges encountered early in the process of implementing a PLC model were often perceived as opportunities to strengthen the community and/or problem solve. Olivier et

al. also found that the staff had an undeviating focus on data driven decision making that lead to collaboration, shared responsibility, and accountability among stakeholders, and a culture of inclusive leadership that strived for high-quality teaching and learning. These commitments were challenged after Hurricane Katrina in 2005, when Lake Elementary accepted 80 displaced students. One might think that an unexpected and immediate increase in student population might have tested teachers' commitment as a PLC; however, strong connections among teachers and between teachers and students resulted in caring relationships for the new students, which were a result of already established high levels of trust and respect. This helped them succeed in the new school environment after suffering significant trauma from the displacement they had experienced. Administrators were noted for being creative in getting around obstacles and teachers were just as passionate about collectively feeling they could accomplish anything they believed would benefit their instruction and ultimately lead to improved student achievement. Lake Elementary is an example of how schools with strong professional learning communities are more likely than those who are not to make changes in their instructional practices that positively affect student achievement (Coburn & Russell, 2008).

Although there is a considerable quantity of research to support professional learning communities as worthy of educators' time and effort, their implementation has been limited. The evidence base consists of case studies and too few large scale or replication studies. Additionally, little research is available which offers a blueprint for how to build, support, and sustain a PLC or lessons learned from actual groups of teachers trying to implement a research based approach in order to reap its full benefits

(Richmond & Manokore, 2010). McLaughlin and Talbert noted, "The literature on teacher learning communities is mostly silent on the matter of how schools develop… productive professional norms and practices" (McLaughlin & Talbert, 2006, p. 38).

Fortunately, job-embedded time in teachers' weekly schedules to meet as grade-level teams in the elementary setting or within content areas or departments in the upper grades has become common in many districts. Teachers who have this time together are often encouraged by the school's administration to develop a collaborative structure, grounded in a constructivist approach to teaching and learning designed to improve student achievement. Expectations for these groups may include engagement in a process of inquiry in order to construct new knowledge about their own classrooms, students, and teaching practices (Rinke & Stebick, 2013). While these groups of teachers are often referred to as PLCs, however, they tend to maintain particular misconceptions of what is to be accomplished (Slavit, Nelson, & Deuel, 2013). As the PLC model can encourage teachers' professional discourse while working against a traditional culture of isolation, what is often missing is a particular structure that serves to guide the establishment of goals and as a basis for meaningful conversations about teaching and learning. This can lead to agendas that often focus on administrative tasks or little to no continuity from meeting to meeting. These meetings lack the stability necessary for working to achieve the PLC's goal(s) and often result in discussions reverting to more managerial and talk about other non-instructional matters.

A lack of routine meant to structure the discourse and analysis that takes place during the meetings can encourage what Little (2007) referred to as the telling of "war stories" (p. 221) in which teacher talk often shifts responsibility for learning to students,

parents, and other external factors. There is little to no potential for these types of conversations to help teachers make positive changes to teaching and learning. While there is a lack of empirical evidence on how best to make use of this time (DuFour & Marzano, 2011), scholars researching professional learning communities recognize that once teachers begin to attribute student gains to their own efforts, and inquiry and continuous improvement is recognized as useful and worth the changes to traditional routines, positive changes can be achieved (Gersten, Dimino, Jayanthi, Kim, Santoro, & 2010; Schmoker, 2006;). As these changes may challenge current teaching practices, they can become a positive and necessary part of school culture and worthy of a teacher's time and effort (Gallimore, Emeling, Saunders, & Goldenburg, 2009; Hipp & Huffman, 2010; Hord & Sommers, 2008; Lieberman & Miller, 2008).

A professional learning community offers teachers opportunities to reflect on instruction and student outcomes. Kazemi and Franke (2004) identified shifts in how teachers interact when they examine evidence of student thinking such as work samples. Their study, however, also highlighted the importance of a designated facilitator in a teachers' learning community. A collaborative environment, as such, is conducive to teachers investigating their practices and challenging each other's thinking through the guidance of a teacher leader or facilitator. The authors observed that the act of collaboration began and evolved through a specific structure that teachers became accustomed to utilizing under the guidance of the teacher facilitator. The researchers also noted changes the teachers made to their instruction as a result of this collaborative practice. For teachers involved in the collaborative opportunities of an effective professional learning community, the production of knowledge is not an end in and of

itself. Rather, data are used to problematize practice, and knowledge becomes an active, ongoing negotiation of learning goals, student understandings, and implications or changes to practice.

Problem of Practice

The successful implementation of a PLC in an educational setting is dependent upon who defines it and the context in which the PLC takes place (Leonard & Leonard, 2003). Many district leaders claim that their teachers are working in PLCs; yet, the label is often misused to describe grade-level team meetings, various school-based committees, or weekly planning meetings. While many of these groups share some of the characteristics of professional learning communities, a PLC is defined and distinguished by an emphasis on professional learning (Hord & Sommers, 2008). In order to reap the full benefits of PLCs, participants need to be working within the research-based principles of professional learning communities, including using effective collaborative practices, and having the necessary supportive conditions present. A PLC should be more than a group of teachers working together or a network of teachers who share thoughts, advice, and materials on instruction (Coburn & Russell, 2008; Dana & Yendol-Hoppey, 2008)—it should be a format for professional development. However, requiring teams of teachers to function as professional learning communities without them having knowledge of its elements and necessary structure often inhibits the institutionalization of a professional learning community (Chi-Kin Lee, Zhang, & Yin, 2011).

It is not unusual for district administrators to launch a new initiative or set new expectations without providing adequate professional development or other learning opportunities. As a case in point, at my elementary school, a new reading program was

initiated, but teachers did not receive adequate training to implement it. As a result, teachers used an array of instructional strategies and resources in our four fourth grade classrooms. Because we were unsure of how to implement the program, each of the four teachers utilized instructional strategies as we saw fit with little to no conversation amongst ourselves. Although team meetings have been embedded in our schedules for a number of years, we have not typically used this time to discuss instructional issues such as how to implement a new curriculum. Generally, the agenda for team meetings does not include issues of teaching and learning, and the need for continuous improvement to teaching practice seems to be rarely recognized.

With strong recommendations at the state level to implement professional learning communities in public schools across New Jersey, an administrator-led initiative four years ago sought to transform grade level meetings at Pondview Elementary School into professional learning communities. In an apparent effort to facilitate the process, a list of three questions designed to drive the work of PLCs was posted in the main office's conference room where grade level team meetings took place. They were: What do we want each student to learn? How will we know when each student has learned it? How will we respond when a student experiences difficulty in learning? These questions were drawn from DuFour and colleagues' text (2006). The administrators posted the questions for the grade level teams to see during their meetings on the apparent assumption that this was adequate to focus the work of PLC meetings in order to effectively realize high levels of student achievement. No formal professional development on working within PLCs was provided, but teachers were told that they would no longer be able to discuss "housekeeping" types of information such as schedule

changes and field trips. The administrators were insistent that all dialogue during the meetings should reflect curriculum related topics, and the designated leader for each grade level team was told to be sure that agenda items were aligned to this directive. As a result, the teachers' union filed a grievance across the district on the grounds that what was discussed in grade level meetings should not be dictated by administration. Although the teachers' union lost this grievance, over the last few years since then, the topics of meetings have become a mix of task related items, such as budgetary decisions, with only some regard for curriculum-based matters.

Functioning professional learning communities are of more critical importance than ever. They have the potential to help teachers respond effectively to the demands and expectations, which the New Jersey Department of Education is currently placing on school districts. For example, the implementation of the Common Core Curriculum Standards (CCCS) was created with the goal of providing a common understanding of what students are expected to learn. While the district has purchased textbooks and various educational resources marketed as being aligned to the CCCS, teachers across grade levels in our elementary school have recently noted gaps in students' knowledge related to the new standards. These point to the need for instructional changes; however, one barrier to successfully helping students meet the CCCS has been the lack of opportunities for teachers to collaboratively and consistently work on improving instruction and identifying gaps between the long-established district curriculum and the new standards. Rather than help teachers make the transition, school administrators simply established an accountability system to ensure that teachers were aligning instruction with the standards. Expectations from the administration were established

that teachers are now required to note which standards they are addressing in their lesson plans. More or less, teachers have been expected to independently become familiar with and master instructional approaches that are consistent with the new standards.

Fisher, Frey, and Uline (2013) recognized that the challenges for educators while implementing the standards are "engaging in the structural and cultural changes that will allow the CCCS to flourish" (p. x). In order to accomplish this, they assert that a team-based approach to professional development related to implementation of the standards must be embedded in the routine practices of the school. Professional learning communities offer an ideal structure to respond to this need, and it is an approach that has the potential to offer continuous teacher learning and improvement of instructional practices (DuFour & Marzano, 2011). With a balance of support and cooperation between administrators and teachers, those involved in professional learning communities are more likely to persist with addressing problems, such as the implementation of the CCCS, long enough to make connections between instructional changes and student achievement (Gallimore et al., 2009). Essentially, this form of teacher learning "ramifies beyond the particular problem because it shifts teachers' focus away from what they can't control to what they can" (p. 545).

Additional factors to be considered in teachers' professional learning are the implementation of a new assessment system created through the Partnership for Assessment of Readiness of College and Careers (PARCC) and Achieve NJ, a major effort to improve educator evaluation being implemented statewide in the 2013-2014 school year. Teachers working in isolation can no longer be the norm in educational settings. Identifying students' needs based on data and changing instructional practices

through the collaborative model of a professional learning community can foster high levels of student achievement and enable a successful implementation of federal as well as state mandated initiatives (Huffman & Hipp, 2003).

With the array of initiatives facing teachers, it seems especially imperative now that teachers work within a system that enables them to learn from and with each other; however, PLCs have not, so far, been implemented in a way that could facilitate this type of learning. Typically, a professional learning community in my elementary school is composed of four general education teachers, one whom is the designated team leader, a member from the support staff, such as a reading specialist, and the principal or vice-principal. While the team leader's position is detailed within the language of the teachers' negotiated contract, agenda items are generally not reflective of the structures of a professional learning community. Research points to the fact that PLCs need to set and share goals based on student data to work on that are immediately applicable to their classrooms (Lieberman & Miller, 2008), although this has not been the practice. Without common goals, but more broadly lack of training on how to implement PLCs, including lack of structure and lack of leadership, grade level teams have drifted toward superficial discussions and administrative tasks rather than discourse related to teaching and learning.

Purpose of Study

After attending a workshop as part of the fourth grade team of teachers, along with school administrators, in the winter of 2012 given by Rebecca and Robert DuFour, noted experts on professional learning communities, I became interested in determining how professional learning communities at Pondview Elementary School could be

improved to function according to research-based principles. The workshop generated a renewed interest in PLCs and encouraged reflection on what typically takes place during grade level team meetings. The vice-principal and the fourth grade instructional team, with me acting as researcher and participant, were eager to begin the necessary work in order to transform meetings into substantive discussions about improving practice and student outcomes.

The purpose of this qualitative case study was to describe what happens when the work of a grade level instructional team begins utilizing a specific framework for a professional learning community. Throughout the study, I documented and analyzed members' perceptions of the process, its impact on instructional practices, relationships between PLC members, and varied effects on members in relation to student outcomes according to the changes that took place because of the new structure. This investigation was guided by the following overarching research question: What happens when the members of a fourth grade team transition from meetings based primarily on information distribution and administrative tasks to meetings where topics are driven by data and organized within the dimensions of a professional learning community? The subquestion was: Were there changes that occurred for the teachers as a result of their participation? If so, what?

Although the study focused on the fourth grade teaching team, I anticipated that valuable data concerning professional learning communities at Pondview School would be generated by this case that could have broader impact on other grade level teams. The findings from this study have implications for transforming other grade level teams into data driven PLCs thus enabling them to determine the professional development and

other supports necessary for increasing teachers' knowledge of professional learning communities. Additionally, the findings may highlight the change process necessary for reinitiating PLCs more successfully across the school. Furthermore, the results of this study have the potential to support the change process and provide impetus and useful information for reinitiating professional learning communities in many school settings. Furthermore, the study has the potential to have an impact beyond Pondview school: it may contribute to a general gap in the research where there is a lack of empirical evidence of the successes and challenges a school can face during implementation.

In the following chapters, I detail the theory, methodology, findings, and implications of this study. In the second chapter, I present a theoretical framework for the study and a review of the literature on professional learning communities, its benefits, challenges, components, and changes that need to occur for initiation, implementation and eventual institutionalization to take place. In the third chapter, I document the methodology I used and I explain the results of the study in the fourth chapter as I examine the process that took place as team meetings were restructured to professional learning communities using the professional teaching and learning cycle. In the fifth chapter, I discuss the implications of the study, including the possibilities for implementation and the benefits of professional learning communities in varied educational contexts.

Chapter 2: Theoretical Framework and Review of the Literature

Viewing schools as learning organizations is a contemporary enactment of John Dewey's vision of teachers participating in collective inquiry in order to improve their practice based on research-based evidence and professional dialogue (Wood, 2007). More recently, Senge et al. (2000) promoted the concept of a school community in which teachers talk openly about issues and challenges and then collaboratively generate a collective plan for improvement. A PLC provides a structure and opportunities for teachers to engage in this kind of process by working collaboratively to reflect on their practice, examining data that can show the relationship between instruction and student outcomes, and then making changes that increase the efficacy of their teaching and the students' learning in their classes (Birenbaum, Kimron, & Shilton, 2011; McLauglin & Talbert, 2006).

This can be accomplished when members of professional learning communities subscribe to an inquiry-based approach to their endeavors. When utilizing an inquiry-based structure, teachers can identify challenges, take ownership of the process, and learn more about or deepen their knowledge of effective teaching strategies (Jacobson, 2010). In order to function effectively, however, PLCs require effective leadership, direction, initiative, and meaningful collaboration (DuFour et al., 2006; Huffman & Hipp, 2003; McLaughlin & Talbert, 2006).

This study examined the restructuring of a fourth grade team's meetings when teachers began working according to the research-based dimensions of a professional learning community. Meeting topics transitioned from information distribution to topics primarily driven by student data. In this chapter, I present educational change theory and

adult learning theory as the frameworks upon which my study was structured. I also summarize a conceptual framework for the study that outlines the process used to implement a professional learning community from its inception to sustainment. Next I present a review of the literature. I define a professional learning community through the work and theories of leading experts on PLCs, describe structures that should be in place in order to provide direction on how to develop and sustain PLCs, and describe contextual factors that can support and negate the process. Finally, in this chapter, I provide an overview of the concept of the professional development that a PLC can inspire, highlights the notions of teacher leadership within a PLC, and the outcomes that a collaborative school culture via a professional learning community offers.

Theoretical Framework

Persistent changes in education may be perceived as a norm; however, as so strongly viewed by Fullan (1982), the "Neglect of the phenomenology of change – that is, how people actually experience change as distinct from how it might have been intended – is at the heart of the spectacular lack of success of most educational reforms" (p. 4). Yet we have mostly ignored this judgment since, more recently, Hargreaves (2005) lamented that, "The emotional dimension of educational change is not a frill but a fundamental of successful and sustainable school improvement and deserves increased attention" (p. 293). Educators, especially administrators or policy makers, need to be aware that the implementation of an educational reform is a course of action, often requiring a change in a school's culture. In order for the reform to take hold, an understanding that change is a process should be taken into consideration.

Educators in the United States are accustomed to dealing with continuous educational reforms, new programs, state mandated changes, and other sources of significant change. Unfortunately, it can be challenging to take the time to identify how a particular change might improve our practice since inevitably yet another new initiative is imposed immediately afterward or even concurrently. Teachers are often expected to implement changes without adequate consideration of a process for doing so (Hipp & Huffman, 2010; Hord & Hirsch, 2008; Vetter, 2008). The implementation of the Common Core Curriculum Standards (CCCS) is a recent example of a federal change initiative launched with the intention of improving student outcomes. As textbook companies have reaped the benefits of marketing educational resources that are aligned to the CCCS, many districts have left the process of the implementation of the new standards in the hands of classroom teachers. District leaders are left to decide how best to implement the standards into their practice. The context of a professional learning community can help teachers work together to effectively structure a plan for implementing an educational change, such as the CCCS, enabling greater assurance of success.

Educational Change Theory

Effective strategies for educational improvement require an understanding of the process of change as a theory, or way of thinking. Educational change theory (Fullan, 2007) is a theoretical framework that helps explain the change process. Educational change theory is based on the principle that organizations can attain viable and sustainable changes in practice through effective staff collaboration. Fullan (2007) asserted that when utilizing educational change theory, educators can create an

atmosphere where changing school culture is emphasized through a transformation in values and relationships rather than solely through the components of the initiative. Fullan (2001) noted, "moral purpose, relationships, and organizational success are closely related" (p. 51) and later claimed that practitioners involved in the adoption of the change need to focus less on its application and more on a process of change (Fullan, 2007). This process should include developing a system for planning, implementation strategies, and reflective monitoring. A structure cannot be easily captured in one precise list of steps. Educational change theory suggests initiatives develop during three broad phases-initiation, implementation, and institutionalization as described in Figure 1 below.

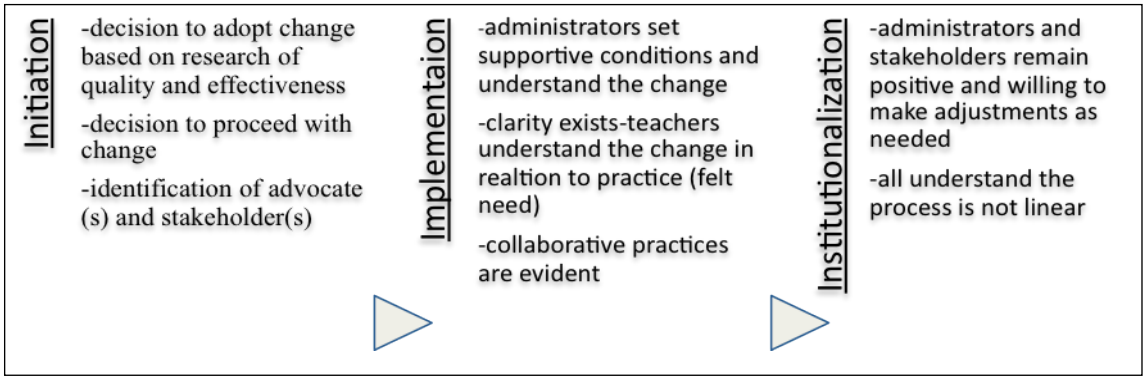


Figure 1. Educational change theory (Fullan, 2007).

Researchers have defined the concept of a professional learning community as a professional staff who continuously utilize a system of inquiry and then act upon their knowledge to improve student learning. Horn and Little (2009) asserted that professional learning communities are more likely to generate teacher learning if the groups can develop a capacity for discourse that centers on dilemmas and problems of practice. Implicit in this is the thought that teachers may be more accepting of educational change and work towards achievement of goals when working collaboratively within PLCs. The

professional learning community recognizes that effective educational change requires a process where teachers engage in collaborative practices leading to collective responsibility for student learning (Lieberman & Miller, 1999).

Employing educational change theory within the structure of a professional learning community can increase the capacity for shared understanding of an initiative by way of the relationships that originate and continue to be cultivated throughout the process. According to Fullan (2007) "these communities must foster an open exchange where teachers can explore elements of their own practice…while calling for and reinforcing higher ethical standards" (p. 50). Wilkinson (2005) concurred by noting that a core strategy to effective educational change is collaboration. Wilkinson noted that when relationships mature, trust increases, as do other indicators of social capital and social cohesion. Successful educational changes or reforms are culturally and socially based and are reinforced when educators work as professional learning communities (DuFour et al., 2006; DuFour, Eaker, & DuFour, 2005).

According to Fullan (2007), the crux of change involves the participants in the development of meaning in relation to the new idea, program, or reform. Meaning has both cognitive and affective dimensions that are cultivated through the phases of initiation, implementation, and institutionalization and continue thereafter. Fullan noted "Change is process over time" (2007, p. 105). Spiro (2011) concurred that change requires the ability to think several steps ahead by planning for the present with the future in mind. Change requires all stakeholders to be reflective at all phases: when professional learning communities operate using methodical means, generate continuous focus on teacher and student learning, and employ a persistent collaborative approach,

educational change theory becomes a viable process for identifying, achieving, and sustaining effective changes within an educational setting.

Adult Learning Theory

Similar to the thoughts of educational philosopher John Dewey (2009), adult learning centers on the need for activities that engage the learner in a continuous process of exploration organized through collaborative practices. Adult learners bring with them a collection of experiences, skills, and knowledge that influence how goals are created and achieved (Brookfield, 1986). American educator Malcolm Knowles theorized adult education by associating the term, andragogy, with characteristics of adult learners. According to Knowles (1990), andragogy is the art and science of adult learning (Kearsley, 2010). Knowles related four main principles with andragogy. First, adults bring themselves into a learning experience with a specific intent for learning. Additionally, adults in learning situations are able to utilize life experiences as motivation for learning. Next, adults must recognize a relevancy to their learning in order to maintain interest. The learning must be seen as useful and it must make sense for their current situation. Finally, adults get more out of a learning experience when they are involved in a problem solving approach to learning. The figure below details the principles Knowles associated with andragogy.

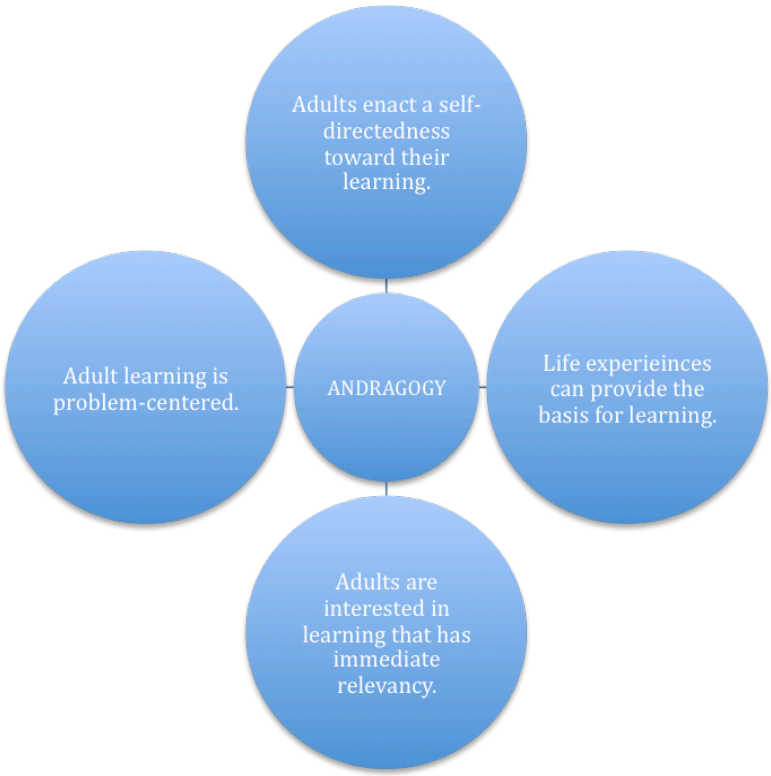


Figure 2. Main principles of andragogy (Knowles, 1990).

Andragogy is applicable to the learning tasks of professional learning communities. As adult learners, members of a PLC, regardless of years of experience, brings with them a vast array of experiences that will affect the learning styles and assimilation of knowledge (Kearsley, 2010). In this study, the new meeting framework enabled the members to identify a goal, plan the necessary learning to achieve it, and then make adjustments through reflective practices. With any new initiative, such as implementation of the CCCS, teachers need to change or improve instructional practices. Teachers attempting this in isolation garner less of a chance of success than when working in collaboration with other teachers who can learn both from and with each other. Similarly, andragogy asserts that adults are interested in applying new skills and

knowledge to their circumstances, especially those that help them do their jobs better (Brookfield, 1986; Bolman & Deal, 2008). In relating this to the members of a PLC, teachers tend to be more "performance-centered" (Brookfield, 1986, p. 92) in their engagement and implementation of new learning: PLCs are most effective when they have direct application to classroom practice. An acknowledgement of andragogy also recognizes that adults learn more effectively through discussion and problem solving, also a component of professional learning community and the basis for collaboration. Brookfield (1986) cited four features of collaborative-based initiatives involving adult learners:

- Adults learn best when they are in social environments such as collaborative groups.
- Success comes when adults initiate the learning necessary to achieve a goal.
- Adults need to determine a perception of relevance to what is learned.
- Adults learn best when they engage in action, reflection, and further action if necessary.

A facilitator's knowledge of the adult learning theory of andragogy can provide teachers with the latitude to shape their professional development and assist in executing the learning goals the adults have established. In essence, knowledge of andragogy can work to increase the success of an initiative (Trotter, 2006). Based on this assumption, Brookfield (1986) asserted that building professional learning opportunities using andragogy as a framework can create a context that prompts the learner to "perform at an improved level of competence in some predetermined skill domain" (p. 99) since the adult learner may recognize the usefulness of the new learning. Essentially, adult

learning theory provides an avenue for understanding that teachers want learning experiences that they can immediately put into practice in their classrooms. As the teacher leader, or facilitator, of the new structure of the fourth grade instructional team meetings, which this study is based upon, knowledge of adult learning theory was pertinent to its success as we engaged in Fullan's (2007) developmental phases of change.

Conceptual Framework

A PLC is more than teachers simply working together on identified tasks; instead it is a collective effort of the participants to learn how to better meet the needs of the students and improve instructional outcomes (Coburn & Russell, 2008; DuFour & Marzano, 2011). Within a PLC, administrators, along with teachers, should become learners. The traditional pattern of teachers teaching, students learning, and administrators' management is altered. Figure 3 below provides a glimpse of the process of change required in order to establish and maintain a professional learning community as noted in current literature. To begin, an administrator can help to set the tone for the commitment that needs to be evident amongst all participants. Staff members who actively involve themselves in the learning community need to see that school leaders are willing to support the PLC with resources such as professional development in order to help the members attain their goal. Essentially they need to see visible commitment that the administration will value their work (Louis, 2008). Next, the members recognize the process involved in their work as a PLC. Educators gather together to analyze and work with student data. They work collaboratively to identify and sort through instructional strategies and discuss what they learn. This allows for purposeful opportunities for the

members and enables them further progression towards meeting the goal. (DuFour & Marzano, 2011; Louis, 2008).

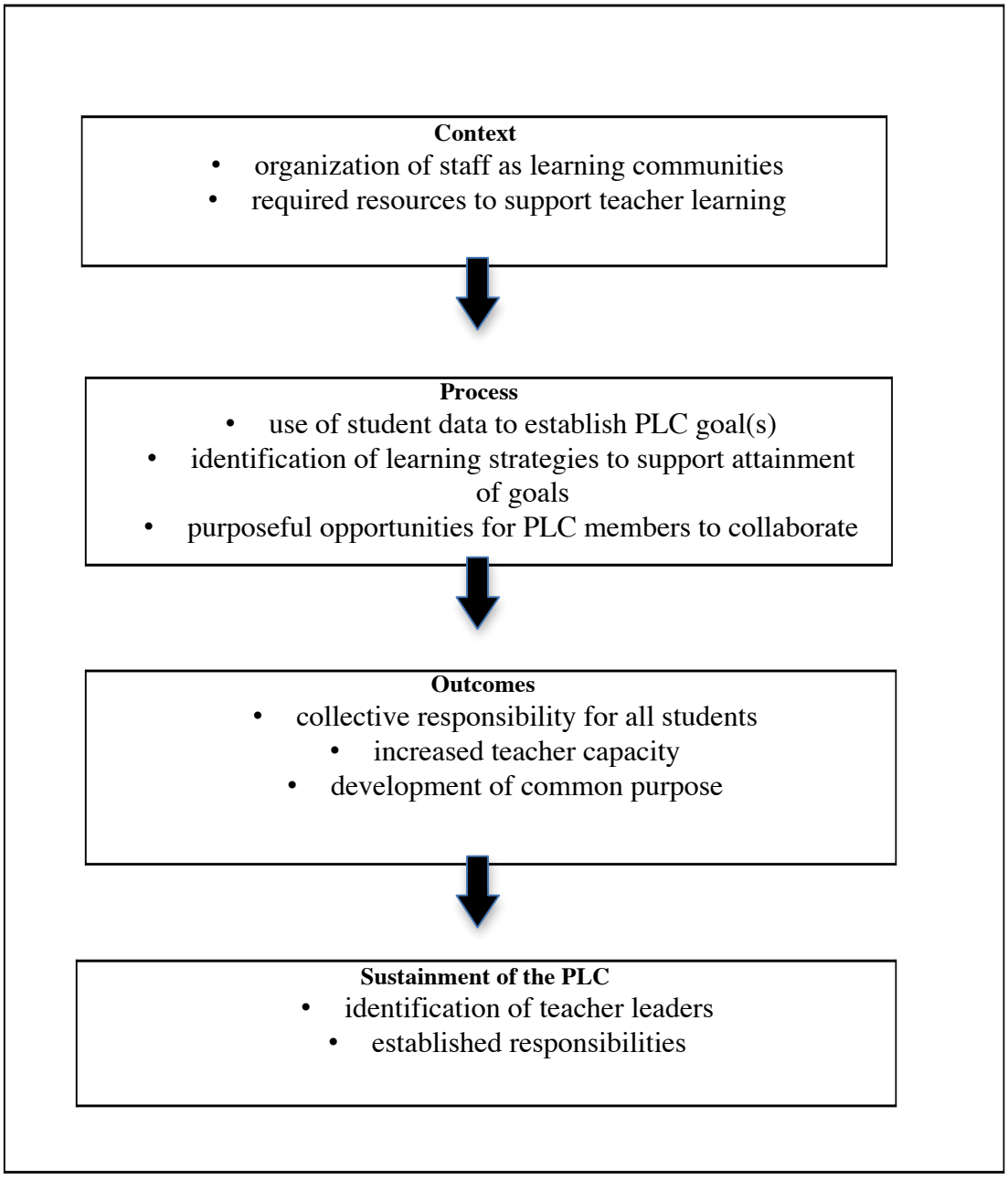


Figure 3. Professional learning community conceptual framework.

The outcomes of the work involved in the PLC process further bring the members together in their quest to sustain themselves as learning community. Members begin to see their work as valuable to all students within a school, not just those students in their classrooms (DuFour & Marzano, 2011; Reeves, 2008). Because of this, teacher capacity increases with regard to member dedication in continuing their work as a professional learning community; however, a PLC's work is continuous and sustainment cannot be taken for granted. The identification of a facilitator, such as a teacher leader, and tagging members of the PLC with varied responsibilities, such as creating an agenda or maintaining notes on the PLC meetings is essential (DuFour & Marzano, 2011; Fullan, 2007; Lieberman & Miller, 2008). In sum, developing as a PLC requires commitments from teachers as well as administrators. A collective responsibility with regard to valuing the work that is accomplished must be visible to all involved.

A Review of the Literature

There is a growing body of evidence that supports the idea that when schools organize themselves as professional learning communities and maintain the consistency necessary to support its elements, they can have a positive impact on student achievement (DuFour & Marzano, 2011; Hord, 2007; Hord & Sommers, 2008; Jacobson, 2010); however, there is no single template for establishing a PLC and there are a myriad of ways in which a PLC's members can work collaboratively (Lieberman & Miller, 2008). There is no prescribed sequence of steps to be followed or a new strategy to add to a teacher's practice. Underlying much of the literature on professional learning communities is the assumption that teaching can be an isolating profession and that when PLCs counter this, teachers can improve their practices (Lieberman & Miller, 2008;

Pascal & Blankenstein, 2008). Generally, and as described in this study's theoretical framework, the literature is grounded in theories that promote the social nature of learning and sometimes details practices through which teachers collectively increase the effectiveness of their instruction.

Defining a Professional Learning Community

DuFour (2004) is considered a leader in providing guidance on the development of professional learning communities within the field of education. DuFour defined the PLC as "groups of educators who focus their efforts on crucial questions related to learning and generate products that reflect that focus, such as lists of essential outcomes, different kinds of assessment, analyses of student achievement, and strategies for improving results" (p. 5). This definition of a PLC is predicated on participants staying focused on three critical questions or "big ideas" (DuFour, 2004, p. 6) that should drive the work of the members of a professional learning community: What do we want each student to learn? How will we know when each student has learned it? How will we respond when a student experiences difficulty in learning? The questions represent the core principles of professional learning communities: ensuring that students learn, creating a culture of collaboration, and focusing on results (DuFour, 2004; DuFour & Marzano, 2011). DuFour, DuFour, Eaker and Many (2006) offered one of only a few handbooks, *Learning by Doing*, to guide the initiation and implementation of the PLC within the educational context. *Learning by Doing* is organized as a workbook with resources that educators may use to guide them as they are introduced to critically and collaboratively reflecting on their instructional practices leading to reasonable sustainment of educational changes through the structure of a PLC. DuFour based a lot

of his work on successful programs related to PLCs that he initiated while a principal and later superintendent at Adlai Stevenson High School District 125, Lincolnshire, Illinois. His guidance is also based upon his research of professional learning communities across the United States resulting in a compilation of best practices, which he din narrative form in much of his work.

Many writers who define the characteristics of a professional learning community cite Hord's (1997) five dimensions of a successful PLC as a useful framework for initiating as well as reestablishing a professional learning community: shared and supportive leadership, shared values and vision, collective learning, supportive conditions and shared personal practice. Hord's research was designed to help the field with "understanding and delivering comprehensive educational reform, the functioning and creation of professional learning communities, and the role of leaders, including teacher leaders" (Hord & Sommers, 2008, p. ix).

The five dimensions of a PLC that Hord (1997) identified emerged from a five-year multi-method study (1995-2000) designed for the Southwest Education Development Laboratory (SEDL) on the growth of professional learning communities. The study focused on the evolution and sustainment of PLCs and took place in schools that had implemented PLCs and were identified as continuously inquiring and seeking methods to improve teaching and learning (Hipp & Huffman, 2010). Research methods included initial on-site interviews, phone interviews, follow-up interviews with teachers and principals, the completion of the School as Professional Staff as Learning Community Questionnaire (SEDL, n.d.) at the beginning and end of the study, and continuous training of PLC leaders within the selected sites. More recently, Hipp and

Huffman (2010) led a research team that worked to deepen Hord's initial findings. Using qualitative methods (e.g., interviews) the team identified critical attributes of each dimension enabling them to develop tools to help sustain and embed Hord's dimensions of professional learning communities within educational settings. It is commonly assumed within the literature that if these dimensions are present, even at varying degrees of capacity, they will have a positive impact on the implementation of the PLC.

Hord and Hirsch (2008) perceived the PLC as having an encompassing shell that provides the cyclical structure around which the work of the PLC takes place (See Figure 4). The progression reflects Hord's (1997) five dimensions of PLCs, the conditions regarding relationships of the members, and the support that members give each other through experiences such as peer observations and feedback. These components may overlap, yet they encourage sustainment of the collective learning that contributes to effective teaching and student learning within a professional learning community.

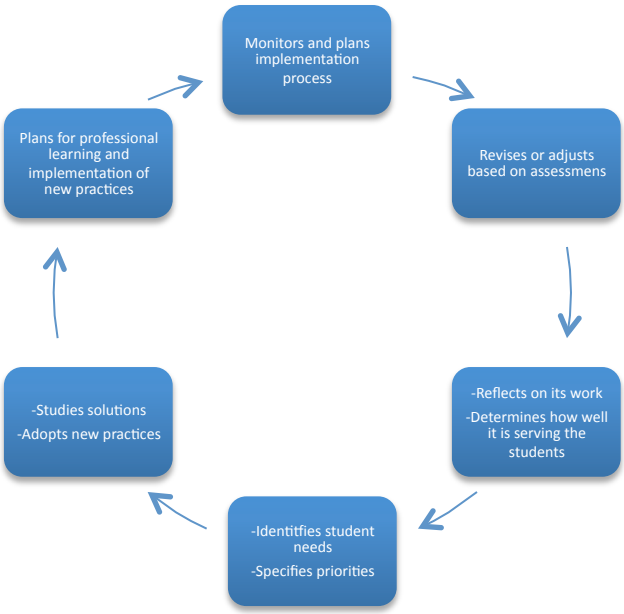


Figure 4. PLC structure.

