

ABSTRACT

PITTMAN, PAMELA KAY. An Inquiry into the Influence of Professional Learning Communities on English Language Arts Teachers' Pedagogical Content Knowledge. (Under the direction of Dr. Meghan Manfra and Dr. Carol Pope, co-chairs).

Teaching is an ever-evolving profession, one in which teachers must stay abreast of recent research and trends to continually deepen their knowledge and refine their skills. Therefore, teachers need high quality professional learning opportunities to help them master the content they teach and strengthen their teaching skills. Professional learning communities (PLCs) offer teachers one way to collaborate and engage in professional learning when utilized as professional development.

This study examined English Language Arts (ELA) teachers' experiences in district-mandated PLCs as a form of professional development. These PLCs followed the Professional Learning Communities at WorkTM (DuFour & Eaker, 1998) model. This study also explored the affordances and limitations of these PLCs for developing these teachers' pedagogical-content knowledge (PCK). Using a case study method, the researcher collected data from focus group interviews, personal interviews, PLC observations, and observations in the teachers' classrooms. Shulman's (1987) concept of PCK framed the findings of the study.

This study describes ELA teachers' participation in two types of PLCs – a subject area (ELA) PLC and a grade level PLC. Three themes emerged about teachers' experiences in the PLCs. First, teachers met in an underdeveloped, underutilized ELA PLC. Teachers followed PLC meeting protocols, or proper meeting format, but did not engage in collaborative inquiry, the means for growth for members of PLCs (DuFour & Eaker, 1998). Next, teachers had inconsistent perceptions about PLCs. Teachers' reported PLC topics of conversation did not mesh with PLC meeting observations. There was no observed change in

instructional practice as a direct result of teachers' PLC involvement. Third, teachers experienced imbalanced data collection and data use. Teachers collected many forms of student achievement data from various assessments, and this data collection drove classroom practices, but teachers did not use this data to evaluate and change instruction.

Themes about the potential affordances of these PLCs for the development of teachers' PCK included a space for collaboration and the sharing of content knowledge, teaching strategies, and resources; a supportive environment; and data-driven instruction. Themes about the limitations of these PLCs for the development of teachers' PCK included time, follow through, teachers' limited experiences with collaborative inquiry, ineffective data analysis, and missed opportunities for collaborative inquiry.

This research is important because of the potential to inform how teachers learn together in PLCs and the extent to which the PLCs support the development of teachers' PCK. According to Shulman (1987), PCK influences student learning outcomes.

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An Inquiry into the Influence of Professional Learning Communities on
English Language Arts Teachers' Pedagogical-Content Knowledge

by
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DEDICATION

To Mom, Dad, Dianne, and Alicia. Without your love and support, none of this would have been possible.

And to Birte, my Danish “Gramma.” My life has changed forever because of you.

d. 04/09/2012

BIOGRAPHY

A native of southeastern North Carolina, Pam Pittman taught for 17 years in public and private schools in North Carolina and abroad. In 2004-2005, she had the life-changing opportunity to teach in Bulgaria at an international school that serves students from many nations. She said, “Yes.”

Upon returning to the United States, Ms. Pittman pursued a Master of Arts degree in Education (K-12 language and literacy) at the University of North Carolina at Wilmington. At the urging of her UNC-W professors, she embarked on the journey to obtain a Ph.D. in Curriculum & Instruction with a concentration in literacy from North Carolina State University. She never looked back.

Ms. Pittman is a strong advocate for students, especially middle school students; teachers; and public schools. She has a passion for teaching students to read for understanding, for helping teachers answer their most compelling questions through action research, and for analyzing and influencing education policy at the state and national levels.

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My journey into education research began at UNCW with Dr. Barbara Honchell tutoring and mentoring me through the writing of a master's thesis. Dr. H, where would I be

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CHAPTER ONE: INTRODUCTION

Background and Statement of the Problem

Teaching is an ever-evolving profession, one in which teachers must stay abreast of recent research and trends to continually deepen their knowledge and refine their skills. Federal legislation (e.g. No Child Left Behind, 2002) requires teachers to be “highly qualified” in their content area, and teacher quality is seen as one of the most important influential factors on student learning (Jaquith, Mindich, Wei, & Darling-Hammond, 2011). New teachers, as well as inservice teachers, need the support of more experienced teachers and school administrators if they are to continue developing their teaching skills and building their content knowledge. They also need high quality, meaningful professional development opportunities that meet their needs.

In a national report by the National Staff Development Council, now known as Learning Forward, Darling-Hammond, Wei, Andree, Richardson, and Orphanos (2009) recommended high quality professional learning opportunities to help teachers master the content they teach and strengthen their teaching skills. Educators and policymakers recognize the need for this type of professional learning for teachers since national and state standards now require significantly more complex thinking skills of students than ever before (Darling-Hammond et al., 2009). Darling-Hammond et al. stated that

Ensuring student success requires a new kind of teaching, conducted by teachers who understand learning and pedagogy, who can respond to the needs of their students and the demands of their disciplines, and who can develop strong connections between students’ experiences and the goals of the curriculum (p. 7).

Shulman (1987) called this understanding of learning and pedagogy and the response to students' needs "pedagogical-content knowledge" (PCK) (p. 8). Some researchers promote professional learning communities (PLCs) in schools as a form of professional development with the potential to develop teachers' content area knowledge and teaching skills (e.g. Darling-Hammond et al., 2009; DuFour & Eaker, 1998).

This study focused on the experiences of three middle grades English Language Arts (ELA) teachers as they participated in PLCs as a form of professional development. At the time of this study, these teachers, from different backgrounds, taught in a high-poverty, rural school district at the same middle school. Together they made up the middle grades ELA department at the small Title I school. Collectively, they were responsible for teaching 235 young adolescents the knowledge and skills needed in reading, writing, listening, and speaking for middle grades ELA. Compounding this daunting task was the implementation of a new curriculum – the Common Core State Standards (CCSS) (National Governors Association, Council of Chief State School Officers, 2010) (NGA, CCSSO). According to state data (AdvancED, 2013), the school in which these teachers taught had a high-minority student population and a high teacher turnover rate. Furthermore, the school had not met state standards for student achievement for many years. The school principal asserted that the school culture and environment previously had been unsupportive for teaching and learning (personal communication, October 1, 2014).

All teachers in this school district were mandated by the school district to meet in PLCs (Janine Forester¹, personal communication, October 1, 2014). In order to determine whether and how PLC participation influenced these teachers' PCK, I studied their PLC experiences and observed them teaching in their classrooms as they worked to meet the needs of their young adolescent learners.

Pedagogical-Content Knowledge (PCK)

Shulman (1986, 1987) conceptualized PCK as the unique professional knowledge of teachers. He defined PCK as “the most useful forms of representation of those ideas [in one’s content area], the most powerful analogies, illustrations, examples, explanations, and demonstrations in a word, the ways of representing and formulating the subject that make it comprehensible to others” (p. 9). He was careful to point out that teachers do not have a single most powerful teaching strategy or representation but rather have multiple teaching strategies to facilitate learning. Shulman (2000) explained:

As you begin to experience the difference between what it means to know and understand something yourself and what it takes to help someone else come to know and understand it, and as you begin to recognize the complexity of that process, you have come a very short distance into studying the problem of learning and teaching (p. 130).

Arguing that a century ago the hallmark of accomplishment in teaching was content knowledge, Shulman (1986) identified a “missing paradigm” (p. 8) in the study of teacher knowledge development. He posited that there are central questions that have yet to be asked

¹ pseudonym

concerning teacher knowledge development and teacher education – questions such as “Where do teacher explanations come from? How do teachers decide what to teach, how to represent it, how to question students about it, and how to deal with problems of misunderstanding?” (p. 8). Further, he wondered how teachers prepared to teach a topic on which they had no previous learning and how they transformed content so that students could learn it. The missing paradigm in teacher education and teacher development, then, is teacher knowledge or PCK. PCK previously had not been the focus in research on teaching and learning, according to Shulman. This study sought to understand whether and how PLC participation develops teachers’ PCK when PLCs are employed as a professional development tool.

Some researchers document that ongoing, high-quality professional development can deepen teachers’ PCK and influence student learning (e.g. Jaquith et al., 2011), but teachers need time and a relevant context in which to extend and deepen their PCK. They need “*time* to question, consider, experiment, and reconsider; they need *ownership* of the staff development content and process; and they need *response* both from themselves and others as they change, develop, and grow as professionals” (Pope & Kutiper, 1998, p. 399). However, “opportunities for sustained, collegial professional development of the kind that produces changes in teaching practice and student outcomes are much more limited in the United States than in most high-achieving nations abroad” (Wei et al., 2010, p. v).

The Need for High-Quality Professional Development

Currently, the federal government recognizes the importance of professional development, providing as much as \$3 billion annually in Title II funds to states and districts

for the professional development of teachers since No Child Left Behind (NCLB) (2002) was enacted (Jaquith et al., 2011). The advent and implementation of the CCSS prompted several states to create standards for professional development and to initiate innovative ways to provide professional development, including induction and mentoring programs for new teachers (Jaquith et al., 2011). Many individual states mandate that teachers participate in professional development in order to keep their teaching certification current. For example, in New York State teachers must complete 175 hours of professional development every five years to update their teaching license (Torff & Sessions, 2008).

Other countries, too, recognize that because education is “essential to economic and political survival” (Darling-Hammond, 2005, p. 237), teachers need ongoing, high quality professional development to stay abreast of their field in our newly emerged, knowledge-based global society. The rationale is that better teachers boost student learning. Darling-Hammond (2005) reported that in Japan, for example, teachers spend 15 to 20 hours per week teaching their students and 20 hours or more in professional development activities during the school day. As part of their professional development, Japanese teachers visit other schools and observe teachers, participate in study groups, plan collegially, conduct research on teaching, and demonstrate teaching strategies for other teachers. Darling-Hammond stated that by contrast, teachers in the U.S. spend little to no time in professional development activities during the school day. Instead, nearly all professional development activities consist of workshops or courses after school, on weekends, or in a small number of professional development days during the school year.

Phillips and Wong (2010) stated that the focus of the CCSS in ELA is on college-ready skills. They stressed that the new math and literacy standards “will require investments in strong professional development for teachers as they adapt to this new system” (Phillips & Wong, 2010, p. 42). To complicate matters, teachers will need to learn the new standards for their content area (Beach, 2011).

Many professional organizations have suggested that the only way for the CCSS initiative to be successful is to provide support to teachers, including adequate professional development (Mathis, 2010). In 1996, the National Council of Teachers of English (NCTE) established ten principles to guide inservice providers of professional development to ELA teachers. These principles should spur teachers to “build new knowledge and revise current beliefs through experiences, reading, discussion, reflection, and interaction with colleagues” (Pope & Kutiper, 1998, p. 400). Darling-Hammond et al. (2009) affirmed that professional learning for teachers has profound effects on teacher knowledge and skills, and on student learning. This professional development is most effective when “embedded in the work of professional learning communities that support ongoing improvements in teachers’ practice” (Darling-Hammond et al., 2009, p. 7).

The Need for Professional Learning Communities

Historically, teachers’ work has been isolated because of the way schools are organized (Darling-Hammond et al., 2009; Mindich & Lieberman, 2012). However, recently, school reform efforts have focused on teacher collaboration in PLCs in order to improve teaching and learning outcomes (Darling-Hammond et al., 2009; DuFour, 2004; Mindich & Lieberman, 2012). PLCs are “educators committed to working collaboratively in ongoing

processes of collective inquiry and action research to achieve better results for the students they serve” (DuFour, DuFour, Eaker, & Many, 2006, p. 217). Although participation in effective PLCs can improve teacher knowledge and instructional practices, this type of professional development is uncommon in many schools (Darling-Hammond et al., 2009). Mindich and Lieberman (2012) cited scheduling issues with no common planning time for all teachers especially at the middle and secondary levels, unclear goals from school leaders, and surface-level collegiality with limited progress as reasons for the absence of PLCs in many schools.

Research on the four U.S. states with the highest levels of professional development activity and student achievement outcomes has demonstrated that teachers’ participation in PLCs makes a difference (Jaquith et al., 2011). Schools that supported PLCs found that these learning communities improved teacher training and student performance and improved overall job satisfaction among teachers (Mindich & Lieberman, 2012). Furthermore, the National Board for Professional Teaching Standards (NBPTS) (2014), a non-profit organization advancing professional standards for accomplished teaching, includes membership in learning communities as one of the requirements for NBPTS certification. DuFour et al. (2006) said that PLCs recognize that the key to improved student learning is “continuous job-embedded learning for educators” (p. 217).

I undertook this research study because I wondered how ELA teachers meeting in a PLC could develop and improve their individual and collective PCK, improve instruction, and in turn, influence student learning. I wondered how teachers employed their PLC as a professional development tool.

Statement of Purpose

The purpose of this study was to understand the experiences of three middle grades ELA teachers as they participated in a PLC as a form of professional development. I conducted a qualitative case study over the course of nine weeks to determine the affordances and limitations of their participation in the PLC for further developing their PCK.

Research Questions

The research questions which guided this study were:

- How do ELA teachers experience PLCs as a form of professional development?
- What were the affordances and limitations of participation in the PLC for these teachers to further develop their PCK?

Significance of the Study

This study was significant because of the potential to reveal how teachers learn together in PLCs and the extent to which PLCs support further development of ELA teachers' PCK. The demands placed on teachers in public schools require them to stay abreast of research and developments in their field in order to expand and deepen their PCK and influence student learning. Professional development is so important that the U.S. spends billions of dollars on teacher professional development each year (Jaquith et al., 2011). However, traditional methods of professional development have not and do not meet many teachers' professional needs (Darling-Hammond, 2005). Some school districts have turned to PLCs to bolster student achievement (Mindich & Lieberman, 2012), but researchers agree that PLCs also enhance teacher knowledge and pedagogical skills (e.g. Darling-Hammond et

al., 2009; DuFour & Eaker, 1998). This study sought to understand how PLCs supported the development of ELA teachers' PCK.

Overview of Methodology

A qualitative case study was used to address the research questions. Qualitative research allows the researcher to explore how people make sense of their experiences and what those experiences mean to them (Hesse-Biber & Leavy, 2011; Merriam, 2009). Case study allows the researcher to study a *particular* group or phenomenon (Merriam, 2009). The primary data collection methods included observations, individual informal interviews, and focus group interviews.

CHAPTER TWO: LITERATURE REVIEW

The demands placed on public school teachers require them to expand and deepen their PCK and influence student learning. According to the research literature, traditional means of professional development do not meet many teachers' professional needs (Darling-Hammond, 2005). Therefore, some school districts utilize PLCs as professional development to enhance teacher knowledge and pedagogical skills (Darling-Hammond et al., 2009; DuFour & Eaker, 1998) and to bolster student achievement (Mindich & Lieberman, 2012). This study sought to understand how ELA teachers learned together in PLCs and the extent to which PLCs supported the development of teachers' PCK.

The purpose of this chapter is to review professional literature related to this study. Six relevant topics are presented in this review to provide a foundation for this study. First, an overview of the theoretical framework of Shulman's (1986, 1987) concept of PCK provides the framework for this study. Then, the review focuses on ELA teachers' PCK. Next, the review highlights teachers' general professional development and the professional development of ELA teachers. Finally, research on DuFour and Eaker's (1998) Professional Learning Communities at WorkTM model and research on PLCs in the context of ELA offer an explanation for the potential improvement of ELA teacher PCK.

Theoretical Framework

Shulman's Concept of Pedagogical-Content Knowledge

In 1986, Professor Lee Shulman introduced the term "pedagogical-content knowledge" as one of seven knowledge bases for teaching. As a separate and distinct category of teacher knowledge, PCK is unique and distinguished from general pedagogical

knowledge and content knowledge (Shulman, 1987). Shulman described general pedagogical knowledge as those “broad principles and strategies of classroom management and organization” (p. 8). He defined content knowledge as knowledge of subject matter. Shulman (1987) said that the teaching knowledge known uniquely as PCK “represents the blending of content and pedagogy into an understanding of how particular topics, problems, or issues are organized, represented, and adapted to the diverse interests and abilities of learners, and presented for instruction” (p. 8). Shulman’s (1986, 1987) concept of PCK included the most useful ways teachers represent specific content topics so that students understand them. These representations are illustrations, metaphors, examples, explanations, analogies, etc. that inform teaching strategies, deriving from both the research and the wisdom acquired from teaching experience (Shulman, 1986).

Shulman (1986) recognized that within the various subject areas (e.g. math, science, social studies, etc.) are content topics that are easy and some that are difficult for students to understand. PCK differs for each content area because it is domain specific (Cochran, DeRuiter, & King, 1993; Grossman, 1990; Park & Oliver, 2008b). Teachers’ PCK, therefore, includes an awareness that students may misunderstand certain content topics due to preconceived ideas based on their background knowledge (Grossman, 1990; Hashweh, 2005; Shulman, 1986). PCK also includes strategies or teaching methods that help teachers clarify and address these student misunderstandings (Shulman, 1986).

In his research, Shulman (1986) asked many questions about how teachers develop and use their knowledge for teaching. He wanted to know how teachers transform their subject matter knowledge into the content of instruction and pondered how teachers arrive at

the explanations they use to teach subject matter. He also wondered how teachers address student misunderstandings and pose questions to students for better understanding. Other questions he posited included:

- What are the sources of teacher knowledge?
- What does a teacher know, and when does he or she come to know it?
- How is new knowledge acquired, old knowledge retrieved, and both combined to form a new knowledge base?
- How does the successful college student [of teacher education] transform his or her expertise in the subject matter into a form that high school students can comprehend?
- When this novice teacher confronts flawed or muddled textbook chapters or befuddled students, how does he or she employ content expertise to generate new explanations, representations, or clarifications?
- What are the sources of analogies, metaphors, examples, demonstrations, and rephrasings?
- How does the novice teacher (or even the seasoned veteran) draw on expertise in the subject matter in the process of teaching?
- What pedagogical prices are paid when the teacher's subject matter competence is itself compromised by deficiencies of prior education or ability? (Shulman, 1986, p. 8)

Figure 1 illustrates the PCK framework Shulman (1986) conceptualized.

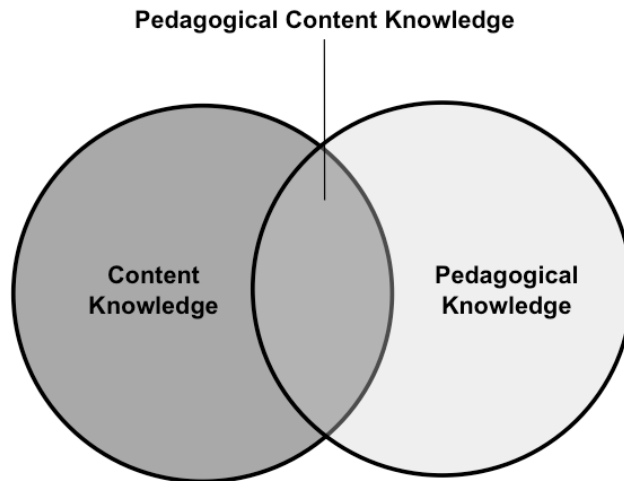


Figure 1. Shulman's pedagogical content knowledge framework. Adapted from “Those who understand: Knowledge growth in teaching,” by L. Shulman, 1986, *Educational Researcher*, 15(2), 4-14. Copyright by the 1986 American Educational Research Association.

A student of Shulman's, Hashweh (1985) studied science teachers' PCK development and how their PCK affected their teaching practices. He asserted that Shulman “left the task of further developing the conceptualization of PCK to others” (Hashweh, 2005, p. 276) since Shulman neglected to study interactions between the seven broad categories of teacher knowledge or any other forms of teacher knowledge that may exist within them (Hashweh, 2005). The conceptualization of PCK needed further development, and more research was needed in order to understand PCK development in teachers of all content areas.

Further PCK research. Researchers since Shulman have found that PCK is domain, topic, and context specific (Cochran et al., 1993; Grossman, 1990; Park & Oliver, 2008b). The transformation of subject knowledge into instructional content (Shulman, 1986) occurs when teachers reflect on and interpret subject matter (domain specific), represent the subject

matter topics (topic specific) in multiple ways (Cochran, et al., 1993), and adapt and tailor the information to a particular group of students whom they teach (context specific) (Cochran, et al., 1993; Park & Oliver, 2008a). Cochran et al. (1993) further stated, “PCK differentiates *expert teachers* in a *subject* area from *subject area experts*” (p. 263). This means, for example, that expert biology teachers differ from biologists because biology teachers have PCK, whereas biologists do not. Park and Oliver (2008a) described PCK as “a knowledge base necessary for effective teaching” (p. 813), and some experienced K-12 principals have cited a lack of PCK as the most important determining factor in teacher non-renewals (Nixon, Packard, & Dam, 2013).

PCK components. Building on the work of Shulman, Grossman (1990) defined four components of PCK and described how the components are reflected in teaching practices.