Too little effort is often given to the professional learning needed in order to ensure that PLC members gain an understanding of the content and skills necessary for using new practices. Under these circumstances, Hord and Hirsch (2008) note, "a culture of appearance develops in which individuals conform but don't reform" (p. 38); however, with the utilization of a framework for professional learning communities, as seen in the figure above, teachers increase the chance of achieving an identified goal (Hord & Hirsch, 2008). Knowledge of the components of the figure as well as the awareness that there can be overlaps within the structure enables the teacher leader to monitor the resources as necessary in order to support the work as well as the PLC's progress towards meeting its current goal.

Structuring PLC Meetings

While some educators assert the work of a professional learning community is satisfied in schools that engage members in collaboration, this does not necessarily mean that the intentional learning of the staff or increased student learning is achieved (McLaughlin & Talbert, 2006); however, while the organization of the meetings of a professional learning community can vary according to context and the goal of the members, a structure must be in place to promote continuous collaborative practices about teaching and learning leading to job-embedded professional development (Hipp & Huffman, 2010). In the next section of this literature review, I take into consideration that many descriptions of PLCs are presented as opportunities for collaboration, although research does not provide much direction on how to create and sustain them. However, when members collaboratively create a shared vision for their work that is guided by data

driven goals related to instruction and student achievement, and tools, such as protocols are utilized to structure PLC meetings, capacity increases.

Shared Vision

A basic attribute of the professional learning community is a shared vision, or goal, for what the PLC is trying to accomplish. This gives members a common purpose (Erkens, 2008; Hord, 2007). While school personnel ordinarily agree that their primary intention is to ensure that children are taught, an effective PLC is committed to the idea that it is a learning organization whose main goal is to make certain that all students successfully learn essential knowledge and skills. Having shared values and a vision for the work of the PLC requires a particular mental image that encompasses what is important to the members. It is the use of that image as a benchmark that helps to guide members' decisions about teaching and learning (DuFour et al., 2006; Hord, 1997), which goes beyond agreeing on an area to improve. A shared vision leads to binding norms that the participants support in reference to the belief that all students can learn, as well as a collective responsibility for enabling each student to reach his or her potential (DuFour & Marzano, 2011). A shared vision can also help teachers take responsibility for the learning of all students within the school and not just those within their classrooms from year to year.

An example of the importance of identifying a shared vision was illustrated in a study conducted in an elementary school in Queens, New York. PLCs there used the Common Priorities Cycle (Cambridge Education, 2007), a framework to guide the work of collaborative teams. They found that identifying a goal shared across grade level PLCs was a major contributor to enabling the collaboration of teachers around their

responsibility for the learning of all students within the school (Jacobson, 2010). Through the sharing of data analysis tasks across second and third grade PLCs, teachers were able to align their teaching with New York State performance indicators. Because of initial collaborative data analysis, priorities were highlighted, common assessments were developed, and collaborative lesson design work became the norm for the PLC members in working to help their students achieve the performance indicators.

Data Driven Goals

Tracking student achievement through the use of benchmarks and other forms of assessment is a common practice; however, it is common to hear teachers talking to one another about what they need to 'cover' before state mandated testing. In many cases, the tests drive a great deal of instruction. The results of the assessments are often used as a measure of accountability. McDonald, Mohr, Dichter and McDonald (2007) asserted that it would be more beneficial to use assessment data to drive instruction. Additionally, Young (2006) identified "a policy logic of using data for instruction" (p. 522). Implicit in this notion is the idea that teaching should be an evolving process and teachers should have time to analyze student data in order to investigate and improve their instructional practices. A PLC creates a structure within which to achieve those outcomes.

When members use data to drive and improve instruction, teachers are, in a way, forced to reflect on their current practices (Schmoker, 2006); however, a case study conducted by Young (2006) points out that preexisting group norms can have a significant effect with regard to the professional dialogue that takes place during analysis of student data. One implication from this study is that collaborative practices be encouraged so that the sharing of student data, from state mandated tests to individual

work samples, becomes the norm and, therefore, sets the stage for purposeful teacher learning and improvement of instructional practices within a PLC. Teachers do not become proficient by repeating the same teaching strategy over and over. Rather, teachers become proficient by adjusting routines and instructional practices when they systematically use student work and assessment data to drive reflective dialogue leading to improved instruction.

However, sometimes there is a lack of teacher knowledge on the ways in which to identify, gather, and use student data. For example, Rinke and Stebick (2013) warned against the common practice of only regarding student achievement to be envisioned as higher test scores. They argue it is essential to gain deeper understandings of student learning than is possible through the examination of test scores alone. When this happens the inquiry-based approach, which the professional learning community strives to achieve, will "foster greater attention to and reflection upon problems of practice" (Rinke & Stebick, 2013, p. 74). Slavit and colleagues (2012) asserted that when members focus on a selected piece of data for conversation, the interactions that occur reveal key beliefs and knowledge that can determine the work of the PLC. They affirmed that the most important conversations in which teachers engage "revolve around the use of student learning data" (p.9). Slavit et al.'s (2012) study of "conversational routines" (p. 9) in a PLC revealed ways in which data can be used to problematize practice. The outcome can be discourse that results in an ongoing identification of goals, the changes to practice that need to occur, and increased student understandings. In sum, researchers have asserted that working with student data within the context of a PLC enables and encourages members to identify and analyze broad measures of student learning and determine

appropriate modifications of instructional approaches targeting a specific learning goal.

Protocols

Collaboration is key in regard to the degree of professional learning that can occur within a PLC. It can be implied that teachers talking to each other is integral to the process. The use of protocols can encourage meaningful and substantive professional discourse and allow for the "inside perspectives" (McDonald et al., 2007, p. 1) that can be crucial to understanding students. Protocols consist of agreed upon guidelines for conversation. Protocols consist of agreed upon guidelines for conversation. In general, protocols recommended for use by PLCs are designed to encourage participants to push thinking on a given issue and to structure a discussion around a text (National School Reform Faculty, n.d.) such as student work. A protocol can promote focused dialogue while looking at student data, assessment data, or teacher work, and facilitates giving and receiving feedback, solving dilemmas, or working through problems of practice.

Protocols enable educators to identify, share, and confront the complexities that emerge when meeting the needs of students. Through collective inquiry, they help PLC members give up the tendency to try to manage problems alone. Protocols promote a communal awareness of individual student needs and a sense of strategic flexibility allowing for changes to common practices (McDonald et al., 2007). Important to its success, a teacher leader or a colleague trained in the use of a protocol should be considered in facilitating its implementation. One of the values of using a protocol is the opportunity to strengthen the PLC's overall capacity to solve problems of practice leading to more effective teaching practices and greater student achievement (McDonald et al., 2007).

With regard to the value of structuring PLC meetings using protocols, a study by Horn and Little (2009) ascertained their implementation as productive organizational routines. They compared the conversational routines of two "collaborative, improvement oriented teacher groups" (p. 211) in order to identify the differences in professional learning as a result of their respective discourse. The study took into account the personal and professional dispositions, years of experience, skills and knowledge of the participants-all of which varied among the two groups. Horn and Little (2009) found that both groups made progress in working through problems of practice; however, the researchers concluded that the use of "conversational routines" (p. 212) were not strong in either group and could have increased the learning potential of the members had they been more evident. Their analysis resulted in the conclusion that when the collective capacity of professional learning communities is cultivated using a conceptual structure such as protocol aligned to the work of the PLC, higher levels of investigation, and an increase in effective instructional practices will result over time.

Factors that Shape the Work of a PLC

A few decades ago, Lewis (1989) asserted that if "schools are, as some charge, dismal places to work and learn, it is because people have created them as such" (p. 220); however, Huffman and Hipp (2003) in collaboration with Hord, noted that a desire for staff to be motivated for school improvement must stem from a belief throughout a school's hierarchy of professionals that transformation is possible. This notion is based on their extensive case study research of the progressive development of PLCs within six kindergarten through twelfth grade schools. Huffman and Hipp (2003) offered that the "reculturing" (p. 5) of schools as professional learning communities involves the entire

staff in continuous learning and collaborative practices, defined visions for student learning, and a broadened leadership base inclusive of administrators and teachers.

The review of literature in this section takes into consideration the importance of collaborative practices within PLCs; however, there are factors that have become part of a school's culture that can interfere. First teachers cannot be expected to automatically collaborate; collaborative practices must be learned. Additionally, factors that may impede the progress of the work of a PLC such as traditional patterns of teachers working in isolation, issues with the teachers' union, and the notions of shared and supportive leadership within a PLC are explored.

A Collaborative Environment

Within a professional learning community, the assumption is that when teachers work together to continually evaluate the effectiveness of their practices and the needs of their students, professional learning will occur. Historically, however, schools have been organized as "individual classrooms connected by a common parking lot" (Little, 1999, p. 256), reinforcing teacher isolation. Because of this, teachers may be reluctant to share challenges and ask for help from colleagues. In some schools, teachers who believe they are working within a PLC use consensus and resort to quick fixes rather than investigate and analyze problems as a way to avoid exposing their professional challenges and uncertainties (Lieberman & Miller, 2008); therefore, many times, building a professional learning community within a school requires a shift in culture.

Shared personal practice. The concept of shared personal practice, or teachers being open to talking about what goes on in their classrooms, validates that a PLC is more than just teachers meeting together in collaborative teams without a well-

determined goal. Shared personal practice is best accomplished when a sense of both trust and respect can facilitate the work of the PLC members (Hipp & Huffman, 2010). Shared personal practice can be fostered through a collaborative environment in which teachers are encouraged "to make public what has traditionally been private" (DuFour, 2004, p. 4). It is promoted through discussions that are structured around improved instruction, both individually and collectively. Just asking teachers to be part of a professional learning community is not enough. The development of trust within the PLC takes time, yet it can help support the exchange of what previously might have been considered private, such as the sharing of student work (Coburn & Russell, 2008). Traditionally, classroom teachers have had full responsibility for their instructional practices as well as how students in their charge demonstrated their learning. Teachers working in isolation from their colleagues may be common practice. According to Hipp and Huffman (2010), sharing what takes place in classrooms may be considered risk taking for some teachers; however, when teachers talk about instructional strategies and are open to the possibility of improving their practice based on collaboration with colleagues, an increase in the level of trust between members can result.

Central to learning in a PLC are the identities with which the members view themselves and each other. A PLC may be comprised of both veteran and novice teachers. Lieberman and Miller (2004) recognized that members, regardless of years of experience, however, can make significant contributions to the work of the group. Veteran teachers and new teachers can be presented with opportunities to learn from each other (Lave & Wenger, 1991). For example, in a PLC that uses protocols novice teachers can be active participants, not just observers or listeners of those with more experience.

Essentially, building supportive conditions for achieving the goals of the PLC should be important to all participants, inclusive of teachers and administrators, and regardless of years of experience or position, in order to increase the likelihood of sustained successes.

Fullan (2001) contended that transforming a school's culture through the fostering of substantive conversations about instructional practices is a means for changing the way things have typically been accomplished. Fullan referred to this as "reculturing" (p. 44). The professional learning community offers a collaborative context for implementing new strategies, reflecting on outcomes, and making changes as necessary as a result of this kind of talk. Fullan noted that this does not mean creating a structure where collectively changes are adopted one after another. Rather reculturing means creating a culture that enables teachers to more readily accept changes to their craft. For example, numerous studies abound the field of education. Yet, Lieberman and Miller (2008) noted that for most teachers "theory and research are considered irrelevant, if not useless" (p. 20). Lieberman and Miller viewed professional learning communities as a means for teachers to develop as "self-conscious knowledge workers…people who generate and manipulate knowledge" (p. 20). The structure of a PLC encourages members to develop their abilities to seek, critically assess, and "selectively incorporate new ideas and practices" (Fullan, 2001, p. 44). Essentially, professional learning communities encourage teachers to view teaching as a constant construction and application of new knowledge, rather than a continuous application of their instructional practices based on experience.

Confronting the Traditional School Culture

While much has been written about the positive effects of working as a PLC,

"maintaining communities that are true to their mission" can be difficult (Lieberman & Miller, 2008, p. 34). For example, the kind of collaborative culture envisioned by Fullan (2007) challenges contexts where there are typically few meaningful professional interactions between educators, and is in stark contrast to the traditional culture of many school systems. Fullan recognized that if teachers are to begin to work collaboratively in PLCs and eventually see collaboration as a natural facet within the school, intensive and sustained action needs to occur. Similarly, Many (2008) saw the need to confront the isolation and privatism of the traditional education system where "teachers work in isolation with little time to share ideas or reflect on their practice, where school goals are the responsibility of the principal, and where the voice heard at the faculty meeting is often that of the teacher with the longest tenure" (p. 58).

According to Barlow (2005), "One of the immediate benefits of professional learning communities is a reduction in teacher isolation" (p. 64). However, Barlow acknowledged that teachers give up some of their autonomy when they are part of a PLC, and believes that this also means that teachers will no longer be in sole control of what they teach and how they teach it. Of course, traditional curricula and, most recently, the implementation of the CCCS should dictate content; however, for many teachers, control of what is taught and how it is taught dominated perceptions of what teaching was (Dale & Frye, 2009). For these teachers, the idea of collaboration or sharing their personal practices can present a challenge. Given this, teachers might not see the benefits of becoming part of a professional learning community until they allow themselves to experience a shared sense of purpose and participate in opportunities to learn from other teachers' strengths and experiences (Barlow, 2005; Leonard & Leonard, 2003).

Lujan and Day's (2010) study of an elementary school's professional learning communities demonstrates the positive effects PLCs can have when teachers transition from a culture of isolation to one of collaboration. The study was predominantly qualitative: teachers completed an initial survey, participated in interviews with researchers, and the research team observed PLC meetings over a period of six months. The researchers found that PLCs heightened collaborative practices by providing opportunities for teachers to meet on a regular basis. In turn, this enabled a supportive environment for teacher learning. Colleagues looked forward to meetings, and a trusting environment among the PLC's members became the norm. Moreover, teachers began talking about their practices and working to make changes knowing they had the support of their colleagues.

Collaborative practices are learned. Fortunately, a commitment to professional development on the purposes and processes of a PLC, for both teachers and administrators, can lead to greater understandings of its advantages, structure, and eventual sustainment. When the members of a professional learning community learn to collaborate, there are greater opportunities for changes in beliefs with regard to the importance of reflection on instructional practice and the benefits of open dialogue. These opportunities can result in the change necessary for teachers to feel less vulnerable within a school's culture as they also strengthen the work of the PLC. The more opportunities teachers are provided for working within a PLC towards an identified goal, the greater the chance of transitioning to a culture where collaboration supersedes isolation.

Eaker, DuFour, and DuFour (2002) provided important tips for successful collaboration within a PLC. First, continuous opportunities for collaboration must be made available. Next, PLC members must focus on key elements of student learning, have access to data, and pursue measurable goals. Finally, what might be the most important factor in creating the context for learning that can occur when teachers work collaboratively is the creation of and adherence to team norms. When taking teachers out of the isolation and the sense of security that many find within the privacy of their classrooms, establishing specific standards for how the team will interact can help with the transition. Teachers might be used to working congenially, or politely, as a team. This can be in contrast to working in a context in which collaboration is key.

Confronting traditional patterns. Collaboration can challenge the beliefs of teachers and their practices. It can be awkward when first experienced in the context of a professional learning community; however, as previously mentioned, the use of meeting protocols can help to give structure to newly developing PLCs. Teachers talking to each other about instructional practices may not be common within the school's culture, yet both the establishment of norms and the use of protocols may be the beginning steps toward the development of a well-structured and sustained PLC.

Sometimes educational improvements efforts can defy even the most well planned attempts. It is increasingly recognized that if schools are to achieve better results with their students, it must be a collective endeavor where teachers and principals collaborate to identify, achieve, and attain goals (Danielson, 2006). While the literature may highlight the teacher learning that can occur as a result of participating in a PLC, McLaughlin and Talbert (2006) noted that most teachers, even those said to be working

within a PLC, still practice in isolation. They contended that while the members of PLCs may utilize the structures that have been put into place to support them, such as job-embedded times for meetings, this restructuring does not always change the overall professional culture of the school. Lack of knowledge about how to facilitate and participate in professional learning communities by the teachers, administrators, boards of education, and/or influences from administrators can set the PLC on an unsuccessful path from the start.

Additionally, inadequate structures for meetings, unstated or underdeveloped goals, or ineffective (or a lack of) group norms may be contributing factors in maintaining traditional patterns of teacher isolation. The professional culture of the school can also have a negative impact on the potential of a PLC to change instructional practices. Little, Gearhart, Curry and Kafka (2003) asserted that a traditional school culture of "non-interference, privacy, and harmony" (p. 187) can prevent a group of teachers from participating in open dialogue that can honestly confront challenges regarding student learning and improvement of instructional practices. They asserted that when this type of culture is present in a school environment, it makes instructional improvements nearly impossible to accomplish even PLCs are enacted.

PLCs and the teachers' union. Two areas that may pose challenges for school leaders working towards change, such as implementing professional learning communities, are contract limitations and strong leadership found within teachers' unions. McLaughlin and Talbert (2006) noted that many unions have not been forthcoming in establishing contract language to support the collaborative practices necessary to the effective implementation of a PLC. In districts where teachers' contracts

have traditionally placed strong limitations on collaboration beyond the classroom, leaders may find themselves in a difficult position in moving forward with change. Leonard and Leonard (2003) described a "toxic culture" (p. 3) where there is an obvious lack of purpose within the culture of the school and collaboration is discouraged, often causing antagonistic relations amongst the teachers and between teachers and administrators. Authentic teacher collaboration is unfortunately unlikely to occur in this type of school environment. Leonard and Leonard argued that improvement will not be realized unless teachers see the importance of the endeavor and work together to make the change in culture; however, even in more conducive circumstances, dissenters are inevitable. However, in a four-year study of a team-based school initiative, Suppovitz (2002) found that even when roadblocks to collaboration are experienced, there is still likelihood when implementing professional learning communities of "powerful consequences for the performance of both teachers and students" (p. 1618).

Administrators leading for sustainability. Ideally within a professional learning community, collaborative practices and shared leadership between administrators and teachers is evident (DuFour, 1999; DuFour et al., 2006); however, it is important to consider that the nature and quality of the leadership provided by the administrators might influence the degree to which shared decision making takes place. Based on a high school study of the roles of administrators within a PLC, McLaughlin and Talbert (2006) concluded that principals set conditions for success by the manner in which they allocate resources, relate to teachers and students, and support or inhibit the interactions with the faculty. A context of shared leadership between administrators and the members of a PLC is ideal. Yet, in reality, many times administrators do have the

final decision on particular matters. For example, access to student data and funding for professional development sessions to support PLC goals should be readily available to sustain the work of the group. Unfortunately, that is not always the case: developing an environment of shared leadership between administrators and teachers within a professional learning community can be challenging as it can easily fall victim to top-down leadership.

Additionally, administrators may be primarily focused on getting quick results. In a synthesis of common approaches to PLCs, Jacobson (2010) stated that "the results oriented approach sometimes leads to top-down, superficial implementation and, because of its focus on short term results, often underinvests in building the capacity of teachers to deepen their use of effective teaching strategies in classrooms" (p. 38). In some schools, principals and teachers may be used to deflecting responsibility instead preferring to blame each other while avoiding challenging conversations about teaching practices and student achievement. Thought must be given to building the capacity of the members of a PLC through logistical conditions, such as organizational elements that can reduce teacher isolation (DuFour & Marzano, 2011; Hord, 1997). For example, PLC meetings embedded in teachers' schedules avoid questions about how to find time for meetings and when they will take place. Creative scheduling, many times on the part of the administration, can provide additional times for members to gather. A number of faculty meetings or professional development days may be designated for the work of a PLC. Similarly, structures such as email lists and even bulletin boards might be put into place to allow for members of the PLC to have access to relevant information and greater communication.

In essence, when principals lead for sustainability of professional learning communities and value the concept and its potential for positive effects, "teachers and principals become more alike than different" (Lambert, 2005, p. 40). Administrators who foster a compromising stance on decisions can help PLC members grow professionally and share responsibility for the outcomes of the group (Hord, 2007). The key is for administrators and teachers to work together in order to achieve the common goal identified by the PLC.

Outcomes of the Professional Learning Community

As teachers learn from one another within the context of a PLC, they begin to see the ways that colleagues can contribute to and enrich one another's professional growth. As staff learning should be an ongoing process, a professional learning community can provide the context for members to conduct their work thoughtfully, reflectively, and continuously.

Professional Development and the Professional Learning Community

For at least the past few decades, there has been a paradigm shift with regard to the professional development of teachers (Harwell, 2003). Until then, professional development had been described by educators as episodic with little attention given to carry over into the classroom or attention to whether or not what was learned during the professional development session affected the learning of the students (McLaughlin & Talbert, 2006; Tyack & Cuban, 1996). Fueled by research on how students learn as well as increased accountability for student success via state and federal standards, the focus for much professional development has shifted from the traditional transmission of content knowledge and pedagogical strategies often presented to teachers who are

expected to be passive recipients of others' expertise. More recently, professional development more commonly "involves teachers in the dual capacities of both teaching and learning and creates [new] visions of what, when, and how teachers should learn" (Vescio, Ross & Adams, 2007, p. 80). The professional learning community offers the possibility of professional development through a "vision of teachers not only as users of pedagogical knowledge, but also as creators of it" (Wood, 2007, p. 282). In order for professional development to be beneficial, it should be ongoing, situated in a local context, and continuously engaging with authentic issues and challenges; a well implemented PLC does this by definition (DuFour & Eaker, 1998; Fullan, 2001).

Professional learning communities can promote professional development best practices. The teacher participant is viewed as a learner in a PLC. It is assumed that actively engaging in a professional learning community will increase teachers' professional knowledge (Vescio et al., 2007). Cochran-Smith and Lytle (1999) identified three conceptions of knowledge that can drive reform initiatives intended to promote teacher learning: knowledge of practice, knowledge for practice, and knowledge in practice (p. 250). Knowledge of practice is particularly applicable to the teacher learning that can take place within a PLC. It is based on the view that the knowledge needed for teachers to teach well is generated when they view their classrooms as sites of inquiry. Through inquiry-based practices within an effective PLC, teachers can learn about and also critique the work of educational theorists and established research-based practices. In a professional learning community setting that has an approach to teacher learning based on research-based best practices, teachers learn by working within the contexts of

communities of inquiry to theorize and construct their work (Cochran-Smith & Lytle, 1999).

Teacher learning within a PLC is not only informational; it can be transformational. Mezirow's (2000) definition of transformative learning as a process by which we "transform our taken-for-granted frames of reference" (p. 7) is reflected in the goals of the professional learning community. Members of a PLC talk to each other and learn from and with each other and transformative learning within a professional learning community involves participation in constructive discourse. This can result in a significant change in how an individual views a substantive issue. In the case of a PLC, the discourse may prompt a change in perspective on what may have been recognized as tried and true teaching strategies. Boucouvalas and Lawrence (2010) further explained transformative learning by noting that "perspective transformation" (p. 41) occurs when the members of professional learning communities critically reflect on the instructional strategies and assumptions concerning teaching and learning that have become the norm in many schools. They noted that reflection may transform teachers' perspectives on what had been the standard. Through teacher dialogue and inquiry, members can assess their justifications and assumptions regarding their practices and make action-oriented decisions on the resulting insights. The PLC can provide the platform and the motivation to initiate and persist in this kind of learning and change and the skill to negotiate the complex participant structures of any organized approach to instruction that are all necessary for accomplished learning (Shulman & Shulman, 2004).

Hord and Hirsch (2008) asserted that if teachers are to become more effective, their knowledge and skills must be enhanced, their instructional practices must become

more powerful, and their "application of strategies must be more appropriately determined and delivered" (p. 23). The authors attributed the gap that exists between the levels at which educators want students to perform with the levels at which they actually do to poor quality of instruction. Hord and Hirsch attached this problem to teachers' lack of continuous professional growth; however, they claimed that the most efficient way to assist teachers in helping all students is to engage them in professional learning communities. Similarly, Elmore (2002) viewed the goal of professional development as one in which the new knowledge and skills gained should manifest in teachers' improved professional practices and, thus, lead to greater student learning. Elmore asserted that key to the increase in professional capacity is the "assumption that learning is essentially a collaborative, rather than individual activity" (p.8). Elmore made clear that educators learn more effectively with others who are struggling with the same issues. When there is collaborative and reflective action, members of professional learning communities are more likely to develop the skills needed to make teaching more effective and improve student outcomes (Birenbaum et al., 2011; Fullan, 2007). Importantly, teacher learning requires consistency that is responsive to issues of student learning.

The active learning opportunities provided through professional learning communities can encourage teachers to transform their instructional practices and not simply layer new strategies on top of old ones (Darling-Hammond & Richardson, 2009). In a five year study designed to organize inquiry-based professional learning communities in an elementary school, teacher participants acknowledged that, through consistent participation in PLC meetings, they began to identify themselves as "professional learners who came not only to recognize issues within their own

understanding and practice but learned to leverage their own and others' knowledge as well" (Richmond & Mankore, 2010, p. 558). Similarly, Schmoker (2006) highlighted the work of a high school that offered staff no external professional development over a five-year period. Instead, PLCs were implemented and their school made extensive gains in student achievement due to "internal expertise, shared and refined by groups of teachers" (p. 109). Grossman, Wineburg and Woolworth (2001) pointed out that a key rationale for implementing PLCs is to provide opportunities for collaborative investigations, the modeling of new approaches to instruction, and opportunities for critical reflection on practice. The more opportunities provided to teachers to transform their current practice, the greater the chance of effective change (Fullan, 2007).

Educational Reforms within a PLC

A benefit of teachers talking about their practice while working within a PLC is the potential to sustain new programs, strategies, and other educational efforts by fostering a fundamental change in educators' approaches to teaching and learning (Garrett, 2010). For example, as part of the Bay Area School Reform Collaborative (BASRC) in San Francisco, one elementary school developed PLCs with the intent of increasing the language arts skills of its students. By looking at student data and evaluating a district-adopted writing program, six teachers in a combined second and third grade PLC worked collaboratively to evaluate and address the adequacy of the program and plan lessons to fill in the gap in skills related to the needs of the students (McLaughlin & Talbert, 2006). Teachers supported each other in the implementation of new strategies through peer coaching and feedback. Essentially, the results of their work indicated that a sense of comfort where teachers felt at ease talking about instructional

practice was critical in changing instructional strategies. Additionally, their work promoted the concept that the help of colleagues is a critical ingredient in the purposeful, collegial learning that can occur within a professional learning community (DuFour et al., 2006; Hord, 2007; Senge et al., 2000).

A PLC can provide the structure needed to go beyond relatively small scale changes in practice to implement larger scale educational reforms such as the CCCS. New Jersey's adoption of the CCCS represents a significant change in curriculum, instruction, and assessment, and the PLC provides for a system of job-embedded professional development when teachers work within collaborative teams to address this major change. Fisher et al. (2013) encouraged educators to view the implementation of the CCCS through a system of inquiry, and a PLC can help support that process, too. They noted that inquiry is increasingly considered a primary "engine of reform" (p. 9) and provides a means to change and sustain school practices. As a result of the inquiry that is encouraged in an effective PLC, participants may make connections across learning problems and identify solution(s) and sources of support. Teachers discover they are not the only ones struggling to help particular students master specific standards. They may also find ideas of what might work in their instructional practices by hearing about what works in a colleague's classroom (Fisher et al., 2013). The professional discourse that takes place when teachers collaborate facilitates this kind of exchange of information and problem solving as well as the structure necessary to sustain the PLC.

A study conducted by Birenbaum et al. (2011) affirmed the importance of inquiry when implementing an educational reform. Their research design was comprised of two layers and focused on how to efficiently integrate and maintain the use of an "assessment

for learning" instrument with students. Data collection included rating response questionnaires which investigated the association between implementing the assessment for learning instrument with students, and the experiences, through observations and interviews, of six elementary teachers who were part of an established professional learning community while implementing the assessment. The findings pointed to meaningful relationships between the implementation of the assessment, the classroom cultures in which they were implemented, and the teachers who were part of the professional learning community. The researchers noted the importance of professional learning communities because they can provide a type of school-based professional development that promotes "social capacity" (p.13). Concentrating first on educational ideology and its implicit theories of learning, a PLC can provide structured support to the staff in order to develop a coherent shared vision to guide and/or change their practice while working towards successful implementation of a reform.

Teacher Leadership

The teacher leader is a relatively new role in which educators define themselves as learners, teachers, and leaders. Teacher leaders, when respected by their colleagues, can make a significant contribution to the collective learning necessary to sustain a PLC (Danielson, 2006). Teacher leaders foster a capacity for "reciprocal, purposeful learning together in a community" (Lambert, 2005). Teacher leadership in a PLC involves understanding and acknowledging that all members have professional knowledge, experiences, and skills that they either bring or develop through their engagement in the process. McDonald et al. (2007) referred to this as "distributed facilitated leadership" (p. 12). This concept suggests that all members in the PLC should be able to establish and

utilize norms, keep each other focused on the identified goal, encourage colleagues to share information freely yet respect others' perspectives, and help the members to make a collective commitment to group decisions.

DuFour (1999) stressed that in order for teacher leaders to emerge and be effective, there is a need for "principals to lead from the center rather than the top" (p. 13), which provides an avenue that allows teachers to take leadership roles within the PLC. It also enables decisions to be made through compromise within the group rather than giving administrators the final word. Fullan (1995) fostered a similar idea of moving away from administrators leading only from the top in order to enable all members to see themselves as equal to the success of the group; however, Fullan acknowledged that in a PLC, a facilitator is sometimes necessary. Fullan noted there are times when participants within the PLC may have specific expertise and they may be consulted as PLC members work. Lieberman and Miller (2004) viewed this as teacher leadership and a means for educators to step up and lead learning for the members. In essence, an array of professional knowledge among the participants can nurture the possibility of the group achieving particular goals.

Additionally, teacher leadership can help to foster the reculturing of the teacher's role from one on whom initiatives are imposed to one that, as teachers work within a PLC, develops a structure that encourages innovation. Reeves's (2008) study attempted to answer the question of whether top-down initiatives are more or less effective than teacher leaders when it comes to addressing the needs of all students. Reeves based the study on the idea that although the literature on the benefits of teacher leadership is compelling, there are few empirical studies noting successes when teachers take

ownership of their professional development needs. Reeves conducted the study within 81 schools in Clark County Nevada, the United States' fourth largest school system. Reeves asked groups of teachers identify data on the needs of their students. They made detailed observations, took copious notes of their experiences working with their colleagues, and tracked students' performance outcomes. The research focused on all grade levels, prekindergarten through high school. Reeves found that teachers not only exert significant influence on the performance of their students, but they also influence the performance of other teachers and school leaders. Overall, the teacher participants reported that they were more likely to be influenced by the professional practices of fellow teachers than by those in administrative positions. Based on his findings, Reeves asserted that observation and discourse on professional practices must become the new foundation for professional development. Reeves concluded that top-down initiatives are less likely to make changes to instructional practice than when teachers are granted opportunities to learn from and with each other.

In many school contexts, an administrator or department chairperson is viewed as the leader of change. In these instances, change may be imposed upon the teachers. However, teacher leaders within a professional learning community can free up time for the administrators, which enables them to serve as content experts or knowledgeable resources rather than in administrative roles, which can impede a PLC's collaborative processes; however, this person does not, then, lead the work of the PLC. Gallimore et al. (2009) noted that even the most motivated teams need a "point person" (p. 548), who has been identified and trained to guide their colleagues through the process over time. They suggested that selecting a teacher leader is critical to sustaining the kind of inquiry

typical of a PLC long enough for cause-effect connections to be made by the professional learning community.

Additionally, Gallimore et al. (2009) asserted that teacher leaders play a key role in sustaining effective professional learning communities. One important reason for this is that teacher leaders may be employing the same lessons or strategies in their classrooms as others on their grade level or content area. A well-trained teacher leader can help fellow PLC members approach their work or identified goal, as an investigation. One may ask for the assistance of other professionals, such as a math coach or a reading specialist. This can help ensure a more manageable progression toward achieving the PLC's goal.

Conclusion

With collaboration at its core, it is vital for the PLC to maintain an environment that encourages teachers to take chances and experiment knowing there is a support system in place for doing so (Barlow, 2005). Teachers commonly encourage students to take chances and seek opportunities that challenge their thinking. Teachers may also offer options for students to go above and beyond what they might think they are capable of achieving; however, a great number of teachers may cling to the comfort of their classrooms, maintain autonomous control of how they present content and, take few risks themselves. This can prevent educators from challenging their students as well as their own thinking about instructional practices (Dale & Frye, 2009). Yet when teachers come together and regularly reflect on practice, utilize student data to improve instruction, and make decisions about what they need to learn in order to be more effective in their craft, they are operating as a professional learning community.

Implicit in the literature on professional learning communities is the assumption that with an inquiry based approach to teacher learning which a PLC can provide, all teachers regardless of experience can better address students' needs. This is achieved through systematic inquiries about teaching, learning, subject matter, and curriculum. In sum, the research indicates that in comparison to traditional forms of professional development, when schools implement professional learning communities more and effective opportunities for teacher learning and improvement of instruction occur. The members' learning that takes place within a PLC is intentional. Goals are derived from the analysis of student data and defined in terms of what the PLC members need to learn and change. Therefore the work is appropriately aligned with need and is automatically relevant and timely. Research based practices on how new knowledge can be transferred back to classrooms in order to address students' needs more effectively are addressed. As presented in this review of literature, although well-established and effectively sustained professional learning communities can be challenging, PLCs are a means by which schools can continuously improve instruction and student performance and are certainly worth the effort. The literature makes clear that structure is a vital component to the successful implementation of a professional learning community. This concept was a primary factor in the design of the study and as described in Chapter 3.

Chapter 3: Research Design

The main purpose of this study was to document what happened when fourth grade instructional team meetings at Pondview Elementary School became data driven, transitioning them to being a professional learning community. Stakeholders interested in improving education broadly assume that teachers are key to instructional change (Cochran-Smith & Lytle, 2009). As much of the literature regards a process of inquiry as a "central driver of school reculturing and reform" (Cochran-Smith & Lytle, 2009, p. 49), a practitioner inquiry approach was the most appropriate research method in relation to the research questions. For all intents and purposes, it was the combination of me as the teacher-researcher as well as the use of my professional context as the research site that was critical to the process.

I utilized a descriptive approach to the study in order to compile in-depth data from multiple sources over time (Creswell, 1998). As a result of the work of the fourth grade professional learning community, I chose qualitative methods of data collection in order to generate information used to inform and prompt reflection leading to innovation and positive improvements (Patton, 2008). I employed qualitative data collection procedures in order to describe and interpret the fourth grade team's perceptions of the operations, processes, and outcomes of the changes to their grade level meetings. Specifically this involved participants' completion of beginning and end of study interviews, completion of the same survey at the beginning and end of study, researcher-facilitated professional development sessions, audio recordings and transcriptions of PLC meetings, as well as related documents collected throughout the study. I also maintained a researcher's journal throughout the study in order to record my observations of PLC

meetings as well as insights and descriptions gathered through interactions with members of the PLC and the school community.

Context of the Study

Pondview Elementary School is located in a predominantly White, middle-class community where 96.7% of the student population speaks English as their first language. Overall, the students come from families of moderate income; a small percentage qualifies for free or reduced lunch. The average class size at Pondview School is 20 students with a 96.5% student attendance rate. Grades kindergarten through five are housed in the building. There are approximately 400 students in 23 general education classrooms, a primary specific learning disability (SLD) classroom, settings for 1 full-time and two half-day special education teachers, one full-time and one part-time basic skills teacher, a reading specialist, and an Early Connections (K-2 reading intervention) teacher. The percentage of students with Individualized Education Programs (IEPs) at Pondview School is 21.6%.

Pondview School is located in a small district within the township of Danville, New Jersey. During the 2012-2013 academic year, the district was classified by the New Jersey Department of Education as being in District Factor Group "I." This is the second highest of eight groupings used for comparison of socioeconomic conditions of local school districts. There is one other, much larger, elementary school and a middle school located in this school district. Students are sent to a regional high school. At the time of the study, the district's administrative staff included an interim superintendent of schools, a curriculum director, an interim director of special education, and a principal and vice-principal at each school.

All classes at Pondview School are led by faculty who are "highly qualified" according to federal standards. The school employs 21 full-time certificated teachers. This number is inclusive of 21 general education teachers and four special education teachers who meet with students in resource, inclusive, and self-contained settings. There are also six related arts teachers. These include music, computers, world language (Spanish), physical education, science, and art. General education teachers' schedules are organized around a six-day cycle. Each of the related arts specialists meets with individual classes for at least one period per cycle. According to the teachers' negotiated contract, all general education teachers have at least one preparation period per day when students attend a related arts class. During each cycle, one of these 45 minute preparation periods is designated as a grade level team/professional learning community meeting.

While professional development is generally supported throughout the district, there have been challenges in regard to its usefulness and effects in teachers' practices. During the time of the study, New Jersey's Department of Education (NJ DOE) required schools to maintain a Local Professional Development Committee (LPDC) composed of top-level administrators, a board member representative, and teachers. The state also required a School-Based Professional Development Committee (SBPDC) composed of building administrators and teachers. The submission of district-wide and school based professional development plans to the county office was also required. Over the last few years, the LPDC and each SBPDC have worked to bring administrators and teachers together in their commitments to professional growth. Teachers typically attend out of district workshops and conferences each year for as long as the allotment of professional development money provided to each school by the board of education remains. While

teachers are encouraged by administrators to share new knowledge and resources they have gained at a workshop or seminar with their colleagues (without compensation), it is not mandatory. In fact, the teachers' union frowns upon this because it views doing so as providing professional development, or turnkey training, an activity that requires payment to the provider. While the professional development, which teachers attend outside the district, may lead to positive changes in practice for those who attend, there are few opportunities for these teachers to share what they learn. Consequently, this results in little or no effect on the professional practices of colleagues.

Also within the district, analysis of student data has been explored, but not necessarily with success. Over the past three years, the school-based committee at Pondview School has been responsible for planning an early fall half-day professional development session for the staff. Typically, the principal and vice-principal create a PowerPoint presentation on the NJ ASK scores from the previous spring to present to staff working with students in grades three through five. These have been referred to as data analysis sessions. As part of this half-day, teachers are given time to look through the assessment results, writing samples, and any other information the state may provide. As the fall semester progresses, data analysis becomes part of agendas for grade level team meetings and/or an occasional faculty meeting. Teachers are expected to continue to look at the results and identify areas where individual students, clusters of students, or an overall grade level did not perform as expected. Administrators anticipate each year that the data will encourage teachers to make changes to instruction in order to increase scores on following spring's NJ ASK. It is important to note, however, that a framework for change has never been enacted in order to support these expectations. It has been my

experience that administrators and teachers view the data by achievement levels or, in other words, by comparisons of the number of students who scored below proficient, proficient, or, advanced proficient-NJ ASK achievement levels. From my perspective, this approach to data analysis does not provide teachers with a structure for reflecting on instructional practices, programs and resources. Comparing the educational resources and instructional strategies utilized within our classrooms with student results in specific assessment areas seems a more effective way to interpret the data. Unfortunately, team meetings that are supposed to be the time to do this become preempted by other topics, such as supply orders and other administrative tasks unrelated to curriculum and instruction.

During the study, a district imposed reading initiative was introduced at the elementary level in grades three through five. While there was no formal professional development provided for teachers who were expected to implement the program, during the summer of 2012, a group of teachers worked to create binders of resources and lessons to help guide teachers at both elementary schools in doing so. The administrators selected participants based on interest, professional expertise in the area of reading, and the amount of funding the board of education provided for the work. Each participant was compensated based on the negotiated hourly wage under the teachers' contract for writing curriculum. The binders provided the third through fifth grade teachers with an initial plan for implementing the new design into their reading instruction as well as supplemental resources and activities to use through the school year.

Additionally, the district hired a literacy coach to meet with general and special education teachers for two hours once a month in order to instruct and answer questions

regarding the elements of the new reading program. Before each meeting, teachers were asked by an administrator what their needs were and/or what they would like to discuss during the session. This information was relayed to the literacy coach prior to meeting with the grade level teams. While the literacy coach had good intentions and attempted to provide a level of comfort and ease to the implementation of the reading program, there was no continuity of teacher learning from meeting to meeting. In fact, only short portions of some meetings were based on student data, such as work samples or assessments.

Vygotsky's (1978) work on the social nature of learning would suggest that teachers learn best when they work collaboratively. Within this context, cognitive development occurs as a result of socially meaningful activities, and over time individuals integrate the representations of external artifacts into their thinking and make appropriate changes (Tasker, Johnson, & Davis, 2010). Unfortunately, teachers did not have this kind of learning opportunity in the Danville School District at the time of the study. NJ ASK data analysis for teachers in the upper elementary grades at Pondview School had become something that teachers "sat through" with very little reflection on teaching practices. As mentioned previously, teachers were made aware of the numbers of students that scored in the particular categories of proficiency for the NJ ASK, yet data was not analyzed with the goal of instructional improvement. However, past practices with regard to analysis of student data suggested the possibility of implementing professional learning communities as a means for teachers to collaboratively analyze data and reflect on their instructional practices leading to increases in levels of student proficiency.

Research Participants

Understanding the workings and perceptions of the members of a professional learning community at Pondview School called for convenience sampling (Merriam, 2009). In this case, that meant the fourth grade instructional team for the 2012-2013 academic year included me as researcher/participant. This was the appropriate method of participant selection because I am a fourth grade teacher and it made the most sense to engage my fourth grade colleagues, who were already meeting on a regularly scheduled basis and supposedly working as a PLC, in the study. I easily obtained permission to conduct the study from the district and building administration.

The participants for this study were four general education classroom teachers (including myself as participant researcher), and the reading specialist and basic skills instructor who were assigned to work with the fourth grade team. The district requires that one administrator attend grade level meetings; the vice principal was present at our PLC meetings throughout the study. All of the participants had at least eight years of teaching experience. The general education teachers and I had worked as a fourth grade team before. The reading specialist and the basic skills instructor were new to our team. All participants were female.

All of the participants worked in some capacity with the fourth grade students during the 2012-2013 academic year. The vice-principal, Terri, was new to our school and the district in September 2012. This was her first year as an administrator, too. She came to us with 21 years of elementary and middle school experience, having taught all grade levels except first. She holds a Teacher of the Handicapped certificate, and has

worked with pre-school students diagnosed with autism and as a basic skills instructor. She holds two Masters degrees: one in teaching and one in administration.

Eileen, a reading specialist, has worked at Pondview School for three years and was the only non-tenured teacher on the team at the time of the study. Before coming to our school she had taught first and third grade and then team taught in a departmentalized school where she was responsible for reading, writing, and social studies instruction for third graders. She had also been a reading specialist for a kindergarten through grade eight school. She holds a Masters degree in reading and is also certified as a reading specialist.

Rose has 15 years of teaching experience, six of them in our district. She has experience teaching grades five and six and basic skills instruction in the elementary grades. She holds a Masters degree, a Supervisor of Instruction certificate, and an Instructional Technology certificate.

Jane has eight years of teaching experience, all within our district as a fourth grade teacher. She was working on a Masters degree in Educational Administration at the time of the study. For the past four years, she had served as our grade level team leader. She was approved as team leader for the 2012-2013, a negotiated and stipended position under the teachers' contract. The team leader is expected to work with the administrator to create the agendas for the team meetings. The team leader conducts the meetings and attends bi-monthly meetings led by the principal with the rest of the grade level team leaders. Information shared by the principal often becomes part of the grade level agendas.

Pat has worked in our district for 10 years. All of her experience has been in grade four except for the year she 'looped' to fifth grade with her fourth grade class. She holds a Masters degree in Special Education. She has experience at Pondview School serving as the fourth grade team leader, although she has not had this role for four years.

Catherine has worked in our district for 11 years, having taught for three years in an elementary school in Pennsylvania before moving to New Jersey. Most of her experience in our district is in grade four, except for one year when she taught third graders. She holds a Masters degree and is also a Reading Specialist.

The fourth grade students were divided into four classrooms (see table1). Three out of the four classes contained students with an Individualized Education Plan (IEP). Depending on a student's IEP, some students left their homerooms for replacement reading and/or math instruction. These students might have been mainstreamed for related arts and/or science and social studies classes. Other special education students received aide support and were mainstreamed in a general education classroom throughout the day.

Table 1

Grade Four Classes 2012-2013

Class	Number of Students	Classroom Supports
4A-Pat	19	N/A
4B-Cathy	20	Full-Day classroom assistant in compliance with IEPs for at least two special education students.
4C-Catherine	19	Part-Time classroom aide to assist mainstreamed science and social studies students
4D-Jane	18	Full-Day classroom assistant in compliance with IEPs for at least two special education students.

Role of the Researcher

As mentioned in Chapter 1, the fourth grade general education teachers as well as our principal attended a workshop in the winter of 2011 led by Rebecca and Robert DuFour that inspired thoughts of reinitiating PLCs at our school. After discussing with my principal and grade level colleagues a desire to restructure our grade level meetings as a professional learning community, it seemed appropriate for me to lead the effort, given my role as a member of the fourth grade team and the studying I have done on PLCs as a doctoral student; however, it was important for me to consider how I might influence the study in my role as a participant researcher because I would be an active participant in the team meetings. This presented an opportunity for me to utilize the skills I had been developing as a doctoral student, but I was concerned that my colleagues might think that due to my research on PLCs, I was an expert and their knowledge and thoughts during the study would not be considered. I also did not want my colleagues to view the study as a graduate class project. Instead, it was important to me that they see the study as an effort that could benefit teacher and student learning in the fourth grade. The concept of a PLC includes the development of shared leadership. Although I facilitated the initial changes in the team meeting structure, I anticipated that a sense of shared responsibility for what takes place at the meetings would develop among the members (Hord & Sommers, 2008). It was my intention to work collaboratively with Jane, our designated team leader, to develop the agenda for each meeting with the anticipation that she would eventually be able to facilitate the meetings utilizing the PLC framework.

Throughout the study, I assumed the role of participant researcher (Merriam, 2009). Taking this stance allowed my parallel role as a researcher to be known, yet this

role was considered subordinate to my participation as a member of the fourth grade professional learning community. This stance permitted me to be involved in the group's activities and responsibilities while also allowing me to obtain reliable data as the study progressed (Merriam, 2009). I recognized that my role in leading the study had the potential to enhance the work of the group and/or present challenges; however, I was aware that the development of a sense of trust amongst the members could counterbalance the anticipated challenges as an important characteristic of a PLC (Huffman & Hipp, 2003; McLaughlin & Talbert, 2006) and one, which I, as participant researcher needed to foster. Teachers should be able to share ideas, opinions, and thoughts without the fear of judgment. In an environment of trust, this would be more easily accomplished. Recognition on my part that trust would have to evolve was an important factor to consider since being open to sharing thoughts and ideas candidly did not typically occur at our team meetings.

It was important for me to explain my role as researcher and facilitator of the change to all participants, too. My concern was that I would be perceived as a pseudo administrator. Through initial dialogue, I expressed my goal of developing a sense of community and pointed out that doing so is a reciprocal process. This meant that all members should feel free to engage as equals in the dynamics of each meeting. For example, teachers sharing what happens in their classrooms and then feeling comfortable enough to ask fellow group members for their impressions and suggestions could present a challenge. This kind of interaction was not typical at Pondview School. As a facilitator of the change it was integral for me to help stimulate a culture of trust within our professional learning community.

PLC Design

Although there is an abundance of literature describing the characteristics of PLCs, there is little direction on how to implement and sustain them; however, Hipp and Huffman (2010) provided prescriptive information ranging from initiating to strengthening a PLC, as well as how to assess the effectiveness of an established professional learning community. Cowan (2003) promoted the professional teaching and learning cycle (PTLC) as a step-by-step process for initiating and sustaining a professional learning community. I selected this as a framework for structuring the fourth grade team meetings as a professional learning community because the PTLC "provides an ongoing, job-embedded strategy for increasing the alignment of instruction and assessment to state standards and local curriculum" (p. 65). It had the potential to provide a continuous structure needed to implement our PLC. I realized, though, that we could not work through the PTLC without knowledge of its components as well as the research based dimensions of a professional learning community. It was important for all members to have the same general knowledge of the PTLC and PLCs before the change to the structure of the meetings took place.

Professional development and initiating the PLC. An integral component of the research design was the professional development session that I conducted before changing the meeting structure. As participant researcher, it seemed necessary to implement professional development that could help teachers step into new expectations and roles that could support the success of the PLCs. I also wanted to enable them to understand the importance of experiencing continuous professional growth as the professional learning community could provide (Harwell, 2003). The intent of the

professional development I designed and implemented in preparation for the PLC transition was to help the teachers become familiar with the typically acknowledged dimensions of a professional learning community, understand the new organizational structure of the fourth grade team meetings, and provide me the opportunity to present to the group my role in the study.

Due to a variety of issues, the professional development session was conducted during school time, but not after school. Holding the session after school could have possibly caused problems with the teachers' union in regard to offering professional development without compensation for the facilitator or the participants. I had asked the principal if it would be permissible for me to conduct the professional development session during a faculty meeting because this would have given me 15 minutes more than during a team meeting; however, the principal did not feel he could let staff miss the meeting because of important agenda items that needed to be presented to all teachers. Therefore, the professional development session took place over the course of two team meetings in my classroom. This setting enabled me to use my classroom's SMART Board. All participants were present for both sessions except for Eileen who was sick for the first session. She emailed me to ask if I would meet with her separately to review the presentation, which I did.

The professional development session (See Figure 5) was organized around the use of PowerPoint. The information in the PowerPoint presentation was designed to move from presenting the research and literature on PLCs to the restructuring of our team meetings. I believed that it was important to present information from the literature because I wanted to bring the idea of a PLC to the participants as a research based means

of improving student achievement. As my colleagues may have been familiar with Richard DuFour and his "big ideas" (DuFour, 2004) or questions to guide PLCs, since they had been introduced at Pondview School, they may not have been aware of the longitudinal research conducted by Hord (1997). I believe her efforts give more credence to the use of a framework, such as the professional teaching and learning cycle, in working to institutionalize (Fullan, 2007) an effective professional learning community.

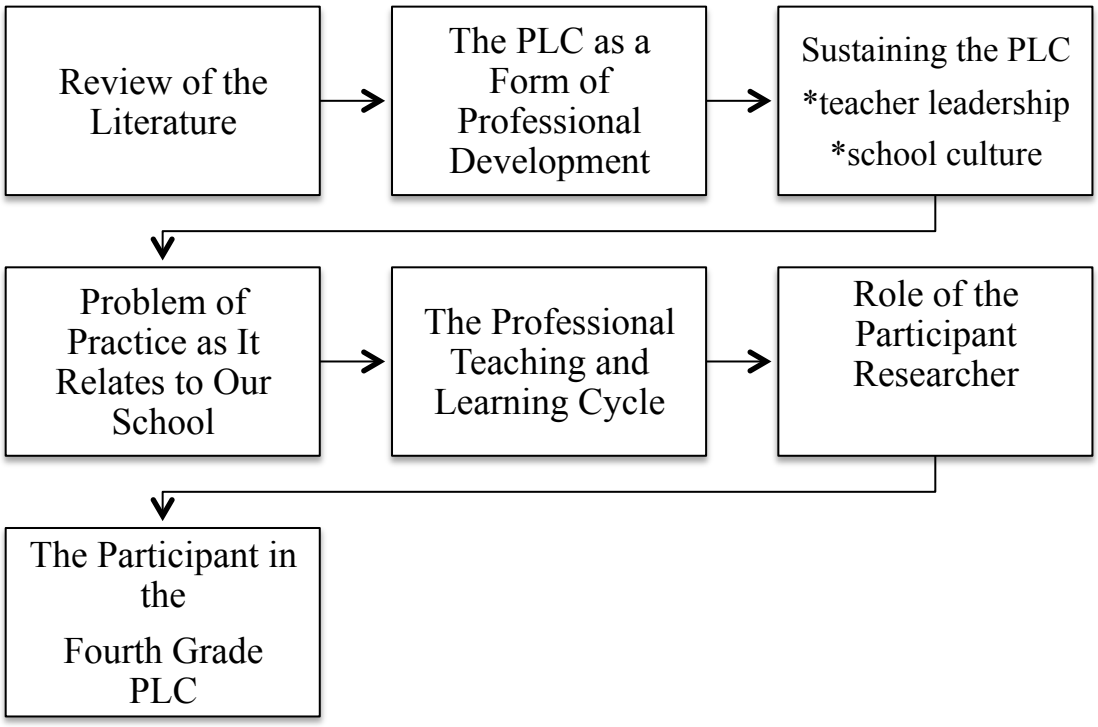


Figure 5. Outline of professional development presentation to participants,

The team was used to an administrator and the team leader creating an agenda for each meeting, which typically was not data driven or oriented around instructional issues. My intention in reviewing research-based dimensions of PLCs found in the literature was to give the participants a glimpse of the fact that the restructuring of the team meeting would not simply be a new way of organizing the agenda. Rather, I attempted to present the perspective that we would be using our grade level meetings for teacher learning. I

wanted to make substantive changes that would fundamentally alter the work of the group. This would result in a shift in focus from administrative tasks to improving student outcomes through changes to instructional practices. This was not a common practice in our school, or something we ordinarily would think of as a result of a team meeting. I also felt it was important for the participants to recognize that the meetings would not take place as individual events; rather there would be continuity from one agenda to the next, allowing for continuous and systematic discussions about teaching and student learning.

In preparation for this presentation, I had created a binder for each participant, which I presented to her at this meeting. I included information from the professional development presentation, such as the diagram of the professional teaching and learning cycle (Figure 6). I also included a policy brief on professional learning communities I had designed for a previous class taken within the teacher leadership concentration of my doctoral program at Rutgers. I explained that I hoped the binder would be used to collect information related to PLCs, in general, as well as a means for organizing our work as we moved to achieve our goals.

Before ending the session, I made sure to take time to be as clear as possible that although I would be able to provide guidance, what we chose to work on and whenever consensus was required within the PLC, collaborative decision-making would occur. I wanted to assure them that this method would prevail and that I would not make a decision for the group without consensus. I explained that this was also a means for sustaining the work of our PLC because we would all be equal partners in the decision making process. In fact, most of the second professional development session was used

for collaboratively creating group norms, which I believed, helped demonstrate this. I provided a few examples to generate what became our first conversation as a PLC that lead to a group decision. By the end of the meeting, we had agreed on nine norms. I told the group I would type them, give each member a copy, and we would confirm and/or make adjustments if necessary at our next meeting (Appendix A).

Defining the PTLC. The PTLC was developed as a joint effort between the Charles A. Dana Center at the University of Texas at Austin and the Southwest Educational Development Laboratory (SEDL). It consists of six steps for organizing teams of teachers to function as professional learning communities: study, select, plan, implement, analyze, and adjust (See Figure 6). The PTLC focuses on the alignment of curriculum, instruction, and assessment to the Common Core Curriculum Standards. It offers an outline for professional collaboration for teachers and teacher learning and promotes continuous job-embedded professional development. All components of the PTLC utilize and place a strong emphasis on analysis of student data leading on the assumption that this can lead to greater teacher capacity and result in increased student achievement. While the expression professional learning community has become a popular catch phrase in the field of education, its words describe an "infrastructure" (Hipp & Huffman, 2010, p. 57) that supports continuous learning and improvement on the part of adults in order to achieve increased student outcomes (Cowan, 2003).

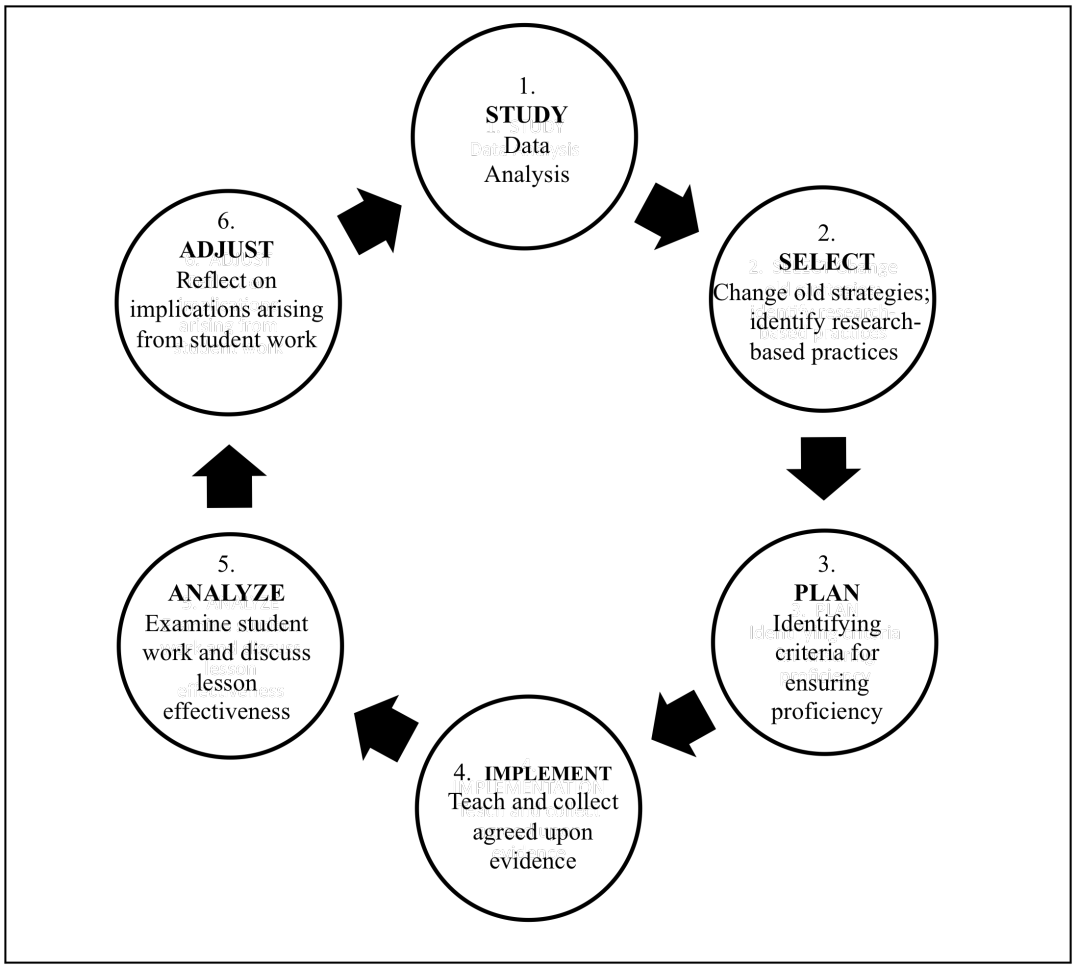


Figure 6 . The profesional teaching and learning cycle (PTLC).

The steps the group followed to implement the PTLC were:

- "Study" involves deep analysis of student data to generate a data based focus of work for the PLC. In order to generate organization of the task as well as a framework for research-based data analysis, I adapted a data driven dialogue protocol from the National School Reform Faculty (NSRF) as a way to help the group identify a focus. Once the group came to a consensus on the area to be addressed in the NJ ASK language arts literacy data, the members identified the corresponding Common Core Curriculum Standards. In this step, the PLC took the time to identify the

pre and post grade level expectations of the standard in order to gain an understanding of the knowledge required of the students in the prvious and following grade levels.

- "Select" requires the PLC to investigate research-based strategies and necessary resources to promote mastery of the targeted standard(s). It was during this step that the varied expertise of the members of the group was especially well utilized. Members conducted a search of research based practices on professional websites and shared professional literature throughout this step.
- "Plan" requires the members to collaborate and create a lesson which addresses the PLC focus, incorporates the PLC's agreed upon research-based instructional strategies, and is aligned to the CCCS. During this step, the members also agree on the criteria for measuring proficiency, or evidence of student learning, to be collected and shared with the PLC members in step 5.
- During the "implementation" step, the members teach the planned lesson or apply the instructional strategy selected during the previous step, take note of successes and challenges, and collect the agreed upon evidence of student learning.
- "Analyze" requires the teachers to examine the students' work to assess the effectiveness of the lesson or new strategy that was implemented. A protocol centered on looking at student work adapted from NSRF was used in order to encourage meaningful and substantive dialogue among the

PLC members. The protocol enabled the PLC to examine the student data as a way to judge the lesson's effectiveness. The protocol was also used in order to raise members' comfort level with sharing their students' work. The protocol was designed to encourage teachers to discuss challenges encountered as well as student responses to the lesson.

- During the "adjust" step, the teachers to reflect on implications and outcomes arising from the analysis of the students' work. At this point in the PTLC, discussions among the members include, for example, possible changes that could be made to increase the lesson's effectiveness. It is also important here to identify students who could have been further challenged during the lesson or those who missed mastery of the standard and address these students' needs.

The PTLC offered a guided structure for members to utilize in reaching the PLC's identified goal. The structure also provided a framework for the members to foresee what the group would be working on, and to have the potential to prepare for each meeting. I anticipated that our PLC would be able to go through this cycle at least twice during the period of data collection for the study. As mentioned, analysis of NJ ASK data was the focus of the September in-service day organized by the school-based professional development committee. Because of this, the group had identified areas of need in language arts literacy before the first meeting organized under the structure of the PLTC. This allowed for a quicker identification of standards to be addressed. Additionally, the students had taken an electronic reading comprehension assessment with questions linked to the Common Core Curriculum Standards, so that data was

available to the PLC members, too. Knowing this at the beginning of the cycle helped provide an initial focus for the group and enabled the PLC to move more quickly to step 2. With team meetings having little structure in the past, the PTLC was the appropriate framework for this community of professionals who came together to learn from and with each other.

Data Collection Procedures

Qualitative research uses multiple methods to collect data that are interactive and humanistic (Creswell, 2003). It takes a constructivist approach to data collection in a natural setting. Data in a qualitative study is emergent rather than anticipated. Qualitative researchers seek participants' contributions through active involvement. Participation in the study took place from the fall through late spring of the 2012-2013 school year (See Table 2). The design of this study was primarily descriptive. The main sources of data were a survey completed by the participants prior to the change in meeting format and at the end of the study, audio-recorded and transcribed fourth grade team's PLC meetings, field notes collected in a researcher's notebook, beginning and end of study participant interviews for a total of twelve interviews, as well as a variety of artifacts such as meeting agendas.

Table 2

Timeline for Data Collection 2012-2013

Timeline for Data Collection
October/early November (Prior to PLC transition: •Beginning of study interviews (audio recorded/transcribed) •Participants' completion of PLC Survey •PLC Professional Development session •Collection of field notes, documents, and varied artifacts
November through April (PLC transition and ongoing meetings): •All meetings were audio recorded and transcribed •Collection of field notes, documents, and varied artifacts
May: •End of study interviews (audio recorded/transcribed) •Participants' completion of PLC Survey •Field notes

Interviews. To begin the study, I conducted individual interviews with each of the participants: the three classroom teachers, a reading specialist, a basic skills instructor, and the vice principal. My principal approved a half-day morning professional day in order for me to conduct the beginning of study interviews. They took place one morning in late October in an unoccupied classroom. I created a schedule assuming thirty minutes per interview. The semi-structured interviews allowed for flexibility in the use of probing questions in order to garner authentic data (Merriam, 2009) related to each participant's perceptions of the workings and structures of professional learning communities to date at Pondview School (Appendix C).

The interviews were conducted before the change in the structure of the grade four meetings was initiated (Fullan, 2007). The questions prompted the participants to reflect on their overall perceptions of PLC meetings at our school, their personal

experiences as members of a PLC, and thoughts on the operations and structure of the PLC meetings since their original implementation at Pondview School. At the beginning of the study, meetings in which grade level teachers met during their common preparation period (regardless of what they did) were referred to as team meetings or PLC meetings. I used them interchangeably because there was no a commonly understood definitions that distinguished between the two terms. I anticipated that data collected before the change to the structure of the PLC meetings would help to identify participants' perceptions, attitudes, and personal experiences as members of professional learning communities thus far. I also expected that data from the interviews would provide me with information about participants' prior knowledge, which would be useful for organizing a professional development session on PLCs. I recorded all interviews with each participant's permission. Interview recordings were transcribed verbatim as soon as possible after the interview.

The end of study interviews took place in late spring. For comparative purposes, the questions were essentially the same as the beginning of study interviews, yet more opportunities for probing questions became apparent because of the participants' experiences and were taken advantage of during each interview. Members had been through the PTLC, so it was expected that their beginning of study thoughts on PLCs would contrast with their end of study responses. The participants were asked to describe their thoughts on the processes, challenges, successes, outcomes, and implications since t the structure of the team's PLC meetings had been transformed. The participants were encouraged to reflect on both the successes and the challenges throughout the study's

timeline. Again, all interviews were audio recorded and transcribed verbatim as soon as possible after the interview.

Survey. Each participant completed a survey at the beginning and at the end of the study. Participants completed the surveys after the interviews. The same survey was used each time. I organized survey according to the most common dimensions of effective professional learning communities found within the literature: shared and supportive leadership, shared values and vision, collective learning and application, shared personal practice, supportive conditions-relationships, and supportive conditions-structures. I created the survey (Appendix E), with sections adapted, from the Professional Learning Communities Assessment-Revised survey (Olivier, Hipp, & Huffman, 2010) and the Professional Learning Community Survey found through the National School Reform Faculty. The survey offered the participants a confidential opportunity to provide information related to topics that may have been contentious, such as administrative cooperation with regard to the work of the PLC in the past at our school. It contains a series of statements and responses based on a four point Likert scale requiring participants to select the scale point that reflected their level of agreement with each statement: 1 = strongly disagree; 2 = disagree; 3 = agree; 4 = strongly agree. The survey took approximately 20 minutes to do and was completed at the convenience of participants. During end of the study, data analysis the survey responses from the beginning and end of the study were compared and contrasted (Appendix D). Additionally, the survey provided data reflective of the degree to which the participants thought the new PLC structure achieved research-based practices.

Field notes, artifacts, and documents. I used a researcher's notebook to record field notes during and after each PLC meeting. I scheduled a fifteen-minute free reading period for my fourth grade students that took place upon their entry back to the classroom from their science lab and right after our PLC meeting. This period was supervised by my classroom assistant and allowed me the opportunity to record additional thoughts, happenings, observations, etc. while they were still fresh in my mind.

I recorded other notes throughout the study, too. These include interactions between PLC members occurring outside of the scheduled PLC meetings during one-legged interviews (Hall & Hord, 2001). These are quick interactions in passing that can be used to clarify or add data that complements the research questions. Asking a participant how they felt about the change to the meeting or inquiring about something that was said during the meeting allowed me to garner information in an informal, less threatening way, as opposed to putting her on the spot during a PLC meeting. Many times participants would seek me out between meetings to offer ideas and share thoughts related to the change in meeting structure or our PLC's goal. I recorded these interactions as close to the time of occurrence as possible. I related notes reflecting questions and discussions to the study between colleagues who were not participants and me, such as our principal, were also recorded in my researcher's notebook.

In qualitative research, artifacts can supplement data gathered from interviews and observations (Merriam, 2009). With this in mind, I collected copies of fourth grade PLC meeting agendas as well as the resulting minutes from each meeting. The fourth grade team leader agreed to provide these documents. The purpose of collecting them was to help structure agenda items moving forward in order to provide continuity from

one meeting to the next, something that historically had not been evident at PLC meetings and had been confirmed through the beginning of study interviews. Additionally and for comparative purposes, I gathered meeting agendas and minutes from the third and fifth grade team meetings for the duration of the study, too. Permission to collect these from the administration as well as the cooperation of the secretarial staff was sought and granted.

Validity of the Study

Research of any kind seeks to produce valid knowledge (Gall, Gall, & Borg, 2010). It was important for me to avoid factors that could compromise the credibility of the findings. Creswell (1998) described validtiy in qualitative research as a process of certification that begins with data collection and continues through the anlaysis and the writing of the study. Creswell (2003) suggested that researchers utilize a "procedural perspective" (p. 196) in confirming the validity of findings. Knowing this, the process of triangulation or the use of multiple data sources served to increase the soundness of the findings (Creswell, 2003; Merriam, 2009). Triangulation occurred as a means for examining varied data in order to build a coherent rationalization for themes and patterns. For example, the beginning and end of study interviews, a total of twelve interviews, as well as the survey responses, audio transcripts of the PLC meetings, field notes, and artifacts helped to confirm emerging findings across the data sets during analysis. Rich and thick descriptions (Creswell, 1998, 2003; Merriam, 2009) within the field notes provided corroborating evidence. Additionally, when conveying the findings, using rich, thick descriptions allowed for in-depth protrayals of what happened during the study. These descriptions were guided by the research questions.

Member checking, taking the data back to the participants for confirmation, was used throughout the study. The process of seeking feedback to confirm emerging findings, such as themes or patterns, helped to rule out the possiblity of the researcher misinterpreting what was said during an interview or a meeting (Merriam, 2009). Member checking took place via email as well as in person. Asking the participants to review transcriptions as well as observational field notes and comment on their accruacy throughout the study helped to solidify validity, too (Creswell & Miller, 2000; Creswell, 2003; Merriam, 2009). I asked participants thorughout the study to comment on the changes to the meetings. I conducted these steps on an individual basis and each participant was asked once or offered the information without initial prompting from me. Confirming my observations and my perceptions of events with the participants helped to substantiate the findings.

Reliabilty refers to the extent to which research findings can be replicated (Merriam, 2009). The possiblity of implementing the structure of the PLC meetings within other grade levels and sites in the future or the procedure being replicated by others, caused me to want the findings to be "consistent and dependable" (Merriam, 2009, p. 221). Because of my position in the study as participant researcher, it was important for me to engage in critical self-reflection regarding possible assumptions or the potential influences from the established personal and professional relationships I had developed over the years with the other participants. Merriam (2009) referred to this as a researcher's position or reflexivity in which the researcher must be aware throughout the study, but espeically during analysis of data, of possible biases that can influence the presentation of the findings. I used reflexivity to increase validity. I refrained from

talking about the change as “my study” or “my dissertation.” I worked to be sure that members took ownership of the work we did, decisions were based on group consensus, and ideas presented by members were encouraged and to prevent the PLC members from viewing the process as directly related to my research as much as I possbily could.

A final strategy I employed to increase validity, the sampling, provided for “maximum variation” (Merrian, 2009, p. 227). Maximum variation allows for the possiblity of greater range of transference of the findings leading to a more valid and credible study. Amongst the seven participants, there were four different ways in which the fourth graders received service: general education, basic skills insruction, instruction by a reading specialist, and the support, guidance, and leadership of an administrator. Variety of opinions, expertise, and contributions to the PLC’s goal was inevitable.

Data Analysis

Analysis of qualitative data is generally an inductive activity; it is artful, reflective, methodological, and intellectual (Coffey & Atkinson, 1996). Analysis of this study was reflective of this description. In fact, data analysis was not a linear process, as it took place throughout the study. Additionally, classification and interpretation of the data with each intercepting the other occurred throughout the study (Creswell, 2007). For example, I found myself continuously reflecting and using my research journal to note interactions between members. I thought about and noted in the journal the outcomes of each meeting and where the work was leading us in relation to our instruction and our students. In addition, I worked to determine how best to organize the patterns of interactions, ideas, the implementation of the new meeting structure, etc. that arose throughout the course of the PLC meetings.