The four components are:

1. teachers’ “knowledge and beliefs about the purposes for teaching a subject at different grade levels” (p. 8) as reflected in the goals teachers set for teaching their subject matter
2. teachers’ “knowledge of students’ understanding, conceptions, and misconceptions of particular topics in a subject matter” (p. 8). In order to explain and offer representations of concepts, teachers must first know students’ prior knowledge about a topic and content topics that will likely cause students problems in understanding a content topic.
3. teachers’ “knowledge of curriculum materials available for teaching particular subject matter, as well as knowledge about both the horizontal and vertical curricula for a

subject” (p. 8). Teachers know the scope and sequence of the current curriculum that their students must know (vertical curriculum) and the materials that are needed for teaching the curriculum. Teachers also know the scope and sequence of the curricula that their students have studied in past grades as well as what they will study in future grades (horizontal curriculum).

4. teachers’ “knowledge of instructional strategies and representations for teaching particular topics” (p. 8). Experienced teachers have more strategies, activities, representations, metaphors, explanations, etc. than beginning teachers have because of their extensive experience teaching content topics.

Other researchers have found that PCK represents teachers’ personal and private knowledge, in lieu of public and objective knowledge (e.g., Hashweh, 2005; Park & Oliver, 2008b). Because teachers are individuals and think differently even about the same content topics, some aspects of PCK develop uniquely as a result (Hashweh, 2005; Park & Oliver, 2008b). In order to understand how this aspect of PCK influences teachers’ decisions about teaching strategies, researchers have asked teachers to think out loud and to respond to critical incidents that occurred during teaching in order to make this knowledge more public (Hashweh, 1985; Park & Oliver, 2008b).

Furthermore, Hashweh (2005) believed that certain orientations are more conducive to PCK development than are others. He asserted that constructivist teachers develop richer PCK than do empiricist teachers. For example, in his research study of science teachers, Hashweh found that:

Teachers holding constructivist beliefs about knowledge and learning are cognizant of their students' prior ideas and alternative conceptions related to a certain topic while teachers holding empiricist beliefs were not aware of the students' characteristics related to the same topic (p. 287).

Hashweh thought that constructivist teachers build new knowledge about teaching both during the act of teaching and through reflection, and they assimilate this knowledge into their PCK. Cochran et al. (1993) agreed, adding that constructivist teachers also capitalize on the social nature of learning, understanding that tools for thinking and how they are used build both student and teacher knowledge.

PCK growth and development. The literature establishes several ways that teachers develop PCK. Grossman (1990) found that PCK can be developed through a variety of sources in a variety of contexts. Through her research involving six secondary English teachers, she identified the following ways teachers develop PCK:

- Apprenticeship field experiences in classrooms with teachers and students
- Memories of their own teachers and the ways in which they taught
- Disciplinary knowledge which can shape a teacher's knowledge and beliefs about teaching subject matter
- Professional development initiatives and teacher education programs
- Classroom teaching experience

Other researchers suggest that teacher PCK develops through reflection and through teaching experience (e.g., Cochran et al., 1993; Gess-Newsome, 1999; Hashweh, 2005). Park and Oliver (2008b) stated that teachers' experiences are the most powerful change agents of

PCK, insisting that PCK is deepened and broadened when students pose challenging questions to teachers. They also found student responses in class to be powerful motivators for teachers “to expand or enrich their teaching repertoires” (p. 273).

Cochran et al. (1993) believed that PCK development is a continual process. While Park and Oliver (2008b) agree, they also stated that PCK is dynamic and static – dynamic when teachers adjust instruction during a lesson and static when teachers reflect on and change instruction after a lesson. Other conceptions of PCK indicate that teachers develop PCK through planning processes for the content they teach (Hashweh, 2005). In their research working with science teachers involved in the National Board Certification process, Park and Oliver (2008a) found that when science teachers’ “repertoire of instructional strategies for teaching a particular topic was expanded” (p. 819), their PCK developed because they searched for the best ways to demonstrate that they were accomplished teachers.

Some researchers say that PCK is a knowledge domain of experienced teachers (e.g., Cochran et al., 1993; Hashweh, 2005; Park & Oliver, 2008a), insisting that pre-service teachers do not gain PCK from study in traditional teacher education programs (Hashweh, 2005). Hashweh (2005) conceptualized PCK as “a form of knowledge that preserves the planning and wisdom of practice that the teacher acquires when repeatedly teaching a certain topic” (p. 290). Cochran et al. (1993) agreed, saying that novice teachers have “incomplete and superficial levels of PCK” (p. 264). However, Cochran et al. believed that competent novice teachers develop PCK through inservice professional development programs that foster the growth process.

Park and Oliver (2008a) found that when teachers' knowledge of assessing student learning in their content area increased, their PCK developed. In their study, teachers discovered multiple ways of assessing student learning in science, including the use of holistic assessments and diagnostic assessments. Park and Oliver attributed PCK development to the teachers' development as expert educators through the National Board Certification process. In a separate study, Park and Oliver (2008b) found that student misconceptions significantly impacted teachers' PCK. As teachers challenged student misconceptions in order to prevent further misunderstanding of topics, they made decisions that affected the teaching process from planning to assessment.

Though Shulman (1986, 1987) originally coined PCK, over time, many researchers have refined its meaning (e.g., Grossman, 1990; Hashweh, 2005; Park & Oliver, 2008a, 2008b). However, several similarities are found in much of the literature about this special form of teacher knowledge. As Park and Oliver (2008b) stated, "Teachers are knowledge producers not knowledge receivers" (p. 278). Therefore, it is important to note that "although teachers' knowledge can be influenced and improved by receptive learning" (Park & Oliver, 2008b, p. 278), the most powerful changes in PCK come from their teaching experiences (Grossman, 1990; Hashweh, 2005; Park & Oliver, 2008b).

As Cochran et al. (1995) established, a rudimentary framework of PCK can be generated through teacher preparation programs. However, well-developed PCK requires teaching experience and reflection on teaching practice. In my study, it was important to understand the knowledge that ELA teachers brought to the classroom. According to the

research, ELA teachers should possess specific PCK; I searched for evidence of this PCK during this study.

English Language Arts Teachers' PCK

Foundational principles are important in the preparation of ELA teachers and in the professional development of inservice teachers. In my study, I drew from the latest NCTE guidelines to describe what ELA teachers should know and be able to do.

NCTE Guidelines

The *Guidelines for the Preparation of Teachers of English Language Arts*, hereafter referred to as the *Guidelines*, outlines the NCTE's (2006) recommendations for what effective ELA teachers should know and be able to do upon entering the classroom. The *Guidelines* reflect the content knowledge and pedagogy that beginning ELA teachers should have and describe the characteristic attitudes that these educators should possess. Thus, the *Guidelines* provide valuable information for teacher educators who are responsible for programs that prepare teachers for certification, those who work closely with beginning teachers in initially licensed teacher programs, and the schools and school districts that hire new professionals. The *Guidelines* documents are dynamic, representing the dynamic field of education, specifically, teacher education in ELA. They have evolved due to changing educational theory, emerging research, advancements in electronic media, influential political policies, and cultural progress (NCTE, 1996). The *Guidelines* continue to evolve as NCTE's Standing Committee looks toward the future to better prepare teachers to teach effectively in our nation's ELA classrooms (NCTE, 2006).

Of particular interest to this research study is the section of the 2006 *Guidelines* titled “Pedagogical Knowledge, Content Pedagogical Knowledge, and Related Skills.” According to NCTE (2006),

The concept of pedagogical content produces a larger view of ELA instruction extending beyond that of a professional knowledge base defined only by what we know about content and about pedagogy to a definition of professional knowledge as including knowledge of content, pedagogy, and *content pedagogy*, defined as that set of pedagogical knowledge and skills specific to the teaching of ELA (p. 37).

In other words, NCTE aligns with Shulman’s (1986, 1987) notion of PCK and recommends that prospective ELA teachers receive a professional education based on the principles contained in the *Guidelines*. In this way, teacher education programs could foster the effective development of ELA teachers who not only have content knowledge, but also know how to teach that content so that students can learn and demonstrate their learning of ELA (NCTE, 2006). This view of specialized teacher knowledge is supported in the PCK literature discussed previously (Grossman, 1990; Hashweh, 2005; Shulman, 1987).

The *Guidelines* distinguish between content pedagogy and skills and pedagogical content knowledge (PCK). The content pedagogy and skills section contains principles that apply to all aspects of ELA teaching including instructional planning, instructional performance, and instructional assessment. The pedagogical content knowledge section contains specific aspects of teaching ELA content including language, literature, media and visual literacy, reading, writing, and speaking/oral discourse/listening. A brief description of these topics from the most recent 2006 *Guidelines* document follows.

Content pedagogy and skills. Content pedagogy and skills applies to all areas of the ELA curriculum. According to NCTE (2006), effective teacher candidates should demonstrate skills in planning, performance, and assessment in every ELA lesson. Teachers in the field should have meaningful opportunities to continue developing effective skills in these areas.

Instructional planning. Instructional planning includes plans ranging from daily and weekly implementation to semester- and year-long plans. NCTE (2006) notes that teachers should know the local, state, and national standards that they are required to teach. Teachers should also be familiar with various types of assessment (NCTE, 2006). These planning components are reflected in the goals and objectives established by ELA teachers. Additionally, teachers should use a plethora of developmentally appropriate curriculum materials such as print and nonprint materials, and visual and audio media – all from rich, diverse sources – for instructional planning. NCTE also recommends that teachers should plan for individual, small group, and whole group instruction.

Instructional performance. Instructional performance includes flexibly implementing lesson plans moment-by-moment in the classroom and thoughtfully reflecting on and adjusting instruction “in the moment.” Additionally, teachers should “create learner-centered learning environments” (NCTE, 2006, p. 40) that respect the diversity of the students in the class, actively engage them in the learning process, and promote critical thinking. NCTE also recommends that teachers should include a variety of questioning strategies and discussion-based learning activities to support student learning in speaking and listening skills.

Instructional assessment. According to NCTE (2006), effective ELA teachers “design and use multiple forms of assessment” (p. 42) and evaluation tools aligned with national, state, and district standards for various purposes. These may include diagnostic assessments, formative and summative assessments, and other assessment tools. Teachers provide timely, constructive feedback to students for optimal student learning and effectively communicate the assessment data to stakeholders. Additionally, NCTE states that effective teachers reflect on and use assessment data to plan instruction including setting student learning goals, creating teaching strategies, and differentiating instruction to meet student needs.

Content pedagogical knowledge. “Content pedagogical knowledge” is a knowledge base developed through “reading about, reflecting on, and practicing strategies and techniques as described and refined by many scholars, researchers, theorists, and other practitioners in their particular field” (NCTE, 2006, p. 43). NCTE (2006) states that a body of pedagogical content knowledge related to ELA exists and that it should influence classroom practice. The six general areas of ELA PCK include language, literature, media and visual literacy, reading, writing, and speaking/oral discourse/listening. A description of these areas follows.

Language and literature. Language makes humans unique in the natural world and is as diverse as the many cultures of the world (NCTE, 2006). Study of language affords students opportunities to explore these cultures and the ways in which people communicate. ELA teachers should assist students in learning about the history of language and in exploring and creating new ways to communicate through language. ELA teachers should

“model effective, clear, concise spoken and written language skills when engaging in all aspects of teaching” (NCTE, 2006, p. 43).

NCTE (2006) recommends that ELA teachers should choose from a variety of historical and contemporary texts and genres written by a wide range of authors who represent various viewpoints and cultures. They should teach students how to respond thoughtfully to literary texts, to interpret and carefully analyze these texts, and to compare and contrast ideas within and across texts. The literature used in the classroom should be developmentally appropriate for the students’ grade level, maturity, and diverse interests and abilities. When ELA teachers can explain how different texts relate to each other and can help students connect texts with their own lives and experiences, they create meaningful learning experiences for their students.

Media and visual literacy. Today’s modern environment teems with media texts and visuals that “are sources of intellectual, emotional, and aesthetic experiences from which individuals create meaning” (NCTE, 2006, p. 45). Because students are bombarded with visual information within this environment, ELA teachers should teach students to become “discriminating viewers” (NCTE, 2006, p. 45), guiding them to critically reflect on and analyze media messages. Additionally, teachers should engage students in opportunities to search for, interpret, and evaluate web-based information. Furthermore, teachers should model “how to evaluate ways in which messages in nonprint media shape contemporary social and political culture” (NCTE, 2006, p. 45).

Reading and writing. Literacy development in the middle and secondary grades becomes more complex as students read to learn in their content area classes and as they read

more complex literature (Kamil, Borman, Dole, Kral, Salinger, and Torgeson, 2008); therefore, reading comprehension instruction is key during this critical shift from learning to read to reading to learn. In the *Guidelines* (NCTE, 2006), the focus for reading instruction is on rich comprehension. Concepts particularly important to the comprehension process include “schema activation, purpose setting, comprehension monitoring, post-reading schema building, vocabulary development, self-monitoring, and metacognitive strategies and reflection” (NCTE, 2006, p. 45). Teachers should design instruction to support the development of these processes. When students encounter difficulties in the comprehension of diverse texts, teachers should be prepared to remediate using various assessment tools and teaching strategies.

According to NCTE (2006), the writing process is equally important to literacy learning during the critical adolescent developmental period, and writing activities should connect writing to thinking. Therefore, NCTE recommends that teachers should give students many authentic, relevant opportunities to write for different purposes, to diverse audiences, in formal and informal contexts, using appropriate language tools. Students should be guided through the recursive processes of prewriting, drafting, revising, editing, and publishing through various modes including independently, in partnerships, through writing workshops, and in collaboration. NCTE suggests using both formal and informal assessments when evaluating writing.

Speaking/oral discourse/listening. NCTE (2006) also says, “Language usage is learned best in purposeful efforts to communicate ideas, facts, feelings, and values to self and

to others” (p. 46). Therefore, teachers should actively involve students in oral, written, and visual language opportunities within authentic contexts.

Conclusion. The guidelines discussed in this section represent the views of NCTE’s Standing Committee (2006) on preparing teachers in ELA and on the professional development of inservice teachers in ELA. This shared vision is also represented in the NBPTS (2014) revised Standards document and reflected in the *Standards for the English Language Arts* (1996) document put forth collaboratively by NCTE and the International Reading Association (IRA). Furthermore, the Common Core State Standards for English Language Arts (NGA & CCSSO, 2010) reflect many of the same teaching and learning standards that are contained in the *Guidelines*.

These *Guidelines* provide a common language for understanding what ELA teacher candidates should know and be able to do upon finishing their teacher education programs. When teacher candidates graduate from teacher education programs and gain licensure, many will participate in professional development programs in local school districts to continue building their knowledge and skills as professionals. According to the research, there are characteristics of professional development that can support PCK growth and development.

Professional Development

Many researchers have written about the benefits of effective teacher professional development (e.g., Jaquith et al., 2011; Rhine, 1998; Zeichner, 2003). The Association for Middle Level Education (AMLE) states that “middle level educators thrive on professional development . . . [and] recognize the positive impact it can have on teaching and learning when focused on improvements that directly relate to increased student academic growth and

personal development” (AMLE, 2010, location 487-488). Additionally, research on teacher professional development promotes collaboration, shared knowledge building, and the development of teachers’ skills and capabilities (e.g., AMLE, 2010; Darling-Hammond et al., 2009; West, 2011). For the purposes of this study, research over the past 20 years was used to define the characteristics of meaningful professional development, describe some potential benefits of this type of professional development, and explain principles of conducting meaningful professional development.

A Definition of Meaningful Professional Development

For many professions, the continual deepening of knowledge and skills, or professional development is expected in order to remain abreast of trends, issues, and research in their field (DuFour & Eaker, 1998). In education, effective professional development is professional development that affects teachers’ skills and knowledge and in turn, student learning (Darling-Hammond et al., 2009; Jaquith et al., 2011). Effective professional development empowers teachers and encourages them to become reflective practitioners (Kennedy & Shiel, 2013).

Traditional forms of teacher professional development such as one-day, off-site workshops, have been criticized as ineffective (Darling-Hammond et al., 2009; Garet et al., 2001; Jaquith et al., 2011) as they are usually very brief sessions, a day or less, with teachers having little input on the topics of professional development (Jaquith et al., 2011; Zeichner, 2003). These workshops offer teachers little time to practice activities, do not increase teachers’ content knowledge, nor do they promote meaningful changes in classroom practice (Garet et al., 2001; Jaquith et al., 2011). Further, traditional methods of professional

development offer little by way of mentoring with more experienced professionals (Darling-Hammond et al., 2009). As a result, there is growing interest in reform efforts in the area of professional development, especially from teacher educators, academic scholars, and professional organizations such as the National Federation of Teachers (NFT), the National Staff Development Council (NSDC), and NCTE (Zeichner, 2003).

In contrast to the traditional methods of professional development, approaches that are informed by research and that bridge the gap between research and practice, for example by transforming teachers into action researchers, have been effective in changing teaching practices and raising student achievement levels (Rhine, 1998; West, 2011; Zeichner, 2003). Professional development that is sustained, ongoing, and intensive has greater impact on teachers' knowledge and skills and on student learning (Darling-Hammond et al., 2009; Jaquith et al., 2011; Katzenmeyer & Moller, 2009; Zeichner, 2003). AMLE (2010) promotes professional development experiences that engage middle school educators for an extended period and recommends that such experiences continually be assessed for effectiveness.

Further, professional development that is content specific, offers opportunities for active learning, and is integrated into the school day seems to have more positive effects on teachers' knowledge and skills and student achievement levels (Garet et al., 2001; Good, 2009). Examples of this type of professional development include studying extensively in the teachers' content area, observing and being observed by expert teachers, and planning collaboratively for classroom implementation of new teaching approaches learned in professional development. Collaborative efforts focusing on teacher inquiry and reflection on issues of importance to them in their daily work have proven effective as well (Darling-

Hammond et al., 2009; Katzenmeyer & Moller, 2009; West, 2011) because teachers' needs change as they continue to develop as more knowledgeable and more skillful professionals (West, 2011).

The research highlights several general characteristics of quality professional development. These characteristics include professional development that is content specific, collaborative, reflective, and ongoing (sustained over an extended time). Professional development encompassing all of these characteristics has proven beneficial in the development of teacher knowledge and skills.

The Benefits of Meaningful Professional Development

Research shows that there are multiple benefits of effective professional development for teachers. These include:

- A positive change in teaching practice including collaboration (Rhine, 1998; West, 2011)
- An increase in teacher content mastery (Zeichner, 2003)
- An increase in teacher reflection (Darling-Hammond et al., 2009; West, 2011; Zeichner, 2003), and
- An increase in student achievement (Darling-Hammond et al., 2009; Jaquith et al., 2011; Rhine, 1998; West, 2011)

Professional development that offers teachers opportunities for collaboration and that provides research-based resources for reflection and problem-solving effects positive change in teaching practice. For example, West's (2011) review of literature on collaborative inquiry among teachers found that when they engaged in collaborative inquiry and reflection as

professional development, teachers continually explored ways to improve practice and impact student achievement. These teachers were motivated by their ongoing quest to improve themselves and their students' learning through problem-solving in the classroom. Also, in a study of two research-based professional development programs, Rhine (1998) found that teachers who had access to research-based resources about students' thinking, changed their own thinking and transformed their practice into meaningful learning experiences for students, thus positively affecting achievement. He suggested that professional development should include access to research-based resources.

Professional development activities involving opportunities for systematic inquiry have been shown to increase teachers' content mastery. An example of this is a review of literature on teacher research as professional development, Zeichner (2003) found that teachers who engaged in action research, increased their content knowledge and student learning. Teachers found this type of professional development transformative, valuable, and useful in their practice.

Finally, professional development that focuses on the teaching and learning of academic content has been shown to increase student achievement. For example, in a longitudinal research report on effective teacher professional development, Darling-Hammond et al. (2009) reported that ongoing professional development that is intensive and that focuses on the teaching and learning of academic content has a positive effect on student achievement. In a review of state policies about teacher professional development, Jaquith et al. (2011) found that investing time and monetary resources in ongoing professional

development, as well as in pre-service and inductive programs for new teachers, is essential to teacher learning and student learning.

Principles for Designing Meaningful Professional Development

Traditional professional development follows a content model of “sit and get,” in which teachers passively absorb information yet have no meaningful context in which to carry out new ideas nor time to incorporate and reflect on new teaching strategies. In contrast, effective professional development promotes collaboration, develops teachers’ content knowledge and influences practice, and positively influences student learning outcomes.

Darling-Hammond et al. (2009) discussed some principles for designing effective professional development programs that are supported by other research on professional development (e.g., Kennedy & Shiel, 2013; Schilling, 2008; West, 2011; Zeichner, 2003). These principles include professional development that is:

- Intensive, ongoing, and connected to practice
- Focused on student learning and the teaching of specific curricular content
- Aligned with school improvement initiatives, and
- Focused on building collaboration among teachers

Sustained and connected to practice. Professional development that is intensive, ongoing, and connected to practice affords teachers time to analyze critically their teaching practices and content (Darling-Hammond, 2009; Zeichner, 2003). This type of professional learning is in contrast to traditional “one-day, one-shot” professional development. Intensive professional development gives teachers “the time for serious, cumulative study of the given

subject matter” (Darling-Hammond, 2009, p. 9) because they are engaged in meaningful study for longer periods of time – as much as 80 hours or more over the course of a school year in some instances, according to Darling-Hammond (2009). Sustained professional development typically connects to practice and is supplemented with direct coaching or mentoring (Darling-Hammond, 2009). When professional development is connected to practice and embedded in the school day, such as when teachers conduct action research in their classrooms (Zeichner, 2003), teachers are afforded the space for trying out new practices in their classrooms and evaluating and reflecting on the results (Darling-Hammond, 2009; West, 2011). Kennedy and Shiel (2013) contend that blending content knowledge and pedagogical content strategies in professional development strengthens the effect of the professional development.