Asking the participants to complete the survey early in the study provided me with an opportunity to understand their general perceptions, knowledge, and experiences of professional learning communities. Data were entered, coded, and cross-coded through a database created using Dedoose, a cross-platform application for data analysis. I used the beginning of study interview questions as a basis for beginning the coding process knowing it would also inform the professional development session before the implementation of the new structure. For example, one question asked the teachers to define a professional learning community. Answers were compared and contrasted according to the common characteristics of PLCs. Teachers' responses were entered and relationships, patterns and themes were identified. Since the purpose of the survey was to inform the design of the professional development session as well as the restructuring of the PLC meetings, a descriptive approach was used in analysis of the survey results. I sought patterns in the misunderstandings about PLCs as well as the perceived potential benefits. Each section of the survey contained a comment section. These responses served to enrich the data provided through the responses to the statements within each dimension.

Due to the large amount of data transcribed from audio recordings of PLC meetings and interviews, again the qualitative research data software, Dedoose, was utilized. However, all transcriptions were printed and read using a highlighter to develop an initial coding scheme. Descriptive coding for each qualitative data source was conducted first and challenged my skill as researcher with identifying recurrent themes, patterns, and categories. The research based dimensions of professional learning communities, as identified by Hord (1999) and DuFour (2004), provided initial codes:

shared and supportive leadership, shared values and vision, collective learning and application, shared personal practice, supportive conditions-relationships, and supportive conditions-structures. Sub-codes were added, for example, to distinguish between data from the general education teachers, the administrator, the reading specialist and the basic skills instructor. This choice helped clarify the perceptions of individual members of the PLC that were, at times, seemingly related to their position at the school. In sum, the analysis was organized to reflect and answer the questions driving the study.

As previously noted in this chapter, I analyzed all data from the teacher interviews and survey responses at the beginning of the study to help inform the professional development before the PTLC was initiated; however at the study's completion, the beginning and end of the study interviews were examined together in order to identify patterns and changes related to changing the form and function of the meetings. The responses were compared and contrasted for each participant from the beginning with the end of the study. Due to the nature of the semistructured interview, the responses were analyzed question by question. For example, one of the interview questions asked each teacher to describe her experiences as a member of a professional learning community; responses were grouped in order to identify patterns. It was also important for me to be mindful of sensitizing concepts such as "top-down" where the data could be further broken down and organized (Patton, 2008). During analysis, for example, this referred to the influence an administrator could have on the decision-making practices of the PLC. Additionally, participant disagreements and lack of participation were also identified as a way to determine cause for obstacles and barriers as well as their outcomes.

Qualitative data captures meaningful talk about beliefs, understandings, implications, and actions of participants (Merriam, 2009). Because of the volume of data collected, the process of data analysis in this qualitative study was not a distinct stage in the research process; rather, it was an ongoing activity that took place throughout data collection (Coffey & Atkinson, 1996). Using hard copies of the data, including typed copies of journal notes organized by month, an inventory of the data set was created and enabled me to access results from a variety of sources in an organized manner throughout the study and its analysis. In sum, data analysis was inductive and deductive. Being immersed in the data from the beginning to the end of the data collection, analysis and writing phases provided me with the information necessary to derive meaningful and trustworthy findings. These enabled me to make informed judgments on the implications that can result from implementing a research-based designed professional learning community.

Chapter 4: Findings

The Evolution of a Professional Learning Community

A critical factor in whether students learn well is the quality of instruction (Lieberman & Miller, 2008; McLaughlin & Talbert, 2006). Hipp and Huffman (2010) pointed out that improvements in educational outcomes require teacher learning. The professional learning community (PLC) has been cited as the most productive context for promoting continuous teacher learning in order to improve instructional practices (DuFour et al., 2006; Hipp & Huffman, 2010; Hord & Sommers, 2008; Marzano & Fullan, 2011). Teacher learning may take many forms, but the outcome is always linked to an increase in student achievement; for example, designed to improve learner outcomes, educational reforms are often attempted by altering a curriculum, implementing new programs, or purchasing new resources. However, changes or modifications to instructional practices can be challenging for any teacher regardless of years of experience. According to Fullan (2007) "Educational change depends on what teachers do and think" (p. 129). Yet, teachers are often left on their own when required to implement a new initiative. Putting the CCCS into practice, for example, can lead to varied quality interpretations of implementation or possibly resistance amongst colleagues across a grade level or throughout a building. Fullan stressed the importance, therefore, of leading educators through a process of defined steps that enable an initiative to move in a logical flow from initial implementation to institutionalization. While a PLC can offer a job-embedded structure for working through the steps Fullan (2007) referred to, it also provides an avenue for collaboration amongst teachers, warding off isolation, enabling them to more successfully implement an initiative.

In a PLC, educators learn from and with each other through collaborative practices. When teachers share their expertise with colleagues, they give each other access to their own thinking and educational practices. As a result, fellow teachers can question, discuss, debate, and relate the topic to their own practices (Dana & Yendl-Hoppey, 2008). Similarly, Henson (2001) found that teachers influence student learning more effectively as a result of their participation in collaborative opportunities. Teachers involved in Henson's study reportedly preferred learning collectively rather than through traditional professional development because it allowed them to actively improve their instructional practices; however, a professional learning community is not something that educators simply "do." A PLC evolves over time, but within the framework of educational change theory, the collaborative practices necessary to support the successful work of a PLC can be fostered (McLaughlin & Talbert, 2006). Providing educators with opportunities to become fully vested in improving their own practice through active involvement in a PLC can have positive effects on the achievement of students (Marzano & Fullan, 2011).

Unfortunately, and in contrast with PLCs, educators often become accustomed to top-down initiatives in which they play a relatively passive role in the change process. For example, many new programs and ideas are linked to the latest educational buzzword or state mandated plan. This often takes decisions related to implementing the initiative out of the hands of teachers. Boards of education and administrators may scramble to be sure that materials are purchased or current resources are updated and aligned to the reform; however, what is often overlooked is providing opportunities for teachers to become adept at implementing the initiative in order to positively affect student learning.

As a result, many times educators are not given ample time to become proficient with a strategy or program before the next new instructional expectation arises. A PLC can provide educators with collaborative opportunities to draw on research and professional wisdom to integrate initiatives with their current practice more effectively. If teachers "are to become as effective as our children deserve them to be, their knowledge and skills must be enhanced, their application of skills must be enhanced" (Hord & Hirsch, 2008, p. 23). The professional learning community provides the context for the teacher learning/professional development needed to increase and maintain high quality instruction ultimately benefitting student learning.

The main purpose of this study was to identify what happened when fourth grade team meetings, which had been typically used to accomplish tasks more administrative than curriculum related, reorganized as a professional learning community. In this study, I sought to explore the work of the participants as their team made the transition to a PLC using data to drive meeting topics and educational decisions, the way in which contextual factors influenced the work of the PLC, and changes that occurred for the members of the professional learning community as a result of their participation.

In this chapter I first describe the preconceptions the participants had about professional learning communities in general and their thoughts related to the dimensions of PLCs within our elementary school. This information is relevant as the starting context for the work and was attained through interviews and survey responses conducted at the beginning of the study. Then I describe the professional development session I facilitated as a way to help participants understand what PLCs are generally, and one specific strategy for doing that work. I facilitated this session with the intention of

enabling all participants to begin the process with the same general knowledge of professional learning communities. Next, I present the work of the group by describing themes related to the evolution of the group and the factors that influenced it. In particular, I focus on the collaborative and sometimes contentious interactions of the participants while working to reach an instructional goal identified through the analysis of student data as well as the challenges to professional discussions and collaborative practices the group faced. Then I describe what happened when the group completed its initial goal of developing a plan to increase student vocabulary. I end with the PLC determining that there are varied forms of data that can be analyzed within a PLC that can influence teacher practices and student learning.

As a result of its analysis of student assessment data, the PLC focused on vocabulary development and created a "vocabulary program," which is referred to throughout this chapter. The students participated in three cycles of the vocabulary program during the course of the study. Each cycle encompassed five weeks and, for the first four weeks of a cycle, the students were introduced to five words each Monday. The words were found within a research-based "Tier 2" (Beck, McKeown, & Kucan, 2002) list of vocabulary and were grouped into specific categories as noted in the chart below. At the end of weeks two and four the students were assessed on the ten words they had just learned. At the end of the fifth week, the students took a cumulative assessment on the 20 words learned throughout the cycle (See Table 3). This information provides a concrete description of exactly what the PLC created and, therefore, is important background to the findings described.

Table 3

Example Cycle of Vocabulary Program

Week	New Words	Word Category	Assessment
1	5 words	Character Traits/Adjectives	Homework activities
2	5 words	Action Verbs	Homework activities and 10 word quiz
3	5 words	Adverbs	Homework activities
4	5 words	Interesting Words to Use in Writing	Homework activities and 10 word quiz
5	Students participate in activities to review the words in class and study for cumulative test.		Cumulative Assessment: 20 Words

Where We Began: Identifying Preconceived Notions about PLCs

Professional learning communities at Pondview School had seemingly become an initiative that had been "tried," yet with lack of support, inconsistency, and inadequate knowledge of PLCs on the part of both administrators and teachers, over time they were almost forgotten. Over the last few years, the meetings for many grade levels had reverted to being called "team meetings" or "grade level meetings" instead of PLC meetings. This reflects the fact that PLCs never really took hold and resulted in varied misunderstandings as to what PLCs were and could possibly do to benefit teaching and learning. As discussed in Chapter 1, teachers across the district had not been very receptive to the idea of professional learning communities when they were first introduced a few years ago. This reflects the fact that PLCs never really took hold. Hargreaves (2003) lamented that the culture of a school often has the power to make or break an initiative. In fact, attitudes among many of the staff in relation to PLCs were not positive. The study, however, presented opportunities to try again and challenge the current culture.

Whether state or district mandated, over the last few years one initiative after another designed to improve outcomes seemed instead to challenge the quality of instruction. For example, while resources were usually purchased to implement an initiative, effective professional development opportunities intended to sustain their use had not been the norm. This often led to varied and sometimes poor quality of implementation. Additionally, many times initiatives were added without the removal or evaluation of programs that had previously been district approved and which teachers were expected to continue to implement. Essentially, efforts made to improve student learning seemed to have an adverse effect in that efforts made to advance the quality of instruction sometimes undermined and overwhelmed the system. Most recently, administrators and the board of education worked to ensure that teachers had the necessary supplies, such as new textbooks, for implementing the CCCS. As a result, in the two years prior to this study, the upper elementary classroom teachers had to implement new writing, new reading, and new math programs, all aligned to the CCCS. With little or no professional development offered on how to implement them effectively, I experienced myself, and observed among my colleagues, increased levels of frustration. Teachers were doing the best they could; yet there were few opportunities to master effective implementation strategies for an initiative before they were expected to implement yet another.

Given this situation, I was aware that colleagues might look upon my study as yet another initiative piled on top of too many that had come along in recent years; however, I felt the crux of the issue was that teachers and administrators did not have enough knowledge of or experience with professional learning communities to know that when

implemented using research-based practices, they could actually help them address all the new demands they were facing. Unfortunately we were all accustomed to independently planning for instruction. We never really knew much about the teaching and learning that took place in each other's classrooms and the opportunities this awareness might provide. Nor did we have an understanding of the knowledge that could be generated if we worked together to solve problems identified as a result of examination of student data within our PLC. Through conversations in the hallway, the copy machine room, or at a team meeting, we may have asked each other things like what chapter we were working on in social studies or if we were currently using guided reading instruction or a class-wide novel study. Always willing to share an idea or a resource, the fourth grade teachers readily would make an extra copy of a worksheet to place in colleagues' mailboxes. I always felt there was a wealth of expertise and a willingness to share amid the members of our team, yet our conversations about practice never went very far and we continuously worked in isolation from our fellow fourth grade colleagues. It was my belief that implementing a research-based PLC would provide opportunities for collaboration that could result in teacher learning and improved instructional practices.

The study began with individual participant interviews focused on preconceptions about PLCs. Participants were asked to describe their feelings about and knowledge of PLCs as they had been enacted in our school in recent years. Three of the six participants mentioned they had read recently about PLCs in order to prepare for the interview. At first I thought that this might skew the data in relation to each participant's prior knowledge of PLCs, but then I thought that I probably would have done the same thing. I asked colleagues to describe their knowledge of an initiative that they were supposed to

have implemented but really had not, and so they felt they would be expected to know what to say. One teacher admitted she was nervous that I would be testing her knowledge of PLCs. It seemed easy to conclude that the beginning of study interviews may have intimidated some of participants. Teachers may have thought they had misconceptions of what a PLC was, what it could offer a grade level team, or even that they really should know about professional learning communities, so they thought that reading up on PLCs was necessary. The fact that they felt they needed to read about PLCs was certainly telling about the state of PLCs in the building: they were essentially non-existent. The teachers had no frame of reference to draw on other than to read up on the topic.

The first interview question asked each teacher to define what a professional learning community is. Generally, the participants' answers pointed to a professional learning community as a group of teachers who work together and share ideas. However, Jane, our team leader, responded that a PLC is used to "articulate what we want the students to learn, how we want the students to learn, and what we would do if a student is not learning properly, or not getting it." Her response was in exact alignment with the guiding questions for PLCs that had been posted in the conference room where we met when professional learning communities were first introduced at Pondview School. Although incorporating these questions (DuFour, et al., 2006) had not become common practice, this teacher did recognize them as related to the definition of a PLC.

Catherine, a general education teacher, described a PLC as people working and planning together. She said it is a type of "culture" that teachers work in where there is continuous sharing of lessons and resources, rather than just during the scheduled team

meeting. Because she interestingly viewed a PLC as a culture rather than a particular set of practices and processes, I decided to probe further and encouraged her to look beyond teachers sharing resources and asked her how she would feel about talking in our PLC about what goes on in her classroom or even sharing samples of student work during a meeting. Her response to this idea was positive: she implied that it would enable teachers to judge the level of work students are producing against those in other classes. Catherine stated, however, that it would be a "hard first step" to get teachers to share and ask for feedback, but necessary in order to raise the level of communication between PLC members to meet the goals of the group.

Rose and Eileen, the basic skills instructor (BSI) and reading specialist respectively, had similar responses in describing a PLC. In essence, they said it is a group of teachers working and supporting each other with the goal of enhancing student achievement. Eileen explained that she had only been a part of "bits and pieces" of a PLC at Pondview School and the district where she had worked previously. She mentioned that administrators in both placements wanted teachers working within a PLC, but she had "never seen it happen the way it is supposed to." Rose had similar observations.

Because both Eileen and Rose had been asked to work within an ineffective PLC in previous settings, I probed further and asked what challenges were encountered that prevented teachers from functioning as PLCs in their experiences. Rose reported that sometimes she had participated in professional development sessions that had been designed to encourage collaboration, and teachers generally worked together during these sessions. She said that what was accomplished during these sessions was good, but lack

of follow-up meetings did not help teachers to "embrace" the PLC concept. She also added that what was presented or learned in a professional development session was rarely linked to topics talked about during PLC/team meetings. Rose felt that team meetings had the potential to provide time for further discussions of what was learned. DuFour and Marzano (2011) asserted that in a professional learning community, educators collaborate and become committed to helping students acquire the same knowledge and skills that can lead them to success regardless of the teacher (Birman et al., 2000; DuFour & Marzano, 2011). Rose's mention of further discussions of professional development opportunities points to how this can happen in a PLC, too. Both Eileen and Rose described how a PLC could offer opportunities for teachers to work and support each other's efforts to improve instruction. Unfortunately, they also noted that PLCs, as they had been enacted at our school, had not provided the context for such experiences.

The vice principal, Terri, new to our district in September 2012, defined a professional learning community as professionals working together to "benefit the students collectively." Her response was similar to Jane's, but she also stated that PLCs should identify what we want our students to learn, how they will learn it, and how we know if it was learned. Her response was closely aligned with the work of Richard DuFour, but she admitted she had looked over some research on PLCs before her interview. However, she took this definition one step further and talked about the need for educators to change their "mentality" when it comes to the way they use assessments. She emphatically said that data should not be simply put on charts or graphs to be looked at and put away, but rather educators should be questioning assessment data and probing

it for insights on what is needed to help students be successful. In other words, teachers should be engaging in conversations related to how to better their instruction through analysis of student data; she was suggesting that PLCs are an ideal context for doing so. However, none of the teachers' mentioned using student assessment data in their descriptions of PLCs. The vice principal's focus on the use of data could have been due to her position as an administrator; lately central office staff had asked the administrators to figure out ways to better track the students, such as through increases and decreases in students' reading levels over the course of each quarter of the school year. She mentioned more than once that teachers should be looking beyond the needs of their individual students and collectively shifting their thinking about instruction from "my class" to "our students." She seemed very excited about being a part of our PLC and looked forward to the possibility of "teachers unleashing their potential as professionals." However, when I asked her to describe PLCs in our school she responded that she did not think we had PLCs. She described team meetings as teachers sitting together and maybe sharing resources, or administrators using the meeting times for information dissemination and decision-making. She further explained the main problem with PLCs in our building was that teachers and administrators did not have an adequate understanding of what they are or how to implement them. Along the same line of thought, one of the interview questions asked what changes needed to occur in order to better support the members of a PLC at Pondview School. The vice principal gave an in-depth and thought provoking response:

> First thing that pops to mind, [we need] something that helps us to be organized…I think that's the biggest piece of it. Once you understand it, how it can be implemented, you can see how to embrace it. I think it has to be organized for us somehow. It's like baby steps. What's the first thing? What's the second

> thing?...How do we organize this new way of thinking and embrace this new culture of collaborating rather than it just being some abstract concept. Make it tangible. How do we accomplish the goal? What do we need to do to really be a part of this and make it work? I think for many people it's just a term they heard.

After they were all interviewed, the teachers also completed a beginning of study survey adapted from the Professional Learning Communities Assessment-Revised Survey (Olivier et al., 2010) and the Professional Learning Community Survey found through the National School Reform Faculty (Appendix E). The main intention of the survey was to be able to compare participants' perceptions at the beginning and end of study of the existence of research-based dimensions of professional learning communities in our group. The survey deepened my understanding of what teachers knew about PLCs, but more importantly helped give me a picture of how they perceived the culture of the school with regard to implementing our PLC. Although I told each teacher her answers were confidential and I would not be able to match responses to participants, a few seemed reluctant to complete the survey. This may have been because teachers typically are not used to being asked their opinions about matters involving administrators or school culture. For example, one statement asked the participants to rate the degree to which administrators were equal members of the PLC. The responses were split as 50% agreed and 50% disagreed.

All six participants agreed, when prompted by the question, that PLC members assume a shared responsibility for student learning. Of course, agreeing would be the 'correct' answer and participants probably knew that; however, in the interviews, none of the teacher participants identified the analysis of student data as a means to change instructional capacity in order to increase student learning. This suggests that they recognize that this is a function of a PLC when they see it, but did not think of it on their

own. There was little mention in the interviews, too, of PLC members collaborating on a common goal concerning student learning. Only half of the teachers believed there was a process in place at the school for developing a shared vision among PLC participants. Confusion among participants of what is meant by a 'shared vision' in relation to a PLC might have had an impact on the responses. Perhaps the participants thought a shared vision might be similar to a mission statement, something teachers at our school were familiar with. In fact during the interview process, the only person to mention a PLC working towards a common goal was the vice principal. Teaching and planning lessons in isolation had been a part of our school's culture for quite some time. The idea of teachers collaboratively creating a vision that was part of a plan for achieving an instructional goal across a grade level was not typical. The survey responses indicated that teachers, in general, were concerned mainly with the students in their own classes, indicating that broadening their thinking to grade level or school wide improvement might be challenging. Given that Hord (1997) asserted that a professional learning community should have a shared vision of school improvement occurring as a result of an undeviating focus on student learning, it was clear that a research-based approach to implementing a PLC would be a major culture shift for the fourth grade team.

The only section of the survey where the statements received 100% agreement by all participants was related to professional relationships within the PLC. All participants felt there were caring relationships built on trust and respect among the members within our team. I question how honestly the respondents assessed this statement given that two of the participants had not been a part of the team meetings with the fourth grade before and the vice principal was new to the district. Perhaps their responses were due to

misunderstanding the difference between a congenial (friendly) and a collaborative (working) relationship (Intrator & Kunzman, 2006) or mistaking the latter for the former. In an environment of congeniality, participants are kind to each other and willing to share things such as resources and ideas; however, participants may avoid questioning, critiquing, or challenging each other as part of the process of improving practice. From my perspective this described the relationships in our grade level team. This survey question was similar to the interview question that asked participants about their level of comfort in regard to bringing samples of student work to a PLC meeting or talking about instructional strategies. The most frequent answer to this question during the interviews was that we had not established an environment for this, although there was a possibility for it. This seemed to indicate that participants might be open to the idea of sharing what happens in their classroom if a culture for sharing comfortably without vulnerability was created, but it certainly did not exist currently.

Throughout the interview and survey responses, teachers spoke about what they knew about PLCs and their experiences as members of PLCs. Although each grade level team at Pondview School was supposed to have been working as a PLC, there was no significant fidelity to a research-based model evident in the participants' responses. In fact, one teacher explained during her interview that she felt being told that they would be implementing PLCs was one of those 'here we go again' initiatives when it was introduced a few years ago, and all she would have to do was wait it out until something new came along. These data also suggested that the teachers had limited understandings of the structure, purpose, and processes of professional learning communities. For example, while most participants spoke about collaboration, no one mentioned the need

for purposeful collaborative practices related to a shared goal the PLC established as commonly described in the literature. Additionally, the interview and survey responses showed no references to teacher learning that could result from involvement in a PLC. Rather, the participants revealed that their main understanding of a PLC is that it should be used as an avenue for sharing ideas and resources, but not for generating knowledge. Cochran-Smith and Lytle (1999) pointed out that different professional development efforts focus on very different kinds of knowledge about practice. In their focus on sharing, the teachers exhibit a strong understanding of what Cochran-Smith and Lytle referred to as knowledge *in* practice, but not knowledge *of* practice. Cochran-Smith and Lytle (1999) placed a high value on the latter and also contend that teachers have tended to view knowledge generated by research (knowledge *for* practice) as not readily applicable to their practice.

Because the teachers who were going to be a part of the PLC had only partial understanding of what a PLC could be reinforced the importance of the professional development session I had included in my research design. Trying to build a similar understanding of professional learning communities among participants before launching my plan seemed crucial. Additionally, participants' misconceptions of how to create and sustain these environments could be inferred from their responses. Generally, answers aligned with much of the literature that states that educators, in general, believe that PLCs are a good idea, but often lack a plan for implementation as well as a facilitator with the skills and experience to lead teachers in the formation of a functional PLC (DuFour & Marzano, 2011; Hipp & Huffmann, 2010; McLaughlin & Talbert, 2006).

Setting the Stage: Professional Development on PLCs

Participants' misconceptions of how to create and sustain professional learning communities could be inferred from the results of the interviews and the beginning of study surveys. These data pointed to the need to provide participants with more information about what PLCs are. I believed that this was crucial at the beginning of the study. According to Fullan (2006), professional learning communities are meant to "be a new way of working and learning…to be enduring capacities, not just another program or innovation" (p. 6). Fullan asserted, however, that without proper knowledge and a system in place to support them, those involved will view PLCs as just another program to be endured until it goes away, rather than a transformation of school culture. I designed professional development with this in mind in order to increase participants' knowledge of PLCs and to create a more shared understanding of their processes, functions, and potential benefits. The data from the interviews and the surveys helped me understand what information the participants needed in order to accomplish this. I felt that it was important to address participants' misconceptions about professional learning communities. It was also essential to add to and confirm knowledge about PLCs that the participants did have. Finally, I wanted to help the teachers gain a greater understanding of the research-based dimensions of a professional learning community. To meet these goals, I drew on the work of Dr. Shirley Hord and Dr. Richard DuFour. I designed a workshop that took place over the course of two team meetings of forty-five minutes each. I gave examples of what each of the dimensions of a PLC might look like when enacted. For example, I talked about how the group may discuss student data such as work samples. I acknowledged that this was atypical for our team meetings, but that it

was part of the process of our becoming a PLC. I told the participants we would analyze student data as a way to identify appropriate strategies to improve our teaching and ultimately student achievement.

Next, I introduced the Professional Teaching and Learning Cycle as the new framework for our meetings. I did so because the cyclical design of the professional teaching and learning cycle (PTLC) provided a concrete framework for guiding our work as a PLC. I presented each step of the cycle by explaining its purpose and then talked briefly about what it might look like. I also acknowledged that not all of the members would complete the implementation step (the vice principal, the BSI teacher and the reading specialist) when the plan that the PLC devised would be enacted in the fourth grade classrooms; yet, as a group with varied experience and knowledge, we would all be able to contribute to the discussions and our work as we moved through the cycle. I said this because the reading specialist and the basic skills teacher both stated during their interviews that the information and discourse that had taken place within other grade level meetings they had been a part of did not really have anything to do with their work as non-classroom teachers. For example, the BSI teacher described previous involvement with grade level meetings as being her own "entity." By this she meant she had a hard time being part of conversations and rarely did a meeting agenda focus on something she could relate to the students she worked with. During this part of the professional development, I also stressed that we would identify our first goal by using the CCCS and student data to guide us.

A final goal of the professional development sessions was for the group to develop a list of norms for working together (Appendix A). To get this activity started, I

provided a few examples; a brainstorming session followed. The norms the group identified indicated that the participants were beginning to gain a greater understanding of the fact that a PLC does not just happen, it evolves through the generative work of the group (Huffman & Hipp, 2003; Louis, 2008; Sergiovanni, 1994). For instance, one participant noted from the examples I provided that to "understand and embrace collaboration was important." She expressed the belief, however, that we first needed to work to understand what it meant to collaborate and be willing to accept its components before this could occur. We also came up with a code, two knocks on the table, to be used if we felt that a conversation was going off topic. Catherine, a fourth grade teacher, felt that this was a "constraint" that had been tried in a committee she had participated in at our school but that it had not worked. Her comment seemed to suggest "here we go again" thinking, possible hesitancy with the initiative, and pessimism or even cynicism about the potential of our PLC to work collaboratively. While she seemed a bit unwilling to keep the knock as a norm, I mentioned that keeping the conversation on track and not allowing for "side talk" was important to our work. The other members agreed and we decided to keep it. In actuality, we did use this norm a couple of times. Each time it was met with laughter, but it did bring the "side talk" that was taking place to a stop and the group's work continued on track. At the end of the meeting I told the participants that I would type the list and distribute it to everyone. I also said the list was subject to change. I explained that once we began to work within the new structure, if we needed to add or delete from the list, group discussion and consensus would be used to make those changes.

At the completion of our second professional development session, I announced that during our next meeting we would be looking at student data in order to identify our first goal. Two of the members, the vice principal and a teacher who was taking classes in educational administration, Jane, volunteered to look at the results of the autumn fourth grade electronic reading comprehension assessment and try to narrow them down before the next meeting. The vice principal said she would share the data, organized by classroom, with the PLC at the next meeting. I asked her if it would be possible to distribute the reading assessment data by grade level rather than by individual classes. If we were to work as a PLC, we needed to identify a shared vision for our work (Hord, 1997); therefore, I made this request because I believed it was important to look across the classroom data in order to see areas of need among all students in grade 4. Although the system for the electronic testing was new, she readily agreed to see what reports were available for grouping the assessment data. The overall goals of the first two meetings, through the professional development I offered and discussions as a PLC, were to help the members recognize that our team had the ability to identify a goal and work collaboratively to attain it. I felt that this goal had been accomplished and that I had cleared misunderstandings about PLCs through the professional development. We had identified our group norms and participants, as evidenced through our discussions, seemed to understand what we would do in order to establish ourselves as a PLC. I felt my initial goals had been accomplished when a fourth grade teacher commented on how we seemed to have "a plan in place rather than wondering what a PLC really was."

Putting the Plan in Motion: The Professional Teaching and Learning Cycle

As a facilitator of the change in our grade level team meetings, knowledge of adult learning theory and especially its social component helped me in guiding the teachers through the new structure of our PLC meetings. In particular, I focused on the social nature of adult learning as well as the claim that participants often bring a rich array of experiences and expertise to the learning context (Brookfield, 1986; Kearsley, 2010; Knowles, 1990; Trotter, 2006); however, I was aware that fostering a collaborative spirit among the members might be difficult. The key was that the teacher learning I hoped would occur had to be relevant so that members would feel a collective responsibility and drive for achieving the goal (Kearsley, 2010). Because not all participants were general education teachers, there was a particular challenge in accomplishing this for me as the facilitator. Yorks (2005) contended that the facilitator who acknowledges adult learning theory builds a framework for "co-inquirers" (p. 1218) enabling all participants regardless of position to contribute to a body of knowledge. Yorks also asserted that when participants are presented with the task of relating to one another, collaborative practices can emerge as a "robust area of adult education" (p. 1218). With the professional learning community as well as the PLC structured to encourage collaborative practices, I felt that the participants had gained sufficient knowledge through our professional development sessions, and we were ready to begin.

PLC steps 1 & 2 study and select. Dialogue during the first two meetings seemed a bit guarded: the participants were quiet and waited for me to engage the group. There were a few uncomfortable instances where the group seemed to be listening to what I was saying, but their faces indicated to me an uncertainty as to what their parts in

the process were. Their hesitancy may have been reflective of a low degree of comfort and possibly trust with a new structure for the meetings and two new members of the group. I did not point it out to the members with the hope that in time each would become more comfortable and accepting of their position as a PLC member and what that might look like for each of them. McLaughlin and Talbert (2006) explained this when they assert that school based communities can be difficult to create and sustain without establishing a sense of trust among members. They claimed that when teachers are uncomfortable taking the risks required for reflection on instructional practices, teacher learning will not occur. As a facilitator, I needed to address these possibilities as we moved forward with the PLC structure.

As our first task under the PTLC was to analyze student data, I selected the Data Driven Dialogue protocol (NSRF, n.d.) to guide our work. The overall organization of this protocol seemed likely to encourage open discussion. We were not able to view the data across the grade level as I had requested; instead each classroom teacher received a report from the vice principal on her own class. This report presented the student data by cluster, or the particular comprehension skills that were assessed. Students scoring low in similar areas were grouped together. The basic skills teacher and the reading specialist had copies of all reports since they worked with students from all four classrooms in the fourth grade. By the end of this meeting, participants had identified patterns from the data in relation to the students' difficulties in analyzing the connotations of words or phrases with similar meanings. Although each classroom teacher had data from her own class, comparisons and contrasts through our discussions were made across the grade level, as we were all involved in the use of the same protocol. We did not have enough

time to complete the protocol, so data analysis carried over to the fourth meeting at which time members seemed more relaxed as they began to discuss the data more quickly at the beginning of the meeting. We began to talk about the fact that weaknesses in identifying synonyms and antonyms were becoming evident as we went through the protocol. What also came to light was our students' lack of a knowledge bank of higher-level vocabulary as well as difficulties working with challenging words in context. The more in-depth our discussion of the data became, the more clearly our goal seemed to emerge.

Possibly remembering from the professional development sessions that our goal would reflect the CCCS, Rose, the BSI instructor, used her laptop to find the grade four CCCS that most closely matched the students' weakness in vocabulary that we had discovered. She reported to the group that there was no third grade standard for working with synonyms and antonyms and "it seems as though the fourth and fifth grade standards are the same." The relevant standard was:

> CCCS.ELA-Literacy.L.4.5c: Demonstrate understanding of words by relating them to their opposites (antonyms) and to words with similar but not identical meanings (synonyms).

The PTLC suggests that teachers look at the standards above and below the intended grade level as part of the process of identifying a shared goal. Therefore, it was especially timely and helpful that Rose took the initiative to research the standards for the three grade levels. As a result of this meeting, the PLC decided that more information on the ability of our students reflective of their abilities to work with synonyms and antonyms was needed. We wanted to look more deeply into these standards to help identify more specific areas where the students were encountering difficulties. Rose volunteered to draft a "benchmark" assessment as a way to collect this. I told the group

that we would use the results to create grades three, four, and five leveled activities in order to meet the needs of all students (Step 3 of the PTLC). After this meeting, Pat, a fourth grade teacher, stopped by my room to tell me how "in" she was to what we were doing in the PLC. She said she was very excited to see where our work would take us. I sensed that she recognized that the work we were doing could directly affect our practice and our students' learning for the better; something we were unaccustomed to as a result of our work as a "PLC" in the past.

During the week between the third and fourth meetings, a draft of the benchmark assessment was emailed to all members of the PLC with a request for feedback. Over the course of a few days changes were suggested, and it was finalized. The benchmark was administered and classroom teachers came to the next PLC meeting with their students' results. The benchmark results were analyzed using a protocol I adapted from the Data Driven Dialogue (NSRF, n.d.) (Appendix B).

Through the original data analysis, our PLC had selected CCCS ELA-Literacy.L.4.5.c as the standard to focus on. However, through the use of the protocol, the results of the latest round of data analysis based on the antonym/synonym benchmark widened our focus. There were two additional standards we added to our focus:

> CCCS.ELA-Literacy.L.4.5: Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.
>
> CCCS.ELA-Literacy.L.4.5c: Demonstrate understanding of words by relating them to their opposites (antonyms) and to words with similar but not identical meanings (synonyms).
>
> CCCS.ELA-Literacy.L.4.6: Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases, including those that signal precise actions, emotions, or states of being (e.g., quizzed, whined, stammered) and that are basic to a particular topic (e.g., *wildlife, conservation,* and *endangered* when discussing animal preservation).

With a more evident focus now apparent after this latest round of data analysis, the PLC was ready to move onto Step 3-Plan. It was now time to begin to discuss a plan for improving proficiency for the three CCCS we had chosen for our students.

PTLC steps 3 & 4 plan and implement. We began our seventh meeting by revisiting the three standards we had selected as our focus. Additionally, I reviewed the graphic of the PTLC and reinforced that we needed to think about a lesson(s) or strategy that we could use to help our students meet the standards. I also reminded them that once we identified a plan, we would then implement it. We would also decide what data we would collect to bring back to the group for discussion as a way to understand whether the plan was helping students meet the standards.

The eighth meeting was spent coming up with an outline for the vocabulary program. We decided that students would be given five new words a week for four weeks in a row. The group agreed, as Rose had proposed, that we would select and group the words by categories. It was suggested that the categories be relevant to helping students with their writing preparation for the NJ ASK. We decided on the four categories and began to discuss our plan for ensuring that we were addressing the standards.

It was appropriate now for the group to discuss activities that could be used to reinforce the students' learning. We had ideas from our own professional experiences and several of us also shared resources that we believed could help us. Rose provided the group with an article on how vocabulary activities can build student achievement. Terri, the vice principal, gave the group a chapter from a book that explained how to help students move from Tier 1 to Tier 2 words in their everyday usage (Tier 1-desk and

chair; Tier 2 progressive words: bothersome and nuisance). I provided the group with a synthesis of current research on vocabulary instruction. Eileen brought the book, *Bringing Words to Life* by Beck et al. and explained that the chapter on assessing vocabulary might be helpful in creating activities. Twenty words had been chosen and we referred to them as the "first cycle." We then identified procedures and activities for helping students learn the words. This meeting ended with Jane, a general education teacher, agreeing to set up a Google Doc in order to post the activities we had discussed. We would all have access to the document, and in between our PLC meetings would use email to agree/disagree or make changes to the document's contents in order to be ready to teach the first round of vocabulary words. The activities, by the time all members confirmed the list, were differentiated and provided practice using the words in several ways. The students would be required to complete an activity for each of the five words introduced during the first four weeks of Cycle 1.

After a lot of discussion, we were confident by the ninth meeting that we had chosen appropriate activities. The activities were no longer being questioned and we were interested in getting the students involved; however Catherine, a fourth grade teacher, mentioned that maybe we should use the activities as a "pilot" for a few weeks. The pilot would take place during the first two weeks of Cycle 1 allowing for issues to arise and our PLC to take care of them before moving further into the cycle. All members agreed that this was a good idea. The remainder of the meeting was spent developing a letter informing the parents about the vocabulary program and explaining expectations for the students. The letter developed into something different from the ordinary informational letter, which would typically notify parents of upcoming projects.

Instead, this letter included research that highlighted the importance of the new program for the fourth grade students and ways in which parents could support their children in what they were learning in the classroom. The letter was signed, "The Fourth Grade Instructional Team." One teacher said, "Wow!" Another teacher said, "That's us!" And a third said simply, "Powerful." There seemed to be a degree of excited recognition of the fact that through collaborative practices within our PLC, we had designed something to the benefit of the fourth grade students. Additionally, we were recognizing, through the development of the vocabulary program, that we were a team of professionals.