Focused on student learning. Besides being connected to practice, when professional development is focused on student learning, teachers are more likely to try new practices, especially if they know the specific content that gives students trouble (Darling-Hammond, 2009; Schilling, 2008). This type of professional development improves teacher practice and student learning outcomes because the professional development content is more meaningful to teachers, connecting their teaching practice to student learning needs (Darling-Hammond, 2009; Schilling, 2008).

Aligned with school improvement initiatives. In addition to the connections with practice and student learning, professional development also should be aligned to school improvement initiatives because teachers need to be supported in their own learning efforts

(Darling-Hammond, 2009; Schilling, 2008). If new strategies and practices are not supported in their regular school setting, teachers are less likely to use them (Darling-Hammond, 2009).

Focused on collaboration. The fourth principle of designing effective professional development is to ensure collaboration. Professional development that encourages collaboration and collaborative inquiry promotes strong working relationships among teachers and builds PLCs (Darling-Hammond, 2009; Jaquith et al., 2011), a hallmark of successful middle schools (AMLE, 2010). Research on PLCs shows that teachers can build shared knowledge, expand their teaching capabilities within these collaborative environments, and influence positive student learning outcomes (Darling-Hammond, 2009; DuFour & Eaker, 1998; DuFour et al., 2006).

Meaningful, high quality professional development is sustained and connected to practice, focused on student learning, aligned with school improvement initiatives, and focused on collaboration. Within the field of ELA, professional development should reflect these components as well.

Professional Development in the English Language Arts

As discussed earlier, the *Guidelines* for ELA teacher preparation and continued professional development focus on the teaching of reading, writing, listening, speaking, and viewing (NCTE, 2006). Additionally, national standards for student learning in ELA contain the same elements (IRA & NCTE, 1996; NGA & CCSSO, 2010). Literature on teacher professional development in ELA reflects several elements of meaningful professional development discussed previously in this chapter. These elements include developing teacher content knowledge, connecting content and pedagogy, connecting to school improvement

initiatives, connecting to student learning, collaborating within learning communities, and reflecting on teaching practice. These elements of professional development in ELA will be discussed within the context of examples from the research literature including NCTE’s “Inservice Education Principles” and other pertinent studies.

NCTE Inservice Education Principles

In 1994, the Conference on English Education (CEE) Commission on Inservice Education of NCTE published Ten Principles to guide inservice education programs. Inservice education referred to the “lifelong process by which teachers grow professionally through reflective practice” (CEE, 1994, p. 125). This seminal document was created to guide the professional development of English educators in the field because teachers “build new knowledge and revise current beliefs through experiences, reading, discussion, reflection, and interaction with colleagues” (CEE, 1994, p. 125). Table 1 reflects the ten principles from the CEE’s document.

Table 1 Ten Principles of Inservice Education

- 1) Reflective practice. Reflective practice is that which affirms professional learning as “the key to better teaching” (CEE, 1994, p. 125). Reflection in a collaborative professional community encourages teachers to question, evaluate, and transform teaching practices in order to improve as professionals.

Table 1 Continued

- 2) Ownership. Genuine change comes about only “when teachers decide for themselves that it is desirable and attainable” (CEE, 1994, p. 126).
- 3) Theorized practice. When teachers have opportunities to read and study research into theorized practice, they have the necessary tools to reflect on their own practices and uncover the underlying theoretical beliefs guiding their teaching practices, making changes when necessary.
- 4) Collaboration. Inservice education “inspires and maintains an environment in which all who participate work together to investigate issues and questions they have identified as important” (CEE, 1994, p. 126).
- 5) Agency. Collaborative inservice education should promote teachers’ inquiry into the professional development that will serve their needs best.
- 6) Sufficient time. Reflective practitioners need time to participate in the “recursive process” (CEE, 1994, p. 127) of changing practice that contributes to their professional development.
- 7) Administrative collaboration. Teachers and administrators who work together to establish “a community of committed education professionals”

Table 1 Continued

(CEE, 1994, p. 127) become collaborative “learners and risk-takers” (CEE, 1994, p. 127) who “build common goals and visions” (CEE, 1994, p. 127) for their school.

- 8) School-community partnerships. School-community partnerships are important for strengthening the ties between the education community and the community at large. These partnerships can foster parent involvement in children’s education, assist schools and faculty members in identifying and addressing larger community concerns, and create an awareness within the community of the “contexts in which teaching and learning occur” (CEE, 1994, p. 127).
 - 9) Pluralism and democracy. Through inservice education, teachers can learn to “work effectively with students from many cultures in order to build genuine democratic communities in their classrooms and in our society” (CEE, 1994, p. 128).
 - 10) Explicit and tangible support. Professional development is an inherent part of being a professional. Participation in inservice education promotes professional growth and should be recognized as an expectation of professional service. Tangible support such as release time, compensation,
-

Table 1 Continued

and reduced teaching duties should be part of inservice education programs for teachers.

Note. Information from Conference on English Education. (1994).
Inservice education: Ten principles. *English Education*, 26(2), 125-128.

NCTE's "Inservice Education Principles" align with the research on meaningful professional development. The Principles' purpose of building teacher knowledge and skills through experience, collaboration, and reflection also aligns with the research on the development of teacher PCK.

NCTE Survey Research on Professional Development

In a survey research study assessing NCTE members' perceptions of becoming and remaining a highly qualified ELA teacher, a random sample of 649 NCTE members was surveyed (Dudley-Marling, Abt-Perkins, Sato, & Selfe, 2006). Three-fourths of the respondents were classroom teachers with 8% teaching elementary level, 24% teaching middle school level, and 43% teaching in high school. Nearly all (97%) reported participating in professional development activities during the year prior to the study. As much as 93% of respondents indicated that PCK is important to being a highly qualified ELA educator. Another 58% indicated that ongoing professional development had a very strong effect on teaching quality. Furthermore, respondents indicated that professional development

in the content area and strategies for teaching content as well as opportunities for collaboration were their most desirable forms of professional development.

This research demonstrates that PCK development is important to ELA teachers. NCTE's study supports ongoing professional development initiatives that positively affect teacher quality, as other studies have suggested. Further, this survey research supports professional development that is content specific, connected to practice, and which includes time for collaboration as Darling-Hammond (2009) has stated.

Other Examples of ELA Teacher Professional Development

ELA teachers have reported on various types of professional development that have made them better teachers, and as a result, have helped their students. Many have been proactive in their quest to develop their skills as ELA teachers, and many are teacher-researchers, undertaking action research as professional development.

Teacher inquiry as professional development. Eighth grade ELA teacher, Jan Wirsing (2009) reported that her involvement in a teacher inquiry group was “the best professional development I’ve experienced” (p. 26). The inquiry group of teachers met for one hour per month and exchanged ideas and reflected on their practice. Wirsing shared that many of the teachers faced the same issues in their classrooms and were able to problem-solve collaboratively and encourage each other to improve. Furthermore, Wirsing reported that her administrator supported her in the inquiry group, providing resources for her classroom and offering opportunities to observe and be observed by other teachers.

Though the inquiry group lasted one year, teachers at Wirsing's school caught on and developed their own inquiry groups so that this type of professional development continued

(Wirsing, 2009). Through her involvement in the inquiry group at her school, Wirsing explored multi-genre writing and research, an area unfamiliar to her but of importance to eighth graders entering high school the next year. With the collaborative input of her colleagues, Wirsing used new strategies for teaching multi-genre writing and research with her students and saw them grow as readers and writers of research.

The activities reflected in this study connect directly to the research literature on the development of teacher PCK and meaningful professional development. Reflective practice, adaptive teaching strategies, and experience have been shown to build PCK (Darling-Hammond et al., 2009; Grossman, 1990). Reflection, collaboration, and administrative support are important elements of high quality professional development, according to the research previously discussed. Furthermore, ownership of the professional development process and agency through teacher inquiry are two of the principles embedded in NCTE's "Inservice Education Principles."

Teacher study groups as professional development. Research has shown that traditional methods of professional development, such as one-day workshops, are ineffective for developing teacher knowledge and skills. Rather, collaboration, reflection, and inquiry promote effective teacher development, building PCK that in turn, impacts student learning and achievement.

In a report on her own participation in an inquiry group, middle grades special education teacher, Kathryn Egawa (2009), shared how listening to her students and participating in a teacher study group transformed her teaching practices. As a new teacher, Egawa was frustrated, facing issues in her special education classroom that she did not know

how to solve. She felt isolated without the support of her administrator, veteran teachers, and the school psychologist.

Egawa (2009) explained that the “official” professional development of her school district was disconnected from her classroom, students, and practice, so she joined a teacher study group at the urging of a colleague. Through the study group, she developed professional relationships with ELA teachers, visited and observed ELA classrooms at other schools, and attended local and regional conferences with colleagues from the group. Egawa collaborated with other teachers on a research study about literacy and reported that it was through this research that she began examining and changing her own teaching practices.

Eventually, Egawa (2009) recognized a mismatch between traditional education research and teacher-research that prompted the kinds of changes she had made in her own teaching practices. Now a literacy coach and national consultant, Dr. Egawa believes that teacher-research is a powerful type of professional development for educators because it promotes agency, reflection, and collaboration and builds a knowledge base for teaching.

Conclusion. All of the examples from ELA in this section align with the research describing principles of meaningful professional development (Darling-Hammond et al., 2009; Jaquith et al., 2011; NCTE, 2006). Meaningful professional development is connected to practice and student learning. It involves collaboration and is aligned with school improvement initiatives. In particular, effective ELA teacher professional development research promotes teacher inquiry and collaboration as ways to build PCK and impact student learning. Professional learning communities (PLCs) are intended to provide an

environment that is conducive to meaningful, sustained professional development that incorporates these principles promoted by NCTE and other research.

Professional Learning Communities (PLCs)

According to the research, professional development that encourages collaboration and collaborative inquiry fosters working relationships among teachers and builds PLCs. The Live Oak School District² mandated the Professional Learning Communities at WorkTM model (DuFour & Eaker, 1998; DuFour, DuFour, Eaker, & Many, 2006) six years ago (Janine Forester, personal communication, October 1, 2014). There are other PLC models of merit, but the Professional Communities at WorkTM model has been reviewed because it is the model the teacher-participants in this study are familiar with and must employ. The purpose of this study was to explore how ELA teachers experience PLCs. The study sought to understand the affordances and limitations for the development of the ELA teachers' PCK within the context of PLCs.

Definition of PLCs

A plethora of professional literature has established PLCs as a way to improve teaching and learning outcomes (e.g., DuFour & Eaker, 1998; Harris & Jones, 2010; Jaquith et al., 2011). Schools have implemented PLCs as a way to improve teachers' instruction and students' learning (DuFour, 2004; Feger & Arruda, 2008; Jaquith et al., 2011). Feger and Arruda (2008) found the following common characteristics of PLCs in a review of the literature: shared leadership, supportive environment, a common vision and shared values, and collaborative learning and practice.

² pseudonym

Harris and Jones (2010) described PLCs as a network of engaged professionals who instigate change and improvement within a school to directly benefit student learning.

Jaquith et al. (2011) emphasized the work of PLCs as collaborative school improvement focused on professional development. The Professional Learning Communities at Work™ model (DuFour & Eaker, 1998; DuFour, 2004; DuFour et al., 2006) is tailored to meet the needs of individual schools, but the same PLC process revolves around three big ideas that encompass many of these characteristics: a focus on student learning, a collaborative culture, and a focus on results.

Professional Learning Communities at Work™

Traditionally, American public schools were organized around the factory model that was prevalent in American society during the Industrial Revolution (DuFour & Eaker, 1998). The system worked well for equipping workers for unskilled jobs in industry regardless of educational attainment. However, as DuFour and Eaker (1998) state, “The factory model is woefully inadequate for meeting the national education goals of today – goals that call for *all* students to master rigorous content, learn how to learn, pursue productive employment, and compete in a global economy” (p. 23). DuFour and his colleagues challenged school leaders and educators to envision a conceptual model of education in which the main purpose of formal education is student learning, especially in our 21st century knowledge-based society (DuFour & Eaker, 1998; DuFour et al., 2006).

A focus on student learning. With the focus toward student learning, every educator in a school implementing The Professional Learning Communities at Work™ model must be committed to ensuring success for every student (DuFour et al., 2006). In order to

accomplish this goal, educators and schools must answer three crucial questions: “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?” (DuFour, 2004, p. 8). The Professional Learning Communities at Work™ model rests upon answering these crucial questions. Individual schools’ answers to the questions determines how PLCs will operate in those schools to affect student learning from identifying school and district goals, to assessing student achievement, to creating a schedule to accommodate teacher collaboration and student learning (DuFour & Eaker, 1998; DuFour, 2004).

A collaborative culture. Educators involved in building a PLC must collaborate with a central purpose in order to achieve the goal of enhanced learning for all students (DuFour, 2004). Collaboration in this model means that educators work interdependently to impact and improve their classroom practice to enhance student learning outcomes (DuFour et al., 2006). Collaborative inquiry in the PLC model is intended to build a shared knowledge base and to develop educators’ skills and capabilities to meet the needs of their students (DuFour et al., 2006). Schools promoting such collaboration must ensure that all teachers have a common time to meet during the workday and throughout the school year (DuFour, 2004; DuFour et al., 2006).

A focus on results. A PLC community assesses progress based on the results achieved. PLC teacher teams create the ongoing process of identifying student achievement levels, setting goals to improve student achievement, working collaboratively to achieve the goals, and providing evidence of progress toward the goal (DuFour, 2004). Classroom formative assessments of learning provide necessary data for identifying student achievement

levels, while collaborative work capitalizes on the knowledge and skills of all teachers in a PLC. Goals for the PLC focus on student learning which are aligned to school and district goals. Data generated through the PLC process become the evidence of progress, and results then stem from teachers' "change in traditional practices and . . . prevalent assumptions" (DuFour, 2004, p. 11).

The Professional Learning Communities at Work™ model provided a context for my study to explore ELA teachers' experiences in PLCs at Murray Middle School.³ This model also provided an avenue for exploring the affordances and limitations of such learning communities for the development of ELA teachers' PCK. The literature on ELA professional learning communities seems to indicate that PLCs foster teacher development.

Professional Learning Communities in the English Language Arts

The AMLE (2010) supports subject area PLCs for team-building, healthy student and teacher development, and higher student achievement outcomes. Recent research on ELA professional learning communities has shown that these PLCs positively influenced teacher efficacy, broadened teacher knowledge of content, and promoted collaborative inquiry to enhance collaboration.

The AMLE (2010) affirms that successful middle school leaders build a culture of collaboration within a school, effectively creating a learning community that positions the education and healthy development of students and teachers at the top of their list of priorities. A "signature component of high-performing [middle] schools" is the interdisciplinary team, described as "two or more teachers working with a common group of

³ pseudonym

students in a block of time” (AMLE, 2010, location 504). The AMLE views such teams as learning communities and states that effective teams can positively influence student achievement and teachers’ professional lives. Therefore, “teachers of a particular subject must have regular opportunities to meet” (AMLE, 2010, location 513-514). PLCs present that opportunity for ELA teachers.

A few researchers have studied ELA PLCs for different reasons and in different contexts (e.g., Costa, 2012; Worth, 2014; McClure, 2006; & Pella, 2012). All of the results are in line with the literature on teachers’ PCK development, teacher professional development, and/or PLCs in general. These studies highlight four broad areas including formal assessment, teacher efficacy, teacher inquiry, and content knowledge. These research studies seem particularly relevant to the current study based on Murray Middle School’s student demographics, school setting, and/or level of teacher experience.

PLCs and Formative Assessment

Teachers in the PLCs at WorkTM model (DuFour, 2004) of PLCs use various formative assessments (not defined by DuFour) appropriate for the content area to determine student learning. Assessments are based on curricular standards and student learning goals, and teachers use them to address the three crucial questions of PLCs: “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?” (DuFour, 2004, p. 8). Furthermore, formative assessments lend teachers insight into difficult topics for student learning and help teachers reframe instruction to aid student learning (Costa, 2012), both important components of PCK (Grossman, 1990; Park & Oliver, 2008b).

In Costa's (2012) yearlong action research study, he analyzed the formative assessment system at an urban Title I middle school in California. Costa worked with 13 ELA teachers to identify the components of effective formative assessment in ELA and to identify leadership practices leading to instructional change and student achievement improvement. The middle school had been in an improvement phase for five years due to NCLB (2001) sanctions, along with eight other schools in the district. Part of the program improvement initiatives was establishing PLCs in the school. This middle school served 981 students of which 45% were English Language Learners (ELLs), 97% utilized free and reduced lunch services, and 36% showed proficiency in ELA according to school assessment data. Nine of the 13 ELA teacher-participants were new to the school.

Costa (2012) found that it was important for a supportive principal to establish clear goals for the ELA PLC and to provide necessary resources to teachers in order for them to meet the goals. Because the teachers felt supported by the administrator and by each other, several took the initiative to become leaders of the group, whereas previously they had not (Costa, 2012). These teacher leaders analyzed the formative assessment data, identifying specific content standards that students had difficulty mastering. The teacher leaders shared content and pedagogical knowledge with their colleagues, initiating collaboration in instructional decision-making (Costa, 2012). Working together, the principal and ELA teachers improved instructional practice and collaboration. They saw a significant rise in student achievement levels in ELA by the end of the school year, which is one of the purposes of the Professional Learning Communities at WorkTM model (DuFour & Eaker, 1998; Dufour, 2004).

PLCs and Teacher Efficacy

Efficacy is generally self-reported and is open to a researcher's assumptions (Bandura, 1977). Therefore, efficacy must be defined within particular contexts of research studies. One phenomenological study exploring the "lived experience of individual and collective efficacy for members of an English Language Arts department" (Worth, 2014, p. 13) working with at-risk youth, used a two-fold definition for efficacy since the study included individual members who acted as a group. Worth's (2014) study drew from Bandura's (1977) notion that self-efficacy is "the conviction that one can successfully execute the behavior required to produce the outcomes" (p. 79). In addition, Worth defined collective efficacy as an "individual's belief in the group's capabilities" (Bandura, 1997, p. 79).

Worth (2014) studied eight ELA teachers with teaching experience ranging from 2-10 years, at a "publically funded, college-preparatory, boarding school for disadvantaged, at-risk youth in grades six through 10" in Maryland (Worth, 2014, p. 9). Five of the eight teachers were new to the school. The school sought to send all of its 400 students to a four-year university upon graduation, regardless of achievement level upon entering the school in sixth grade. Students who entered the school were as much as 2-4 years below grade level in both reading and math, coming from difficult environments including home, neighborhood, and other schools (Worth, 2014).

Worth (2014) studied the lived experiences of the teacher participants and explored whether participation in a PLC created "a climate, culture, and/or context that change teachers' perceptions of their control over teaching and student achievement" (p. 10). She

wanted to know whether participation in the PLC promoted individual and collective efficacy among the teachers. Based on the tenets of phenomenology, Worth collected data about teachers' experiences through one extensive personal interview and through member checking, a method of ensuring authentic interpretation of interview data.

Worth's (2014) study revealed that all eight ELA teachers felt a strong sense of collective efficacy, and six said that they felt strongly about their individual efficacy in regard to their teaching environment. Additionally, all of the teacher participants reported feeling supported in their PLC, an important element of the PLC structure (DuFour & Eaker, 1998; Costa, 2012). Worth reported that six of the teachers highlighted the supportive and shared leadership qualities in their PLC, especially in the area of decision-making. The six teachers agreed that they made informed decisions in their classrooms based on the support and input from their colleagues in the PLC (Worth, 2014). Overall, Worth found that the ELA teachers' participation in the PLC did in fact positively influence their self-efficacy and collective efficacy as defined by the study.

PLCs and Inquiry-based Lesson Study

Lesson study is a widely used form of professional development in Japan (Fernandez, 2002) employing systematic inquiry to improve teachers' PCK but is used less often in the United States (Pella, 2012). Generally, during lesson study, teachers visit classrooms in the school where they teach, but they may visit classrooms at other schools as well (Pella, 2012). The purpose of lesson study is to study experienced teachers as they teach in order to affect one's own teaching practice (Pella, 2012).

In a two-year participatory action research study, Pella (2012) explored how five ELA teachers collaborated as a lesson study team, a unique, inquiry-based PLC, investigating writing issues in their classrooms. The study focused on the collaborative activities of the ELA teachers as they developed their writing pedagogy and explored how these activities transformed their perspectives and writing pedagogies. They also “selected topics, planned, and debriefed each lesson in collaboration with each other” (Pella, 2012, p. 18). Participation in these activities over the two years totaled 120 hours.

All participants were middle school ELA teachers in ethnically diverse schools in California. They were also National Writing Project (NWP) teacher consultants or became NWP consultants during the study. Three of the participants had conducted action research in writing instruction, and the NWP reinforces this focus on writing instruction. The teacher participants taught in schools in separate districts: two in urban districts, two in suburban districts, and one in a rural farming community in a small rural district. Thus, the PLC was created outside of each teacher’s school site. Teachers had administrative support to try new writing strategies in their classrooms.

Teacher participants conducted needs assessments in order to set goals for each lesson study. They analyzed student work samples and test score data in addition to observing in their own classrooms to determine areas in need of writing instruction improvement. Teachers taught each lesson and were observed by their teammates. Following the lesson, the study team debriefed, analyzing student learning outcomes of the lesson and revising the focus for the next lesson. This process was followed over the two-year course of the study.

Pella (2012) found that when teachers were given opportunities to learn through collaboration, “they sought to design parallel activities for their students” (p. 176). Additionally,

the teachers came to see themselves as change agents in their own teaching practices, in their students' learning, and in the redesign of professional development for themselves and their colleagues. Because "teachers introduced and negotiated a wide variety of resources from contrasting philosophical, practical, and research paradigms" (p. 173), they created the opportunity to develop their own writing pedagogy within a "safe, open, and trusting learning community" (p. 174). These findings are in line with the literature on the development of teacher PCK through experience (Hashweh, 2005; Park & Oliver, 2008a) and with the literature on professional development as a way to improve instruction and student learning outcomes (Darling-Hammond, 2009; Schilling, 2008).

PLCs and Content Knowledge

McClure (2006) conducted a qualitative research study in order to explore middle school ELA teachers' beliefs about teaching grammar. The six teachers were from three different middle schools in a suburban school district in the southeastern United States, and five of the six teachers had five years or less of teaching experience. Three of the teachers were first- or second-year teachers. The middle schools had diverse demographics and socioeconomic statuses.

McClure (2006) created a professional learning course for the school district, and the ELA teachers participated in the course. The course used the NWP's model for professional development based on the creation of a professional learning community. Within this PLC setting, the ELA teachers sought alternative methods to teaching grammar traditionally, most often within authentic writing contexts. Each developed one or more lessons on teaching grammar in the context of writing to share with the group. The group then analyzed the

lesson based on its effectiveness. The NWP promotes a “teachers teaching teachers” approach to professional development that McClure used in teaching this course.

McClure (2006) found that at least one of the participants learned more about grammar through teaching it to students. This finding coincides with research on PCK development in which teachers develop PCK through experience (Cochran et al., 1995; Hashweh, 2005; Park & Oliver, 2008a). Another finding of this study is that the teachers’ beliefs about teaching grammar stem from their own experiences in learning grammar, which coincides with Grossman’s (1990) assessment of pre-service teachers’ PCK development.

McClure (2006) also found that “By sharing their ideas, they [the teacher-participants] built each other’s confidence and became a support network for each other” (p. 121). McClure further noted that all of the teacher-participants said that they needed a stronger sense of community among ELA teachers for sharing resources and knowledge. Additionally, the teachers wanted time to develop the expertise needed for teaching innovative ideas about grammar and writing, and they wanted more opportunities to learn with other teachers. These desires are in line with Darling-Hammond’s (2009) position on teacher professional development. The teachers also reported feeling a sense of camaraderie with other participants instead of the isolation they felt in their classrooms, which promoted the sharing of innovative and creative ideas, giving teachers confidence to try new methods.

Conclusion. The research studies presented here described ways in which ELA teachers collaborated in some form of professional learning community in order to improve their teaching practices and influence student learning. The results fit with the discussion of literature in previous sections related to teachers’ PCK development, teachers’ professional

development, and professional learning communities in general. Furthermore, the results highlight the broad areas of formal assessment, teacher efficacy, teacher inquiry, and content knowledge. The contexts of the research studies also relate to the contexts of the current study including setting, teacher-participants, and structure of Murray Middle School.

Chapter Summary

Shulman's (1986, 1987) theory concerning PCK framed this study. The research shows that PCK is personal, private, and is developed primarily through teaching experience and reflection. PCK also encompasses knowledge of difficult content, an awareness of student comprehension, and the most effective strategies to overcome student misunderstandings. PCK develops further as teachers gain more knowledge of how to assess student learning in their content area. The NCTE (2006) *Guidelines* establish what ELA teachers should know and be able to do when they finish a teacher education program and further guides teacher PCK growth through inservice training and professional development throughout their careers.

The research on professional development promotes collaboration, shared knowledge building, and inquiry. Meaningful professional development is supported by administrators and is connected to specific content, student learning, and school improvement initiatives. Effective professional development is sustained and influences teacher practice, encouraging inquiry and reflection. NCTE (1994) developed "Inservice Education Principles" to guide the professional development of ELA teachers that include the important components of meaningful, effective professional development.

Research on PLCs establishes these groups as venues for improving teaching and learning outcomes by focusing on student learning, teacher collaboration, and achievement results. The research shows that PLCs have been useful in assisting ELA teachers in building their content knowledge, assessing student learning, and engaging in inquiry, in turn, promoting self-efficacy among teachers.

The next chapter establishes the research methodology for this study including the research design. Data collection and data analysis methods will be discussed along with the ethical considerations, subjectivity, validity, and limitations of the study.

CHAPTER THREE: METHODOLOGY

The driving questions for this study were, “How do ELA teachers experience PLCs as a form of professional development?” and “What were the affordances and limitations of participation in the PLC for these teachers to further develop their PCK?” I sought to discover through qualitative methods how these ELA teachers interpreted their experiences in the PLC, how they problem-solved for classroom and student needs, and how their experiences were reflected in their teaching practices.

The demands placed on teachers in public schools require that they stay abreast of research and developments in their field in order to expand and deepen their PCK and influence student learning. Therefore, it is helpful to understand the extent to which PLCs support the development of teachers’ PCK.

Rationale for Case Study Method

Given that this study addresses questions of “how” and “why”, I situated case study as the appropriate qualitative research design because this design focuses on how and why questions (Yin, 2014) and focuses on a contemporary event or case in a real-world context (Merriam, 2009; Yin, 2014). Merriam (2009) defines case study as “an in-depth description and analysis of a bounded system” (p. 40) and describes case study research as “particularistic, descriptive, and heuristic” (p. 43). Case studies are particularistic because they focus on a particular group, phenomenon, program, or event (Merriam, 2009). They are descriptive because the final product is a “complete, literal description of the incident or entity being investigated” (Merriam, 2009, p. 43). This design involves as many variables as possible and shows how those variables interact over a period of time (Merriam, 2009). Case

studies are heuristic because they can bring about new meaning, or they can confirm what is already known.

Case study research shares the same objective as qualitative research – the search for meaning and understanding (Merriam, 2009). The researcher collects data and extrapolates meaning from it through analysis. Observations, interviews, and my research journal provided the necessary data to produce the rich description needed for understanding the phenomena under study (Merriam, 2009).

I studied this case in its real-world context of the school and classroom (Merriam, 2009). Therefore, case study was the best-suited method for this research because I observed and interviewed a small group of middle school ELA teachers as “a case” to inform my research questions about how their PCK develops through their participation in PLCs as professional development. I selected this case because the literature reveals a real need to understand ELA teachers’ PCK development within the PLC environment. No attempt was made to compare this case to others in the school or district. This study adds to the research about PCK development and illuminates how PLCs might assist in PCK development.

Context of the Study

Sample

The “unique sample” (Merriam, 2009, p. 78) for this qualitative case study included three middle school ELA teachers. They were a unique sample because they were the only ELA teachers in this middle school. These teachers were invited to participate in this study because they comprised the ELA PLC in the lowest-performing school in their rural school district, according to standardized test data. This sample of ELA teachers was “the case” in

this qualitative study because they were the bounded system and met the “particularistic” criterion of case study design (Merriam, 2009) in that they were the only ELA teachers at this school – the particular case under study. A brief description of their teaching qualifications follows.

Tia, the sixth grade teacher. Warm and friendly with a sanguine personality, Tia⁴ seemed well suited for teaching sixth grade language arts, which she had done for the previous two years. She had a bachelor’s degree in secondary education and North Carolina certification in middle grades and secondary language arts.

Maribel, the seventh grade teacher. At the time of this study, Maribel⁵, the seventh grade ELA teacher and department chair, had worked at Murray Middle School for the past 13 years but not as a certified teacher. For the first eight years of her career, she was a non-certified teacher assistant in a remedial program at the school. Five years ago, she obtained a bachelor’s degree in middle grades education and North Carolina certification to teach middle grades language arts. She had been teaching ELA at Murray Middle School for the previous four years.

Batrice, the eighth grade teacher. Batrice⁶, a first-year North Carolina public school teacher, taught the eighth grade language arts. Maribel was her mentor teacher. Batrice was a lateral entry teacher with a bachelor’s degree in English, working toward certification in middle grades language arts. Her first teaching experience occurred the previous year when she taught English as a second language in a middle school in China. She had an air of

⁴ pseudonym

⁵ pseudonym

⁶ pseudonym

confidence and maturity as a young teacher. At Murray Middle School, Batrice coached cheerleading.

No other teachers in the school met the requirements for participation in this study because the study's focus was on ELA teachers. The three teachers provided useful information for understanding the research questions. Table 2 contains the teachers' demographic information – race, gender, years of experience, and grade level taught – and indicates the range of experience these teachers had, including the types of school settings in which they gained teaching experience.

Table 2 Study Participants: English Language Arts Teachers

Name*	Race	Gender	Years of Experience
Tia	Hispanic	Female	7 total (4 high school, 3 middle school)
Maribel	African-American	Female	13 total (8 as teaching assistant, 5 as certified teacher)
Batrice	African-American	Female	1 (in China)

**Note: pseudonyms replace teacher names*

These teachers brought a range of prior experiences and knowledge from different contexts to the current study.

Setting

According to state education data (NCDPI, n.d.a, NC School Report Cards section), Murray Middle School historically has been the lowest achieving school in Live Oak School

District in rural southeastern North Carolina. The overall reading proficiency in grades 6-8 in 2012 was 48.3% (NCDPI, 2012). The Title I school served a predominantly African-American and Hispanic population of 235 students from a community of low-income families, with 95% of students described as economically disadvantaged (AdvancED, 2013). Nearly half of the nineteen certified teachers were new to the school while 24% were beginning teachers (AdvancED, 2013).

School description. Murray Middle School was a segregated African American school prior to the 1960s. The school was old, but the classrooms were remodeled with tile floors and modern suspension ceilings. However, hallways and classrooms were still heated with the original radiators, and classrooms still had the original push-out windows. Classrooms had window unit air conditioners installed, and these ran even in fall and winter because the classrooms were stuffy from the radiator heat. Teachers struggled to speak above the noise of the air conditioning units when teaching.

Classroom descriptions. Tia's sixth grade classroom was lively and abuzz with active students. Tia seemed mother-like when teaching and interacting with these students. Her classroom was large with plenty of walking space around student desks, a filing cabinet, a teacher desk, a computer station, a table, and cabinets with a sink and long countertop at the back of the room. Tia had arranged desks in six groups of five or six students unless she administered a test. Then she arranged desks in rows.

Organized and structured, Maribel's seventh grade classroom ran like a finely tuned engine, and she taught from bell to bell, meaning that students had little to no time off task. Maribel appeared to be the confident, "take charge" teacher, directing students on what to do

and how to do it with no visible behavior issues from students in her classroom. She had arranged student desks in her classroom in a large rectangular horseshoe, open at the end where she stood to teach. Two overflow groups of four students were in the center of the horseshoe. The classroom was small and cramped with only necessities like student desks, a teacher desk, two computer stations, a small round table, and two bookcases.

Though young and inexperienced, Batrice took charge in her classroom, managing the rambunctious eighth graders as they entered her class after lunch. The classroom arrangement went through several phases as I observed from week to week. First, Batrice had arranged desks in six groups of five to six students each. Then she arranged them into rows about two weeks later. The desks remained in rows for the remainder of the observations, but the eighth grade group changed around week four. Batrice explained that the entire eighth grade had flipped its schedule, so the afternoon class that I had been observing became her morning class. The group I started observing in the afternoon had been her morning group before. She said this was a decision of the eighth-grade grade level PLC to explore how different students reacted in classes at different times of the day.

Data Collection

This study took place over a period of nine weeks. The primary data collection tools included

- two observations in the ELA PLC after school
- seven 90-minute classroom observations – one each week – in each teacher's classroom during instruction

- two focus group interviews – one at the beginning of the study and one at the end of the study, and
- two individual interviews with each of the ELA teachers – one at the beginning of the study and one at the end of the study – for a total of six individual interviews.

Data collection tools also included field notes that stemmed from interviews and observations. Observational case study uses observation as the main data-gathering tool and supplements with interviews and/or document analysis (Merriam, 2009). This research was an observational case study since observations of PLCs and classrooms were the primary data collection tools, and interviews were the supplemental tools.

Data collection and analysis occurred in three stages during this study. Stage One began the study. Stage Two covered part of the first grading period and part of the second grading period for this school district. Stage Three ended the study. This section is divided into three parts labeled Stage One, Stage Two, and Stage Three. The methods of data collection and analysis used during each stage are discussed in each section.

Stage One

Once the Institutional Review Board approved the research, I initiated the study. Stage One began the first week of the study and included acquiring permission from the superintendent of the district and the principal at the school to conduct the research, recruiting teachers at the school, and gaining informed consent. I contacted the superintendent via email explaining the purpose of my study and asking permission to conduct the study at Murray Middle School. Upon the superintendent's approval, I contacted the principal of the school, Janine Forester, and asked for permission to conduct this study at

the school. With Janine's approval, I met with two of the teachers after school on the first day of the study with the purpose of recruiting them to participate voluntarily in the study. I explained the research procedures I would use, the teachers' roles in the study, and the informed consent, and they agreed to participate. I contacted the third teacher via phone the next day, explained the research procedures and her role in the study as well as the informed consent, and she agreed to participate in the study.

Stage Two

Stage Two spanned weeks two through eight of the study. I interviewed the three participants, first, in semi-structured personal interviews and then, in a focus group interview. I also observed both in PLC meetings after school and in individual teachers' classrooms during instruction.

Semi-structured interviews. Case study research seeks to explore the meaning and understanding of participants' experiences (Merriam, 2009; Stake, 1995). Interviews are used because participants "define the world in unique ways" (Merriam, 2009, p. 89) and have observed or experienced something the researcher has not (Stake, 1995). The purpose of interviews in case study research is to uncover each participant's experience, not through simple yes or no questions, but through explanations or special stories (Stake, 1995). Because participants' experiences and the understanding they bring to the study are unique, individual interviews are useful for presenting these "multiple realities" (Stake, 1995).

With these ideas in mind, I used a semi-structured format for individual interviews. Semi-structured interviews include a certain set of questions that loosely guide the topic of conversation, affording participants some freedom to discuss issues of interest or importance

to them (Hesse-Biber & Leavy, 2011). The questions are used flexibly and in no pre-determined order (Merriam, 2009), allowing for natural conversation so that the researcher can explore new but related topics that may emerge (Hesse-Biber & Leavy, 2011). Merriam (2009) recommends using questions that ask participants about behaviors, experiences, opinions, and values as well as their knowledge of the phenomena under study. Background or demographic questions that are relevant to the research can also be helpful (Merriam, 2009).

Because the personal interviews were my initial entrance point in the research study, I developed interview protocols (see Appendix A) that allowed me insight into each participant's teaching background, that developed my understanding of how they experienced their PLC, and that prepared me for the classroom observations. Questions were open-ended to facilitate conversation. Probing questions emerged naturally when I felt that a response needed further clarification, but I followed the interview protocol consistently with each teacher. I scheduled interviews at each teacher's convenience and met in her classroom during her planning time. I recorded each interview using a handheld digital recording device and took notes on the interview protocol.

After each interview, I transcribed verbatim and gave a copy to the teacher for her review. I read and re-read each transcription, jotting notes in the margins and marking up the text with possible open codes (Merriam, 2009). These notes helped me know which aspects to focus on in the PLC and classroom observations. Next in the coding process, I created a word processing document (in Appendix E), inserting a matrix divided into rows for each interview question and three columns under each row – one for each teacher's response. I

read the interview transcripts and inserted each teacher's response to a question in the column under her name, so that I could see similar and different responses to each interview question. I recorded similar responses in the same row on the matrix, while different responses were recorded in a new row. I applied *in vivo* codes, or words the participants used (Creswell, 2013).

Focus group interview. A focus group interview is an interview with a group of people who have the most knowledge about the topic under study (Merriam, 2009). Focus group interviews are useful for identifying the important, meaningful experiences of participants in their day-to-day lives (Hesse-Biber & Leavy, 2011), making them especially suitable for case study. This type of interview is useful for gathering exploratory data (Hesse-Biber & Leavy, 2011). Data obtained through a focus group interview are “socially constructed within the interaction of the group” (Merriam, 2009, p. 94) because participants hear each other's comments and respond with additional insights triggered by the conversation. Unique data emerge in focus group interviews because participants explain themselves, question each other, disagree, and negotiate new thoughts and ideas that stem from the conversation (Hesse-Biber & Leavy, 2011). In this way, focus groups can give the researcher insights into the social life of the group, and the attitudes and assumptions of group members, that might otherwise be unknown (Hesse-Biber & Leavy, 2011). Such social insights can be useful in building a picture of these teachers as a team that is responsible for teaching all of the students in the school, thus creating a “story” from the group dynamic (Hesse-Biber & Leavy, 2011). Furthermore, the group dynamic could be especially useful for

exploring the “normative behaviors” that are mundane to the group but new to the researcher (Hesse-Biber & Leavy, 2011).

Knowing that a focus group interview could lend insight into the social life of this group of ELA teachers and help me understand them as a collaborative team, I invited them to participate. I developed open-ended general questions related to their experiences and collaborative work in the PLC (See Appendix B). Due to scheduling issues with the teachers, the focus group interview took place at the teachers’ convenience at the end of week three instead of during week one as I had intended. We met during teachers’ common planning time in an empty conference room at their school. This setting gave these teachers an opportunity to explain how they conduct their PLC meetings and to discuss their experiences in the PLC. This focus group interview assisted me in exploring the nature of the PLC, discovering the challenges and positive experiences within the PLC, and understanding how these teachers perceived that participation in the PLC impacts their collective teaching knowledge. This interview illuminated how PLC collaboration influences teaching knowledge, skills, and practices in the classroom.

I recorded the interview with a digital recording device. After the focus group interview, I transcribed it verbatim and gave a copy to each teacher for her review. As with the personal interviews, I read and re-read each transcription, jotted notes in the margins, and marked up the text with possible open codes (Merriam, 2009). These notes also assisted me in knowing which aspects to focus on in the PLC and classroom observations. Again, I created a word processing document (in Appendix F) and inserted a matrix divided into rows for each interview question and three columns under each row – one for each teacher’s

response. I read the focus group interview transcript and inserted each teacher's response to each question in the column under her name, noting similar and different responses to each interview question. I recorded similar responses in the same row on the matrix, while different responses were recorded in a new row. As with the personal interviews, I applied *in vivo* codes, or words the participants used (Creswell, 2013).

Observations. In this study, I took an "observer as participant" stance (Creswell, 2013; Merriam, 2009) during classroom and PLC observations. Merriam describes the observer as participant when the researcher's activities are known to the group but when those activities are secondary to the researcher's role as an information gatherer. This stance allows the researcher to become an insider to the group without directly participating in their activities (Creswell, 2013; Merriam, 2009).

Merriam (2009) notes, "observation makes it possible to record behavior as it is happening" (p. 119). She also says that elements to observe should be determined by the purpose of the research study, the theoretical framework, the problem under study, and the research questions. Because the purpose of this study was to explore teachers' experiences in PLCs and to discover the affordances and limitations of PLCs to develop teacher PCK, it was helpful to observe teachers in both the PLC and the classroom settings to understand the extent to which PLCs support the development of teachers' PCK. Merriam states, "No one can observe everything" (p. 120). Therefore, Creswell (2013) recommends using "observation protocol" to guide observations just as researchers use interview protocols to guide interviews. I observed six elements including the physical setting; the participants; activities and interactions; conversation; subtle factors such as nonverbal communication,

unplanned activities, and even what did *not* happen; and the researcher's own behavior (Creswell, 2013; Merriam, 2009). All of these elements contributed to the larger picture of how the teachers experienced the PLC and how their PLC participation affected their PCK development as observed in the classroom.

PLC observations. In this study, these teachers met in two PLCs – a subject area, or ELA, PLC and a grade level PLC. At the onset of this study, I was aware of, and focused only on, the ELA PLC mandated by the school district since I was exploring the influence of PLCs on teachers' PCK development. Teachers in this district were required to meet in subject area PLCs for one hour after school on Wednesday each week. I observed these teachers conducting their ELA PLC work over the course of seven weeks by attending the meetings but not participating in conversations or activities. Through these observations, I wanted to understand how they experienced PLCs as professional development.

During these ELA PLC meetings, I did not use an audio recording device because sometimes others attended the meetings, such as the principal and the school district teacher recruiter, and I did not have their consent to participate in the study. I took notes in a researcher-created word processing document with a two-column table format (see Appendix G). At the top of the document, I noted the date, time, and who attended the PLC. In the left column, I wrote conversations verbatim and described PLC activities as they occurred. In the right column, I jotted my own thoughts or questions during the observation for later reflection. In this way, I observed and documented the PLC meetings as these teachers experienced them.