PTLC steps 5 & 6 analyze and adjust. The PTLC cycle points to the importance of using data to revise and refine instructional practices once a plan is enacted. Midway through the first cycle of the vocabulary program, therefore, it was important to assess whether it was supporting student learning as we had anticipated. To do this, I decided to adapt the ATLAS-Learning from Student Work Protocol (NSRF, n.d.) to fit our needs. I named the protocol, "Looking and Learning from Student Work and Data" (Appendix F). In order to organize our discussion, the protocol was divided into two sections: reflecting on the vocabulary program's activities and reflecting on the organization and results of the midway assessment. Classroom teachers brought examples of student work, the midway assessment results for each class to the meeting, and were prepared to discuss anecdotes from their experiences with the students.

Using the protocol, we agreed that the overall organization of the word lists and the coordination of the homework was working. Through discussion, we also agreed that the structure of the program was suited to helping to keep the fourth graders organized, moving from week to week within the cycle. The use of the protocol encouraged

teachers to describe what was happening in their classrooms as we implemented the first cycle of words. These anecdotes prompted conversations in which the PLC considered whether the activities were providing students with the practice we intended. The discussion focused us on the fact that we needed to add an activity that required higher order thinking. As a result, we decided to challenge the students to pair words and create an analogy. We also decided that we should display the words on word walls in our classrooms. This would encourage students to utilize the words throughout the day while in school, as well as provide them with a visual cue on the growth of their vocabulary as the program moved forward. It would also enable the teachers to refer easily to the vocabulary words, especially as the lists grew. We also discussed ways to enhance other activities that, through our discussions, seemed to fall short of our goal for the students. At the end of this section of the protocol, members were in agreement that all activities were differentiated and addressed the challenge we had identified during our original analysis of the data from the electronic comprehension test in which we found that students had difficulties working with words and their meanings.

When we moved to the section of the protocol that focused us on the results of the 10-word assessment, our midway assessment, consensus among the PLC members was that "the program was working." This meant that, through our discussion, the students' scores provided evidence that our instruction was effective and the students were grasping the meanings of the words. The protocol also encouraged us to discuss formative assessment strategies used in our classrooms; for example, the fourth grade teachers talked about using real-life examples when they introduced the words in order to help students make connections and increase understanding. One teacher talked with

enthusiasm about role-playing the words. All four of the classroom teachers noted that the students seemed excited and had begun to point out a few of the words they had learned when they saw them while reading independently. I shared that one of my students told me about using two of the words in a conversation with her mom and she said, "I didn't even realize it!" It was evident that the students were showing increasing use of new vocabulary as a result of the program.

Bringing the first cycle of the vocabulary program full circle also meant developing a process for a cumulative assessment. It was important to create an overarching means for assessing whether the students had met the three standards we had originally chosen as our goals. The group began to talk about varied ways for the students to show us that they had achieved the grade four CCCS during the practice activities to recognize and work with the words in context.

The vice principal said,

> One of the research articles I read was saying that the more you play with the words, the more meaning it's going to have, rather than just using the words in vocabulary sentences and stuff like that. This way they see nuances in the words then, so it's exciting.

Catherine, a fourth grade teacher, had done a bit of research on assessing vocabulary. Based on this, she said that a vocabulary test should assess students' knowledge in multiple ways by asking students to define the words as well as complete multiple choice and fill-in-the-blank questions. In other words, the assessment should require students to "make connections to the words" in as many ways as possible. We also tossed around the idea of making the students responsible for knowing how to spell the words. However, Catherine rejected this idea by saying,

> I feel that the vocabulary is like an indicator [of overall language arts knowledge]…and to have to spell the words, that could be very challenging for kids who aren't very good spellers. I think because the vocabulary words go away from the weekly spelling pattern, it could be overwhelming for them to deal with [spelling] the vocabulary [words] in and of itself. Knowing the meaning of the words and being able to work with them seems more like our goal.

Catherine's comment kept our focus on the research-based practices and knowledge we had gained about vocabulary instruction in our PLC discussions. She also took into consideration the importance of differentiating our activities on the cumulative assessment. Being able to spell the vocabulary words would not indicate knowledge of or the ability to work with the words. Additionally, the idea of students being responsible for spelling the words was unrelated to our three identified CCCS.

Because we had assessed the students midway through the first cycle of words, as well as used a cumulative assessment that assessed the 20 words learned, in actuality we completed two rounds of steps 5 and 6 (analyze and adjust); one after the midway assessment and one after the cumulative. Bringing the professional teaching and learning cycle full circle and completing the first cycle of vocabulary words gave our PLC an opportunity to reflect on the outcome of the implementation of cycle 1 including the effectiveness of the activities, students' reactions, teacher observations, and wherever our conversation might take us. Step 5 and Step 6 enabled the PLC to talk about our observations as a means for helping us move forward with cycle 2 of the vocabulary program. After the cumulative test was given at the end of cycle 1 of the vocabulary program, these steps required the group to reflect on the implications arising from the work of the students and the overall implementation of the vocabulary program thus far. To do this, the general education teachers brought the results of the cumulative assessment from the first cycle of words to the next meeting and each discussed the

results for her class. We realized that the students were having trouble with context clues on a couple of sections of the cumulative test when more than one word seemed to fit in a sentence. We also recognized that usage of the words had become an issue for some of the fourth graders. I reflected on the outcomes of the first round with my students and shared,

> My students had been making mistakes with usage, like using the word nonchalant as opposed to nonchalantly. They would just stick nonchalantly into a sentence and wouldn't realize that it didn't make sense. I am beginning to feel that there's a grammar component to learning new vocabulary.

After we finished our discussion and reflections, I showed the group the PTLC graphic in order to demonstrate that we had come full circle. I told them I was proud of what we had accomplished. At the end of the first cycle of the vocabulary program, it seemed to me that we had become a community. This assessment was based on Cowan's (2010) assertion that the word community, when used within the framework of a PLC, denotes an environment that supports professional learning. I believe we had become a PLC because of Cowan's (2010) contention that a PLC nurtures trust, respect, and professional dialogue about a shared vision based on a commitment to student learning. We had not only accomplished all of these, but had also shared and used our experiences, expertise, and knowledge to deepen our understanding of what a PLC is and what it can accomplish.

Evidence of Growth in Our PLC

Participants' ability to analyze student data. At this point in the school year, we were a bit more familiar with how to gather student data from the electronic assessments. Our conversations were data driven as teachers reflected on students' scores. Because of my belief that we had participated in enough professional discussions

to engage in the types of discourse necessary to analyze the data, I opted out of using a protocol for looking at the data from the midwinter electronic assessment. As the PLC engaged in discussions regarding the assessment results, it was clear that having Terri, our vice principal, on board was very beneficial. She had been in charge of setting up the electronic testing for the fourth grade and had been to training offered by the test development company to get help with the interpretation of the data. At this meeting, she shared the classroom reports, an analysis of grade equivalents, as well as individual projected results on the NJ ASK. Terri had done a bit of data analysis prior to bringing the reports to the meeting and offered this interpretation, "They still don't know the main elements, the main idea and the details. They can't find the author's purpose." She suggested that the reports could be used to group the students or to create relevant mini lessons followed by differentiated practice activities. I realized the grade level teachers were accepting of Terri's indication of our students' needs when a discussion began on how best to get our students up to par in these areas before they took NJ ASK.

Being able to listen to the thoughts of the vice principal regarding the data and her hopes for student growth without teachers becoming defensive concerning classroom practices was most likely not something that would have happened in the past. It necessitated a trust and openness among the teachers that had been cultivated since we had revised the work of our PLC. Terri helped us interpret the scores of our students and guided us in seeing the value of the scaled score for each student by telling us it was the "best indicator of growth" and would allow us to look at our class overall and see which students were making progress as well as those that were finding things more challenging. I did help guide the discussion, although not as proactively as in the

beginning of the study. The quality of the discussion that ensued confirmed my hunch that a protocol was unnecessary. Our conversations were data driven; teachers were reflecting on students' scores. For example Pat said,

> I am concerned about my lower ones [students] right now…I am very concerned how my one kid who doesn't go to the resource room, doesn't go to anything, went from a 580 to a 454. His grade [equivalent] went from a 5.4 to a 4.1. This is a kid who is reading these big books. He thinks he can read these things, and he can't.

This teacher was openly sharing with the group concerns she had about a particular group of students in her class and implying her understanding of why one student's scores had dropped from the fall to the midwinter assessment. Her thoughts were focused and enabled the group to continue conversations about the data.

As each participant examined the reports, patterns were identified and thoughts on what the data implied were shared. General education teachers were concerned about areas with drops from the fall to the winter testing sessions. The basic skills and reading specialist also expressed concerns about some of the fourth graders they worked with in their respective programs. Each teacher was openly sharing how her class did and talking about why particular areas of testing might have been lower than others. For example, one teacher mentioned that she had not yet worked with her students in making predictions according to text. She noted that a percentage of her students had missed questions related to this skill. The discussion led us to talk about the resources we were using as well as what we needed to do to help our struggling students succeed.

Achievement of fourth grade students. Analyzing data from a midwinter electronic reading comprehension test had the potential to indicate whether our work, in relation to the implementation of the vocabulary program and our students' abilities to

use higher-level words in context, was increasing. At about eleven weeks into the study, it seemed important to compare the results of this most recent assessment against our goals. Although the test was labeled as a reading comprehension assessment, it contained questions where students had to work with the progression of words, identify word meaning according to context, and be able to work with grade level vocabulary in context, too.

Overall, the group saw growth in student achievement. In particular, growth in the areas that our vocabulary program addressed was noted. In general, there also seemed to be fewer areas of need than there were at the beginning of the year. As each teacher made observations concerning the data, we began to notice a pattern related to difficulty in analyzing and evaluating text. All of the general education teachers concurred that work in this area was warranted across the grade level. When Jane questioned exactly what analyzing and evaluating text referred to, the reading specialist was able to jump right in and give the group examples of what this might look like for the fourth graders. She noted that while we were seeing a noticeable increase in our students' ability to work with words, what this data was telling us was that our students were having difficulty working with text on an in-depth level. She said that this might "look like inferring or questioning the thoughts behind an author's purpose for writing." She said there were many areas of the fourth grade CCCS in language arts to which this related; however, it is also important to note that a general education teacher, Jane, asked for help in understanding a reading skill. The help generated by the reading specialist was genuinely appreciated and accepted by the teacher.

Additionally, and although it was not established experimentally that the PLC was the cause, the tables below point to increases in NJ ASK scores for students whose teachers had been participants in this study. The results of the New Jersey Assessment of Skills and Knowledge suggest that the vocabulary program developed by the PLC may have had positive impacts on student learning for the fourth graders. The highest score possible was 300. The scores are disseminated as follows: Partially Proficient, below 200; Proficient, 200-249; Advanced Proficient, 250-300. There was a 12% increase in the number of students scoring in the advanced proficient category, which is a 10-student increase from third to fourth grade.

Table 4

Grade 3 -4 NJ ASK Comparison Before and After PLC Implementation

Language Arts	Partially Proficient	Proficient	Advanced Proficient
Spring 2012	5%	75%	20%
Spring 2013	4%	64%	32%

As depicted in Table 5 below, there is a marked difference in the assessment results of students in grades 3, 4, and 5 at Pondview School who took the NJ ASK in the spring of 2013. The greatest disparities between the three grade levels occurred in the number of fourth graders, a class of 80 students, who scored in the Partially Proficient range (3 students) and those scoring Advanced Proficient (26 students). These scores compared with the data for the third and fifth grade reflect significant differences. Teachers at these grade levels implemented a reader's workshop and a guided reading approach to Language Arts Literacy instruction, as did the fourth grade teachers; however, the fourth grade teachers implemented a program aimed at increasing students'

knowledge and use of higher-level vocabulary. The students in grade four had studied 60 new words by the time they took the NJ ASK.

Table 5

New Jersey Assessment of Skills and Knowledge, Language Arts Literacy, Spring 2013

Grade Level	Partially Proficient	Proficient	Advanced Proficient
3	16%	75%	9%
4	4%	64%	32%
5	18%	64%	18%

Increased levels of trust among PLC members. As a result of the collaboration the PLC had engaged in thus far, it seemed apparent in this discussion that the level of trust and comfort sharing challenges and questions among all members had grown, too. The expertise of the vice principal and the reading specialist was accepted as they helped the group to understand the reports in terms of implications for instruction. Previous data analysis had most teachers fixated on the specific scores of the students rather than relating the scores to instructional practices and how to help students achieve; for example, a classroom teacher noted that one of her students scored an overall grade level equivalent of 3.1. The reading specialist, Eileen, said to this teacher, "Using your teacher judgment, do you also think that she is [at that level]?" The teacher talked about her observations of the student within the classroom. She mentioned that she was "definitely a little behind." The vice principal said, "This gives all of us an opportunity to use the data to make changes." Previously, if an administrator had made that kind of a comment, most likely teachers would have taken offense at the possible insinuation that a low score was the teacher's fault. Now, the statement encouraged further discussion. The administrator was an equal participant in a conversation about addressing the needs of

our students. One teacher asked if it would be a good idea for Eileen, the reading specialist, to use the data to help the fourth graders she worked with. Rose, as the basic skills instructor, agreed that the information would benefit the students she worked with, too. As a result of the collaboration in our PLC, the fourth grade teachers, the reading specialist, the basic skills instructor, and the vice principal had formed into a cohesive group. Discussing what the data indicated and PLC members utilizing their varied expertise in helping students progress both reflected the vice principal's hope, expressed during her initial interview, that we would be able to view the students' progress collectively, as everyone's responsibility. This discussion indicated that we were.

Changes in participation. There were noticeable shifts in the degree of participation among the members as our professional learning community worked through the PTLC; for example, Eileen, Rose, and Terri tended to be on the quiet side for the first few meetings. Terri added to the dialogue, although it seemed only when she was prompted by me or by another member asking her a question. Eileen and Rose, were quiet, or possibly hesitant, and also only tended to participate in discussions or offer ideas when prompted, too. Basically, their participation was sparse compared with the general education teachers. I did some prompting such as asking the vice principal, Terri, "What do you think?" after a comment was made by a member or "Did you have any experience with helping to increase students' levels of vocabulary in your last school?" when the discussions began to focus on our shared goal.

The fourth grade teachers, on the other hand, seemed quite comfortable offering suggestions, ideas, activities, and varied resources very early in the study. This form of participation was something the group was used to, as it had become part of the culture of

the fourth grade team meetings over the years. We were a congenial group, but what we seemed to be stuck on was focusing on instructional practices that were research-based rather than favored simply by years of experience. The fourth grade teachers seemed to continually offer those 'tried and true' teaching practices that many seasoned teachers had relied upon over the years.

There were two things that I considered necessary in order for the PLC to proceed and be successful. First, the fourth grade teachers had to realize that as part of the PTLC, members were to reflect on old practices and determine how research-based strategies would support more effective instruction enabling the PLC to attain our shared goal. Next, the other three members- the basic skills teacher, the reading specialist and the vice principal- needed an increased level of comfort with regard to participation, such as being willing to offer suggestions to the group. While the fourth grade teachers seemed to express themselves more openly with hardly any need for prompting, it was the basic skills teacher and the reading specialist who pointed to the fact that the PLC's dialogue should reflect research-based strategies. The reading specialist mentioned this during one of the meetings by simply stating, "I thought we had to choose research based strategies." The basic skills instructor shared a similar comment with me between meetings. What needed to occur was a greater sense of equal participation during the meetings. Initially, it was apparent that the fourth grade teachers were tending to 'overtake' the dialogue possibly causing other members' apprehensiveness. As the facilitator of the change, I needed to help the members build a sense of equal participation.

I began this process with the analysis of student data and the use of protocols. The protocols kept the group focused on the data and channeled the dialogue so that

suggestions that were not based on research were kept to a minimum. Additionally, the use of the protocols allowed for a more equal platform enabling all members to participate. The conversations were structured to focus on the data, allowing our PLC to keep on track. This gave the general education teachers opportunities to reflect on the data and other members opportunities to share their thoughts, too. All members were focused on the same information, which equalized expectations.

As the study progressed, participation was not limited to the discussions that took place as a group. In fact, all members were contributing in varied ways both during and in between the meetings. For example, while the reading specialist was able to offer information on tiered word lists, some of the general education teachers initiated Google Docs on anything from our list of student activities to the letter that was sent home to the parents explaining the new vocabulary program. Work between meetings, such as adding or editing the documents, was often done by the members. This helped members to participate more equally since those that were hesitant to share during PLC meetings, such as the basic skills teacher, were able to contribute towards meeting our goal independently. I was sure to begin each PLC meeting by recognizing the work of the group that was taking place between meetings with the hope helping to build the confidence of the members who were a bit hesitant with regard to contributing thoughts and ideas during the meetings. Perhaps as a result of these actions and activities, as we moved through the PTLC, it was evident that participation became more equal and the comfort levels of members were rising because of the various opportunities for participation.

It is important to note there were ebbs and flows to the levels of participation; for example, an increase in participation correlated with an increase in the level of excitement in the group during the creation of the vocabulary program. On the other hand, participation weakened once we determined that the next cycle of the vocabulary program would be written outside of the PLC meetings. No one seemed immediately willing to begin the process; yet, a review of the norms did turn this situation around as members then took on varied roles to complete the second cycle of words. This offered a perfect opportunity for Pat, who at times got caught in the excitement of our work by taking steps to move ahead, to actually channel her enthusiasm as we moved forward with the vocabulary program. For example, she took it upon herself to choose the next 20 words for cycle 2. During the next PLC meeting, the group agreed to the words and then Pat and Jane went ahead with defining the words and formatting them into the categories. Essentially, it was important for me as the facilitator to be cognizant of the interactions and levels of participation of all members. The goal was to maintain levels of equal and active participation across the PLC and I worked to accomplish this through the use of protocols, review of the norms, and independent opportunities for the members to work outside of the PLC meetings.

Positive changes in PLC culture. As we neared the end of the study, I began to feel as though our PLC had worked through cultural shifts, had used the Professional Teaching and Learning Cycle to help structure our meetings in order to meet a goal, and had evolved into a functioning professional learning community. In order to check my assumptions, I compared and contrasted notes I had taken in my research journal in the beginning of the study with those I had written in the spring. For example, I looked back

at my notes that described when Pat had worked ahead of the group by involving her class in vocabulary activities that the PLC had not yet agreed upon. In retrospect, that event seemed to be a learning experience for all members. Zmuda, Kuklis, and Klein (2003) contended that the professional learning community calls for transformative shifts in the culture of schools. These shifts are fostered during the collaborative efforts of the members such as the sharing and analysis of student data and critical examination of instructional practices. Additionally, teachers in a well-functioning PLC work together in order to reach a common goal. Based on how the group worked together, it seemed to result in a deeper understanding of the fact that a PLC involves all its members in decisions. With this experience, it also appeared that participants gained a greater understanding of the purpose of agreeing upon activities as a PLC. This way, when the PLC meets, all members would be able to talk about experiences and student data based on the same differentiated activities.

Towards the end of the study, the progression of our professional learning community was also confirmed by the vice principal. We had begun to analyze data with the hope of coming up with our next goal. Close reading seemed to be the choice because, according to the latest electronic reading assessment, analyzing and working with text was difficult for students across the grade level. An email from the vice principal to the participants after we talked about close reading during a PLC meeting seemed to indicate that she believed, from her perspective as an administrator, that we were working as a professional learning community.

> We have great information. It really shows the depth that the common core expects. Thanks for sharing…love the professional dialogue. Our PLC is doing what is supposed to push our thinking, work together to target student achievement, etc. Way to go team!

At this time in the study it was early spring and each subsequent PLC meeting found the members bringing research-based information on instructional strategies regarding close reading. Eileen had provided information on this topic between the meetings. She had also introduced the group to a blog by Shanahan, an expert on close reading strategies. I shared an article on using close reading strategies within an elementary school. Another teacher shared a list of "active reading" codes. These codes, such as a question mark or an asterisk, are used by students to highlight important information, questions, and other things as they read informational text. The PLC was discussing strategies we had used with the students in relation to the new information and new understandings. In fact, we were working on implementing step two of the cycle, "Select," selecting research-based practices to address the group's identified focus.

Objective growth within the PLC. I noted change in the work of our team qualitatively, as discussed above, but survey data enabled to me to measure change more objectively as well. Growth occurred along every dimension. The section entitled collective learning and application grew from an average rating of 2.6 at the beginning of the study to a rating of 3.9 at the end of the study with five of the seven statements receiving the highest score of 4.0. The areas of greatest growth in this section included members strongly agreeing that they collaboratively examine data to assess instructional practices, identify research-based instructional practices, and search for solutions to address diverse student needs. This is also the dimension that showed the greatest growth overall; however, this section did reflect the areas that seemed the most challenging for the PLC and took the most time to develop as we worked through the steps of the PTLC.

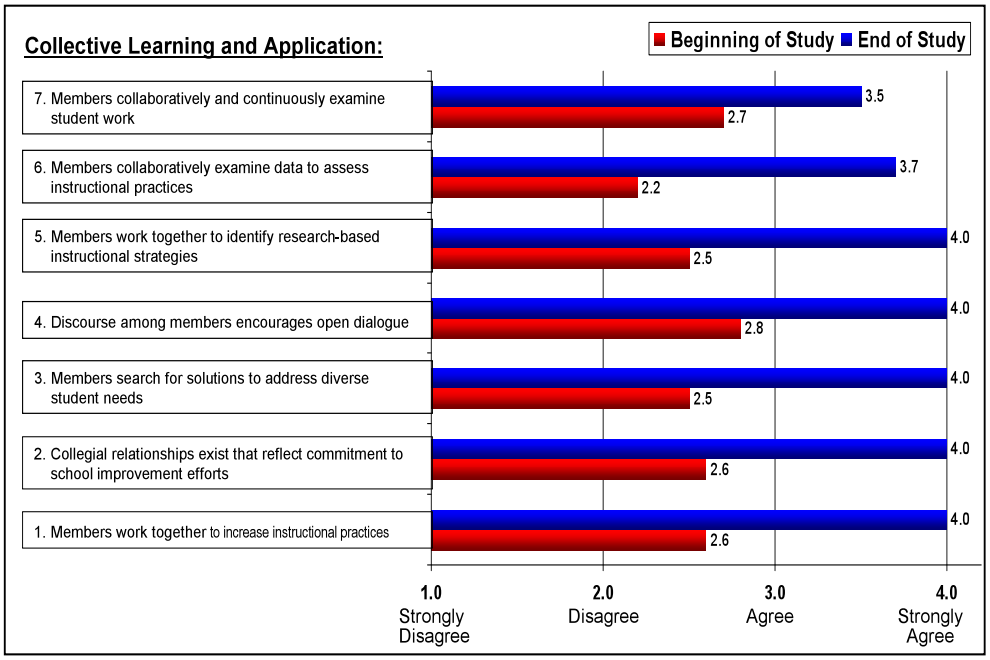
For example, it was more difficult for the group to reach consensus on a plan of action in order to address our chosen CCCS.

Using the same survey at the beginning and end of the study, the participants were asked to reflect on the ways in which our grade level meetings (the name we used to refer to meetings at the beginning of the study) and our PLC meetings were structured. As explained in Chapter 3, the survey is organized according to the most common dimensions of effective professional learning communities found within the literature: collective learning and application, shared values and vision, shared personal practice, supportive conditions-relationships & structures, and shared and supportive leadership. The survey offered the participants a confidential opportunity to provide information related to topics that may have been contentious, such as administrative cooperation with regard to the work of the PLC at our school. These same topics may have been difficult for the participants to talk about in their interviews, too. This end of study survey provided quantitative data reflective of the degree to which the participants thought the new PLC structure achieved research-based practices.

The area of least growth within the dimension of collective learning and application, as seen in Table 5, was "collaboratively and continuously sharing student work." I think there may be two reasons for this. A great deal of our time during the meetings was spent creating the vocabulary program. While we did spend time sharing the reactions of students and some of their work as the fourth grade teachers implemented parts of the program, we did not share student work on a continuous basis. I believe that lack of time most likely was the greatest obstacle this area.

Table 6

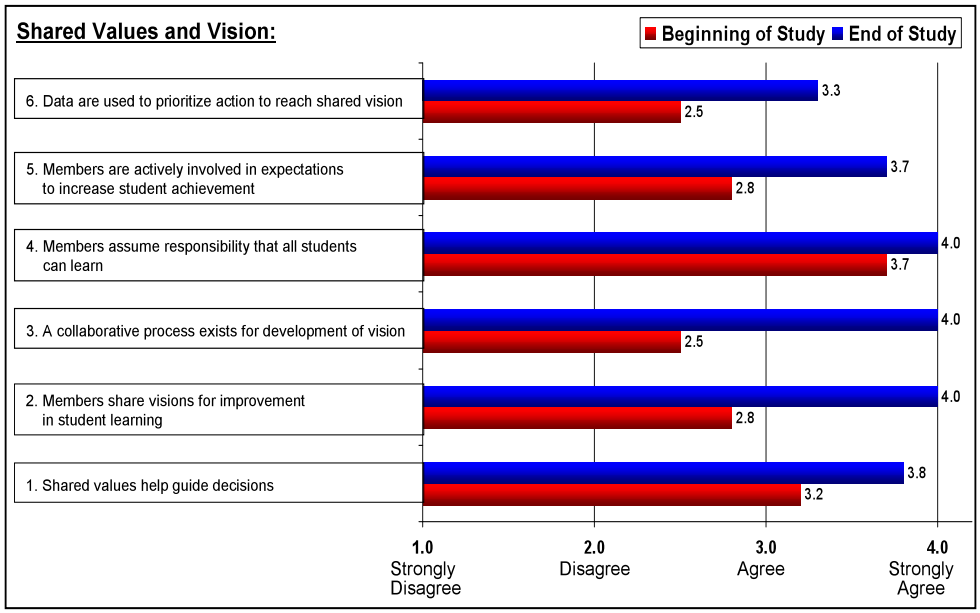
Survey Results: Collective Learning and Application



In the section of the survey pertaining to members' thoughts on shared values and vision, as seen in Table 6, the statement which reflected the greatest growth from the beginning to the end of the study concerned to whether a collaborative process existed for the development of a shared vision. This statement increased from an average score of 2.5 to 4.0 or all participants by the end of the study recognizing that a collaborative process exists for developing a shared vision. Identifying our shared vision during the first round of the PTLC was definitely a challenge. Teachers were content to share old instructional strategies and activities; however, through data analysis and questioning what the students' scores could mean for our instruction, the more we saw the need to increase our students' vocabulary was clear. So while the PLC did struggle to come up with a plan to achieve the chosen standards, our efforts did prove fruitful as the members recognized the collaboration that developed within our PLC throughout the study.

Table 7

Survey Results: Shared Values and Vision

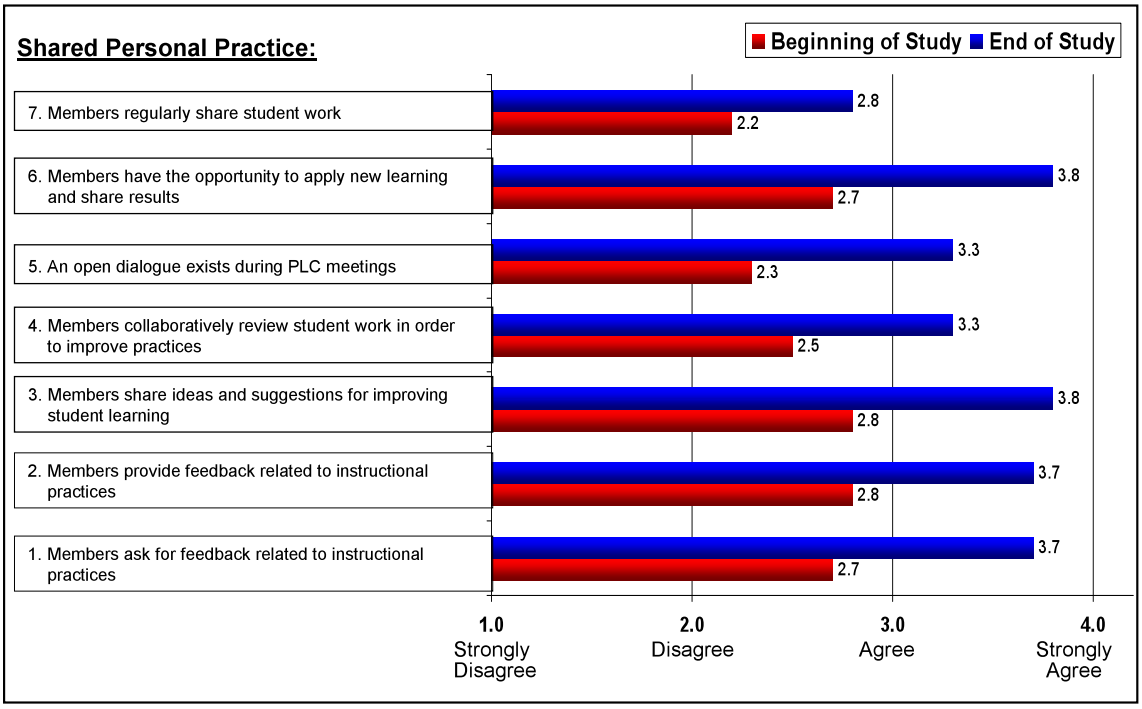


Huffman and Kipp (2003) asserted that developing trusting relationships among the members of professional learning communities is the first step in fostering interactions involving shared personal practice. In this area of the survey, the greatest growth is seen in PLC members perceiving that they have the opportunity to apply new learning and share the results of implementation with the PLC. This appeared most evident when the fourth grade teachers reported back to the group on the results of employing various sections of the vocabulary program from the list of differentiated activities to the results of the cumulative test at the end of the first cycle of words. Huffman and Kipp (2003) link the success of increasing shared personal practice with the mix of expertise and experiences that members can offer one another. This was particularly evident in our PLC given that general education teachers were working together with a basic skills instructor, reading specialist, and an administrator.

It is important to point out that each statement under the shared personal practice dimension, as seen in Table 7, did show elements of growth. As much progress as was made, however, participants did not "strongly agree" [4.0 rating] with any of the statements in the section on shared personal practice. This might be attributed to the fact that shared personal practice does require a high level of trust and working to break the traditional wall of teachers working in isolation can be difficult and may take time. Louis and Kruse (1995) referred to teachers being able to discuss their instructional practices and share with others what takes place in their classrooms as "deprivatization of practice." They view it as a norm within a professional learning community that occurs on a continual basis with a structured process, such as a protocol, to guide interactions. In the beginning of study interviews, shared personal practice was viewed with some hesitancy by a few participants as being a challenge. In fact, a fourth grade teacher responded, "there is a possibility for it, but we are not there yet." In essence, the idea of shared personal practice involves breaking through the common barriers in many school cultures, establishing a level of trust among teachers as well as being open and comfortable with colleagues in sharing and talking about what goes on in classrooms. Findings from the survey point to the fact that the idea of shared personal practice needs to evolve as the PLC works to become a community of learners and a culture of trust develops.

Table 8

Survey Results of Shared Personal Practice



With the fourth grade team used to working and planning in isolation, breaking this barrier in order to engage in collaborative practices should have presented challenges. Two supportive conditions are typically necessary for professional learning communities to grow and attain their goals (DuFour, 2004). One reflects the relationships of the members of the PLC. The other relates to structural concerns, such as planned or job-embedded meetings, that help members to know they can count on meeting as a PLC. Within this dimension of the survey, the greatest growth from the beginning of the study compared with the end of the study survey was in the area of administrators providing time to work outside of the embedded meetings. A rating of 1.7 at the beginning of the survey increased by a measure of 1.8 resulting in an overall rating of 3.5 at the end of the study. Throughout the study, the principal and the vice principal

were supportive of the work of our PLC and they demonstrated this repeatedly. For example, they gave us time during a faculty meeting when our focus changed in the spring to deciphering the information we had received from various sources about the NJ ASK. I thought that perhaps part of the reason behind this was the fact that the vice principal was an active member of the PLC, and not an administrator leading the work of our group.

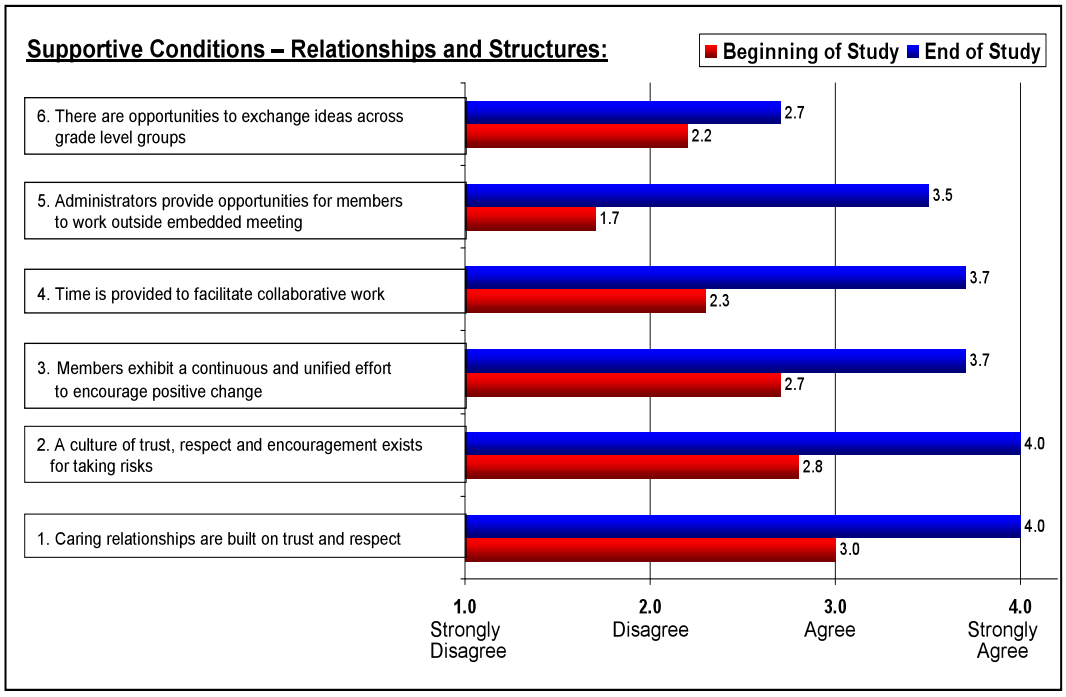
Within the dimension of supportive conditions, the area of smallest growth is noted in opportunities to exchange ideas across grade level groups. This is not surprising given that there was no explicit effort to do this. This might have been a result of the time barriers within the context of the study itself. Having more ways to exchange ideas across grade levels using a PLC model would have required more time, leadership capacity, and training to make the exchange worthwhile because other grade level teams were not functioning in the same way as ours; however, because our PLC viewed the vocabulary program as a success, there was discussion among members in reference to grade three and grade five also creating a vocabulary program. The fourth grade students had 60 new words they had learned before taking the NJ ASK. The discussion involving vocabulary programs for grades three and five alluded to the possibility of fifth graders having learned at least 100 new words before entering grade five. Essentially, our PLC recognized success with the program and began to talk in a more global sense about how students in grades three, four, and five could benefit from a PLC's work in writing vocabulary programs for all three grades.

Also within the dimension related to supportive conditions, as seen in Table 8, there were gains in beliefs about the culture of the fourth grade PLC meetings.

According to the responses, a culture of trust, respect, and encouragement for taking risks as well caring relationships among the participants built on trust and respect grew within the PLC. An increase in respect and trust perhaps helped the teachers to take more risks. This seemed to be evident in the evolution of substantive dialogue about teaching practices that occurred from the beginning of the study when participants seemed guarded, to the end of the study where open conversations took place that focused on investigating reasons for student difficulties.