After each ELA PLC observation, I read and re-read the transcription, refining and clarifying for a thorough account of the PLC conversations and activities. In order to analyze these ELA PLC observations, I compared the topics of conversation and the activities of the group in the ELA PLC meetings with classroom observations and notes. I created a matrix (see Appendix I) with the teachers names in each of three columns and noted topics of PLC conversations in rows beneath their names. I analyzed each classroom observation and inserted classroom activities that corresponded with PLC conversations in the matrix under the teachers' names. I also noted on the matrix which classroom observation the data came from (e.g. observation 1, observation 2, etc.). In this way, I was able to see whether classroom activities corresponded with PLC conversations.

It is important to note that the ELA PLC met only twice during the seven weeks when I was observing, in spite of the district mandate for weekly sessions. Teachers met during the first and fourth weeks of this study. Outside influences interfered with the meetings because of teachers' duties outside the classroom. For example, Batrice, the eighth grade teacher, was also the cheerleading coach and was required to attend sporting events such as football games to supervise the cheerleaders. These games occurred immediately after school each week during football season, so oftentimes Batrice was unavailable to meet in the ELA PLC after school. Maribel, the seventh grade teacher, was the ELA chairperson and led the ELA PLC. Sometimes she was required to attend informational meetings at the district office, so she, too, was unavailable for some of the PLC meetings for this reason. Because some after school activities were spontaneous, such as Homecoming activities and baby showers, I

could not predict when teachers would meet in their ELA PLC as sometimes teachers made last-minute decisions to cancel the meeting.

The grade level PLC. About four weeks into the study, as I compared ELA PLC observations with classroom observations, I discovered that classroom instruction did not align with ELA PLC conversations. In other words, the ELA PLC did not appear to influence teacher knowledge of content nor teaching strategies for instruction.

I probed the ELA teachers about the seeming disconnect between the ELA PLC discussions and classroom observations, and they said that last year, the administrator mandated a grade level PLC in addition to the subject area PLC for all teachers at the school. The administrator, Janine, confirmed this information in follow-up personal communication. The focus of this study then shifted to include both types of PLCs. However, because I did not anticipate a second PLC, I did not have the consent of the other grade level teachers of the other subject areas nor IRB approval to observe this second PLC. Additionally, teachers discussed sensitive student data in the grade level PLCs – personal information that is not privy to the public. Therefore, the second personal interviews and the second focus group interview with the ELA teachers focused on grade level PLC activity in the absence of observations.

Grade level PLC rationale. Janine explained that Murray Middle School is the only school in Live Oak School District requiring both types of PLCs (personal communication, October 8, 2014). Her rationale for requiring both types of PLCs was that the two types serve different purposes. The subject area PLC focuses on content and instruction while the grade level PLC focuses on student growth and academic performance. She viewed both PLCs as

necessary, for without effective teaching, she believed there would be little student growth and academic achievement, while student growth and academic achievement are important indicators of effective teaching.

Janine's rationale aligns with AMLE's (2010) description of the middle school structure, consisting of interdisciplinary teams working with common groups of students. These teams essentially become learning communities focused on student achievement. AMLE suggests that subject area teachers should have regular times to meet to reflect on effective instruction. I imagined both PLCs at Murray Middle School as a metaphorical tapestry woven together and working in concert.

Classroom observations. I observed in each teacher's classroom for seven weeks to explore whether goals and objectives created and set in the ELA PLC translated to classroom lessons and interactions with students, indicators of PCK development. I observed in their classrooms one day each week for a total of 21 observations – 7 per teacher. As this school adheres to the middle school block schedule, I observed the same ELA classes for 90-minute class periods (blocks) each week to see whether there was a progression in teacher PCK development. In other words, I wanted to note any changes over time and felt this would be possible if I observed the same class each week. I consulted the school schedule and decided to observe Maribel's seventh grade class first, then Tia's sixth grade class, and finally Batrice's eighth grade class, ending the day in the ELA PLC after school.

I collected field notes in a researcher-created word processing document (see Appendix H) in much the same way as the document for the PLC observations. I created a two-column matrix and recorded the teacher's name and grade level, the date, and the time at

the top. In the left column, I recorded classroom activities as I saw them happen and transcribed conversations verbatim as much as possible, time stamping (noting the time) often. I described the classroom settings, recorded student-teacher interactions, noted classroom activities and assignments, described any teaching strategies that I observed, and noted instances when I observed PCK. In the right column, I wrote my own thoughts, reactions, and questions as they arose during the observations. These notes helped stimulate recall when I re-read immediately after the school day, and I was able to write a more thorough account of what I had observed. When questions and thoughts arose during the re-read, I made notes and followed up the next week both in the classroom observations and with clarifying questions to the teacher and sometimes to the principal.

I analyzed the classroom observations by re-reading and jotting notes in the margins. I color-coded likenesses across the three classrooms. As mentioned previously, I also compared classroom observations with ELA PLC observations to see whether topics of ELA PLC conversations and activities emerged in the teachers' classrooms (see Appendix I). I noted key words in the ELA PLC observations and searched the classroom observations for information that fit the key words. The key words eventually became open codes, and I applied *in vivo* codes to words the participants used. Color codes became categories.

Stage Three

Week nine marked the end of the study. During this week, I conducted semi-structured individual interviews with each teacher and a focus group interview with the group of three ELA teachers. I scheduled the personal interviews at each teacher's convenience, and we met in her classroom during one planning period in the school day. The focus group

interview took place on the last day of the study in the conference room of the school at the teachers' convenience.

Semi-structured interviews. The initial purpose of the semi-structured individual interviews was to ask reflective questions (see Appendix D) about these teachers' lesson planning and classroom decision making in relation to the ELA PLC. However, I discovered during week four that these teachers also met in a grade level PLC each week. I recognized a disconnect between teachers' responses in the first personal interviews and classroom instruction and activities. Therefore, I wanted to understand how these teachers experienced the second PLC and how participation in it might have influenced their PCK. Due to the new discovery of the second PLC, the purpose of the semi-structured personal interviews became to explore the activities that were happening in the second PLC in the absence of my personal observations and to understand how those activities influenced teacher knowledge and classroom instruction.

I could not observe the grade level PLC because teachers shared sensitive student information (e.g. classroom modifications, student behavior plans, individual education plans) that was not accessible to me as a researcher. Therefore, I wanted to understand how teachers conducted this PLC meeting in order to determine how they experience it, and I wanted to explore how decisions made in the meeting affected teaching practices. Questions focused on the activities and thought processes of these teachers during the second PLC meeting. I used a digital recording device to capture the conversations and took written notes on the researcher-created interview protocol.

After each interview, I transcribed verbatim and gave a copy to each teacher for her review. During analysis, I read and re-read the transcription, jotting notes in the margins and underlining key words. These key words became open codes. Then, I created a word processing document with a matrix like the one used to analyze the first interview (see Appendix J). I inserted each interview question into the matrix and added three columns below each question – one for each teacher’s response. Responses that were the same for each teacher were placed in the same row under the question, while responses that were different for each teacher were placed in a new row under the corresponding question. This organizational technique assisted in the comparison and contrast of teachers’ responses.

Focus group interview. The purpose of the final focus group interview was to ask reflective questions (see Appendix C) about the teachers’ experiences and goals in both of their PLCs. The focus group interview occurred on the last day of the study at the teachers’ convenience in a conference room at the school during the school day. I used a digital recording device to capture the collective conversation and wrote notes directly on the interview protocol. Afterwards, I transcribed the interview verbatim and gave a copy to each teacher for her review.

During analysis, I used the same type of word processing document as for all other interviews, inserting the interview questions into a matrix with the questions in rows and columns with each teacher’s response underneath the corresponding question (see Appendix K). Again, I put like responses in the same row and different responses in a new row under the question. Key words became open codes, and this organizational technique assisted with comparing and contrasting teachers’ responses.

Researcher journal. Hesse-Biber and Leavy (2011) recommend keeping a research journal as reflective practice in research. Research journals can be helpful for reflecting on the research project as it unfolds (Hesse-Biber & Leavy, 2011; Merriam, 2009). As a research study proceeds on a weekly basis, the researcher may discover patterns of information within the reflective journal that can inform the study (Hesse-Biber & Leavy, 2011). A research journal is a valid way of noting the researcher's emotions, biases, attitudes, and values that may affect the study (Hesse-Biber & Leavy, 2011; Merriam, 2009).

My research journal was an important source of data, and I used it throughout the study, not just as a reflective tool at the end. These “everyday” notes (Hesse-Biber & Leavy, 2011) included descriptions of the setting, particular interactions I observed, and reflections on how I was affected and how I influenced the setting and participants. My researcher journal emerged as notes, memos, questions, and thoughts written on each interview and observation. These elements helped guide the direction of the PLC and classroom observations each week. Notes and questions I jotted down after interviews, observations, and interactions with the teachers each week became points to follow up on site the next week. In this way, I was able to follow my research as it unfolded, as is the “emergent” and “flexible” nature of qualitative research (Merriam, 2009).

Data Analysis

Data analysis is the process of making meaning from the data (Creswell, 2013; Merriam, 2009) and organizing it into categories or chunks of similar information to find patterns. Technically, data collection and data analysis should occur simultaneously in the qualitative research process (Creswell, 2013; Merriam, 2009). Merriam (2009) describes the

data collection and data analysis process as “recursive and dynamic” (p. 169). In other words, researchers should gather data and begin analyzing as soon as possible rather than waiting until the end of the study to begin the analysis. Otherwise, the process could get overwhelming from the sheer amount of data available through qualitative inquiry.

In the previous section, I described my initial data analysis process as I gathered information from each interview and observation. Throughout this study, I transcribed interviews and observations as soon as possible upon leaving the school each day. By doing so, I was able to reflect more easily on observations I made, questions I generated, and information I gathered. I analyzed the data as early and as often as possible so that I could follow leads that emerged during the study. I reviewed the research questions regularly to ensure that the data collected addressed the questions posited by the study.

Once I collected data, I organized it to make it manageable (Merriam, 2009). I used open codes, applying descriptive labels to the data in order to organize it easily into meaningful units (Creswell, 2013; Hesse-Biber & Leavy, 2011; Merriam, 2009). Generally, for each type of data, I used color-coding and spreadsheets to organize bits of information into broader categories. I color-coded all classroom observations using key words from PLC observations to illuminate information that emerged from non-color-coded parts of the classroom observations. All non-color coded areas became a major category as well (see Appendix L).

I used a constant comparative analysis method (Glaser & Straus, 1967) to analyze all forms of data collected in this study. Constant comparative analysis involves looking at the data and determining likenesses and differences in it (Merriam, 2009). In this way, broad

categories emerged from the open codes, and themes developed. I wrote the broad categories onto a large sheet of poster paper and connected those categories that were related. Then I was able to see three major themes that emerged from the data to address the first research question, “How do ELA teachers experience PLCs as a form of professional development?” I used the same poster paper process to discover the themes addressing the second research question, “What were the affordances and limitations of participation in the PLC for these teachers to further develop their PCK?” Three themes emerged for potential affordances, and five themes emerged for limitations. Coding helped to reduce the data into larger themes and assisted with making sense of the data so that the research story emerged (Hesse-Biber & Leavy, 2011). Findings for the study emerged from the raw data collected during observations and interviews.

Validity

Trustworthiness in a research study is one of the most important issues researchers must address. Trustworthiness refers to the validity, reliability, ethics, credibility, and generalizability of the research (Hesse-Biber & Leavy, 2011). This study included validation strategies suggested by Creswell (2013), Shenton (2004), and Merriam (2009): the use of well-established research methods; triangulation; rich, thick description; member checks; and clarification of researcher bias through a subjectivity statement. Using these research strategies, I believe I have given a thorough and accurate account of these teachers’ experiences participating in PLCs as professional development and of the affordances and limitations for the development of these teachers’ PCK within these PLCs.

Well-established research methods. When researchers employ methods of data collection and data analysis particular to their field of research (e.g. qualitative case study, etc.) and which have been used extensively by other researchers in the field, they achieve a level of validity for their research (Shenton, 2004). I collected data through interviews and observations and then used the inductive process for analyzing data and labeling codes. These are well-documented procedures in the literature about qualitative research methods. I consulted several researchers' publications on qualitative research methods (e.g. Creswell, 2013; Hesse-Biber & Leavy, 2011; Merriam, 2009; Stake, 1995) in order to conduct and write this research study.

Triangulation. Triangulation occurs when researchers document codes in different sources of data (Creswell, 2013; Shenton, 2004). When I found similarities in coding across all transcribed interviews, observations, and my research journal, I triangulated the data, which provides validity for the findings.

Rich, thick description. Creswell (2013) stated that thick description means, "The researcher provides details when describing a case or when writing about a theme" (p. 252). In this way, readers are able to transfer the research information to other situations in order to determine if findings are applicable and transferrable (Creswell, 2013; Shenton, 2004). Because I wrote detailed descriptions of the theoretical framework and research design, the participants, the setting, the data collection methods, and the data analysis methods, I provided a context for readers to transfer the methods and findings to other situations in which they may be applicable. Hence, the validity, credibility, and trustworthiness of this study increased through the thick description.

Member checks. Member checks occurred as I shared emerging findings with the teachers for their validation (Merriam, 2009). I also shared all interview transcriptions with participants as a form of member checking.

Clarifying researcher bias. By writing a subjectivity statement, or statement of bias, assumptions, and experiences, researchers clarify their position in the research study (Creswell, 2013; Shenton, 2004). My subjectivity statement follows.

Subjectivity Statement

Perhaps the most important consideration for qualitative research is reflexivity – reflecting on one’s own position in the research setting (Creswell, 2013; Hesse-Biber & Leavy, 2011). Rather than denying subjectivity, qualitative researchers embrace and rely on subjectivity in order to understand the participants’ motives (Stake, 1995). Researchers realize that their own experiences and perspectives influence their interpretations of the information they gather in a study (Creswell, 2013; Stake, 1995).

My own teaching experience in the Live Oak School District prompted my interest in this present study. I taught for five years as a middle grades ELA teacher and felt that my experiences in professional development sessions offered by the district and my participation in professional learning communities were less than favorable for enhancing my PCK. My experiences provided a base from which to conduct the present study.

Additionally, my background as a middle grades ELA teacher with a master’s degree in literacy influenced my interpretation of the data. I found it difficult to watch these ELA teachers administer a large number of assessments, teach using worksheets, and require

middle school students to copy notes for much of their class time. Many times during the classroom observations, I wrote in my research journal that I did not observe “teaching.”

Limitations of this Study

Qualitative research has limitations as do all forms of research. Because the researcher is the primary data collection instrument and conducts the analysis, qualitative case studies are subject to the researcher’s interpretations and sensitivities (Merriam, 2009). The amount of description, details, and depth depend entirely on the researcher (Stake, 1995). Therefore, it is crucial that the researcher practice high ethical standards. Researchers’ awareness of biases and subjectivities is equally important, and they must make these known (Merriam, 2009).

The case study method is limited more by generalizability than any other research method because it usually investigates single units (Merriam, 2009). This study focused on three middle school ELA teachers as the single unit of study. These teachers represented one school district in one county in one region of a single state in the United States. Results from this study should not be generalized to all inexperienced teachers or to all professional learning communities. However, results of this study may be useful to those who are interested in developing teachers’ PCK through participation in PLCs as professional development.

Ethical Considerations

Prior to conducting this study, I followed the North Carolina State University Institutional Review Board’s (IRB) protocols for research. I obtained written consent from each participant and explained that participation was voluntary. I also secured permission to

conduct the study from both the principal and the school district superintendent. To each party, I explained the purpose of the study, the activities to be engaged in throughout the study, and the data collection methods to be employed. To protect the identities of participants, students, the school, and the school district, pseudonyms were used. “Murray Middle School” and “Live Oak School District” are pseudonyms. All personnel names are pseudonyms as well. I proceeded with the study only with IRB approval.

CHAPTER FOUR: FINDINGS

To answer the research questions, “How do ELA teachers experience PLCs as a form of professional development?” and “What were the affordances and limitations of participation in the PLC for these teachers to further develop their PCK?” I collected and analyzed data from focus group interviews, individual interviews, PLC observations, and classroom observations. Themes emerged from these data sources.

Teachers’ Experiences in PLCs as a Form of Professional Development

Concerning the first research question, regarding teachers’ experiences participating in the PLCs, three major themes emerged. Findings indicated that these ELA teachers experienced an underdeveloped, underutilized content area PLC. Secondly, a disconnect existed between the ELA teachers’ perceptions about participation in PLCs and change in practice. This theme could be an indicator that the ELA PLC in its present form was not influencing teacher PCK. Finally, these teachers experienced an imbalance between data collection and content teaching in the classroom. Teachers exhibited an over-reliance on collecting student achievement data.

At the onset of this study, I was aware of, and focused only on, the subject area PLC mandated by the Live Oak School District. However, during the initial personal interviews, the ELA teachers told me that they met in two PLCs – a subject area PLC and a grade level PLC. Since DuFour (2004) asserted that PLCs could improve instruction, I felt that the subject area PLC, focused on content and instruction, would offer the best support for developing these teachers’ PCK. However, because these teachers met in two different PLCs, I expanded the focus of the study to include both types of PLCs.

A Description of the Professional Learning Communities at Work™ Model

These ELA teachers collaborated within DuFour and Eaker's (1998) Professional Learning Communities at Work™ model. The structure of this model revolves around the creation of a collaborative team whose improvement hinges on team learning (DuFour & Eaker, 1998). In this model, DuFour and Eaker distinguished "team building" from "team learning." Team building, according to DuFour and Eaker, involves "creating courteous protocols, improving communication, [and] building stronger relationships, or enhancing the group's ability to perform routine tasks together" (p. 27). On the other hand, team learning involves "continuous improvement processes" (p. 27), including collaborative inquiry. Additionally, improvement in student learning within this model relies on assessing student learning through common formative assessments and improving instruction to meet the needs of students who need additional help in learning. Figure 2 illustrates the main components of the Professional Learning Communities at Work™ model.

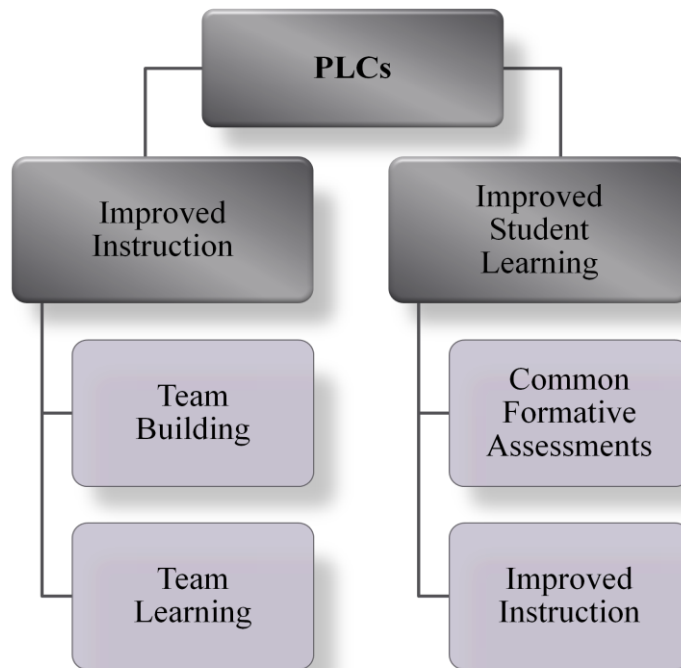


Figure 2. Components of the Professional Learning Communities at Work™ model.
(DuFour & Eaker, 1998)

Growth within this PLC model occurs through collaborative inquiry, or team learning. Team learning is described as the process of reflecting on and challenging current assumptions, beliefs, and practices; sharing insights from these reflections; planning action steps toward improvement; and implementing the action plan. Once the inquiry cycle is completed, members analyze the results of their actions and begin the process again. DuFour and Eaker (1998) believe that collaborative inquiry “enables team members to develop new skills and capabilities, which in turn lead to new experiences and awareness” (p. 26). New awareness begets changed attitudes, leading to changes in the organization’s culture because

members are open to continuous learning in order to improve. Figure 3 depicts the team learning component of the PLCs at Work™ model.