Table 9

Survey Results of Supportive Conditions



While there were challenges, the more opportunities there were for the PLC to collaborate, the more the members seemed to realize the benefits of doing so and the less resistance there was; for example, having a teacher tell me that she "can't wait to see what we are going to work on next" was satisfying to me as well as this teacher. At first,

I interpreted her statement to mean she was okay with 'doing extra work' beyond the typical expectations. Yet, I realized that what she meant was that we were getting things done (e.g., building the vocabulary program) as a unit, a PLC. She told me that she loved what we had created with the vocabulary program and was excited with the prospect of moving forward, working toward reaching a new goal. We were no longer working in isolation and then implementing a program without the support of our colleagues.

In summation, there was evidence of growth in each dimension of the survey. This growth mirrors the actions of the PLC as described throughout the steps of the Professional Teaching and Learning Cycle. From examination of student work to members searching for research-based instructional practices, the PLC became more cohesive in its understanding of the components and benefits of teachers working as a professional learning community.

Working through Challenges to Become a PLC

Within the structure of the Professional Teaching and Learning Cycle (Hipp & Hufmann, 2010) staff learning is not casual and it does not happen by chance. Rather, shared goals are identified, plans are made to ensure proficiency during implementation, and continuous reflection takes place. Both qualitative and quantitative data indicate that the group made significant progress in its evolution as a PLC; however, because the formation of the PLC was a major change for our school culture, not surprisingly, issues arose which challenged our progress. From keeping our discussions focused on our goal, working to increase collaboration, finding time to still make necessary grade level decisions, to continuing as a professional learning community once we had accomplished our initial goal, challenges were faced and worked through in order to sustain the PLC.

Fostering Professional Discourse

It was evident early in the study, during analysis of the benchmark assessment on synonyms and antonyms that analysis and interpretation of assessment data were occurring. We were talking about possible explanations for the students' scores and "assessing" the assessment by questioning its organization. Similar to Hord and Sommers' (2008) assertion that through dialogue, meaning is clarified during the interchange of ideas, we were trying to describe, explain, and understand the problem before deciding on a course of action. This was in direct contrast to what would have happened in the past when we would have found ourselves searching for random activities to help students become more adept at working with synonyms and antonyms. In other words, we were articulating what the problem was so that a matching and purposeful intervention could be identified. In fact, this work also prompted more general discussion regarding aspects of instruction and assessment that could benefit our teaching overall. For example, the vice principal said that many times words are not taught "with any depth." She explained that students memorize definitions, but they are often not able to use the words in other areas or even in conversation. We were questioning what the data was telling us in meaningful ways that had actual implications for practice.

However, this type of professional discourse was new for this group, and engaging in open dialogue related to instruction was not easy for all members of our PLC. For example, on the one hand Rose, the BSI teacher who worked at both elementary schools in our district, indicated enthusiasm for the work of the group by telling me that she had been talking to a few teachers at the other school about our PLC

because she thought that the change to our meetings was positive and she was interested in sharing her experiences with others in the district. She even suggested that maybe we should invite the curriculum director to one of our meetings. However, on the other hand, she also voiced a concern just after we had analyzed the data during step 2 of the PTLC when she said, "We have a lot of activities, but we don't have a focus of what we really want yet." She was indicating we didn't yet have a plan to help our students meet the standards we had chosen as our goal. She mentioned that she wanted to share these concerns with our PLC, but she did not feel comfortable doing so. She explained that she had never been assigned to a team with general education teachers. As she stated in her interview, previous teams she had been a part of had been comprised of staff members who were not responsible for an individual class such as the related arts teachers. Her concerns seemed to be reflective of two of the norms we had established. First she was indicating that we had not yet established a clear vision. Second, her hesitancy to contribute reflected difficulty subscribing to the norm that states that members should communicate authentically. This norm implies that each member should be comfortable saying what she thinks as well as what she feels about the work of the group. Because it was a norm of the group and that she should feel welcome to do so, I asked if she would share her concerns about our PLC's lack of a specific goal at our next meeting. She told me she would, but still expressing hesitation, said only if the opportunity arose. Essentially, while the work of the group was continuing and progress was being noted, there was still unease within the PLC reflecting that not all members felt comfortable sharing ideas with the group.

The situation seemed to become more comfortable for Rose as she willingly offered her technology skills. There were times when the group needed to look at the website that listed the CCCS. There was usually a need for a Google Doc to be shared with the members. She seemed to become more at ease and then more willing to offer ideas. It was during this time that I wondered if the reading specialist, Eileen, was having similar feelings since she was not as quiet as Rose, but seemingly not as willing to speak up as much as the fourth grade teachers. I stopped by her room after school one day between meetings to inquire. She told me that in the beginning she was uncomfortable sharing because she wasn't "used to being in meetings where instruction was talked about and it was related to her students." She even said that now that the meetings are different [than they were in September through November] she really had no trouble speaking and offering ideas and suggestions. She thanked me for asking her.

Changes to the Culture of the Group

The literature is mostly tacit on how schools actually enact and sustain effective PLCs. McLaughlin and Talbert (2006) made clear that they see a change in culture is often necessary. Lieberman and Miller (2008) perceived the cultural change that comprises the implementation of a professional learning community as one in which context, commitment, and capacity serve as lenses through which teachers can come together and simultaneously increase teacher competence and professional community. Common entities such as diverse professional roles within the context of the PLC can pose challenges, too. DuFour and Marzano (2011) asserted that schools can create high performing professional learning communities if they are willing to change some of their traditional practices.

Active participation and shared responsibility. In its early stages of our new PLC, we had created our norms and adhered to them as best we could. We met on a regular basis and had completed analysis of student data, which led to a shared goal. With our identified goal related to increasing the vocabulary of the fourth grade students, the next step was to collaboratively create a plan for reaching it. We worked on the first two steps of the PTLC for about four meetings. While this time presented opportunities to collaborate, it also allowed for PLC members to step up and share knowledge they had which was specific to reaching our goal. This wasn't easy. There were challenges the group encountered, yet we were able to move forward as changes to the culture of the group enabled further progress as a professional learning community. The fourth grade teachers were, as always, very open to sharing activities they had done previously with their students. It was common to hear, "This is what I've done in the past…" as individual grade level teachers shared activities. Yet, there did not seem to be an understanding that we first needed to research best practices. This would be a significant shift for us. Thankfully, with the PTLC, there was a process in place for the changes that needed to occur in order to restructure our team into an efficient PLC.

It seemed that once we had an outline for the vocabulary program, the fourth grade teachers took a far more active role in discussions during our PLC meetings than did Eileen and Rose. This prompted me, as the facilitator, to review a particular norm with the group in the hope of keeping all members actively engaged. As the group looked at the list of norms I said,

> …about halfway down [on the list]…is the norm 'view participation as a right and a responsibility'. We had emails flying all over the place in working on our vocabulary program. But I just want everyone to feel comfortable, whether you are a classroom teacher or not, just taking something and editing or drafting or

> whatever…I am facilitating the PTLC because it is our first round and it [has] never been done this way before. Every once in a while step in and make a draft of something; even if you're not a classroom teacher, don't feel intimidated. I don't know if that's the right word, but don't feel like you're stepping on anybody's toes. Just do it. And one of the examples I can give is that Rose has shared with me over the last few weeks things that she has come across, one really good web-site called 'All Things PLC'. I asked her if she would share it.

Rose said she would be happy to share the site and was quickly able to find it online and project it onto the classroom's Smart Board. Rose had printed a copy of the web site's address and home page for the members. She said,

> It's based on a lot of DuFour stuff…I have to admit it's not my usual reading material…but it has a lot of good information…I'd love to poke around the site a bit more. And at least you all have a copy of the site now.

Although she did so willingly when asked, I am unsure if she would have shared the information without my prompting. I thought it was important to encourage Rose because I wanted her to feel comfortable talking about instructional practice with her grade four colleagues; something she had mentioned in her interview that she was uncomfortable doing.

Creating the plan to achieve our goal was difficult. There were many ideas shared, but the members had a difficult time deciding on a focus that could guide the selection of specific activities. At one point I asked Terri, the vice principal, who the year before had been a fourth grade teacher, if she wouldn't mind sharing any experiences she had in working with students to increase knowledge and understanding of vocabulary. In doing so, I prompted an administrator to share experiences and knowledge with teachers, an unusual interaction in our school that in the past may have created tension. The vice principal proposed a plan,

> …how about coming up with 50 words that we think we should be holding them accountable for in fourth grade. You know I think that is something that maybe

> we should start with… We can do all sorts of activities. You all are doing these wonderful weekly activities with words, but I like the progression activity where students come up with stronger words for a particular meaning...I am not sure if we are hitting that mark.

Right after this suggestion, Eileen, the reading specialist, shared research-based information on choosing vocabulary words. She explained that students should be learning Tier 2 words as a means to increase their vocabulary, but also to increase their understanding of the progression of words, something that our vice principal had suggested, too. To explain what Tier 2 words are, she contrasted a Tier 1"business owner" with Tier 2 "merchant," both of which might be found in grade 4 texts. What was also evident was that Eileen seemed to understand the idea that we were to develop a plan for instruction together that would be implemented in each classroom. She grasped the idea more quickly than my grade four colleagues. She also brought an element of leadership to her role as a member of the PLC. Her expertise as a reading specialist provided an opportunity for teacher learning and movement towards identifying criteria for ensuring proficiency for the three CCCS we had identified. Eileen, bringing up the idea of tiered word lists following Terri's suggestion, implied that our focus was becoming more evident. At this point suggestions of disconnected instructional activities became less frequent than they had been previously.

Between the fifth and sixth meetings, Eileen emailed us suggesting that we should all be working from the same word list and "we might want to sort through the tiered lists and identify words we should use before the next meeting." She also shared parts of Beck et al.'s (2002) *Bringing Words to Life* that were relevant to developing vocabulary in the intermediate grades. Additionally, Eileen provided research that explained what tiered words are and how to select them. Beck et al. (2002) identified three tiers of words

ranging from basic words to high-frequency words to content specific words. Eileen further explained that Tier 2 words offer a more "precise or mature way of using words to express things students already know." She placed copies of Tier 2 words in our mailboxes so the members might begin to choose words for our first list. Eileen utilized her expertise to guide the members and acted in a leadership role as she provided the necessary learning materials for the teachers to move forward in the planning of the vocabulary program.

In sum, there seemed to be indications that participants were taking on more leadership roles. Significant suggestions were offered by each of the non-general education participants. Terri had proposed creating a progression activity, and Eileen suggested the use of research-based word lists. Additionally, during the sixth meeting Rose seemed to become more comfortable adding to our discussions, too. She had mentioned in her initial interview that, since she was a BSI teacher and not responsible for a full class, she never felt at ease talking about instruction with general education teachers; however, during this meeting, she became more involved in helping to guide the work of the PLC. For example, while choosing words from the Tier 2 list, Rose suggested that it might be more meaningful if we grouped the words into categories. As an example of what she was talking about, she explained what she had done with her BSI students,

> We launched it as a whole character trait lesson, so it kind of goes above and beyond just isolating synonyms and antonyms, but [also] understanding how these different words are associated with characters. So we did a character trait study on the characters in a book…We used that vocabulary so the children had to do matching. After we read the book and talked about it, they had to make a connection as to which character trait best matched the different characters.

She said that she believed her BSI students had an easier time remembering and working with the words as a result. She also noted that organizing the words would help us with developing a "plan of action" that we could follow for instruction. Her contribution showed evidence of leadership in moving the PLC forward and offering members important information on organizing our vocabulary program. Changes in the degree of participation of members from the way team meetings used to be to our newly structured professional learning community were becoming more and more evident as members became involved in working to achieve our goal.

Fullan (2001) stressed that during the change process active participation works to increase capacity within the PLC in order to achieve better results. Likewise, Fullan (2007) noted that in order for this to occur teachers need access to other colleagues in order to learn from them. Fullan noted that "The teacher in a collaborative culture who contributes to the success of peers is a leader" (p.298). Fullan (2007) referred to this as "the new professionalism" where participation "is collaborative, not autonomous; open rather than closed" (p. 297). Fullan additionally noted that a PLC is an outward looking collaborative team rather than insular. What he means is that within a PLC teachers view their work as important beyond their own classrooms and see all students as their responsibility. As teachers begin to participate actively in collaborative processes such as professional learning communities, teacher learning occurs which can fundamentally change the essence of the profession.

Moving from individual planning and decisions. As we moved through the PTLC, each member took on varied tasks to support the creation and subsequent facilitation of the vocabulary program; however, moving forward together was a difficult

change for some that emerged as the work of the group tried to move toward a common set of activities. For example, while most of the members were open to working on the activities in between meetings, there were a couple of members who seemed uncomfortable initiating the work. Additionally, what needed to be tamed were the activities the general education teachers brought to the meetings that were not research-based. The structure of the professional teaching and learning cycle (PTLC) encouraged members to collaboratively research, develop, and implement strategies to help our students gain proficiency on the identified CCCS as well as how to assess their progress and revise our plan as needed.

Midway through the study it was evident that participants were generally taking collective responsibility for attaining our goal. The PLC had shared varied activities for ensuring the students would become proficient in understanding and using the words we wanted them to master for the first cycle. In doing so, we challenged each other's ideas and every member seemed to be contributing as we sought to reach consensus about the specific lessons we would implement to reach our goal. However, our collaboration was challenged by one teacher's anxious excitement to begin the program without all of its components being finalized. A fourth grade teacher, Pat, had done a few of the vocabulary activities the group had discussed with her students between PLC meetings. At the subsequent meeting, exemplifying the team's typical willingness to share but not co-plan, she distributed a student assignment sheet, which listed varied activities from which her students were directed to choose three as vocabulary practice. She told us that this was what she had decided to do with her students and the rest of the group was welcome to use it. With these words, the collective learning and shared practice

dimensions the group was trying to implement, both elements of collaboration, in a PLC were challenged. Because we had not yet reached consensus on the activities or strategies we would be using with the fourth graders to meet the intended goal, it seemed that Pat had stepped outside of our collaboration to move ahead with her vocabulary instruction. Eileen spoke up and said that she thought we were working toward a shared plan that everyone would implement, and others agreed with her. I added that if the students were all doing the same activities we would be able to discuss our shared experiences with them when we met as a group.

Despite a sense that Pat had taken us off task, we engaged in conversations about the activities on Pat's sheet. There were questions about their value in regard to what we wanted our students to learn. For example, I questioned one that required the students to use vocabulary words in a poem. This did not seem like an authentic way to write poetry, so it was something I did not want my students engaged in. I had enough trust in our progress as a PLC to be honest and forthright in my comments when I said,

> I question the poetry activity, only because I think that when you talk about poetry, it has to come from within them [the students], and if we're giving them words that maybe don't flow together, it could make it a little bit tricky. Then it takes away from the whole idea of poetry, the creativity behind it.

Another teacher asked if writing riddles would work instead. The group, including me, agreed that this would be a better idea. As we talked, Pat seemed to become frustrated and a bit hurt or possibly angry. She indicated this when she took her pencil and drew an 'X' through all the activities on her list. In an effort to smooth the situation, I said, and others agreed, that she had some good ideas and suggested that maybe we should incorporate some of everyone's ideas. In response she said she felt confused about what activities we had decided to use and when we were "supposed to start." She added she

was “just feeling itchy about it because I want to give them this for Monday and I don’t know if that’s going to happen in [the] five minutes [left for our meeting].” Another teacher agreed that we wouldn’t finish planning during this meeting because “We can’t narrow the activities [yet].”

At this point, we had accumulated many possible activities, but had not narrowed them down to those we believed would help ensure proficiency on the standards we had identified. This was taking time, so Pat’s yearning to begin was understandable, even if it did work against the collaborative practices we were trying to establish. Additionally, I viewed the other teacher’s observation about not being able to narrow down the activities as an honest and realistic comment indicating that we were not willing to settle on activities that did not challenge our students or were not matched with the CCCS we had selected by rushing to reach a decision. What emerged from this tense situation was that members were discussing and challenging ideas we had used in our classrooms. This also encouraged members to reflect on the effectiveness of past practices. We were challenging each other’s ideas as a way to do better, and at the same time building trust among the members. Although a bit contentious, the meeting was a discussion that indicated we were substantively working together as a professional learning community to improve student outcomes. In the end, Pat agreed to hold off on assigning an activity list for her fourth graders and wait for the PLC’s final plan. The meeting ended with the PLC deciding to continue to work throughout the week on adding or changing activities on the Google Doc another member had created. We also decided to communicate on changes and additions through email between meetings.

In relating this meeting to the literature, it is a clear indication of what Lieberman and Miller (2004) asserted, that there is no such thing as "instant community" (p. 99). Old habits of planning in isolation are heard to break as participants gradually commit to their new identities as community members who learn from and make decisions with one another. While this meeting did have times that were a bit tense, each member participated, indicating that she wanted her opinion(s) heard, wanted to be a part of the work of the group, and wanted the vocabulary program to be a worthwhile and valuable learning experience for their students. Similarly, Knowles (1984) asserted that adults bring an array of knowledge and experiences into a learning situation. Knowles contended that this is an invaluable asset to be acknowledged and utilized and that adults can learn well from dialogue and actions taken with respected peers. The "altercation" with Pat ended with the PLC agreeing to continue to collaborate on an activity list outside of the scheduled PLC meetings in order to attain the intended goal. Yorks (2005) emphasized that a collaborative atmosphere does not establish itself at a fixed moment; it evolves as indicated through the outcome of this meeting. There is "movement back and forth in creating this qualitative state" (Yorks, 2005, p. 1233). In retrospect, although a bit uncomfortable at times, the meeting proved members were ardent and excited about the success of the program.

Essentially, avoiding regressing into old practices is a challenge of educational change (Fullan, 2007). The PLC process was challenged by the actions of a teacher who may have been perceived as enacting the vocabulary program in isolation. Establishing collaborative practices was new to the culture and structure of the meetings and, at times, a challenge. It was easy, also, to revert to old practices of sharing ideas but determining

on one's own how best to implement a new initiative in the classroom. This was evident again as the group, about midway through the study, was working on designing a variety of differentiated activities in order to assure all students both understood the new words from the first cycle of the vocabulary program and could work with them in context, too. As the group was ready to continue our discussion and work to create the cumulative assessment, Pat shared that she had created a cloze passage for her students to use as practice. A cloze passage was an exercise the PLC had decided to use as part of the cumulative assessment, but had not added it thus far as a classroom activity. It was hard to read what the PLC members were thinking when she reported,

> I put a bunch of the vocabulary words in a paragraph. It is one of the most effective ways [to review]. I was doing that with them this morning. We came up with a paragraph about how it might snow today. Be careful because you have to put your boots on and go 'blank' outside in the snow. If you take a quick 'blank' at the tree you might see a 'blank' cardinal sitting on a tree branch.

Nothing was said to Pat and the remainder of the meeting was spent working on the cumulative assessment. That no one confronted her may have had something to do with the fact that Pat was the one who also created her own list of practice activities ahead of the PLC and became quite upset when the members challenged her ideas. Although nothing was pointed out to Pat at the meeting, members of the group were bothered by Pat's going it alone again. For example, while at the copy machine later in the day, a fourth grade teacher, Catherine, told me that she felt as though she was behind the group. When I asked what she meant, she said she didn't realize we were supposed to be "coming up with activities for practice for the end of the first cycle" with our students. This teacher recognized that previous to that morning's meeting we had begun to share a plan for our work and knowing another teacher had done an activity independent of the

other members made her wonder if she was off track. Trying to be reassuring, I told her not to worry about it, and that I believed Pat was just excited about the program and that might have been why she developed the activity on her own. I also said that I had not done anything with my students outside of what we had agreed on in the PLC meetings either. She said she was happy to hear this. I sensed we had become used to collaboration and shared practices taking place during, as well as in between our meetings. The fact that one teacher had acted on her own stood out and caused concern which confirmed for me that collaboration had become important and other teachers were onboard with this element of the PLC. In the end, the teachers created the cumulative assessment using a Google Doc. Over the course of a week everyone participated in this process, and the assessment was finalized with the PLC at the next meeting.

The fact that Pat had acted independently of the group could have been more problematic for more than just Catherine. We had worked hard since the beginning of the process to configure ourselves as a professional learning community while sticking with the structure of the Professional Teaching and Learning Cycle. We had spoken at the previous PLC meeting about using a close passage as part of the cumulative assessment in order to measure the students' use of the new words from the first cycle in context. As we made conscious attempts to avoid working in isolation, Pat's action seemed to be a step away from the collaborative work the group had done to create and implement the program thus far. The PLC may have ended up creating a practice passage for the students anyway, but through Catherine's comment, it was evident that at least one member questioned why Pat went ahead and used one for practice before the group had made a final decision to do so. It is important to note that teachers were free to judge

their students' abilities and act accordingly based on their needs. I had done this myself when I realized that my students were having trouble using the words in context. However, in the case of Pat and the cloze activity, it was one where the activity itself was to be part of a larger assessment. After its administration, it was assumed the teachers would come to the meeting with students' results and data analysis of the assessment would take place. This data was intended to inform the group as we moved forward with cycle 2 and cycle 3 of the vocabulary program. Pat doing this ahead of time would undermine this process.

Teaching and planning in isolation is often recognized as the most persistent norm standing in the way of improving classrooms and schools (DuFour & Marzano, 2010). The professional learning community, specifically its element of collaboration, is designed to eliminate isolation through the transformation of traditional school practices. Reverting to old practices where teachers plan independently and do not share outcomes in order to make improvements that inform the work of the PLC can occur unintentionally. While this can undermine the development of professional learning communities, a facilitator and fellow PLC members need to realize that setbacks can occur and norms of collective responsibility and collaboration develop slowly (McLaughlin & Talbert, 2006). Professional learning communities are essential to creating a sense of collective responsibility among the members as they work to achieve a common goal. Yet, while attempting to build a PLC with collaborative practices, which work against traditional teacher planning in isolation, there are bound to be challenges.

Overcoming Resistance

The PLC members, except for the vice principal who was new to our school, had participated previously in team meetings at Pondview School. These had very little structure and topics on the agenda rarely had any impact on instruction mainly because of a lack of knowledge on the part of the team leader and the administration that this was, in fact, what PLCs were supposed to do. Rather these meetings were used to disseminate information or make grade level decisions concerning budgetary items, NJ ASK preparation materials, etc. It is easy for me to surmise that there may have been hope on the part of the administrators that these meetings were meant to positively affect instruction, yet without proper knowledge of what PLCs are what they can do, this never came to fruition. DuFour and Marzano (2011) called this a "formidable challenge" (p. 68) because even though the literature points to the benefits of interdependent collaborative practices, the traditional culture in which individual educators make independent decisions and practice in isolation is one not easily changed or challenged. It was important for me to be aware that acceptance of the new framework to the meetings could be met with resistance given that members were being asked to take an active stance rather than passively attend meetings.

Moving towards active participation seemed especially crucial as the PLC moved through the PTLC, yet it was counter to the culture of the school and had the potential to meet with significant resistance. We were implementing a new structure to the meetings, which was unfamiliar to all the members. Though mild, our PLC experienced a few situations that might be considered resistance to the change. For example, the general education teachers had a difficult time getting in the habit of discussing and selecting

research-based activities for the vocabulary program that were specifically aligned to the three CCCS we had chosen as the focus of our work. These teachers continuously offered resources they had used in the past evaluating them against these criteria. However, both the reading specialist and the basic skills instructor contested suggestions that were not a fit, and eventually the others began to provide more appropriate instructional strategies. It was apparent that these two members recognized that we were filtering through an array of old activities for a few meetings and not making any real progress towards identifying a plan to ensure proficiency of the standards. From the point of view of the fourth grade teachers, it was difficult to make this transition because simply sharing activities and resources without much consideration for their alignment with anything had been common practice. In fact, it was part of the culture of our team, and it seemed to keep the PLC bound within step 2-Select of the PTLC for some time. Breaking this cycle and getting teachers to reflect on old instructional strategies as a way to make decisions about new ones required members to question the activities with regard to their alignment to the CCCS. Some resistance to the change on the part of the fourth grade teachers may have been due to the fact that they were accustomed to being more passive rather than active participants in the decision making process.

You have left out a couple of other areas of resistance: Pat resisted staying with the group. Bringing in that the group needed to do grade level business was during the PLC time was another.

As the PLC emphasizes a collaborative culture, the members in this study were being asked, and possibly challenged, to change their longstanding expectations of the work and their levels of participation as a result of the new structure to the meetings. For

example, in two instances Pat resisted staying with the group. Seemingly, the opportunity to take a new idea and implement it according to her independent assumptions and her high level of excitement for our work took precedence. Additionally, Rose and Eileen not talking much in the beginning of the study can be identified as possibly resisting the process and a hesitancy to participate as equals. Another area of resistance was expressed after the PLC decided to move to a second round of the PTLC. At this point, we wondered whether we would be able to successfully complete it within the time remaining of the school year. While it was nice that no one said our work was done when we finished the first cycle, it was not completely clear how we would continue.

Essentially, our struggle to begin a second round of the PTLC can be viewed as an implementation dip (Fullan, 2007). We had looked into the concept of 'close reading' and had generally decided that this could be an area to pursue with a second undertaking of the PTLC. Yet, a lack of time and pressures to prepare students for the NJ ASK seemed to block our ability to engage in another round; however, it was only in retrospect that I realized that in spite of resistance, the PTLC had become somewhat institutionalized and the work of the group moved forward without realizing it. We had received a great deal of new information on the NJ ASK from the state. While we took time during PLC meetings to filter through the information the state had provided on the NJ ASK we questioned whether these tasks kept us within the PTLC as well as within the common dimensions of a professional learning community. The more I reflected on this possible divergence, however, the more I realized that we were, in fact, beginning our second cycle by analyzing data. In this case, the data from state was used to inform our

instruction as we prepared the fourth graders for the upcoming state mandated assessment. Essentially, sifting through the NJ ASK data increased the participants' knowledge base translating it into specific actions to take in preparing our students for the state assessment. Seemingly, it was the collaborative practices we had cultivated that helped to withstand the possibility of resistance in moving the work of the group forward.

The facilitator. Throughout the study, I faced several challenges as a teacher leader or facilitator. Keeping our dialogue related to the goal of the group, guiding the group through a process of data analysis, forming a shared goal as a result of data analysis, and creating and carrying out a plan to achieve the identified goal were new for me. From the beginning of the study, I assumed these practices would present challenges.

One way I addressed this was the use of protocols because I recognized early in the study that they could help break traditional barriers to professional discourse. Protocols help by engaging educators in talking and listening, both asking for and giving feedback, as well as describing and determining conclusions based on the information or documentation(s) presented. A facilitator plays an important role in leading a PLC through protocols by encouraging an "environment for learning that presumes the social construction of knowledge" (McDonald et al., 2007, p. 7). In this study I used protocols to enable the participants to become more at ease and increase engagement in the analysis of the data.

At the beginning of the study, I facilitated a protocol to help with analysis of the results of the synonym and antonym benchmark the PLC created after we received the results of the fall electronic comprehension test from the vice principal. These

benchmark results were analyzed using a protocol I adapted based on the data driven dialogue (NSRF, n.d.) (Appendix B). The protocol was shortened as a way to deal with the time constraint of a 45 minute meeting. Given that we were still in the early stages of working as a PLC, I used the parts of the original protocol that I felt would offer the most dialogue and in-depth analysis of the results of the benchmark. My adaptation was divided into three sections and enabled the members to look across the grade level results in order to identify patterns of performance that seemed significant for the PLC to consider. I reviewed the protocol's purpose and procedure with the participants before we began.

As a result of doing the protocol, we noticed that most of the students scored in the 80s and 90s. There were just a few who scored 100% among the four classes. Also evident was that the students did well at the beginning and middle of the test, but tended to miss answers at the end. I pointed out that the questions became increasingly more difficult from beginning to end. Another teacher pointed to the fact that the format was multiple-choice and commented,

> I think when they're given four choices, either some of them are making really good guesses, or they can decipher when they see four options and they're like okay, no, no, oh I'm left with these two, and they pick well.

Catherine, a fourth grade teacher, noticed that the sequence of the test questions alternated between questions about synonyms and questions about antonyms. She surmised that, because there were not separate synonym and antonym sections, "by the end of the test some of the students might have become a bit frustrated and that could have been a reason for mistakes made at that point." In other words, she was suggesting that their poorer performance toward the end of the test was more an artifact of the test

construction than of their understanding of synonyms and antonyms. The discussion turned to the possibility that the students did not have the stamina to complete the test with their best effort from beginning to end. This could have also resulted in frustration. One teacher suggested that it could have been a problem with following directions. Because antonym and synonym questions were mixed throughout the test, the students needed to read each question carefully.

During the next meeting Eileen, who had previously been quiet and seemed guarded, offered an essential insight that lead to teacher learning. We were still working on Step 2 of the PTLC, "select," during which participants choose research-based practices in order to address the group's goal of replacing instructional strategies that may be ineffective. Because antonyms and synonyms were typically found in fourth grade spelling lists, the group had begun to share activities they had used for spelling practice. I recognized this and explained how discussions on our topic, at this point, should focus on researched-based practices. Eileen, the reading specialist picked up on my redirection and told the group about tiered word lists. The idea of tiered word lists as a possible means for selecting the vocabulary our students would study, suggested to Rose that we should revisit our choice of CCCS on which we were focused. In the middle of this meeting, she pulled up the CCCS for grade four in language arts from the Internet and projected them on the smart board.

There were definitely 'ups and downs' at this point in the study. While we made progress with Eileen's information in thinking about the use of tiered lists, an overall concept of what proficiency meant related to the standards we chose to focus on was still not evident to the group. For example, PLC members continued to share and offer ideas

and resources they had used with students without regard for their relationship to our goal. This meant we were stuck in step 2 of the PTLC. It seemed as though we were discussing activities without being sure they were researched-based or related to our chosen CCCS. Participants were pulling ideas from tried and true strategies and activities on which they had relied. To try to move things along I said,

> We are kind of thinking the [focus on the] whole synonym and antonym thing is good. We are talking about words and it feels like what we're really missing is a program with a focus on vocabulary. We don't have a system for collecting and using words. So rather than just focusing on synonyms and antonyms in isolation…what about trying to find a way to gather more words and incorporate the synonyms and antonyms inside a larger framework of dealing with vocabulary words which seems to be what the standards are telling us.

This statement indicated that I felt we needed to think of a systematic way to help our students attain proficiency, not just a random lesson or a few activities here and there, especially since the three CCCS we decided to focus on would require more than one or two lessons in order to achieve. I listened eagerly to what the team members were saying, but still members kept offering strategies and activities for vocabulary acquisition that they had been using for many years, rather than concretely tying ideas to the standards we had agreed to address. While my level of frustration may have increased at this point, it was important for me to recognize that I had my own limitations as a facilitator. This was the first time the group was being led in the direction of collaborating to identify strategies in order to achieve a goal and I was uncertain about the best way to move the process forward.

I noticed that our vice principal was quiet. Knowing that in the previous school year she has been a fourth grade teacher with deep interests in literacy, in an effort to address my difficulty, I asked if she had implemented any type of vocabulary instruction

when she taught fourth graders. It seemed to me that her comment would help us began to develop a greater focus as she explained,

> We [colleagues from previous school] did this whole training on tiered words and what those are. Tier 1 is all words that you see, like a desk, a book, and kids are fine with that. We do a great job of teaching tier three words and those are words that they know in a specific subject. Like if you were teaching a history or science lesson, the heart, they know the aorta, they know circulatory system, but what they're missing is Tier 2 words…It's lack of good vocabulary. That is what's keeping them from understanding what they're reading, from pushing their writing, and they've just not developed it enough.

Her response to my prompt seemed to bring us one step closer to determining a focus related to the three identified standards. Knowing that I was having difficulty bringing the group together in identifying strategies to help to meet the standards, I did look to the administrator for her input. I am unsure if she would have contributed had I not prompted her. Although Terri is an administrator, she offered insights from the perspective of a teacher. She asserted, "We are not teaching them words that escalate", and asked, "Do you think the fourth graders would know the difference between annoyed and perturbed?" She also enabled the PLC to look at the bigger picture of the need for the teachers to become aware of the use of vocabulary in relation to student achievement through the use of research-based information.

Sustaining the work of the group over time. Upon completion of the first cycle, the PLC assessed the vocabulary program thus far. We decided to implement a second and third round of 20 words each so that the students would have been introduced to and hopefully learned 60 new words by the time they took the NJ ASK in the spring of 2013; however, about two weeks after this decision was made, I began to question the degree to which we really shared focus and valued the collaboration necessary to complete all three cycles. Although classroom teachers affirmed the vocabulary program

was off to a good start and were very engaged during PLC meetings, I had begun to feel that I always seemed to be the member who sent the first email or created the Google Doc to be shared and worked on by the members as we began to create the other vocabulary cycles. I wondered whether, because we completed the first vocabulary cycle together, the members would now be more interdependent to continue the work. We had agreed not to take the time during our PLC meetings to work on the second cycle because we wanted to begin to investigate a new goal, but the work necessary for completing cycles 2 and 3 was not getting completed in a timely manner. This may have been an indication that the group was floundering a bit without the leadership of a facilitator. No one had been named nor stepped up to take charge of organizing the next two cycles. It may have been a mistaken assumption on my part to think that the members would spontaneously do the work that needed to get done. Creating a plan for the process would have most likely addressed the situation.

However, moving forward with our work as a PLC after deciding to create cycles 2 and 3 outside of the PLC meetings brought to the surface another challenge, too. It was at this time that we analyzed the results of the midwinter electronic reading comprehension assessment with the hope that it would help the PLC begin to discuss what our next goal would be. However, as facilitator I questioned how this round would compare to our first implementation of the PTLC. My perception of the first cycle was that it was successful as I saw continuous signs of growth as a PLC as we successfully completed our first PTLC. Yet, I did have some concerns moving forward with this second round. First, I was concerned whether we would be able to begin and get through another cycle of the PTLC before the end of the school year. It had taken just over two

months to complete one PTLC. Our PLC was onboard with taking on another goal, but the dwindling school year could be a challenge. Second, we had many possible directions we could now move in. In addition to potentially working from the results of the midwinter electronic assessment, Catherine, a fourth grade teacher, had suggested that we take a look at the Common Core Curriculum Standards for writing in grade four as another area to explore. Other members were urging us to work on preparation for the NJ ASK. To this end, Pat, printed copies of the information after she attended a meeting on changes to this upcoming state mandated assessment and brought them to our PLC meeting. The vice principal, Terri, had also attended a number of seminars on this topic; she told us she had information she would like to share with the group. Additionally, we were about 10 weeks away from the administration of the NJ ASK. In preparation, our principal had forwarded to the entire staff a PowerPoint presentation provided by the state highlighting changes to the assessment via an email in which he wrote,

> As you know, the NJASK has taken on many changes this year to align more with the Common Core Standards. Please take a close look at this PowerPoint both in terms of English Language Arts and Mathematics so that you continue to be aware of the changes as well as the specifications for the testing in the spring. Continue to work with your grade level teams to see if there are certain standards/concepts/ideas that you want to review/address with your students leading up to the testing.

Although preparation for the NJ ASK did feel like a high priority topic, I had nagging doubts about whether we would maintain the progress we had made as a PLC if we shifted our focus to preparing for the NJ ASK. First, I wondered if we could take the amount of information and summarize it in order to make it useful to the members. I also questioned whether we would still be working as a professional learning community if we changed gears and took the time to make sense of the NJ ASK information rather than

identify a specific goal, relate it to CCCS, and then work to implement a plan as we had done using the professional teaching and learning cycle. The key was that our conversations needed to maintain focus on classroom instruction. If this were upheld, discourse would continue to the benefit of our students and we would continue to function as a PLC.

Typically information, such as new NJ ASK directives, was distributed at faculty meetings, team meetings, or to teachers' mailboxes. It was taken for granted that a teacher may or may not take the time to read the information. There was relatively little follow-up and no real accountability for becoming informed. Because our PLC had worked to cultivate collaborative practices, I asked the members about working to decipher the NJ ASK information that was applicable to our instruction. Everyone agreed that this was important. The reading specialist and I used time the principal gave us during a faculty meeting to sift through the presentation from the state. We developed a shorter document to share with the group that would give us more concise information that highlighted the most significant changes to the NJ ASK for the fourth grade. The information we presented at our next PLC meeting focused on new expectations for our students. This included the use of text-based information and comprehension of a higher level of text complexity for their grade level. We also included a statement that reading sections on the NJ ASK would include questions that addressed the CCCS strands of "key ideas and details" and "craft and structure."

At the next PLC meeting we pooled information from the state and various seminars the PLC members had attended. As facilitator, I mentioned that the information might seem overwhelming, so I asked everyone to skim and identify any commonalities.

In this way, I encouraged the group to treat all this new information as data; therefore, in looking for similarities and differences across sources we were engaging in data analysis just as a PLC would. After some chatting, the reading specialist, Eileen, observed that the idea of 'text complexity' seemed to be a common theme. She explained that it was related to an instructional strategy called "close reading." The vice principal added to Eileen's comments by saying that this involved the use of "active reading codes." The members were curious about these terms and this seemed to be something that was new to the classroom teachers. The meeting ended with Eileen saying she would look for more information on close reading. We all agreed that this, along with the use of active reading codes, would be the topic for our next meeting.

Although I had questioned whether we would be able to move from one round of the professional teaching and learning cycle to a second, I realized that the work that had just taken place was similar to working within the structure of the PTLC. For example, what we discussed about close reading and the active reading codes resulted in the need for further teacher learning. Working as a PLC to learn about close reading and active reading codes would allow the group to implement these new strategies similar to the vocabulary program. We would all be working from the same information and, in turn, be able to meet and discuss outcomes with the fourth grade students. It seemed we had now moved to step 2, select, without actually acknowledging that we were, in fact, working within the PTLC again.

Essentially, I recognized the importance of a facilitator encouraging members of a PLC to reflect on matters that would positively affect instruction. We did not need to be as stringent with routines during our second round of the PTLC because we had begun to

work as a PLC. Yet, our work still related to instruction as teachers gained a greater understanding of the changes to the state mandated testing and how it would affect classroom practices. Lieberman and Miller (2004) asserted that the encouragement of a facilitator can result in reflection and engagement in collaborative problem solving, such as working to decipher the new NJ ASK information among the members. Facilitators are in a unique position to make things happen within a PLC. Hord and Sommers (2008) noted that facilitators have the ability to work directly with the staff and create the professional dialogue needed to "make things happen (p. 79). Doing so was a significant culture change in and of itself.

Competing Demands on PLC Time

Each PLC has unique qualities as well as issues that can arise, which need to be addressed (Huffman & Hipp, 2003). These issues may have nothing to do with identifying or addressing the PLC's shared vision. For example, about halfway through the study, Jane asked if there could be time for the classroom teachers to discuss issues beyond the scope of the PLC work, but relevant to the grade level. As our fourth grade instructional team leader, she explained that there were some pending decisions that had nothing to do with the vice principal, basic skills instructor, or the reading specialist. Essentially, she was stating that the decisions did not need input from these three members, but general education teachers needed to part of the decision making.

The fact that Jane brought up the subject made me think Jane realized that what needed to be done was not aligned with the mission or processes of the fourth grade PLC meetings. At this time, we were making great gains in creating the first cycle of the vocabulary program; however, there were indeed grade level decisions we needed to

address. For example, we had money left over in our fourth grade budget that had to be spent by the end of the year. With the implementation of the PTLC, decisions like this were not getting made. My first instinct was to suggest we use email to take care of these issues, but I also realized that it should not be my decision as to how to address this question. It seemed to me that it would be in everyone's best interest to take a look at our norms and see how the request could be accommodated. At our next meeting, I brought up the subject and asked for suggestions on how to respond. One teacher proposed using five minutes to discuss these items at the beginning or end of the meeting. Everyone agreed this was a good idea and the consensus of the group was that the last five minutes would be better just in case someone had an issue getting to the meeting on time. [This did not happen often, but as elementary teachers we needed to make sure our students arrived at their related arts class with supervision.] I stated that I would add a norm to our list that said the last five minutes of the meeting could be used to discuss 'other'. This request was easily accommodated and all members received an updated copy of the norms. Moving forward, this proved to be a good decision. The norm was in place to accommodate other business as needed.

Closing the Study, Continuing as a PLC

The study ended in late spring. The final recorded meeting ended with me initiating the following conversation: "Just before everyone goes, I want to say a few things. I want to compliment everyone because the vocabulary program is something for all of us to be proud of, and we certainly worked hard recently in interpreting and understanding what the state was sending our way in terms of the NJ ASK." To which the Vice principal added, "I was coming back to say the same thing, but you just took my

compliment!" Pat chimed in by saying, "I don't know if it's based on the PLC, or what, but I just feel that our overall communication this year is better. I feel like I am talking to everyone more than I used to." With that the vice principal, "I think you supported each other more." Pat responded, "Yeah, just helping each other, especially with language arts, or any of it. I think that has improved since I have been here." Catherine ended the conversation with, "I feel like communication has definitely improved…you guys, we're two minutes late!" While I stopped recording the meetings at this point, our PLC remained in place throughout the end of the school year. We continued to talk about student data. We continued to bring the CCCS into just about every conversation.

In September 2013, Eileen and Rose were assigned to attend the grade five team meetings with the hope, according to our principal, that they would be able to "sprinkle some PLC dust" on the grade five team. Our grade four team welcomed three new members, all special education teachers, that September, too. At the time of this writing, the 2013-2014 school year, the fourth grade professional learning community continues to provide an avenue for teacher learning through collaborative practices.

Chapter 5: Conclusion, yet Continuance

As teachers are the driving force behind instruction, it is paramount that investments in professional learning be considered when seeking improvements in student achievement. According to the National Staff Development Council (NSDC), "Some of the most important forms of professional learning and problem solving occur in group settings within schools" (National Staff Development Council, 2001). While the professional learning community (PLC) can provide the context in which to do this, asking teachers to become part of a PLC without developing a supportive structure for initiating, implementing, and sustaining the group may result in resistance, loss of interest and failure to achieve the benefits of this collaborative working arrangement; however, when a plan is put into place and teachers have an understanding of goals, objectives, and effective processes and have a voice within the group in order to achieve them, success can ensue.

Because of the design of the study, which included the implementation of the professional teaching and learning cycle, I believe our team meetings successfully transitioned into a PLC. Our vice principal, Terri, affirmed this when she summarized her experience at the end of the study:

> During the 2012-13 school year I had the good fortune to work in a PLC alongside the fourth grade teachers, the Reading Specialist, and the Basic Skills instructor. During our PLC meetings we analyzed data from the electronic reading assessments and recognized that students had significant weaknesses in reading and comprehending Tier 2 vocabulary words.
>
> As a PLC we worked collaboratively to share ideas and research based instructional strategies on how to address this weakness in our students. The teachers implemented innovative techniques to strengthen students' acquisition and understanding of vocabulary words. They created a variety of assessments to continually gauge students understanding of Tier 2 words. The hard work of the PLC enabled students to read harder text more successfully without stumbling on

> words they could not comprehend. The PLC also focused on reading strategies that required students to interact with text in a meaningful manner.
> I am confident in concluding that the work of the PLC had a positive effect on the students' performance on the NJASK assessment. The students showed significant improvement in their ELA scores from the previous year. Also 32% of the fourth grade students scored advanced proficient, which was the highest percentage from previous years in any of the elementary grade levels. Witnessing such growth has inspired us all in continuing to work with our PLC to increase student achievement. I am proud to have been part of such a dynamic PLC and look forward to working alongside them this year [2013-2014 school year].

Clearly from the perspective of the vice principal, our fourth grade instructional team successfully made the transition to a professional learning community.

The inspiration behind this study evolved from my years as an elementary teacher spent implementing one new program after another in an effort to increase state mandated test scores. I felt that my colleagues and I were never really able to 'get good' at one reform before another was introduced. If teachers had been helped to refine their instruction using one new instructional initiative at a time, I often wondered whether we would have reached better results than we did. These experiences, combined with my reading the literature on professional learning communities (PLC) encouraged me to design this study to build and enact a context for talking about student data and instructional practices. I wanted to see what would happen when my colleagues and I were given an opportunity to talk about and connect student data with our classroom instruction in a supported and structured PLC. Our fourth grade instructional team appeared to be the perfect venue for trying this out by implementing a structural change to our traditional grade level meetings with the purpose of increasing teacher discourse, teacher learning, and improvement of instructional practices.

The purpose of this primarily qualitative study was to describe what happens

when the work of a fourth grade instructional team became structured within a research-based framework for a professional learning community. Throughout the study, members' perceptions of the process, impact on instructional practices, relationships between PLC members, and varied effects on members in relation to student outcomes were noted and then analyzed. This investigation was guided by the following overarching research question: What happens when members of a fourth grade team transition from grade level meetings based primarily on information distribution and administrative tasks to meetings where topics are driven by data and organized within the dimensions of a professional learning community? The subquestion was: Were there changes that occurred for the teachers as a result of their participation? If so, what?

The study took place at Pondview School in Danville, New Jersey where I am a fourth grade teacher. The participants were those educators assigned to the grade 4 instructional team for the 2012-2013 school year: three general education teachers, a reading specialist, a basic skills instructor, and the vice principal. All agreed to participate in each phase of the study. I collected data to address the research questions over a six month period. I interviewed participants at the beginning and end of the study, they completed the same survey at the beginning and end of study, and fifteen PLC meetings were audio recorded and transcribed. In addition, I kept a research journal in which I recorded my own observations, reflections, and further interactions with members beyond the scheduled PLC meetings.

Summary of Findings and Discussion

Teachers today are called upon to meet unprecedented academic standards. The CCCS challenge districts, individual schools, and teachers across the United States to

bring each student in their charge to a level of skill enabling the attainment of these high standards of academic achievement. With the implementation of the CCCS came the requirement to improve teaching, as research has shown that the most important variable in student achievement is the quality of instruction students receive (DuFour & Marzano, 2011). However, many times a school can face wide variation in the quality of instruction within the same grade level or academic discipline. Hattie (2009) described effective teaching as requiring deliberate interventions to ensure improvement in learning by knowing enough about subject content to provide meaningful and challenging lessons. Professional learning communities have been shown to be a venue where these notions can be enacted. This study encouraged a group of educators to work as a professional learning community and identify an issue, establish a goal, and then work collaboratively to reach it for the betterment of the students.

Collaboration Is Learned, Not Expected

Although the group started out as relatively willing, time and a systematic process were needed in order to nurture and develop a collaborative in the group. For example, at first dialogue seemed a bit guarded, but using a protocol enabled the members to talk more easily under its guidelines as I led the group as the facilitator. The work the professional learning community completed was based on active participation of the members as the vocabulary program was created and implemented and later as NJ ASK information/data was interpreted. Administrators and teachers working to initiate a PLC should understand the work of the facilitator/teacher leader could help the group evolve into a PLC. To begin, the professional development sessions helped the participants understand the new structure to the meetings. In contrast to the unsuccessful attempt to

implement professional learning communities a few years ago, the professional development I presented about the change provided more background knowledge than was received initially. Knowledge of the PTLC (Cowan, 2003) before our first meeting gave the members an overview of the format for the meetings and an understanding that the topics of our meetings would be based on improving instruction. A commitment to professional development for members before the initiation of a PLC works to clarify misunderstandings and new and correct information of the potential benefits working as a PLC could result in. Anyone interested in making sure that PLCs begin on the right path views professional development as helping all members to enter the change process with the same general information. In regard to this study, a set knowledge base of the workings of PLCs was essential.

Central to the work of a PLC is collaboration. Teachers in PLCs work and learn not only with each other, but from each other, too. Collaborative practices did not evolve easily, though. In fact, the first few weeks of the study might be considered a transition period during which members seemed to be getting used to the idea of discussing their practices, so dialogue was not always free flowing. With data analysis being the first step of the PTLC, the use of a protocol helped. I believe that implementing this structure for data analysis was something new for all members. It is important to recognize that a protocol disallows focus on the individual scores of the students; rather it enables the PLC members to focus on the areas where the students seemed to have the most difficulty. If teachers are required to implement the CCCS, an outcome of data analysis is matching problem areas with the appropriate CCCS. This enables members to get a clearer idea of exactly what skills are necessary in order for the students to increase their

proficiency. Once determined, the PLC can become more engaged in discussions related to old versus new instructional practices. Because of the PLC in study following this format, the members then had actionable information to work with to benefit the students. There was something to talk about that involved teaching and student learning. It is at this point in the process that members can explore and possibly change the old practices in a targeted and researched-based way.

The use of the PTLC is a necessary component for teachers and administrators interested in the implementation professional learning communities. Cowan (2003) noted that planning collaboratively to achieve the shared goal(s) of a PLC is a critical feature of the PTLC and one that may lessen the challenges of replacing old strategies with research-based ones when working to improve instruction. However, for the PLC members in this study, and especially the general education teachers, collaboration needed to be learned, and as a result, replacing old strategies took time. Here the facilitator/teacher leader can reinforce that the PLC should come up with an overarching plan to help students meet designated standards. This can also work to lessen the idea of teachers working and making instructional decisions in isolation.

Members of a PLC use their collective knowledge and experience to design an instructional program that all members agree to. As the difficult part can be getting to the point where members decide on a shared goal, once there, all participants can recognize the work to be done and begin contributing to realizing the group's goal. In the PLC in this study, the reading specialist offered research based practices and research on vocabulary acquisition for intermediate students, although the basic skills instructor was apprehensive in sharing she offered her technology skills, the vice principal made

suggestions that seemed to be accepted and useful to the members, all making clear that active participation was apparent. Essentially, when working to enable teachers and staff members to work as a PLC, collaborative practices, and especially awareness for the members that this is the way all should be working, can develop throughout the process. It is important for administrators and others interested in creating PLCs to recognize it was at this point in the study that the group was beginning to view the members as equal participants. This had to evolve and, although it will take time, those PLCs that allow collaboration to evolve may also notice that lines between positions within the school (such as teacher and administrator) may diminish.

A PLC structured under the Professional Teaching and Learning Cycle collaborates to determine how the students will demonstrate understanding. The activities are aligned to the CCCS. Administrators wishing to use the PLC as a means of increasing teacher capacity enable teachers to talk about old practices, challenge each other's thinking with regard to old and new instructional practices, and discover and interpret research-based methods. This may not happen without the support of administrators who want to enable teachers to increase practices. This also helps PLC members to move towards a sense of collective responsibility for the work of the PLC as well as the success of all students; not just those assigned to their homeroom. In the study, an example of collective responsibility was when Catherine suggested that once we finalized the activities, that we use them as a "pilot" with the understanding that as a group we may change those activities that did not seem to be working to meet our goal, since students of all academic abilities must be challenged in meeting the goal. In fact, we did add an activity (create an analogy) since it was determined, while discussing the

results of the activities at a following PLC meeting, that one more activity was needed that would challenge the higher order thinking skills of the students.

As described in this study, too, it was evident that the participants were amenable to the PLC process as they challenged each other's ideas, sought and shared research-based practices, and were in agreement on identifying a shared goal while working as a PLC to attain it. Fullan (2007) contended that the degree of successful educational change is in direct proportion to the extent to which teachers interact with each other. He further states that not all interactions are positive. Some offer peer support but others can be arguable. The participants experienced varied interactions with each other. In the case of this study, varied interactions added to the cohesiveness of the PLC throughout the study; for example, whether a situation was a bit uncomfortable or things were moving smoothly, the PLC remained a working unit throughout the process as members moved from meeting to meeting. When a situation had the potential to become tense, the PLC member(s) worked to see another's point of view or negotiated within the challenge and resolved the conflict. Essentially, administrators and teachers wishing to initiate a professional learning community need to recognize that it quite attainable yet requires knowledge of the fact that a PLC evolves just as members recognize the possibilities of working and learning from and with each other.

Shared and Supportive Leadership Evolves

Part of the reason for the evident excitement or "buy-in" that was felt among the participants in our professional learning community once we began to implement the vocabulary program was because the members created it from the ground up after learning more about increasing vocabulary with fourth graders (i.e., the use of Tier 2

words). Although it took time, the PLC was able to collaboratively make bottom up decisions and develop an instructional intervention that was responsive to student assessment, research-based, and aimed at improving student outcomes. PLC members shared tasks, research was used to inform the creation of the program, and members contributed via their own expertise and knowledge as we worked as a collaborative entity. Wheatley (2006) explained this by stating that the best way to "create ownership is to have those responsible for implementation develop the plan for themselves" (p. 68). Wheatley emphasized that it doesn't make sense to expect individuals to embrace a new idea when they haven't been included in the development of how the program will be implemented nor in determining the elements of the program itself. Wheatley's (2006) assertion seems in direct opposition to the "top-down" process that often exists when new plans, ideas, programs, etc. are put into place in a school setting, but it is very much aligned with how we did our work in the fourth grade team. Terri, the vice principal, was not leading the group. Instead, she seemed to want to be an equal participant working to encourage the norm of "understanding and embracing collaboration" among the members of the group. While an administrator may be part of a PLC, there were avenues provided for members to participate equally and to collaboratively help each other create and attain the shared vision or goal of the group without regard to position.

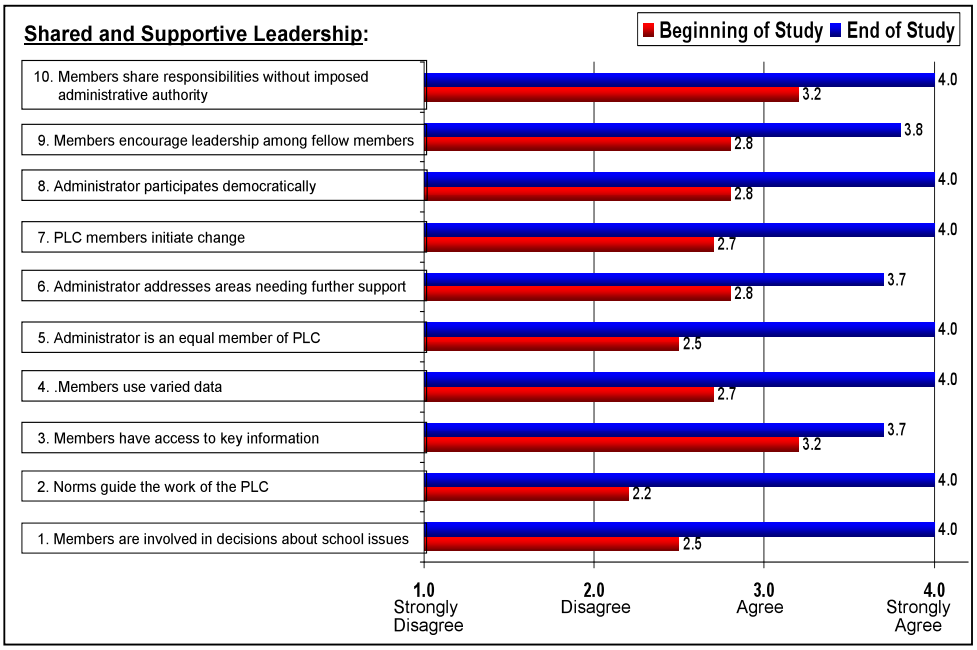
Analysis of the results of the beginning and end of study surveys indicated that it was within the dimension of shared and supportive leadership that the most change to our development as a PLC occurred; however, it was difficult for some participants, especially the basic skills instructor, to become comfortable enough with the group to share thoughts on the processes of the PLC with the general education teachers. This

teacher did not remain passive; instead she shared her skills with technology as a way to actively participate. This seemed to give her more confidence and eventually share ideas with the group. In fact, she was the PLC member who offered the idea of grouping the vocabulary words by categories so the students would be able to make connections between the words. I was glad to have spoken with her about sharing ideas with the general education teachers. I also wondered if my encouragement as not only the facilitator, but also a fourth grade teacher, may have inspired her to become more active.

The responses documented within the Shared and Supportive Leadership section of the survey reflected growth and positive changes within the culture of the PLC and its members. Leadership enacted by teachers and administrators establishes a school culture that supports student learning (Hipp & Hoffman, 2010). It is easy to surmise, then, that teachers within a PLC play a critical role in establishing an environment that assumes a collective responsibility for the academic successes of all students. In Table 9 below, seven of the ten statements received the highest rating of 4.0 at the end of the study. Each statement received a higher agreement compared with the beginning of the study. Therefore, the results of the Shared and Supportive Leadership section of the survey the members took at the beginning and end of the study demonstrate significant change (See Table 10).

Table 10

Survey Responses: Shared and Supportive Leadership



Structures Support the PLC Process

Using structures that the group understood and recognized played an important role in organizing the work of the PLC as well as providing a useful framework for the meetings that kept the group on track, working toward its agreed upon goal. After my analysis of the beginning of study surveys and interviews, I realized the participants had a range of understandings of what professional learning communities are and how they should function. These data also confirmed for me the importance of implementing a structure to our meetings. Everyone, including me as a facilitator, was new to participating in a research-based PLC process. The importance of structure when beginning to form as a professional learning community is to provide insight into the possible benchmarks the members may encounter as they move from a "collection of individuals to a cohesive and committed group of learners" (Grossman et al., 2001,

p. 13); however, these authors contended that no two professional learning communities are the same and there is no single template for enacting a PLC.

Using structures to positively affect the format of our meetings, our goals, and our interactions became a crucial strategy in my research design. The establishment of norms, the first structure I implemented with the group, encouraged the members to share responsibility for the work of the group as well as foster collaborative practices. The implementation of the professional teaching and learning cycle gave the meetings a clear structure and the members a sense of the progression of our work. Finally, the use of structured protocols enabled the members to analyze data beyond the students' test scores, which enabled the group to determine and meet a shared goal. These structures encouraged a steady increase in the level and quality of participation among the members. In fact, after the norms had been in place for several weeks, the PTLC was becoming more understood, and protocols had been used to guide analysis of data and conversations, participants' awareness of how our work within the PLC could lead to increased student achievement seemed to manifest, too.

Norms Set the Tone for Professional Community

Establishing group norms set expectations for how the group interacted and nurtured the development of the collaborative culture needed for success. One of the more recent "definitions" of a professional learning community comes from Hord and Sommers (2008), who emphasized the work of PLCs as "continuous and intentional staff learning so that staff always are increasing their effectiveness leading to students' increased successful learning" (p. 24). What seems to be left out of this definition, however, is the culture that must be fostered in order to achieve the work of the PLCs.

McLaughlin and Talbert (2006) asserted that school based communities can be difficult to create and sustain without the establishment of a sense of trust among members. They claimed that when teachers are unwilling to or uncomfortable with taking the risks required for reflection and eventual improvement of instructional practices, teacher learning will not occur.

Professional learning communities must be understood as viable commitments for members to view them as worthy of their time and effort. Hipp and Huffman (2010) contended that a connection between school culture and the work of teacher learning communities is critical to success. They recognize that "dynamic school cultures contribute to creating PLCs through norms, values, and relationships that sustain the momentum for school improvement over time" (Hipp & Huffman, 2010, p. 12). They noted that developing and sustaining "a community of learners is no small endeavor and requires intentional actions" (p. 13). I found it imperative in the overall design of the study and the new structure for the PLC meetings that members view each other as equal participants within the PLC process.

Our first accomplishment as a PLC was the development a set of norms that, moving forward into a regular routine of PLC meetings, encouraged a sense of accountability for all members. Doing so is critical to the sustainability of a collaborative culture because they help to guide the work, values, and task-oriented behavior of the members (Dufour & Eaker, 1998; Gordon, 2004; Lambert, 2003; McLaughlin & Talbert, 2006 & Mitchell & Sackney, 2000). Fullan (2007) asserted that if group norms are weak, the efforts of a PLC will be unlikely to result in school improvement. Lack of consistent meetings and coherent PLC practices and insufficient knowledge of the research-based

practices of PLCs are what set the original plan to implement professional learning communities at Pondview School in the wrong direction; however, in this study, the norms served to encourage communication among the members resulting in the formation of collaborative practices and increased open discourse.

The norms were referred to a few times throughout the study as a means of bringing the participants back to what had been agreed upon initially. For example, as the facilitator, I reviewed the norm, "view participation as a right and as a responsibility," with the hope of encouraging the basic skills instructor and the reading specialist to participate in the PLC meetings. At first, they seemed hesitant to offer ideas and participate in conversation; they seemed guarded. This may have been reflective of their past experiences as members of a professional learning community, which I knew from the beginning of study interviews. Each had expressed that they had not felt a part of the previous PLCs since what was discussed at meetings generally had nothing to do with the students under their charge. Additionally, although we joked when we added the norm "initiate two taps on the table when our work strays off topic," members of the group did use this norm a couple of times when cross talk occurred. Although we laughed each time this was enacted, it did bring the PLC back into focus. When a team operates with norms, conflict can be avoided, as members understand how to communicate, how shared decisions are handled, when meetings begin and end, and how to professionally handle challenges (DuFour, DuFour, & Eaker, 2008). Fundamentally, team norms are the foundation of a PLC.

PTLC Fosters Shared Goals

The PTLC helped the group establish shared goals and establish a pathway to accomplish them. This gave the group a clear process to follow and led directly to developing and instructional intervention that addressed an identified need. It also enabled the participants to gauge how far along in the process we were and what our next step(s) would entail as we moved forward in attaining our shared goal. The supposition behind the work of professional learning communities is that if teachers discuss research-based techniques and the realities of implementing new practices in their classrooms with colleagues, significant gains in teacher learning and eventual improvements in student achievement can be achieved (Gersten et al., 2010). The PTLC means of breaking from the way things had been done as it helped to reinitiate the work of the fourth grade instructional team as a PLC.

The PTLC is designed to be used systematically. It is task oriented and addresses school improvement collectively amongst all members of a PLC, thus increasing the likelihood that improvements will be sustained over time (Cowan, 2003). It also helps members understand the change and be a part of its implementation, thus enabling greater likelihood of institutionalization (Fullan, 2007). One of the key strengths of the PTLC is the fact that it is a process driven by results, and when enacted in a PLC, it provides continuous professional learning that can improve teacher outcomes, and in turn, improve student learning.

A longitudinal study conducted by the National Partnership for Excellence and Accountability in Teaching (1999) identified several characteristics that proved most effective in positively influencing teacher practice. Three of those identified

characteristics are strongly emphasized in the PTLC: collaboration, active learning with opportunities for direct application, and coherence with school goals and state standards. These characteristics are encouraged throughout the PTLC, so members of our PLC saw a positive difference right away in the meetings as they successfully engaged in data analysis, which is the first step of the PTLC. This offered our PLC its first opportunity to collaborate and employ the characteristics noted in the study. In other words, the analysis of the fall electronic comprehension test led immediately to the PLC experiencing opportunities for collaboration, active learning, and improved practice that would be aligned to the CCCS at our very first meeting.

Although difficult to confirm, taking the time to explain the PTLC during the professional development sessions, rather than learning about it as we went through each step for the first time, was worth the effort. Including the PTLC in the professional development could have contributed to the flow of the change process in which we were engaged (Fullan, 2006). As mentioned previously in this chapter, the members started off slowly with regard to participation. My decision to use the PTLC as the new structure for the meetings gave the members a sense of continuity as we moved forward. The members knew what to expect from meeting to meeting and this often resulted in members preparing or working in between meetings. These results are in stark contrast to the first attempt to implement PLCs at our school. In essence, there were challenges, but the PTLC held us steady in our task and with moving forward in achieving our goal.

The Power of a Protocol

Protocols enabled the PLC to take charge of their learning providing a structured way to systematically analyze an array of data as a way to prompt decisions based on

facts rather than opinions or established routines. The protocols also encouraged equal participation and prevented a rush to judgment. Previous to this study, the administrators at Pondview School typically asked teachers to consider the very general question, "How can we increase the number of students who score in the advanced proficient category in the Language Arts Literacy and Math assessments?" There may have been some discussion at that one meeting about how to answer the question, yet ideas that were generated were usually forgotten when no plan of action was attempted. This is in direct contrast to the way the PLC in this study handled data as we used it to move our work forward. Cochran-Smith and Lytle (2009) contend that teacher communities can draw on an array of data, especially a variety of representations from student work in addition to test scores. They note that data is not used within a PLC as a "progress-monitoring tool"; rather the focus is on "generating questions [about the data] and how to rectify discrepancies or close gaps between achievement levels of subgroups" (p.57).

Additionally, data analysis guided by a protocol can offer a venue that enables collaboration to become part of the culture of the school, yet a process for developing capacity to do this must be taken into consideration. The protocols in this study offered the teachers a means of reflecting on instructional practices, which was an important step in working to achieve the goal of the group and in direct contrast to reflecting on individual scores. The protocols allowed our PLC to question what the data was telling us.

Because the study began in late fall, there was an opportunity for our PLC to examine data that had been attained from the students' participation in a new electronic system of assessing comprehension. The vice principal, a member of our PLC and data

analyst for the district, suggested we use this data after she learned that the first step of the PTLC was analysis of data. I decided to use the data driven dialogue protocol (NSRF, n.d.) to look at the data at a subsequent PLC meeting. Using a protocol gave us a manageable and productive structure.

It is important to note here, though, that the PLC had a hard time establishing a shared goal. The protocol helped us use the data to recognize that there was a discrepancy in students' understanding of higher-level words in context. What seemed to be a sticking point, especially for the general education teachers, was that this step required members to determine whether the strategies used in the past are supported in research as well as the CCCS. Cowan (2003) asserted that this step can be challenging because it often points to the need to adopt new and more effective strategies. Hord and Sommers (2008) viewed linking the collegial learning of the PLC members with their classroom practice as essential, yet they also acknowledge that there will be challenges along the way. As mentioned earlier in this chapter, I recognized this as an issue as did the reading specialist and the basic skills instructor. It was this recognition that, in a way, stopped the group from moving forward until a shared goal was established. What was different from the past, however, was that it was a collaborative effort, and we did not give in to our struggles.

In summation, the purpose of many kinds of protocols commonly used in PLCs is to shift a teacher's focus from common instructional approaches and student behaviors to analysis of learning outcomes and the development of strategies for differentiation (McDonald et al., 2007). Additionally, it seemed that the protocol was important because it encouraged participation. Using a protocol early in the study helped members form as a

community of learners, encourage professional discourse related to instruction and student learning, and identify a shared goal. The core purpose of the professional learning community is to build capacity for teachers so that they can improve student learning, and the facilitator who understands the use and outcomes of protocols will enable members to accomplish just that.

Implications for Strengthening and Sustaining a PLC

Although the study focused on the fourth grade teaching team, I expected that our work, as a PLC, would produce valuable data concerning PLCs that could have broader impact at Pondview School and possibly other schools and school districts as well. I hoped the findings would provide a starting point and inspire the administrators at Pondview School to determine the supports and structures necessary for increasing teachers' knowledge of professional learning communities and the benefits they can provide. The findings of this study should be considered by administrators interested in implementing PLCs as a means to increase teacher efficacy and student achievement. While the vice principal and principal at Pondview School did initiate discussion with the third and fifth grade teams about the work of the fourth grade PLC, they did not have a plan for implementing PLCs at those grade levels. However, they did not get PLCs successfully off the ground with them. Their experience, in contrast to the 4th grade team, seemed to echo the challenges the administrators had when they had previously attempted to implement professional learning communities across the school. In future, the implications for practice discussed below could support the successful initiation and implementation of PLCs across the school.

General Recommendations

Although incremental implementation of professional learning communities across a school would be ideal, it is a task that might be better initiated one grade level at a time. Additionally, there needs to be awareness on the part of the administration that PLCs are not something that teachers just start doing. This would suggest that professional development be provided for administrators as a first step. Next, a plan should be put into place that would allow all teachers an opportunity to learn more about what professional learning communities are, how they might be organized, as well as their potential benefits. Initial and important information to include for both administrators and teachers would be an explanation that a PLC engages in cyclical, purposeful, research-based, and data driven work. Its processes include ongoing analysis of student data, step-by-step creation and implementation of research based practices, and continuous evaluation of the work. Allowing for an understanding of professional learning communities early in the initiation phase will help enable PLCs to become a part of the culture of any community of educators.

Initiating and Implementing a PLC

To begin, the participants received professional development that enabled the group to, more or less, begin the study with the same general knowledge of professional learning communities as well as the change to the structure of the meetings. Seemingly because of this preparation, as the work of the group progressed teachers became more open about discussing their students' work, their instructional practices, and the possible reasons for inadequate achievement. Members asked questions in order to help others discover why particular students may not be achieving at the intended level. In fact, each

time student data was reviewed, the PLC would talk about the needs of individual or small groups of students. This is in direct opposition to what might be more typical data analysis where colleagues, more or less, look at and compare students' scores without investigating possible explanations for outcomes. Teachers involved in this study became more open and less apprehensive when talking about data related to their students and working to make positive changes to instruction. According to DuFour and Marzano (2011), "the PLC process is specifically intended to create the conditions that help educators become more skillful in teaching because great teaching and high levels of learning go hand in hand" (p. 23). Although this study demonstrates the potential of a PLC, it makes clear that initiation requires systematic efforts to bring participants into the process. Based on the findings of this study, initiation of a PLC should include the following steps:

- Administrators Identify and assign specific staff members to PLCs; the PLCs should be comprised of members assigned to the same group(s) of students.
- Provide professional development to create shared understandings of what a professional learning community is and what its potential benefits are Introduce participants to a work structure such as the Professional Teaching and Learning Cycle to guide the work of the group.
- Identify and train a facilitator/teacher leader for each professional learning community.

Once the group begins its work, the findings suggest the following elements are important to the actual implementation process of the PLC:

- Specific time(s) are scheduled on a regular and frequent basis for the PLC to do its work.
- Members create and abide by norms that drive the culture of the group. Norms should be reviewed from time to time. The teacher leader should take responsibility for asking the group to review norms and revise as needed.
- The PTLC or some similar structure is used as the framework for the PLC meetings.
- Protocols are used to analyze student and teacher work throughout the work cycle of the group to identify goals, understand progress and challenges, problem solve, and evaluate the work of the group.
- In addition to data analysis, protocols provide a format for the PLC discussions that encourage and invite all members to participate. This can be especially important when the PLC is comprised of members with varied positions, experience, and expertise. Additionally, protocols help members to develop trust because they focus discussions on data rather than opinions, impressions, and gripes. The use of a protocol in the early steps of implementation offers the PLC, in a sense, opportunities to practice constructive, data driven discussions that focus on gaining a deep understanding of problems before moving to recommendations and implications for practice.
- Use resources and support such as consulting with the reading specialist, when identifying research-based learning strategies to support a goal.
- In its early stages of implementation a PLC should work to build a sturdy foundation for collaborative practices. This points out the importance of starting

with work that is less about individual teacher practices and student work which can make participants feel vulnerable and judged, and more on general grade level challenges. This can enable the development of trust and allow opportunities for the group to move on, after some initial successes, and then dig deeper.

Facilitator/Teacher Leader

Should a school decide to implement professional learning communities, it seems important to establish a specific title for the meetings as well as the person who facilitates them. Before the study, meetings at Pondview School were called team meetings, grade level meetings, common planning meetings, and even PLC meetings. Besides interchangeable labels for meetings, the titles of grade level leaders who ran these meetings varied. The group of teachers who attend the meetings should refer to themselves as a PLC who attend PLC meetings, and the grade level leader's title should be "teacher leader." Having set titles for the meetings as well as the teacher leaders gives a more professional representation of the group.

Changing the title to a teacher leader suggests a change in responsibilities. Essential characteristics of successful teacher leaders include having the ability to listen actively, facilitate meetings, keep group discourse on track, monitor progress, and, importantly, overcome and discourage resistance from teachers (Yoon, Duncan, Lee, Scarloss, & Shapley, 2007). The change from team leader to teacher leader requires professional development on facilitating a PLC and increased knowledge of professional learning communities.