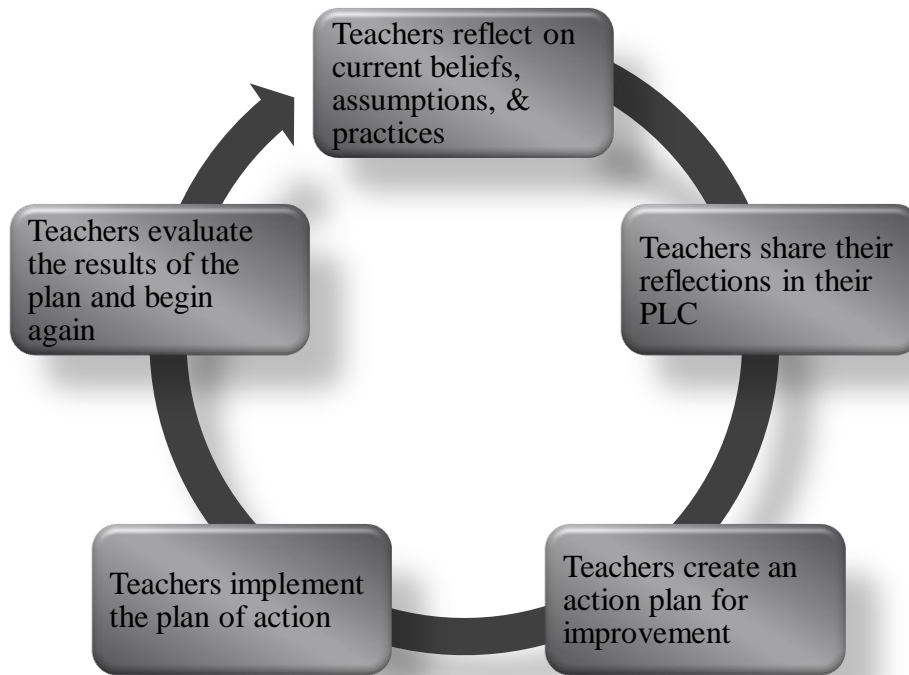


Figure 3. Cycle of collaborative inquiry within the PLCs at Work™ model. Adapted from DuFour and Eaker's (1998) Professional Learning Communities at Work™.

Collaborative inquiry promotes an action orientation in the PLCs at Work™ model. Thus, members of these PLCs are willing to experiment with and test new and existing theories, using the results to improve skills and knowledge continuously while simultaneously working toward the shared values and mission of the PLC. DuFour and Eaker (1998) stated that the effectiveness of these PLCs should be evaluated based on tangible

results that demonstrate purposeful improvement. Because improvements are a team effort, PLCs at WorkTM focus on the team and not the individual.

An Under-developed and Under-utilized ELA PLC

The three ELA teachers in my present study seemed to have developed the team building aspect of the PLCs at WorkTM model but not the team learning. In other words, these teachers knew how to conduct and participate in PLC meetings. They created an agenda, set protocols, assigned roles for members, and took notes on their meetings, but they stopped short of collaborative inquiry.

Teacher background and training in PLC participation. The ELA teachers in this study had various levels of experience and training. Maribel worked at Murray Middle School as a teacher assistant for eight years. She became a certified ELA teacher five years ago. Batrice was a first-year teacher working toward certification. Tia previously taught high school for four years and worked at Murray Middle School for two years prior to this study.

In the initial personal interviews, I asked teachers to describe their training to participate in PLCs. Their responses revealed vastly different backgrounds in their preparation to participate in PLCs because their prior professional development experiences were diverse. The teachers' preparation included in-district training, in which Maribel participated in professional development provided by Live Oak School District; immersion, in which Batrice learned to participate in PLCs by actually participating in a PLC; and out-of-district training, in which Tia learned about PLCs in another school district prior to employment with Live Oak School District.

In-district training. Confident and articulate, Maribel shared in the first personal interviews that several years ago, teachers in the Live Oak School District received a binder (notebook) and a mandate from their principal that they would participate in PLCs. However, since PLCs were a new concept, Maribel said that teachers questioned what PLCs were, the purpose of the binder, and what participation in a PLC meant for them. According to Maribel, about a month after receiving the binder, all teachers in the county participated in a workshop at the school where they taught so that they could experience the PLC process firsthand. In the initial personal interviews, Maribel said:

They [the PLC trainers in the workshop] showed us step by step exactly what we were supposed to do and even so far as to having the norms and the things developed in the beginning of the process – the procedures and time limits and the preparation for the PLCs. A lot of times you tend to kind of get off [topic] and ramble [during meetings], [but] it [the workshop] pretty much gave you the guidelines for how to keep those conversations short and on topic.

Maribel indicated that teachers in the workshop participated in and practiced conducting a mock PLC meeting. She said that this helped them understand what PLCs were, the purpose of PLCs, how to use the binder, and how to stay on task when working in a PLC. She also stated that the initial workshop was “very helpful” because in prior teacher meetings, teachers simply guessed at what they should be doing in PLCs. Of the PLC process, she also said in the first personal interviews:

I don’t know what’s been done now to incorporate new staff, and that’s one thing that’s very difficult to do is get everyone up to snuff as far as the PLC process is

concerned, but you hope that some of the leaders can teach those who are just coming in and things like that.

Maribel suggested that since PLCs were a new concept for all teachers in the district before the workshop, the school district's concerted effort to introduce everyone to PLCs was effective.

However, Maribel seemed unsure of how new teachers in the district are introduced to the PLC process since the school district presently does not offer a formal PLC workshop. She said that as the ELA chair, she directs the subject area PLC and coaches new ELA teachers on the PLC process at Murray Middle School. She does this through their formal participation in PLC meetings and through informal conversations with them about important PLC information on occasion.

Immersion training. Since this is her first year of public school teaching, Batrice said that she had no prior PLC training except participation in collaborative groups in her college program. She indicated that Maribel has helped her learn the PLC process since she is Batrice's mentor teacher. She described her initiation into PLCs at Murray Middle School as an immersion experience. In the first personal interviews, when I asked how she was prepared to participate in PLCs, she said:

College prepared me to know how to talk and converse and add to conversations in PLCs, but I didn't have specific training on what happens in PLCs. I'm learning by actually being in it. I guess being in the [school] environment, I kind of adapted [to the PLC process] from [my] college [experience], working in groups and having to work with others.

Batrice was unavailable for one of the two after-school subject area PLC meetings due to coaching cheerleaders at the middle school ball games. However, she said that she and Maribel occasionally meet informally during the school day to discuss subject area PLC information.

Out-of-district training. Tia, the sixth grade teacher, learned to participate in PLCs in another school district prior to teaching at Murray Middle School. She has taught for seven years in total as a certified teacher. Initially, Tia taught English at Central High School in nearby Unity County for four years. During those four years, she learned about PLCs and received training from that neighboring school district to participate in PLCs. She did not elaborate on the type of PLC training that she received at her previous school but said that she brought that training and prior knowledge of PLCs to her current position.

Tia shared about her current PLC training at Murray Middle School in the initial personal interviews, saying:

Whenever I got here [Murray Middle School], I actually went through the English Department chair [Maribel]. She told us [in the first meeting] what would go on – the norms of a PLC – and they were very similar to what I experienced at the high school. She told us what days we would meet, what things we would discuss; she also gave us some handouts to guide our questions and the whole thought process of what a PLC is.

Tia's response corroborated both Maribel's and Batrice's accounts of how new teachers are coached to participate in PLCs at Murray Middle School.

Four weeks into this study, teachers had met in only one formal subject area PLC meeting, which I observed. Outside factors severely hindered these teachers from meeting in their content area PLC.

ELA PLC meeting issues. Teachers held the subject area PLC meetings in Maribel's classroom on Wednesdays from approximately 3:30 p.m. until 4:00 p.m. I wondered why the meetings were shortened considering the district mandated one-hour meetings. It is important to note that this study lasted nine weeks, and I observed at the school every Wednesday for seven of those nine weeks. However, for the duration of this study, teachers met in the subject area PLC only twice – the first week and the fourth week.

The school district required subject area PLCs to meet for one hour after school (Janine Forester, personal communication, October 8, 2014), but there were several logistical reasons that prevented teachers from holding a formal PLC meeting every Wednesday. One week, the district released students from school at 11:30 a.m. so that teachers could attend countywide professional development mandated by the district. Another week, Murray Middle School held professional training about technology use for all teachers after school. Still another week, Maribel went to the district office at the last minute, and cancelled the PLC meeting. Two other meeting cancellations were due to after school social events – the homecoming football game and a baby shower for a teacher. Tia commented on this in the initial interviews saying, “It’s been a little rough because sometimes we have other meetings.” Maribel explained in the first focus group interview:

We have a small faculty, and it’s very difficult for us to always meet exactly when we say we need to meet because we’re on different committees. We have several

different committees or meetings going on all the time, so it kinda puts a strain on us as a group.

By contrast, these teachers reported meeting in their grade level PLCs every week during a common planning time with other grade level teachers from other content areas. The grade level PLC met during the school day when outside factors would have had the least influence on a PLC meeting. This PLC meeting time could possibly reflect the district and/or school priorities. In the second personal interviews, Batrice said:

With the grade level PLCs, they're implemented during the day time and during our planning period, you don't have a choice but to be there. It's during school hours, so you don't have other obligations after school or anything like that.

Tia reported in the second personal interviews that her grade level PLC met every Tuesday from 1:45 p.m. until 3:15 p.m., a full hour and a half.

PLC meeting protocols. Though these ELA teachers met only twice in their content area PLC, they followed the PLCs at WorkTM principles accurately for effectively managed meetings. DuFour and Eaker (1998) describe this as the team building aspect of PLCs.

DuFour and Eaker (1998) established principles for effective collaborative teams of teachers to follow. They said that teachers should participate in “effectively managed meetings with clear operational norms or ground rules, agendas developed with input from all, defined roles for members, and minutes to provide continuity” (p. 121). Combined, these elements represent the team building aspect of PLCs at WorkTM described previously. These principles were evident in the ELA PLC observations and in the personal interviews.

In the first personal interviews, teachers were asked to explain what a new teacher could expect to happen in the ELA PLC. Maribel and Tia both explained that Maribel led the ELA PLC meetings. They also reported that the PLC members created norms, or ground rules, that governed every meeting. Norms included rules such as being on time, staying on topic during conversations, and respecting others' opinions. Maribel and Tia also said that members followed a collaboratively developed agenda, and each member chose a particular role such as recorder, timekeeper, and discussion leader for active participation in the PLC. In Maribel's words:

I have some mentees that I work with and they were new teachers, and I had to introduce them to the PLC process. With that being said, I actually had to explain, this is what this [PLC] is gonna be about, and this is what we're gonna do. And they needed to know, this is gonna be your role, or what role would you like? If you wanna be the recorder or if you wanna be the timekeeper, or if you wanna be, whatever role that you take, and of course, you have a voice because that goes into our group norms. Those [norms] are just our rules. You know, we need rules. So, our rules are to be on time, to respect others' opinions, and to stay on topic.

Maribel and Tia reported that teachers send topics for the agenda to Maribel via email. According to Maribel, the most important items on the agenda are those required by their administrator and the district's K-8 curriculum coordinator. In both of the PLC meetings that I observed, Maribel presented an agenda to each member of the group at the start of each meeting. Maribel took on the role of discussion leader, Tia was the recorder, and Batrice was the timekeeper. Maribel stated:

Since I'm the grade level chair, I create an agenda first. The agenda is based on things that I know we need to be able to present as far as our grade level. [And] since I'm the facilitator, I generally take the notes, but as far as timekeeper and things, we all have our roles in our PLC, but it is very similar to the department PLC.

First PLC meeting: collegial conversation. In the first ELA PLC that I observed during the first week of this study, a copy of the agenda was not provided to me. Based on my observations and the topics discussed during the PLC meeting, I re-created the agenda (see Appendix M). The principal and the district teacher recruiter attended this PLC meeting in addition to the three ELA teachers. In the first personal interviews, Tia indicated that the principal attends many of their ELA PLC meetings. In a follow-up conversation, the principal confirmed that she does attend meetings whenever she is available (personal communication, October 8, 2014). The principal explained that since administrators are the instructional leaders of the schools, she feels responsible to attend as many ELA PLC meetings in her school as possible because she was an ELA teacher for 17 years in this district prior to becoming an administrator (personal communication, October 8, 2014). She said that the teacher recruiter was pursuing an administrative degree and attended the PLCs as part of her training. From my observation, the teachers did not seem distracted or nervous that the principal and the recruiter attended, and in fact, the teachers engaged them in the topics of conversation for the PLC.

At this PLC meeting, Maribel distributed a student data spreadsheet among the group. The spreadsheet had spaces for the names of each student that the teachers taught. In columns

beside the students' names were spaces for various assessment data teachers collected for each student. Teachers did not discuss this data spreadsheet.

Then, Maribel briefly shared a classroom management strategy that she referred to as "ABC cards" – a way for students to answer questions in class in lieu of raising hands. She offered a short explanation of ABC cards and gave teachers a handout of the strategy.

Shulman (1987) made a distinction between content knowledge, pedagogical knowledge, and pedagogical-content knowledge. According to Shulman (1987), ABC cards would be classified as part of a teacher's general pedagogical knowledge, or knowledge about classroom management strategies, and would not be part of PCK, or strategies used for teaching content. Tia said that she had participated in a Project-Based Learning workshop and would share some teaching strategies that she had learned from that workshop at their next ELA PLC meeting.

Next, teachers briefly discussed giving students more autonomy in the classroom and making their classrooms more learner-centered, but they expressed concern about "letting go" of control in the classroom. Other topics of conversation included tutoring after school, conferencing with students as a way to build relationships with them, and sharing literature about various colleges with parents since the school district's major focus is on college readiness. Teachers suggested having a college fair at the school on Parent Night, and the principal agreed. Tia said that with the other teachers' input, she would design a college fair booth for Parent Night. All of the ELA teachers said they would solicit various North Carolina colleges for brochures and information to distribute to parents on Parent Night. The principal affirmed the idea for the college fair.

At the end of the meeting, the principal mentioned that the school had a “blue box” as a resource for teachers to use for reading aloud and for teaching reading strategies, and Maribel shared a website for teachers to use for teaching novels. Teachers were collegial and open, readily sharing their knowledge with each other in the very relaxed atmosphere of this PLC meeting, but they did not deeply discuss any of the topics presented.

Second PLC meeting: Focus on assessment. Four weeks later in the second ELA PLC, Maribel and Tia were the only participants. (Batrice was not present because she was with the cheerleading squad at the after-school football game.) Again, an agenda was not provided to me. However, because Maribel and Tia used most of the time discussing their frustration with the students’ academic check performance, they did not follow the agenda.

Maribel and Tia discussed their frustration and surprise with their first academic check of the school year, an assessment they had administered the week before. An academic check provides summative assessment data about student progress to teachers. This conversation about the first academic check dominated the entire ELA PLC meeting. Both teachers stated that they were surprised because their students had performed poorly on the first academic check. Both also expressed frustration because students had not followed directions for the academic check. Furthermore, both felt that students took too long to complete the academic check as some took two days to finish. In this PLC meeting, Tia said:

Honestly, it was eye opening to all of us [sixth grade teachers] over there [on the sixth grade hall]. I had 29 multiple choice questions, but I didn’t make them [the students] do all the short answer. They chose three of the nine, plus my modifications had 15 multiple choice and one short answer. But overall, a lot of the kids didn’t finish. They

took one hour and 20 minutes on the first day and on the second day, 30 more minutes.

Both teachers shared with each other that some of their students daydreamed during the test and that students in their last classes of the day were very tired. Maribel said, “By the time they got to me, they were like, ‘how many questions are on your check [test]?’” The teachers attributed student tiredness to having tested in every subject all day and decided that their grade levels should stagger the academic check schedule next time.

The “academic checks” were intended to test student comprehension of content standards by requiring students to annotate text. Tia had introduced me to annotation in the first personal interviews, saying that teaching text annotation to students was a schoolwide practice. I had also observed the ELA teachers teaching annotation in their classrooms over the previous four weeks, and when I asked them about this strategy, they said that the principal initiated this teaching strategy. Figure 4 is an example of text annotation by a student on an academic check.

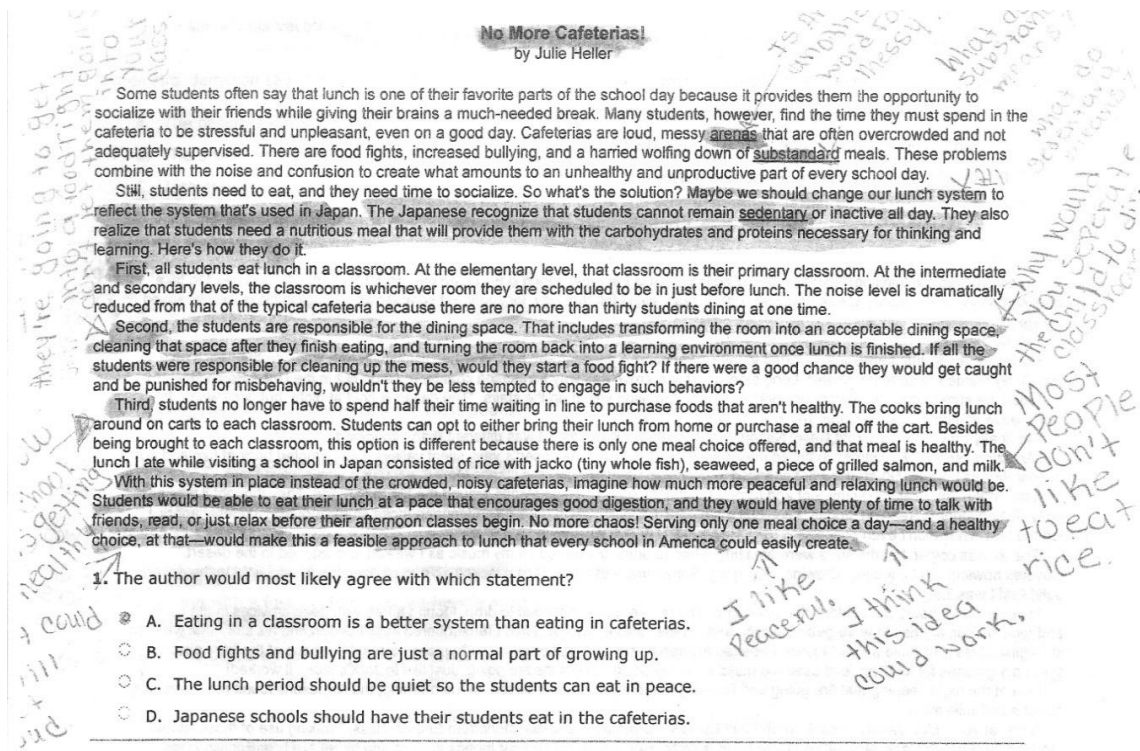


Figure 4. Student work sample of text annotation on an academic check.

Expressing frustration about poor performance on the academic check, Tia said, “They [students] did not annotate all the way through. They did [annotate] like the first three and then stopped, so next time I won’t make it [the academic check] as long.” Maribel stated that some of her students did not annotate on the academic check, and she expressed frustration with one student in particular, Carl, who had not annotated but had made 100% on the academic check. She said that he did not seem to think about what he was doing even though he got the right answers. Of the annotation process on academic checks, she said:

I know that [annotation] is an expectation for every class, but have you all [teachers in the grade level PLC] talked about that? Are they [the content area teachers] using it? It needs to be schoolwide, and I know Mrs. Forester [Janine] has said it, but students need to know in math, science, social studies, ELA. They might think ELA. No. No, it's not *just* ELA.

Tia explained that the sixth grade content area teachers had taught annotation but that they also use other teaching strategies as well. Of her students, she said, "I want all of them annotating, not just a few. I want to know that they take it seriously, thought it through, and given a thoughtful answer [on the academic check]." Maribel had told me in the first personal interviews that teachers use annotation on academic checks to build students' reading stamina and to teach them how to cite textual evidence in preparation for the state end-of-grade tests at the end of the school year.

Both teachers decided that in the next week's subject area PLC, they would share two of their own lesson plans for critique. At the end of the meeting, Tia asked Maribel if she gave students time in class every day to read. She replied that reading time "doesn't always work out."

ELA PLC Resources. Teachers neither discussed nor used outside resources such as books, journals, or other professional development literature during their ELA PLC meeting. When asked about the resources the PLC used or shared to improve teaching practice, Tia said:

Ms. Forester [the administrator] finds webinars and things like that for us because sometimes we don't have time to actually go online and search, so she's able to find some things and we meet as an ELA group; we've done that twice.

Batrice shared that all ELA teachers at the school were required to complete nine hours of training in Keys to Literacy, an online professional development resource aimed at improving students' literacy skills (Sedita & Neuenhaus, 2015, About Us). She also mentioned using LiveBinders (North Carolina Department of Public Instruction, n.d.c, LiveBinders), a resource for teachers to access teaching and learning strategies. According to the PLC at WorkTM model, teachers should enhance their teaching knowledge and skills by referencing outside resources.

The teachers were members of a local professional group. Both Maribel and Batrice were members of the Live Oak County Reading Association, the local reading association for the district. Neither elaborated on the support they received from this organization. However, none of the teachers were members of the National Council of Teachers of English (<http://www.ncte.org/>) , the International Literacy Association (formerly the International Reading Association <http://www.reading.org/>), nor the North Carolina Reading Association (<http://www.ncreading.org/>) – all professional organizations offering research-based literacy resources to teachers for enhancing instruction and learning in their classrooms. None of the ELA teachers reported using any professional research-based, peer-reviewed journals for teaching literacy in their classrooms.

Section summary. My observation of the PLCs as well as interviews revealed that the teachers were trained differently to conduct and participate in PLCs. The ELA PLC did

not meet regularly or for the allotted time, but teachers established norms and roles and had an agenda in place. They spoke only briefly about most topics except the academic check and expressed frustration with student annotation of text. The focus of the two subject area PLC meetings I observed seemed to be on collection of student achievement data, not content teaching or teaching strategies as one would expect from a subject area collaborative meeting. According to Shulman (1987), PCK includes the best representations, explanations, metaphors, analogies, and examples teachers use to teach content. Topics of conversation in the ELA PLC meetings were not focused on these elements of PCK. Teachers also did not use or discuss teaching resources during their PLC collaboration but reported in their individual interviews about discussing ELA resources for teaching in their classrooms during the PLC meetings.