As facilitator of this study, while I may have lacked practical experiences, I had developed deep conceptual and theoretical understandings of the issues and needs

involved in implementing a PLC, which I drew on continuously. Future teacher leaders should be provided with similar information through professional development. Districts would benefit from having a designated individual who has experience facilitating PLCs who can mentor who can train and provide ongoing support for teacher leaders, provide professional development for administrators, and work with grade level PLCs to help them evolve into communities of learners. Reeves (2008) contended that teacher leaders may have a greater influence over student achievement than administrators. He notes that teacher leaders provide greater opportunities for improved teaching practices and student achievement. Fundamentally, though, like the research design of the study, a step-by-step plan for implementing PLCs within the school should be created.

The progression of the study was based on the actions of the facilitator in moving the group forward to make progress and overcome challenges as the PLC worked through the Professional Teaching and Learning Cycle. As a result of the findings as well as the relevant research literature, I recommend that a committee comprised of teachers and administrators research and define a grade level team leader's responsibilities. For example, this committee could make decisions about whether it is a stipend-funded position, what the expectations are regarding training, and who is qualified for and what the selection process should be. Teacher leaders, when trained to facilitate a PLC, can work to move the group forward in achieving a shared goal. Lieberman and Miller (2004) asserted that teacher leaders assume a more complex and often ambitious role as agents for reculturing schools with professional learning communities serving as the venue for doing so. In this way, PLC teacher leaders act as instigators of professional learning where the learning is experiential, collective, and occurs through social

participation. Lieberman and Miller (2004) asserted that teacher leaders have "accrued the cultural, social and human capacity necessary to lead within the school" (p. 20). According to the authors, teacher leadership is recognized through the concept of learning in practice; for example, a teacher may be considered a leader among colleagues when she is valued for new ways of assessing, displaying, and communicating student progress along with a willingness to involve others in making her visions a reality. If schools seek to develop teachers' capacities for ongoing opportunities for reflective dialogue and collaborative practices, the teacher leader role must become part of the school's culture.

A final recommendation is for the teacher leaders from each grade level as well as the related arts representative to form a PLC. Teacher leaders representing all grade levels as well as the related arts should attend bi-weekly meetings as a group after school with the building administrators. Transitioning into PLCs enables the reculturing of these meetings to more of an instructional base in regard to the dialogue and the decisions that take place. This will enable teacher leaders to have opportunities to work with others in the same role. A PLC of teacher leaders can work to strengthen the grade level PLCs. This PLC can engage in cross grade level conversations about practice. The suggestion of creating and implementing a vocabulary program for the third and fifth grades, such as at Pondview School, for example, may come to fruition when teacher leaders discuss what is happening during their individual grade level PLC meetings. Basically, when PLCs within a school participate in cross grade collaboration quality instruction between grade levels can become interconnected.

Transitioning the team leader position to a teacher leader suggests that the position would be oriented toward instructional leadership. Across the literature, it is argued that effective teacher leaders rely on a set of core practices that result in improved learning for teachers and students (Fisher, Frey, & Uline, 2013). According to Hargreaves (2003) "the essential elements of a professional learning community include teachers working together around a common mission, employing a clear plan and making intelligent use of evidence to pinpoint areas of needed intervention in order to enhance learning and raise achievement for all students" (p. 187). What district administrators need to recognize is that a PLC does not automatically start out recognizing these elements as key. There has to be a skilled facilitator, whether it is a teacher leader or administrator, who is sufficiently trained to guide the group in attaining these essential elements.

Professional Learning Communities, a Venue for Improved Instruction

As this study showed, when teachers work as a PLC, a context is created in which existing beliefs about teaching practices are challenged, and in some cases, transformed. Within a school district or building, professional learning communities can offer teachers opportunities to identify what should be taught and a plan(s) of action to address it. Following a structure such as the PTLC enables the members to teach and come back as a group and discuss what went well, what could have been better, as well as determining how the members will know whether the students have achieved the standard. Administrators wishing to implement a new program or initiative, such as the CCCS successfully should consider the opportunities the PLC can offer.

With the recent implementation of the CCCS, administrators and boards of education have scurried to be sure that curriculum related materials and resources are aligned with the new standards. Fisher, Frey, and Uline (2013) maintained there are two critical areas in which educators will need help if the standards are to be implemented in a way that leads to higher levels of student learning. The first is to deepen understandings of the content of the standards and what they require of the students. The second calls for greater clarity regarding an effective implementation process that is vital to sustaining the change. The notion that that teachers working in isolation could achieve this is both daunting and possibly unattainable. Administrators who take on the challenge of aligning resources to the CCCS also need to be sure to allow teachers to collaborate in order to ensure that instructional practices are aligned to the new standards, too. The venue for greater probability of successful implementation of the new standards can be through a well-structured professional learning community.

As state mandated testing and benchmarks have come to dominate classrooms since the implementation of the CCCS, the question that needs to be addressed is what schools are doing with the data from these assessments. Often, data is tracked and teachers are told where their class landed as the year continues and the standards are achieved. The professional learning community in this study offered the context for teachers to use student data to shape instruction in more targeted ways. For example, what can be worthwhile information to an elementary teacher is the fact that students are having difficulties with CCCS related to inferencing skills. This is more telling than the score on the benchmark or assessment itself. In creating a PLC, it is important to

consider the effects of data analysis as a major benefit to improved instruction and student learning.

Administrators thinking of implementing PLCs need to understand that other educational reforms and programs could be sustained through PLCs, too. As a result of this study, it should be realized that a professional learning community acts as a fluid entity that can undertake new challenges and changes. While the CCCS is the latest reform to tackle, the idea of implementing a new reading or math program with the support of colleagues is a notion to be considered for a school plan in developing PLCs. Often the interpretation of materials and the implementation of any program are at the discretion of individual teachers. This can lead to a range of instruction. Teacher members of PLCs are able to discuss parts of a new program, set a plan for implementation, and then return as a PLC to discuss what happened. This way, the success of the program sustains a greater edge in teachers presenting high quality instruction to the students.

Implications for Further Research

Long Term Impact of PLCs on Student Achievement

A longitudinal study of professional learning communities should be implemented to track the long-term impact of PLCs on student achievement. There was a significant improvement among the fourth graders on the New Jersey Assessment of Skills and Knowledge results during the spring of 2013 for the fourth graders. This may be due to their participation in the vocabulary program created as a result of the work of the professional learning community. In this class, there was a significant increase from third to fourth grade in the number of students scoring in the advanced proficient range.

Additionally, a comparison of third, fourth, and fifth grade data from the 2013 assessment indicated a large difference between the number of students scoring advanced proficient in grade four compared to the students in grades three and five in the Language Arts Literacy section. While this study tracked the achievement of one class before and after the change in grade level meetings, there is no process in place for continuing to do so since the students have moved to fifth grade where PLCs are not the norm. Similarly within the literature, there are no long-term studies that have tracked the achievement of students whose teachers are members of professional learning communities.

Traditional models of professional development have focused on providing teachers with skills and knowledge, yet often with little to no follow-up and no concern as to whether what is taught in the PD session is implemented. These models have typically been grounded in the assumption that the purpose of professional development is to convey to teachers "knowledge for practice" (Cochran-Smith & Lytle, 1999). That is, the professional development is based on research done by outsiders "for" practice, in which teachers are the recipients of information generated by non-teaching "experts." The professional learning community model represents a move away from this traditional model of professional development. Professional learning communities at their best are grounded in "knowledge of practice" (Cochran-Smith & Lytle, 1999). That is, "it is assumed that the knowledge teachers need to teach well is generated when teachers treat their own classrooms and schools as sites for intentional investigation at the same time that they treat the knowledge and theory produced by others as generative material for interrogation and interpretation" (p. 272).

As noted in this study, when enacted with a well-trained facilitator leading the PLC,

increased instructional practices leading to increased student achievement can flourish. The participants did work within a cyclical approach to teacher learning as the group moved from research into best practices for increasing student vocabulary to ways in which to make practical meaning of information the state was handing down concerning the NJ ASK. However, what seems to be missing in the research is the consideration of the work of the professional learning community as a venue for professional development leading to increased student achievement over time. Participation in learning communities can facilitate professional development that is driven by the needs of teachers as they are professionally engaged in efforts, such as with a teacher leader guiding the use of protocol, to accomplish shared goals. There is literature stating that PLCs are a form of professional development, but there do not seem to be studies at the elementary level that view the work of a PLC as a major contributor to increased teacher capacity leading to increased student learning.

Longitudinal Study of PLCs Achieving Institutionalization

This study provided the context for a professional learning community to engage in analysis of student data enabling members to "try out" research based practices, talk about what happened, and make changes when necessary. The PLC engaged in a cyclical process of collective inquiry and active participation. It moved through Fullan's (2007) first two stages of educational change: initiation and implementation; however, the third stage, institutionalization had not yet occurred. An important next step for research would be to study what happens as schools work to institutionalize PLCs throughout a building and over time. Fullan noted how crucial structures are if professional learning communities are to reach the stage of institutionalization and become a part of the culture

of the context. At the time of this writing the PLC described in the study is now in its second year; however, while the framework for the meetings and the group norms are still in place, the PLC has not been engaged long enough to be considered to have reached the stage of institutionalization. In fact, the literature on professional learning communities is weak in tracking PLCs that have become part of a school's culture thus reaching the stage of institutionalization.

This study provided a context for re-initiating a professional learning community in the fourth grade at Pondview School. It was successful within its time frame of six months in meeting two different goals, the implementation of a vocabulary program and the analysis of data related to the NJ ASK in order to inform the fourth grade teachers' instruction before administering the test. The work of the PLC continued after the study ended. The literature is significant with regard to what a PLC can accomplish, yet many times uses isolated examples. What seems to be missing, especially at the elementary level, are longitudinal accounts of professional learning communities structured in a cyclical and inquiry based approach to improving teaching and learning. A longitudinal study tracking the work of a PLC over the course of at least four school years would provide information on the triumphs and challenges of Fullan's (2007) three-step approach to educational change-initiation, implementation, and institutionalization. A study such as this would help to inform schools interested in creating professional learning communities of challenges and successes that can lead to a solid plan for sustaining the change process.

The literature reflects that a professional learning community can offer a collegial culture where teachers can develop the capacity for meaningful, helpful, and honest

discourse. Lieberman and Miller (2008) asserted that for it to develop this kind of talk requires time and favorable conditions that support collegiality and trust. These conditions do not occur quickly; they are cultivated over time through the work of a PLC as the members work and learn together. Long-range studies at the elementary level where the members of a professional learning community worked to the point where they were comfortable offering and receiving feedback on their instruction as a common practice of the PLC are scarce.

The fourth grade PLC at Pondview School is currently into its second year. The principal's plan to have Rose and Eileen work with the fifth grade team to implement a similar process with those teachers has apparently not been successful. The successes and challenges the fourth grade team has had over the past two school years as a PLC could provide useful information to other grade levels within our school and the district. I encourage administrators to take this into consideration as a useful and unique situation in moving forward with professional learning communities. Research is slight in reference to PLCs at the elementary level that have reached the stage of institutionalization (Fullan, 2007) and are a part of the culture of the broader school community.

Conclusion

Fullan noted that "Moral purpose sets the context; it calls for people to aspire to greater accomplishments" (2001, p. 117). This quote seems fitting for this study. The participants did evolve into a professional learning community. We learned from and with each other. The more we witnessed our accomplishments in instruction and student achievement, it seemed the more excited the group became in wanting to continue the

work. Of course, we met challenges, but by the end of the study the group was proud of what we had accomplished. The fact of the matter is the efforts of the group did not end when the meetings stopped being recorded, the group continued its work, which at the time was researching and learning about close reading, a language arts strategy related to the CCCS. This study points to the fact that change in schools is an incremental and complex process that requires passion and persistence on the part of the facilitator/teacher leader as well as the PLC's members. An important part of the process is the collaborative practices that enable members to learn from each other. Educators, both teachers and administrators, are constantly searching for ideas, strategies and products that can increase student learning. However, there is the wealth of knowledge and skills that can be tapped when educators engage in professional learning communities. Look no further than your nearest colleague.

References

Barlow, D. (2005). The teachers' lounge. *Education Digest*, *71*(2), 64-67.

Beck, Isabel L. McKeown, M., & Kucan, L. (2002). *Bringing words to life: Robust vocabulary instruction*. New York, NY: Guilford Press.

Birenbaum, M., Kimron, H., & Shilton, H. (2011). Nested contexts that shape assessment for learning: School-based professional learning community and classroom culture. *Studies in Educational Evaluation – Special Issue on Assessment for Learning, 37*(1), 35–48.

Birman, B., DeSimone, L., Porter, A., & Garet, M. (2000). Designing professional development that works. *Educational Leadership*, *57*(8), 28-33.

Bolman, L. G., & Deal, T. (2008). *Reframing organizations: Artistry, choice, and leadership*. San Francisco, CA: Jossey-Bass.

Boucouvalas, M., & Lawrence, R. (2010). Adult learning. In C. E. Kasworm, C.E., A. D. Rose, A.D., & J. M. Ross-Gordon*Handbook of adult learning and continuing education* (pp.35-48). Los Angeles, CA: Sage.

Brookfield, S. (1986). *Understanding and facilitating adult learning*. San Francisco, CA: Jossey-Bass.

Cambridge (2007) Found at: http://www.commonpriorities.org/?page_id=31

Chi-kin Lee, J., Zhang, Z., & Yin, H. (2011). A multilevel analysis of the impact of a professional learning community, faculty trust in colleagues and collective efficacy on teacher commitment to students. *Teaching and Teacher Education 27*(2011), 820-830.

Cochran-Smith, M., & Lytle, S. (1999). Relationships of knowledge and practice: Teacher learning in communities. *Review of Research in Education, 1999*(24), 249-305.

Coburn, C., & Russell, J. (2008). District policy and teachers' social networks. *Educational Evaluation and Policy Analysis, 30*(3), 203-235.

Coffey, A., & Atkinson, P. (1996). *Making sense of qualitative data*. Thousand Oaks, CA: SAGE Publications.

Cowan, D. F. (2003). *The PLC connection to school improvement*. Lanham, MD: Scarecrow Education.

Creswell, J. W. (1998). *Qualitative inquiry and research design: Choosing among five designs*. Thousand Oaks, CA: Sage.

Cresswell, J. W. (2003). *Research design: Qualitative, quantitative, and mixed methods approaches*. Thousand Oaks, CA: Sage Publications.

Creswell, J.W. (2007). *Qualitative inquiry and research design: Choosing among 5 approaches*. Thousand Oaks, CA: Sage.

Creswell, J. W., & Miller, D. L. (2000). Determining validity in qualitative data. *Theory into Practice, 39*(3), 124-130.

Dale, M., & Frye, E. (2009). Vulnerability and love of learning as necessities for wise teacher education. *Journal of Teacher Education, 60*(2), 123-130.

Dana, N. F., & Yendol-Hoppey, D. (2008). *The reflective educator's guide to professional development*. Thousand Oaks, CA: Corwin Press.

Danielson, C. (2006). *Teacher leadership*. Arlington, VA: Association for Supervision Curriculum and Development.

Darling-Hammond, L., & Richardson, N. (2009). Teacher learning: What matters? *Educational Leadership*, 46-53.

Dewey, J. (2009). *Democracy and education*. Radford, VA: Wilder Publications.

DuFour, R. (1999). Help wanted: Principals who can lead professional learning communities. *National Association of Secondary School Principals*, 12-17.

DuFour, R. (2004). What is a professional learning community? *Educational Leadership, 61*(8), 6-11.

DuFour, R. & Eaker, R. (1998). *Professional learning communities at work: Best practices for enhancing student achievement.* Bloomington, IA: National Education Service.

DuFour, R., Eaker, R., & DuFour, R. (2005). *On common ground: The power of professional learning communities*. Bloomington, IN: Solution Tree Press.

DuFour, R., DuFour, R. & Eaker, R. (2008). *Revisiting professional learning communities at work: New insights for improving schools*. Bloomington, IN: Solution Tree Press.

DuFour, R., DuFour, R., Eaker, R., & Many, T. (2006). *Learning by doing: A handbook for professional learning communities at work*. Bloomington, IN: Solution Tree Press.

DuFour, R. & Marzano, R. (2011). *Leaders of learning*. Bloomington, IN: Solution Tree Press.

Eaker, R., DuFour, R., & Dufour, R. (2002). *Getting started: Reculturing schools to become professional learning communities*. Bloomington, IN: National Education Service.

Elmore, R. F. (2002). *Bridging the gap between standards and achievement: The imperative for professional development in education*. Washington, DC: Shanker Institute.

Erkens, S. (2008). The new teacher leader: Transforming education from inside the classroom. In R. DuFour, *The collaborative teacher* (pp. 11-30). Bloomington, IN: Solution Tree Press.

Fullan, M. (1982). *The meaning of educational change*. New York, NY: Teachers College Press.

Fullan, M. (2001). *Leading in a culture of change*. San Francisco, CA: Jossey Bass.

Fullan, M. (2007). *The new meaning of educational change*. New York, NY: Teachers College Press.

Gall, M. D., Gall, J., & Borg, W. (2010). *Applying educational research*. Boston, MA: Pearson.

Gallimore, R., Ermeling, B. A., Saunders, W. M., & Goldenberg, C. (2009). Moving the learning of teaching closer to practice: Teacher education implications of school-based inquiry teams. *Elementary School Journal, 109*(5), 537-553.

Garrett, K. (2010). Professional learning communities allow a transformational culture to take root. *The Education Digest*, 4-9.

Gersten, R., Dimino, J., Jayanthi, M., Kim, & Santoro, J. (April 2010). Teacher study group: Impact of the professional development model on reading instruction and student outcomes in first grade classrooms. *American Education Research Journal, 47*(3), 694-739.

Grossman, P., Wineburg, S., & Woolworth, S. (2001). Toward a theory of teacher community. *The Teachers College Record*, *103*, 942-1012.

Hall, G., & Hord, S. (2001). *Implementing change: Patterns, principles, and potholes.* Boston, CA: Allyn & Bacon.

Hanegan, N., Friden, K, Nelson, C. R (2009) Authentic and simulated inquiry: Teachers reflect what is modeled. *School Science Math Journal, 109*(2), 110–134.

Hargreaves, A. (2003). *Teaching in the knowledge society: Education in the age of insecurity*. New York, NY: Teachers College Press.

Hargreaves, A. (2005). Educational change takes ages: Life, career and generational f actors in teachers' emotional responses to educational change. *Teaching and Teacher Education*, 21, 967-983.

Harwell, S. H. (2003, July) Teacher professional development: It's not an event, it's a process. *CORD Communications, Inc.* Retrieved from http://www.cord.org/uploadedfiles/harwellpaper.pdf

Hattie, J. (2009). *Visible learning: A synthesis of over 800 meta-analyses relating to student achievement*. New York, NY: Routledge.

Henson, R.K. (2001, November). The effect of participation in teacher research professional development on teacher efficacy and empowerment. Paper presented at the Annual Meeting of the Mid-South Educational Research Association, Little Rock, AR.

Hipp, K., & Huffman, J. (2010). *Demystifying professional learning communities: school leadership at its best*. Baltimore, MD: Rowman & Littlefield Education.

Hord, S.M. (1997). *Professional learning communities: Communities of continuous inquiry and improvement*. Austin, TX: Southwest Educational Development Laboratory.

Hord, S. M. (2007). *What is a plc? Southwest Educational Development Laboratory*, *19*(1), 3-5.

Hord, S. M., & Hirsch, S. A. (2008). Making the promise a reality. In Blankenstein, A.M., Houston, P. & Cole, R. (Eds.), *Sustaining professional learning communities* (pp. 23-40). Thousand Oaks, CA: Corwin Press.

Hord, S., & Sommers, W. (2008). *Leading professional learning communities: Voices from research and practice*. Thousand Oaks, CA: Corwin Press.

Horn, I. S., & Little, J. W. (2010). Attending to problems of practice: Routines and resources for professional learning in teachers' workplace interactions. *American Educational Research Journal, 47*(1), 181-217.

Huffman, J., & Hipp, K. (2003). *Reculturing schools as professional learning communities*. Baltimore, MD: Scarecrow Education.

Intrator, S. M., & Kunzman, R. (2006). Starting with the soul. *Association for Supervision and Curriculum Development*, *63*(6), 38-43.

Jacobson, D. (2010). Coherent instructional improvement and PLCs: Is it possible to do both? *Phi Delta Kappan*, *91*(6), 38-45.

Kazemi, E., & Franke, M. L. (2004). Teacher learning in mathematics: Using student work to promote collective inquiry. *Journal of Mathematics Teacher Education, 7,* 203-235.

Kearsley, G. (2010). Andragogy (M. Knowles). *The theory into practice database*. Retrieved from http://tip.psychology.org

Knowles, M. (1990). *The adult learner: A neglected species* (4th Ed.). Houston, TX: Gulf Publishing.

Lambert, L. (2003). Shifting conceptions of teacher leadership: Towards a redefinition of leadership for the twenty-first century. In B. Davies & J. West-Burnham (Eds.), *Handbook of educational leadership and management* (pp. 5-15). London: Pearson Education.

Lambert, L. (2005). What does leadership capacity really mean? *National Staff Development Council, 26*(2), 38-40.

Lave, J., & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation*. New York, NY: Cambridge University Press.

Lieberman, A., & Miller, L. (2008). *Teachers in professional communities: Improving teaching and learning.* New York, NY: Teachers College Press.

Leonard, L., & Leonard, P. (2003, September 17). The continuing trouble with collaboration: Teachers talk. *Current Issues in Education*, *6*(15).

Lewis, A. (1989). *Restructuring America's schools*. Arlington, VA: American Association of School Administrators.

Lieberman, A., & Miller, L. (2004). *Teacher leadership*. San Francisco, CA: Jossey-Bass.

Little, J. W. (1999). *Organizing schools for teacher learning*. In G. Sykes & L. Darling-Hammond (Eds.), Teaching as the learning profession: Handbook of policy and practice (pp. 233–262). San Francisco, CA: Jossey-Bass.

Little, J. W. (2003). Inside teacher community: Representations of classroom practice. *Teachers College Board, 105*(6), 913-945.

Little, J. W., (2007). *Professional community and professional development in the learning-centered school*. Washington, DC: National Education Association.

Little, J. W., Gearhart, M., Curry, M., & Kafka, J. (2003, November). Looking at student work for teacher learning, teacher community, and school reform. *Phi Delta Kappan*, *85*(3), 185-192.

Louis, K. S. (2008). How teachers perceive principal leadership. *Educational Administration Quarterly*, *44*(4), 498-445.

Louis, K. S. & Kruse, S. D. (1995). *Professionalism and community: Perspectives on reforming urban schools.* Thousand Oaks, CA: Corwin Press.

Lujan, N., & Day, B. (2009). Professional learning communities: Overcoming the roadblocks. *Delta Kappa Gamma Bulletin*, *76*(2), 10-17.

Many, T. (2008). Teacher talk: How collaboration gets to the heart of great schools. In DuFour, R., *The collaborative teacher* (pp. 57-76). Bloomington, Indiana: Solution Tree Press.

McDonald, J., Mohr, N., Dichter, A., & McDonald, E. (2007). *The power of protocols: An educator's guide to better practice*. New York, NY: Teachers College Press.

McLaughlin, M., Talbert, J. (2006). *Building school based teacher learning communities: Professional learning strategies to improve student achievement*. New York, NY: Teachers College Press.

Merriam, S. (2009). *Qualitative research: A guide to design and implementation*. San Francisco, CA: Jossey-Bass.

Mezirow, J. (2000). Learning to think like an adult. Core concepts of transformation theory. In Mezirow, J. & Associates, *Learning as transformation* (pp.3-33). San Francisco, CA: Jossey-Bass.

Miller, L. (2005). *Teachers caught in the action: Professional development that matters*. New York, NY: Teachers College Press.

Mitchell, C., & Sackney, L. (2000). *Profound improvement: Building capacity for a learning community*. Lisse, The Netherlands: Swets & Zeitlinger.

National School Reform Faculty. (2008). Accessed at www.nsrfharmony.org

National Staff Development Council (NSDC). (2001). *Nation Staff Development Council's for standards for staff development*. Oxford, OH: Author.

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

Pascal, N. S., & Blankenstein, A.M. (2008). Communities committed to learning: A case story of sustainable success. In A. M. Blankenstein, P. Houston, & R. Cole, R. (Eds.), *Sustaining professional learning communities* (pp. 5-21). Thousand Oaks, CA: Corwin Press.

Patton, M. Q. (2008). *Utilized focused evaluation: The new century text* (4th Ed.). Los Angeles, CA: Sage Publications.

Reeves, D. (2008). *Reframing teacher leadership to improve your school*. Alexandria, VA: Association for Supervision and Curriculum Development.

Richmond, G. & Manokore, V. (2011). Identifying elements critical for functional and sustainable professional learning communities. *Science Teacher Education, 95*(3), 543-570. doi:10.1002/sce20430.

Rinke, C. R., & Stebick, D. M. (2013). "Not just learning about it but actually doing it": The evolution of a teacher inquiry culture. *Action in Teacher Education, 35*(1), 72-84.

Schmoker, M. (2006). *Results now: How we can achieve unprecedented improvements in teaching and learning*. Alexandria, VA: Association for Supervision and Curriculum Development.

Senge, P., Cambron-McCabe, N., Lucas, T., Smith, J., Dutton, & Kleiner, A. (2000). *Schools that learn: A fifth discipline resource*. New York, NY: Doubleday.

Sergiovanni, T. J. (1994). *Building community in schools*. San Francisco, CA: Jossey-Bass.

Serveage, L. (2008). Critical and transformative practices in professional learning communities. *Teacher Education Quarterly, 35*(1), 63-77.

Shulman, L., & Shulman, J. (2004). How and what teachers learn: A shifting perspective. *Journal of Curriculum Studies, 36*(2), 257-271.

Slavit, D., Nelson, T. H., & Deuel, A. (2013). Teacher groups' conceptions and uses of student-learning data. *Journal of Teacher Education, 64*(1), 8-21.

Spiro, J. (2011). *Leading change step-by-step*. San Francisco, CA: Jossey-Bass

Suppovitz, J. A., (2002). Developing communities of instructional practice. *Teachers College Record, 104*(8), 1591-1626.

Tasker, T., Johnson, K., & Davis, T. (2010). *A sociocultural analysis in inquiry-based professional development*. Language Teaching Research. The Pennsylvania State University.

Trotter, Y. (2006). Adult learning theories: Impacting professional development programs. *The Delta Kappa Gamma Bulletin*, 8-13.

Tyack, D., & Cuban, L. (1995). *Tinkering toward utopia: A century of public school reform*. Cambridge, MA: Harvard University Press.

Vescio, V., Ross, D., & Adams, A. (2007). A review on the impact of professional learning communities on teaching practice and student learning. *Teaching and Teacher Education, 24*(2008), 80-91.

Vetter, A. (2008). Teachers as architects of transformation: The change process of an elementary-school teacher in a practitioner research group. *Teacher Education Quarterly*, *39*(1), 27-49.

Vygotsky, L. (1978). *Mind in society*. Cambridge, MA: Harvard University Press.

Wheatley, M. J. (2006). *Leadership and the new science*. San Francisco, CA: Berrett-Koehler Publishers, Inc.

Wilkinson, R. (2005). *The impact of inequality*. London: New Press.

Wood, D. R. (2007). Professional learning communities: Teachers, knowledge, and knowing. *Theory into Practice*, *46*(4), 281-290.

Yoon, K. S., Duncan, T., Lee, S. W.Y., Scarloss, B., & Shapley, K. (2007). *Reviewing the evidence on how teacher professional development affects student achievement* (Issues & Answers Report, REL 2007–No. 033). Washington, DC: U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, Regional Educational Laboratory Southwest.

Yorks, L. (2005). Adult learning and the generation of new knowledge and meaning: Creating liberating spaces for fostering adult learning through practitioner based collaborative action inquiry. *Teachers College Record*, *107*(6), 1217-1244.

Young, V. M. (2006). Teachers' use of data: Loose coupling, agenda setting, and team norms. *American Journal of Education*, *112*, 521-547.

Zmuda, A., Kuklis, R. & Kline, E. (2004). Transforming schools: Creating a culture of continuous improvement. Alexandria, VA: Association for Supervision & Curriculum Development.

Appendix A

Fourth Grade Instructional Team2012- 2013

PLC Meeting Norms

As a team we will do our best to:

- start on time
- initiate two taps on the table when our work strays off topic
- understand and embrace collaboration
- establish a vision
- consider and analyze all forms of data
- recognize and appreciate diversity within our PLC
- work with building administrators
- view participation as a right and as a responsibility
- initiate ideas
- communicate authentically; what a member says should communicate what she thinks as well as what she feels
- conduct group business in front of the group; no side conversations
- summarize what has been accomplished (team leader role)
- use last 5 minutes before period's end to take care of administrative tasks
- end on time

Appendix B

Data Driven Dialogue Protocol

Choose one or more of the "starters" to help the group engage in dialogue about the data. Take notes to help you.

Step 1:

I assume…

I predict…

I wonder…

Step 2:

My questions/expectations are influenced by…

Some possibilities for learning that this data may present…

Some patterns/trends that I notice…I'm surprised that I see…

Step 3:

I believe the data suggests… because…

Additional data that would help me verify/confirm my explanations is…

I think the following are appropriate solutions/responses that address the needs implied in the data…

Additional data that would help guide implementation of the solutions/responses and determine if they are working…

Appendix C

Beginning of Study Interview Questions

Thank you for agreeing to be a part of my research study. We are meeting today because you are a member of the fourth grade instructional team and a participant in our grade level meetings for this school year. I am excited about the opportunity to work with our team as we reestablish our professional learning community.

1. To begin, how would you define a professional learning community?

2. Talk about how professional learning communities can support student learning.

3. How would you describe the PLCs in our school to someone who is not familiar with them?

4. There is a lot of research on PLCs and the fact of the matter is, no two are the same. However, a lot of the literature encourages teachers to talk about what goes on in their classrooms. What do you think would happen if you brought examples of student work to one of your PLC meetings (such as original writing samples) and asked your colleagues for feedback? If you have brought student work to a meeting, please describe your experience.

5. Please describe any factors within the school culture that you feel support the work of the PLCs in our school.

6. Please describe any factors within the school culture that you feel hinder the work of the PLCs in our school.

7. In your opinion, what changes need to occur in order to better support the members of our school's PLCs? What types of supports need to be in place to help foster PLCs in our school?

Appendix D

End of Study Interview Questions

Thank you, again, for agreeing to be a part of my research study. We are meeting today because you are a member of the fourth grade instructional team and participated in the team meetings for this school year as we worked to reestablish our professional learning community.

1. Describe your experiences as a member of the fourth grade professional learning community during the current school year.

2. Describe instances, if any, where you felt the work we were doing in our professional learning community most supported student achievement.

3. Talk about your level of comfort in bringing work samples and/or discussing other forms of student data at PLC meetings and asking colleagues for feedback.

4. Please compare and contrast your role as a member of our PLC from the beginning of the school year to now?

5. Have your previous perceptions of professional learning communities changed in any way over the course of the study?

6. Ideally and moving forward, what would you like to see happen with PLCs at our school?

Appendix E

Professional Learning Community Survey

Directions: This survey will help you to think about and assess the extent to which each of the researched-based dimensions commonly associated with professional learning communities-shared and supportive leadership, shared values and vision, collective learning, shared personal practice, and supportive conditions (relationships and structure)-is currently present during PLC meetings in our school.

Please read each statement and then use the scale to select the scale point that best reflects your personal degree of agreement with each statement. Shade the appropriate oval provided to the right of each statement. Comments after each section are optional.

Key Terms:

- Administrator: Principal or vice-principal that attends your grade level meeting
- PLC Members: Staff members that attend grade level team meetings.

Scale: 1 = Strongly Disagree (SD)

2 = Disagree (D)

3 = Agree (A)

4 = Strongly Agree (SA)

SHARED AND SUPPORTIVE LEADERSHIP	SCALE			
	SD	D	A	SA
1. PLC members are regularly involved in making decisions about school issues.	O	O	O	O
2. Norms have been established to guide the work of the PLC members.	O	O	O	O
3. PLC members have accessibility to key information (e.g., student data such as test scores).	O	O	O	O

4. PLC members use varied sources of data to make decisions about teaching and learning.	O	O	O	O
5. The administrator is a proactive, yet equal, member of the PLC.	O	O	O	O
6. The administrator addresses areas where further support is needed as identified by the members of the PLC.	O	O	O	O
7. Opportunities are provided for PLC members to initiate change.	O	O	O	O
8. The administrator participates democratically as a member and participant in the PLC meetings.	O	O	O	O
9. PLC members encourage leadership among fellow PLC members.	O	O	O	O
10. PLC members assume shared responsibility for student learning without indication of imposed authority by the administration.	O	O	O	O
COMMENTS:				

SHARED VALUES AND VISION	**SCALE**			
	SD	**D**	**A**	**SA**
11. Shared values among the PLC members help guide decisions about teaching and learning.	O	O	O	O
12. PLC members share visions for school improvement that have a direct focus on student learning.	O	O	O	O
13. A collaborative process exists for developing a shared vision among the PLC members.	O	O	O	O
14. PLC members assume that all students can learn and teachers have the responsibility to help them.	O	O	O	O
15. All members of the PLC are actively involved in creating high expectations that serve to increase student achievement.	O	O	O	O
16. Data are used to prioritize actions to reach a shared vision.	O	O	O	O
COMMENTS:				

COLLECTIVE LEARNING AND APPLICATION	SCALE			
	SD	D	A	SA
17. PLC members work together to search for knowledge, skills, and strategies to increase their instructional practices.	O	O	O	O
18. Collegial relationships exist among all PLC members that reflect commitment to school improvement efforts.	O	O	O	O
19. Staff members plan and work together to search for solutions to address diverse student needs.	O	O	O	O
20. Discourse among PLC members encourages open dialogue that reflects a respect for diverse ideas.	O	O	O	O
21. PLC members work together to identify research based instructional strategies guided by their shared vision.	O	O	O	O
22. PLC members collaboratively examine multiple sources of data to assess the effectiveness of instructional practices.	O	O	O	O
23. Staff members collaboratively and continuously analyze student work to improve teaching and learning.	O	O	O	O
COMMENTS:				
SHARED PERSONAL PRACTICE	**SCALE**			
	SD	**D**	**A**	**SA**
24. PLC members ask fellow members for feedback related to instructional practices.	O	O	O	O
25. PLC members provide feedback to peers related to instructional practices.	O	O	O	O
26. PLC members regularly share ideas and suggestions for improving student learning.	O	O	O	O
27. PLC members collaboratively review student work in order to share and improve instructional practices.	O	O	O	O
28. An open dialogue exists during PLC meetings for members to share, observe, and discuss each other's teaching methods and philosophies.	O	O	O	O
29. PLC members have the opportunity to apply new learning, such as research-based strategies for instruction, and share the results of their experiences.	O	O	O	O

30. PLC members regularly share student work as one way of guiding the work of the PLC.	O	O	O	O
COMMENTS:				

SUPPORTIVE CONDITIONS-RELATIONSHIPS	**SCALE**			
	SD	**D**	**A**	**SA**
31. Caring relationships exist among the members of the PLC that are built on trust and respect.	O	O	O	O
32. A culture of trust, respect, and encouragement exists within the PLC for taking risks.	O	O	O	O
33. PLC members exhibit a continuous and unified effort to encourage positive change into the culture of the school.	O	O	O	O
COMMENTS:				

SUPPORTIVE CONDITIONS-STRUCTURES	**SCALE**			
	SD	**D**	**A**	**SA**
34. Time is provided to facilitate collaborative work.	O	O	O	O
35. Administrators provide recurring opportunities for PLC members to work together outside of the embedded PLC meeting.	O	O	O	O
36. There are structures and opportunities to exchange ideas within and across grade level teams.	O	O	O	O
COMMENTS:				

Appendix F

Looking and Learning from Student Work

1. What do you see?

   Describe what you see in the work and avoid judgments about quality.

2. What was the student doing and why?

   Try to infer what the student does and does not understand and/or how the student interpreted the assignment.

3. Ask questions to better understand each other's interpretations.

4. Ask questions to better understand each other's perspectives.

5. What are the implications of this work for teaching and assessment?

6. What are the next steps?

7. What would we like to see in our students' work?