Based on the data I collected, there appeared to be teacher collaboration. Team building, as DuFour and Eaker (1998) defined it, occurred, and it seemed that these teachers were well prepared to conduct and participate in PLC meetings. However, it is evident that these teachers did not engage in collaborative inquiry, the catalyst for change in PLCs. This may be due to inconsistent teacher perceptions about PLCs.

Inconsistent Teacher Perceptions about PLCs

DuFour and Eaker (1998) stated that collaborative inquiry, or team learning, drives their PLC model. They believed that collaborative inquiry helps PLC members develop new knowledge and skills. Because these teachers stopped short of collaborative inquiry, they did not seem to develop new knowledge and skills by using the PLC as professional development. However, they stated in their personal interviews and focus group interviews

that they felt that their participation in PLCs made an impact on their professional knowledge and skill growth. An inconsistency existed between what teachers told me happened in PLCs and what actually happened in the ELA PLC. The next section presents this finding.

PLC impact on teacher knowledge and skills. All three teachers reported that their PLCs provided a space for collaboration, including providing a support network and allowing for open communication. They stated that PLCs provided a space for sharing knowledge of teaching strategies, vertical curriculum (within grade level curriculum), horizontal curriculum (across grade level curriculum), and the student groups that they teach. All three responded that various aspects of PLC participation challenged them in different ways.

In her interview, Tia spoke about how PLCs supported her during her first year at this school. She said:

Whenever I first started teaching here, I was very limited in my thinking to think high school only, but then I had to realize I'm not at high school level anymore; I'm at middle grades level, so my PLC was really geared toward making my teaching more relatable to middle grades. If I didn't have my PLCs, some of the ideas I now teach with would have taken me much longer to discover. We try to make sure that we are doing the best for our kids and also aligning everything.

Batrice had similar sentiments about how helpful PLCs had been for her as a new teacher. In her interview, she said:

It [the PLC] helps you keep in contact with the ELA. I couldn't imagine being at this school without PLCs. It really keeps us on task and we kinda know where the kids are and what pace they're moving at. We have to be on top of students' progress.

All of the teachers agreed that they learned new ideas and learned more about their students when they met in the PLCs. For example, Maribel said that sharing ideas with other teachers “can give you better ways of getting information across to students.” She felt that PLC collaboration assists teachers in understanding the students they teach. She explained:

I know several conversations that we have had that a teacher might suggest or discuss something that they have had going on in their classes, and it may be just an idea or the light bulb comes on. Something that you might not have noticed, especially like if Tia or another teacher mentions, “Hey, that student learns this way,” that might be that one thing that helps me get the information across to that student. I might not realize it’s a personality issue many times, and you have to say that it’s important for teachers to know their students, but sometimes those conversations can help you find a better way of getting information across to the students and seeing what they really know.

Here, she pointed out the benefit of the PLC meeting for understanding individual students. Similarly, Tia explained, “I have learned some new things that I didn’t know but have now tried in my classroom. Veteran and new teachers may have new ideas that can work in your classroom.” She felt that PLCs enhanced what these teachers did in their classrooms.

The three teachers discussed several different ways that PLCs developed their knowledge and skills. Both Maribel and Tia, the more experienced of the teachers, agreed that PLCs challenged them to adapt instruction to their students. Both teachers said that keeping track of student data kept them focused on how to help the particular students in their classrooms by learning more about teaching strategies. Tia explained, “PLCs challenged

me to research more teaching strategies, more things that work in the classroom.” Maribel felt that PLCs led her to reflect on her current teaching strategies as well as new and more effective teaching strategies. Batrice said, “It [PLC] challenges me to learn more about my students and to learn more about my content.”

Although these teachers believed that PLCs challenged them to learn more about teaching strategies, this was never stated directly as the goal of the PLC meetings. It did not occur in the systematic and intentional manner that DuFour and Eaker (1998) recommend. During the two ELA PLC meetings that I observed, teachers did not share new teaching strategies, though Maribel shared a classroom management strategy. Teachers also did not reflect on current teaching strategies, discuss differentiating or adapting instruction for student groups, nor talk about how to teach particular students. Teachers simply did not engage in the collaborative inquiry DuFour described, and indeed, they did not have time since they met only twice in seven weeks and then, only for 30 minutes. It is possible that teachers *wanted* to reflect and challenge themselves because of the perceived purpose and goals of their PLCs, but they did not have time, did not meet often, and did not follow through.

ELA PLC Meeting Purpose and Goals. The lack of time to meet also impacted their ability to fully enact the goals of their meetings. Maribel and Batrice reported that the purpose of the ELA PLC was to understand the ELA content standards in the Common Core and to share teaching strategies that address those standards.

All three ELA teachers said that the main topics of conversation during these PLC meetings were ELA teaching strategies and student progress. Tia and Maribel spoke of

teaching strategies generically as “what works” and “what doesn’t work,” while Batrice said ELA teachers shared new reading methods, new teaching strategies, and new learning activities. Tia and Batrice stated that during PLC meetings, they discussed adapting lessons in order to help students in the English language arts, and Tia noted that they talked about re-teaching learning objectives when needed. Tia connected collaboration in the PLCs to helping her improve instruction. She said:

When we have our meeting, we do talk about certain things that will help us, that are beneficial to us, to our students, certain skills that we’ve learned, workshops that we’ve attended that maybe we all didn’t go to, but we just collaborate and we do try to help each other out as much as we can. We share our knowledge; we share what we’ve learned, what works, what doesn’t work, ‘cause sometimes you try stuff that doesn’t work. It’s good to pass that information on, or we tweak it and go with the flow sometimes.

All three teachers spoke of student achievement in terms of various testing data they collected in their classrooms such as benchmark scores, Accelerated ReaderTM, and academic checks. Only Maribel elaborated that teaching improvements are based on data gathered from these assessments.

From the ELA PLC meetings I observed, it was evident that teachers did not discuss content standards or teaching strategies that addressed those standards. It was also evident that the topics of the ELA PLC conversations were not about teaching strategies or student progress. Rather, teachers discussed topics superficially, such as the ABC strategy and the “blue box” resource for teaching during read alouds. They took no action steps toward using

the academic check data that they discussed in their PLC meeting to adapt lessons, re-teach objectives, or improve teaching. Neither did they share new reading methods, new teaching strategies, and new learning activities. Rather, they spoke extensively about their frustration with students' poor progress on the academic check. According to DuFour's model, PLCs could be a place where teachers systematically and intentionally challenge their current beliefs, assumptions, and practices; share their reflections in the PLC; plan action steps toward improvement; and, implement the action plan.

When asked about the ELA PLC goals for the remainder of the school year, both Tia and Maribel reported that organization was a primary goal. They felt the need for their group to have tangible products to share with the principal and with other teachers in the school during staff meetings. Both had reported in the first personal interviews that many times Janine or the district office personnel required outcome products from the PLCs such as presentations of student achievement derived from data or demonstrations of teaching strategies that increased student learning. Maribel expressed her frustration with the subject area PLC's organization and follow-through on these required products, saying:

As far as just having the tangible products, the actual assignments and the instruction and everything to go along with it, it's very difficult to keep up with those things, but it would be good to have that. I think that's something that we can look for, or attempt to do, as far as the subject area PLC.

Because the ELA PLC met so infrequently, Maribel said that follow-through on required PLC products was difficult while also managing myriad teaching duties. In addition, she was

the ELA department chair as well as the leader of the PLC. It seemed that she desired to be more organized in order to be more effective in her leadership roles.

Grade Level PLC Purpose and Goals. In addition to the ELA PLCs, all three teachers attended different grade level PLCs. When asked about the purpose and goals of the grade level PLC, the teachers reported that the purpose was for collaboration and communication – similar to the ELA PLC. Batrice elaborated saying that the grade level PLC kept all of the grade level teachers informed about individual students whom they taught in common. These ELA teachers also said that this PLC was for sharing best practices in teaching. Additionally, Tia and Maribel said that the grade level PLC allowed time for parent conferences. All agreed that the goals for the grade level PLC were the same as for the ELA PLC: to be better organized, to create tangible products to share with the administrator, and to follow through on topics of conversation in the PLCs.

Similar to the ELA PLCs, Tia and Batrice described grade level PLC meetings that followed the principles of effective meetings set forth by DuFour and Eaker (1998). These principles included meetings with norms, or rules, in place; an agenda; roles for members; and note taking. In addition, teachers said that the school nurse, guidance counselor, academically gifted teacher, school social worker, and an English as a Second Language/English Language Learner (ESL/ELL) teacher attended meetings as needed.

According to Tia and Batrice, in the grade level PLC teachers talked about data, lesson planning, and student behavior issues. For example, Batrice noted, “First thing we discuss is data, how the students are doing this year in regards to what they did last year as

far as test scores. Star tests, accelerated reading, kind of comparing scores to see how they're developing." About lesson planning, Tia said:

We also talk about lesson planning, and we try to do some cross curriculum stuff within our grade level. For example, there's times whenever I'm talking about stuff that the social studies teacher is talking about so we try to pull literature that's very similar, and we teach like that.

Both Tia and Batrice reported discussing strategies in their grade level PLCs for dealing with student misbehavior.

The discussions about student data and lesson planning lead into the third and final finding for this section – the overemphasis on data collection and the overuse of data. As the study progressed, it became evident that the majority of classroom instruction centered on data collection. I discuss this finding in the next section.

Overemphasis on the Collection of Student Assessment Data

Schools have implemented PLCs as a way to improve teachers' instruction and students' learning (e.g. DuFour, 2004; Feger & Arruda, 2008; Jaquith et al., 2011). Since improving instruction is one purpose of PLCs as research suggests, it is reasonable to expect conversations in a subject area PLC to influence the teaching of content in the classroom. In order to determine which classroom instruction was influenced by PLCs, I observed in the teachers' classrooms every week. The data collected through my observations did not align with the ELA PLC conversations nor with the teachers' responses in their initial personal interviews about how PLCs influence their knowledge and skills. Instead, it appeared that a disconnect existed between what teachers told me about how PLCs influence their

knowledge and skills, and the teaching behaviors I observed in their classrooms. The majority of class time that I observed focused on many forms of data collection rather than on teaching ELA content. According to the time stamps on my classroom observations, teachers devoted much more time to collecting student achievement data than to teaching content.

Below I describe the four main classroom activities I observed across all three classrooms, including text annotation, Accelerated ReaderTM, academic checks, and other teaching activities that did not fall within these three categories. Then I will discuss briefly three other forms of student assessment data that teachers used but did not directly collect in the classroom. Finally, I will discuss how teachers used the data they collected.

Classroom activities across all classrooms. I observed in each teacher's classroom every Wednesday for 90 minutes, the length of an instructional block at this school. I observed Maribel's seventh grade class during fourth and fifth periods, Tia's sixth grade class during sixth and seventh periods, and ended the school day observing Batrice's eighth grade class during eighth and ninth periods. Through my analysis of observation data, I uncovered a disconnect between the topics being discussed in the ELA PLC and the classroom practice. In other words, conversations I had observed in the ELA PLC did not seem to influence teaching practices in each classroom. This disconnect was made further apparent by teachers' reports that the purpose of the ELA PLC was to learn more about their content, learn new teaching strategies, and reflect on current teaching strategies in order to re-teach objectives, differentiate instruction, and influence student learning in the best way possible.

I observed teachers using annotation, Accelerated ReaderTM, and academic checks in every classroom throughout the study. These methods were used to assess students. In the first ELA PLC meeting, Maribel presented the ELA teachers with a spreadsheet she had created for data collection from various student assessments. Maribel explained to me that prior to the ELA PLC meeting, she informed teachers about this spreadsheet and that they would fill it in with data from each student in their ELA classes. Though the spreadsheet included spaces to record scores from multiple assessments, the three most prominent forms of assessment I observed in classrooms were annotation, Accelerated ReaderTM, and academic checks.

Annotation. By far, the largest amount of class time was devoted to students annotating text. In total, I observed the ELA teachers teaching annotation and students annotating text as classwork and on academic checks (a summative assessment) for five weeks out of the seven weeks of classroom observations. The teachers reported that annotation was a schoolwide strategy and that they graded students' achievement on classwork and on academic checks by whether or not they used annotation and used it correctly.

In a follow-up conversation with Janine (October 15, 2014), she told me that when she came to Murray Middle School a year prior to this study, she had 17 years of experience as a third grade teacher and two years of administrative experience at the elementary school level. She explained that the Common Core State Standards for English Language Arts (NGA, 2010) at the middle school level promotes close reading of complex text. She said she inherently knew that middle school students needed help comprehending text, and she

remembered a strategy called “unpacking text” that she had used as a teacher. She searched this term on the internet and found “annotating text,” which she said is a different term for the same strategy. Last school year, she used online videos to teach the ELA teachers how to annotate text so they in turn could teach their students. This type of collaborative inquiry fits DuFour and Eaker’s (1998) description of team learning that could happen in PLCs. However, during this study, I did not observe this type of collaborative inquiry during the PLC meetings.

During annotation, students highlight titles, subheadings, and other text features; underline key phrases and main ideas; draw boxes around unknown vocabulary; write notes in the margin; and markup text as a way to think about and explain what a text means (Gomez & Gomez, 2007). This practice slows down the reading process, forcing students to read texts more closely. Research supports annotation of text (e.g. Gomez & Gomez, 2007; Zywnica & Gomez, 2008).

In Tia’s class, I observed students reading informational articles and annotating them. Tia taught and re-taught annotation strategies in nearly every class I observed. She asked questions and made statements to prompt students to annotate such as “You’ll notice some bold type, put that in a box,” “Underline the names,” and “When we see vocabulary, what do we do?” Students also took various classroom assessments measuring their facility with annotating text passages, and then Tia went over the assessments, telling students what they should have annotated.

In Maribel’s class, students read fiction and non-fiction passages and annotated them in nearly every class period I observed. Maribel taught annotation extensively. She, too,

directed students with statements such as “Remember, when you are annotating, only key words, details, main ideas” and “Those words you don’t know . . . they should be circled.”

In Batrice’s class, students also read fiction and non-fiction passages and annotated them. I observed a lesson in which students annotated a poem on the SmartBoard® interactive whiteboard (Smart Technologies, 2015). As students annotated on the whiteboard, they wrote notes beside the poem and explained why the annotation helped them comprehend the text.

Accelerated Reader™. Murray Middle School emphasized extensive reading schoolwide through the Accelerated Reader™ program (Renaissance Learning, 2014), referred to in short as AR. In total, I observed AR reading activities in at least one classroom during every week of the research study; in Maribel and Batrice’s classrooms, I observed AR reading during five weeks out of the seven weeks of classroom observations. The focus seemed to be on reading volume rather than deep comprehension of text. The administrator explained that prior to her tenure at this school, AR was not a priority (personal communication, November 5, 2014). She further explained that reading volume was important for exposing students to many types and levels of texts for reading pleasure and for learning.

With this program, I observed that students checked out books from the school library and read them. Some teachers gave students time to read in class, but students were free to continue reading on their own time as well. In Maribel’s class, I observed that Maribel allowed students about 10 minutes for AR reading at the end of class when she finished teaching. Batrice allowed her students AR reading time during the first 20 minutes of her ELA class.

The AR program assigned point values to books depending on the text complexity and reading level. When students finished reading, they took a computer-based test on the book in class. The number of tests taken by each student varied based on student motivation and reading ability, book length, and text complexity, among other factors. The ELA teachers reported that students were allowed to take AR tests during any class at any time with a teacher's permission. The tests were compiled in an AR database through the AR computer program installed on the school's computers. When students took tests, the AR program assigned them a reading level based on their performance on the tests and the reading level of the book they read. Depending on the AR test score, students accumulated AR point totals and used these totals to set reading volume goals for themselves. Teachers recorded a quarterly AR average for each student on the data spreadsheet given to them at the ELA PLC meeting.

AR was so prevalent in this school that the academically gifted teacher, Mr. Montego⁷, kept track of the data for all ELA teachers and the students. He had even created three AR tests for non-fiction articles in an issue of *National Geographic Extreme Explorer* magazine (Rutter, 2014) and asked Renaissance Learning, Inc. (2014) to make the tests available for the students at this school.

Mr. Montego came into each ELA classroom for 30 minutes every week to teach "enrichment" activities. During these activities, he passed out student goal sheets on which students had set AR point goals. Mr. Montego had calculated their achievement of their goals each week. Students received new data sheets each grading period. Mr. Montego explained to

⁷ pseudonym

students that the data indicated how much they had grown and how successful they were with reading. He rewarded students with a snack if they had met their weekly AR point goals. He encouraged students who had not met their goals to continue reading to achieve their goals. Teachers had chart paper stuck on a wall in their classrooms, and students who met their weekly AR point goals placed a check mark beside their name on the chart paper. Students who had not met their AR point goals did nothing. At the end of the grading period, teachers gave an ice cream party to all students who had met their AR point goals for the grading period.

Schoolwide, teachers allowed students to take AR tests during non-instructional time, according to the ELA teachers. Many times during classroom observations, I saw students ask the ELA teachers if they could take an AR test, and the teacher would log in on a classroom computer with a password that allowed students to test.

In Maribel's classroom, she had created a bulletin board with palm trees on a blue background and the title, "Reading Paradise." She wrote students' names on laminated colorful parrots, indicating they met their AR goals, and stapled them to the bulletin board. Maribel gave students 10 minutes at the end of each class to read in their AR books. Teachers used AR data to assess students' reading level. Maribel explained, "AR. . .is telling me what reading level they're [students] working at, and of course, we look at the instructional reading level because we know that's what you understand as a student." Ideally, teachers might adjust and differentiate classroom instruction based on student reading levels. Student reading level might also indicate a student's readiness for taking the North Carolina End-of-Grade reading test containing reading passages that are on grade level.

In Batrice’s classroom, I observed students reading in their AR books for 20 minutes at the beginning of every class. During this silent reading time, Batrice allowed students to go to the library for books as needed. Sometimes she asked them to get a book from the bookshelves in her classroom in lieu of going to the library. Students also asked to take AR tests during this time.

Academic checks. Academic checks also served as assessment tools for the teachers in this study. The teachers had coined the term “academic checks” for teacher-created assessments they administered every three weeks throughout the school year. Academic checks were a schoolwide practice, according to the ELA teachers. During academic checks, I observed students annotating reading passages by underlining and highlighting parts of the passages. They answered questions about the passages related to learning objectives that teachers taught previously.

All teachers at the school used two internet resources for creating their assessments – PowerSchool and Study Island. PowerSchool is a statewide instructional improvement system containing teaching and learning resources (NCDPI, n.d.b, Home Base). Study Island is an Internet-based platform of tools for teachers to use for instruction, for students to use for practice, and for student assessment based on curriculum content standards (Edmentum, 2014). The ELA teachers selected reading passages from PowerSchool and Study Island for the ELA academic checks based on the content standards they wanted to assess. The reading passages included assessment questions at the end, and teachers customized these questions to summatively assess student learning of curriculum objectives. Teachers chose the assessment questions from each program’s computer database.

Teachers created the academic checks and printed copies for students in order to assess their mastery of particular ELA learning objectives. Students annotated the text and answered the multiple-choice questions, bubbling in their answers on a Scantron™ (Scantron Corporation, 2014) form. Using the reading passage, questions, and Scantron™ format mimicked the North Carolina End-of-Grade (EOG) test, a standardized test given at the end of each school year to identify student achievement in reading, math, and science (North Carolina Public Schools, 2014a). For example, when I observed Maribel administering an academic check, she told her seventh grade students, “These are excerpts from the EOG, and they are 7th grade level. It’s long but it will give you practice for reading, so don’t say it’s too hard.” Similarly, in Batrice’s classroom, she said to her eighth grade students, “They’re called academic checks. It’s something we’re gonna do every month so y’all can get familiar with the EOG format.”

Other data. Three other forms of assessment data teachers used but did not collect during class time were End-of-Grade (North Carolina Public Schools, 2014a) scores, benchmark scores, and EVAAS® (Statistical Analysis Systems, n.d.) scores. End-of-Grade scores and EVAAS® scores came from previous school years, while benchmark scores were collected periodically throughout the current school year. Teachers recorded these assessment scores on the student data sheet given to them during the first ELA PLC meeting.

End-of-grade scores. The North Carolina End-of-Grade (EOG) test is a standardized test given during the last 10 days of each school year to identify student achievement in reading, math, and science (North Carolina Public Schools, 2014a). In reading, the test is a computer-based multiple-choice assessment aligned to the North Carolina Standard Course

of Study (NCSCS) (North Carolina Public Schools, 2014a). According to the North Carolina Public Schools (2014a) website:

Students read authentic selections and then answer questions related to the selections, which are comprised of literary and informational selections aligned to the NCSCS. Knowledge of vocabulary is assessed indirectly through application and understanding of terms within the context of the selections and questions (End-of-Grade Tests Basic Facts section).

EOG scores range from level 1, the lowest score, denoting “Limited Command of knowledge and skills” (North Carolina Public Schools, 2014b, p. 1) to level 5, the highest score, denoting “Superior Command of knowledge and skills” (North Carolina Public Schools, 2014b, p. 1). A level 3 score is passing. The ELA PLC used End-of-Grade scores along with other assessment data to group students for a remediation period during the school day.

Benchmark scores. According to the school’s administrator, Janine, benchmark tests are standardized tests administered three times during the school year to assess students’ knowledge of math and reading curricula (personal communication, October 15, 2014). She said that math and ELA teachers used pacing guides for teaching content standards. Tia and Batrice confirmed their use of a pacing guide for teaching ELA content.

According to Janine, pacing guides matched the ELA and math curricula, and the curricula were divided into thirds. Thus, all math and ELA teachers were required to teach the objectives that students would see on each benchmark test.

The first benchmark assessed student learning of the first third of the curricula taught during the first grading period. The second benchmark assessed the first and second third of

the curricula taught during the first and second grading periods, and the last benchmark assessed the entire curriculum for each subject.

The North Carolina Department of Public Instruction (NCDPI) made each benchmark test available to North Carolina teachers during certain intervals through PowerSchool (NCDPI, n.d.b). Teachers were required to assess students via the computerized tests within the given time frame. Teachers used benchmark scores along with other assessment data to group students for a remediation period during the school day.

EVAAS[®] scores. According to Tia and Batrice, during the grade level PLC, teachers discussed EVAAS[®] (Statistical Analysis Systems, n.d.) data. EVAAS[®] is an acronym for Education Value-Added Assessment System and is a diagnostic system that predicts students' academic success based on their past performance (Statistical Analysis Systems, n.d.). In other words, EVAAS[®] predicts the probability that a student will pass the North Carolina End-of-Grade test (North Carolina Public Schools, n.d.) administered at the end of the school year. Batrice said, "I'm a new teacher so I didn't know what our students' [benchmark] test scores were from last year, so we use that [EVAAS[®]] information to see what the students might have scored last year on specific content areas of the test." Teachers used EVAAS[®] data to tailor academic checks and to group students for a remediation period during the school day.

Content teaching. The amount of instructional time dedicated to teaching ELA content was much less than the amount of time dedicated to collecting student achievement data during the seven weeks that I observed in the classrooms. The content lessons I observed were on fiction, poetry, and grammar. During these lessons, students copied information into

their notebooks, completed worksheets, and organized parts of speech into graphic organizers. CCSS (NGA, 2010) content standards for ELA at the middle school level include standards for literature, informational text, writing, speaking and listening, and language. The standard for language includes the conventions for Standard English, or correct usage, including grammar; knowledge of language, such as style and tone; and vocabulary acquisition, including Latin and Greek roots and affixes that aid in comprehension of vocabulary.

For the purposes of this study, I defined content teaching as the explicit teaching of the content standards found in the CCSS (NGA, 2010). Because the theoretical framework for this study was Shulman's (1986) concept of pedagogical content knowledge (PCK), I interpreted teaching as the transformation of content into forms that students could understand. In other words, for the purposes of this study, teaching occurred when teachers used illustrations, metaphors, examples, explanations, and analogies by which Shulman (1986) defined PCK.

Teachers may have taught annotation as a way to analyze literature prior to this study. However, I viewed annotation as an assessment tool rather than a content teaching tool because of the way in which teachers engaged students in annotation during this study. In other words, teachers did not use annotation to teach content standards, but rather, they used annotation to assess student learning of the content standards. NCTE (2006) regards assessment as a part of content pedagogy rather than a part of PCK. Further, annotation focused on fiction texts and informational texts, the predominant types of text passages found on the End-of-Grade reading assessments. However, the CCSS content standards include

more than fiction and informational text concepts and comprehension. Additionally, because teachers did not teach AR per se, I regarded AR as an assessment activity as well since teachers used AR scores along with other student achievement data to group students for remediation.

I observed for 90 minutes during each class period over seven weeks for a total of 630 minutes in Tia and Maribel's classes. I observed for 90 minutes during each class period over six weeks for a total of 540 minutes in Batrice's classroom (the school held a pep rally for the homecoming football game during Batrice's class time one afternoon).

Based on estimates from the time stamps on my observations, Tia used approximately 100 minutes, or 15%, of total class time for teaching content. Maribel used 10 minutes, or 2% of total class time for teaching content, and Batrice used 55 minutes, or 10% of total class time for teaching content. Teachers displayed lesson objectives on an agenda written on their whiteboards. Many times the objectives did not change from week to week.

In Tia's class, I observed her engaging students with content on inferencing, the fairy tale and folk tale genre of fiction texts, and grammar parts of speech. For the inferencing lesson, Tia read sentences displayed on the overhead projector while students filled in a graphic organizer with their inferences from the sentences. During the lesson on the fiction genre, Tia showed students a PowerPoint presentation about fairy tales and folk tales while students copied notes in a notebook. Also, during the grammar lesson, students wrote notes about the parts of speech in their notebooks. None of these activities seem to fit Shulman's (1986) definition of teaching as the representations, analogies, illustrations, and examples to transform content.

In Maribel's class, I observed her engaging students in a lesson on plot in fiction texts. Students copied a graphic organizer from their literature books and filled it in according to questions asked on the graphic organizer in their book. Again, this activity does not seem to fit Shulman's (1986) definition of teaching according to PCK. During all observations, content standards were displayed on an easel at the front of the classroom, but classroom activities did not always align with the standards. For example, during one observation, the content standard was about theme in literature, but students wrote a short summary of a 10-minute video they watched in class.

In Batrice's class, I observed her engaging students with content on grammar, including parts of speech and punctuation. She, too, had students copy from the whiteboard into their notebooks and fill in worksheets on parts of speech. She wrote content objectives on a whiteboard at the back of the classroom, but many times classroom activities did not align with the objectives. For example, during one observation, Batrice had written character analysis as an objective, but she engaged students in content about grammar.

Though teachers engaged students with some content from the CCSS (2010), many of the activities involved students passive copying from the overhead, a PowerPoint, or a textbook. According to Shulman's definition of PCK (1986), I did not view these as "teaching" activities.

Use and Influence of Student Assessment Data. Because the collection of student assessment data by teachers was rampant in each classroom – and in the school – I asked teachers how they used the data they collected. None of the teachers discussed the data in terms of improving instruction, which would have been an appropriate topic in the ELA PLC.

DuFour and Eaker (1998) support the collection of student assessment data, but for the purpose of evaluating and improving instruction. However, all of the teachers discussed the data in terms of student progress and success.

I discovered, during this study, that these teachers met in a grade level PLC in addition to the ELA PLC. Teachers reported analyzing student assessment data in the grade level PLCs. I did not have the teachers' consent nor IRB approval to attend these grade level PLC meetings. There seemed to be two functions for student data: teachers used it to assign students to a "STEP" class period and to assign students to achievement groups within the ELA classrooms.

STEP. STEP was a principal-created acronym for "Students Training for Excellent Performance" and was a 45-minute period at the beginning of every school day. All of the ELA teachers explained that the STEP period was for students who did not perform well on the various assessments (e.g. academic checks, EOG, benchmark tests). They received more focused instruction, or remediation. Students who performed well on the assessments went to enrichment classes during this same period. According to Batrice, the principal implemented STEP at this school "to give students more help in the areas that they need it, so it's specific to the students." She reported that during STEP time, teachers reviewed the particular lesson objectives with students who scored low on an academic check. Batrice said teachers reviewed the academic checks both in small groups and with individual students since the STEP class could have as many as 25 students at a time. She described this as a form of differentiated, individualized instruction.

All three ELA teachers explained that they used the classroom assessment data to group students for STEP remediation. Tia said, “The way our STEP is setup, our kids are actually grouped, we have a high group which is our A group, middle group is B, and low-level group is C.” Batrice described the same groupings for eighth grade students that Tia described for sixth grade. She said:

For the whole eighth grade all of our students are broken down, we call it A, B, C – A, B, and C group – our A being our highest and our C being our lower achieving students. We pull our data from SchoolNet [PowerSchool], EVAAS[®], benchmark testing, things like that.

Due to the summative nature of benchmarks and academic checks, teachers customized STEP instruction to focus only on those learning objectives with which students needed help. Tia reported that teachers accessed benchmark results through PowerSchool, which indicated the learning objectives students did not master on benchmarks and academic checks. She said:

Whenever they [students] take their benchmark, there’s a way you can access the benchmark, and it tells you what skills the kids are low on and then what skills they are doing really well, [and] what you need to reteach. And so, when we do that, we meet [in the grade level PLC] and we talk about what things that we can do better to help them [students] out during STEP in the mornings.

Tia reported that teachers in the grade level PLCs discussed how to re-teach particular learning objectives. However, I did not observe these types of conversations in the ELA PLC. Tia further explained about STEP instruction:

So, during those weeks [prior to benchmark tests] we've been working on those [ELA] standards. For example, two [learning objectives] of mine I can think of right off hand was theme and point of view. So, during STEP the very first two weeks . . . we worked on theme. My next two weeks we worked on plot, we worked on point of view. We've done summarization, characterization, those things, in STEP my two days [devoted to ELA curriculum objectives]. We go over them again, and then by Friday we might have a little quiz or something to see if they understand the skill, and I usually do that through Study Island. I just print out the test I create, and we do it on paper from Study Island.

Although teachers used assessment data to group students for remediation, the teaching and learning activities Tia described in STEP seemed to be of the same nature as teaching and learning activities I observed in the classroom, only in small groups and with individual students instead of a full classroom of students. Additionally, ELA teachers taught other content during STEP, not just ELA content. About the sixth grade STEP period, Tia explained:

On Mondays and Tuesdays, we [the sixth grade student remediation group] have language arts, and on Wednesdays and Thursdays, I, the language arts teacher, will teach math because I love math. And then on Friday we rotate. We'll either do social studies, or we'll do science.

In other words, STEP was used not only to teach ELA content but to teach other content (e.g. math, science, and social studies) as well.

The teachers used flexible groupings, too, to assign STEP groups. Students who showed progress were moved into a higher-level group. Batrice said:

They [STEP groups] change at least once a month. We've been in school for almost four months now, and they've changed tremendously over time. So, I've seen like a C student go to a B group, and I've seen a B go to an A. And then some students that we placed maybe in an A, and then we realized that this student needs to be in like a lower group, and I've seen that, too, but not too much.

According to the teachers, STEP remediation was used in concert with leveled groupings in the classroom. Therefore, the second function of assessment data was to create leveled student achievement groups in the classrooms.

Leveled classroom groups. All of the teachers reported grouping students by achievement level in their classrooms. According to Tia, she grouped students in her sixth grade classes into levels 1, 2, and 3. For example, during one classroom observation, Tia arranged students into six groups of five to six students each. Two groups were on her right, two were in the middle, and two were on her left as she faced the students. She said that the two groups on her right were level 1 students, or those who needed her explicit instruction and her direct help to complete learning tasks. The two groups in the middle were level 2 students, or those who worked semi-independently but needed her help sometimes in order to complete learning tasks. The two groups on her left were level 3 students, or mostly academically gifted students who could work independently and who usually had extension activities to complete. Tia reported that the classroom groups were flexible based on academic check data just as the A, B, and C groups were flexible in STEP. Students who

were proficient on certain learning objectives were moved into a higher-level group where they worked more independently. On the other hand, students who were not proficient on certain learning objectives were moved into a lower level group in class so that Tia could scaffold instruction for them. In this way, Tia differentiated instruction in her classroom.

 Batrice used A, B, C groupings in her classroom. She reported:

 We also have a structure in our classroom where if they're [the students] doing independent work, then it's just independent, and we can use scaffolding while we're walking around helping students individually. But, if it's every day group work, the students have to be separated into their A, B, & C groups within your classroom.

 In Maribel's class, I observed students sitting in a large rectangle rather than small groups. She reported that the class had the most similar achievement levels of the three groups she taught each day. She said of the students:

 If this is a level one student, then you know that you need to work more hands on with that student. . . . with the level ones and level twos, you know those ones are struggling. Somewhere there's a disconnect, so it helps you understand that you need to find that disconnect.

Though Maribel did not arrange students in small groups, she seemed to know which students were at level 1, 2, and 3. Much like Tia, Maribel knew which students could work independently, which ones needed scaffolded help, and which ones needed her undivided attention.

Section summary. Research suggests that improving instruction is one purpose of PLCs (e.g. DuFour, 2004; Feger & Arruda, 2008; Jaquith et al., 2011). In this study,

classroom observation data did not indicate that these ELA teachers improved instruction by participating in the ELA PLC. They seemed to adhere to the same types of teaching strategies throughout this study, and they did not engage in systematic, intentional collaborative inquiry in order to experiment with new ideas and new teaching strategies. Rather, they closely monitored student progress through inordinate data collection, namely annotation, academic checks, and AR. ELA teachers used this data, coupled with EOG scores, benchmark assessment scores, and EVAAS[®] probabilities, to create flexible remedial groups for STEP and flexible leveled groups within their classrooms. Creating flexible groups created opportunities for small group and individual instruction, but the teaching strategies remained constant. Content instruction seemed to be secondary to collecting student achievement data, occupying a small percentage of available class time.

The three themes that emerged for the first research question, “How do ELA teachers experience PLCs as a form of professional development?” included:

- an underdeveloped, underutilized ELA PLC
- inconsistent teacher perceptions about PLCs, and
- overemphasis on collecting student achievement data

My analysis of the data suggested that collaborative inquiry, an important component of DuFour and Eaker’s (1998) PLC model, was absent. The teachers did not systematically challenge their current teaching beliefs and practices, create an action plan for changing current practices, and intentionally implement the action plan. DuFour and Eaker define these steps as collaborative inquiry. However, at Murray Middle School, these PLCs offered some potential affordances for developing teachers’ PCK and some credible limitations existed,

hindering teachers' PCK development. I discuss these potential affordances and limitations in the next section.

Affordances and Limitations of the ELA PLC

The second research question was “What were the affordances and limitations of participation in the PLC for these teachers to further develop their PCK?” The ELA PLC offered some potential affordances but had some limitations as well.

Patterns in the research data revealed three potential affordances of teacher participation in the PLC. These included:

- The PLC provided a space for content collaboration and the sharing of teacher knowledge, instructional strategies, and teaching resources;
- provided a supportive environment; and
- encouraged data-driven instruction.

Factors that limited the effectiveness of PLC included:

- inadequate time for collaboration in subject area PLC meetings
- teachers' inexperience working in PLCs
- missed opportunities for collaborative inquiry
- incomplete follow through on PLC products by teachers in the PLC, and
- ineffective data use

Below I provide more detail about each of these themes.

Potential Affordances

Space for Content Collaboration. The ELA PLC in this study offered a space for ELA content collaboration and the sharing of teacher knowledge, instructional strategies, and

teaching resources. The ELA PLC observations, the focus group interviews, and the personal interviews highlighted this potential.

Content collaboration. The ELA teachers were required by their school district to meet together in a PLC. They perceived that they did collaborate on content, but I did not find empirical data to support this. As discussed earlier, the PLC observation data revealed that they did not collaborate on content. Nevertheless, the ELA PLC offered them a space to collaborate. According to Tia, “I think that they [PLCs] do enhance our collaboration and what we teach in our classrooms.” Batrice said that participating in PLCs “. . . helps you learn more about your content area as well.” Similarly, Maribel said, “A lot of times I think the conversation that you have in a PLC can actually make you reflect on what you taught or if it’s effective.” These ELA teachers reported that PLCs offered them the opportunity to collaborate on content.

Sharing knowledge, strategies, and resources. The ELA PLC also offered teachers a space for sharing their teaching knowledge, teaching strategies, and teaching resources. Though I did not observe this happening in the ELA PLC meetings, Batrice reported sharing knowledge, strategies, and resources through the PLCs. When asked to describe the purpose of the ELA PLC, she responded:

Our subject area PLCs are definitely more content-based, and they’re more – for me it’s been being able to incorporate more strategies and actually digging into and unpacking the standards for our grade level, and specifically for language arts, because the standards usually stay the same. . . . In our subject area [ELA] PLC, I find that I’m figuring out more strategies that work for students – we talk about different

workshops and things that we went to that could help an ELA teacher in her classroom. It might be sharing resources, lesson plan tuning which includes maybe one teacher brings a lesson plan that she did one day and we point out different things from her lesson plan that we liked or what we could have done differently or what we would have done differently in our classrooms.

It is evident from these teachers' responses that they know they *should* be sharing knowledge, strategies, and resources in the PLC.

All of them shared their lesson planning thought process and their decision-making process for the strategies they use when teaching. Both Tia and Maribel said they think first about the students and their learning needs, while Batrice said she thinks about the curriculum. Tia explained:

I think about my kids in the classroom. Will they really enjoy the straight lecturing? Does it need to be hands on activities? How do I need to approach it? . . . I also think about resources, because sometimes I want to do a lot of technology stuff. . . . I also think about I have some kids who only speak Spanish, so how are they going to do what I ask if they don't understand what I'm asking?

All three teachers said they research teaching strategies online when deciding how to teach content. Maribel shared, "I do research first. When I'm thinking of a lesson. I like to find the things that work in the classroom." Similarly, Batrice reflected, "One of the first things I usually do [when planning a lesson] is see if I can find other resources to see what [teaching] that [learning objective] looks like." In the first personal interviews, Batrice also referred to CIFs, "We have – they're called CIFs – Common Instructional Framework – instructional

activities that we have to use. So, we have those that we have to use, so that's automatically giving you strategies that you have to incorporate into your classes." CIFs were district-required teaching strategies teachers used for teaching. Teachers were not limited only to the CIF strategies, but they were required to use them. Both Maribel and Tia said that LiveBinders (NCDPI, n.d.c) were beneficial online resources containing ELA content strategies they used in their classrooms.

Overall, the teachers reflected on their own knowledge, found what they felt were the best teaching strategies, and used the teaching resources available to them. They researched on the Internet to find strategies to teach learning objectives required by their curriculum. They also used the same curricular frameworks. The ELA PLC offered them the space for sharing their knowledge, the strategies they found, and the resources they had.

A Supportive Environment. In addition to a collaborative space, the ELA PLC offered these ELA teachers a supportive environment. Though the school district mandated PLCs, school administrators offered professional development for teachers to learn what PLCs are and how to conduct PLC meetings. Furthermore, these teachers had the support of the administrator, Janine, who attended PLC meetings when she could. She made teachers aware of available teaching resources, and she instituted grade level PLCs for each grade level so that these ELA teachers could collaborate with colleagues outside of their department. For example, Tia reported:

In my grade level, I have my social studies teacher, our science teacher, and our math teacher, and we all meet together on Tuesday. And sometimes we do talk about our data, our EVAAS scores, and all of that, but we also talk about lesson planning.

She continued, explaining more about the supportive nature of the grade level PLC:

We've discussed in our PLCs, really what's best for the students. If we are having, if we wanna challenge our kids, we talk about what are things we could do differently. We also make sure we are using the Bloom's taxonomy. We do that a lot because we want to use the higher order thinking questions because those are things we see on the [EOG] test. Making sure we're going over the 12 powerful words is a big thing for sixth graders here. We make sure that they know that this is the vocabulary you will see on the EOG, you know, what it means, you know, what it is asking you to do.

Batrice also felt supported by colleagues in her grade level. She said:

Recently we changed the schedule of our classes to see how different students act at a different time of the day, and so far it's been working pretty well. The biggest thing for me as a beginning teacher with our grade level PLCs is to see how other classroom teachers might incorporate classroom management in their classroom.

Batrice said confidently, "We learn new ideas from others in both of our PLCs – grade level and department PLCs." The ELA teachers acknowledged being supported by their colleagues in the PLCs. Maribel's response was the epitome of a supportive environment. She said:

It's very easy for us to work collaboratively because I think that we get along. And it's important for us to have the professional relationship, but you have to have a little bit of a personal relationship. You have to feel like that person is approachable and they're not going to take anything that I say in a negative way because it's only to help or vice versa.

Tia agreed, “That’s a good thing. That makes us feel like we have community, and we get along well.”

Overall, the teachers reported having a positive experience in the PLCs. Both Tia and Maribel shared their thoughts on their best ELA PLC experiences. Above all else, they felt that lesson plan “tuning” during the ELA PLC had helped them the most. I did not observe teachers engaging in lesson plan tuning, but they talked about it in their interviews. Batrice described lesson plan tuning as a time when teachers brought a lesson plan to share with the others in the ELA PLC and received feedback on the good points and points needing improvement within the lesson plan. Reflecting on this process, Tia said:

I was thinking that as we do our lesson plan tuning, we always, even if it’s something really good, we always mention something that worked in our classroom, and I think that’s really positive for us. . . . Making sure we always do that during our PLCs is really good because you never know what you might not grasp but when someone else says it, you have a light bulb moment sometimes.

Tia highlighted the benefits of lesson plan tuning. She said, “I think that’s [lesson plan tuning] very beneficial because sometimes I might be stuck on something [e.g. a way to teach a concept, a way to help a particular student] that I can ask my colleagues to give me some feedback.” Maribel agreed saying, “Just seeing other teachers, or seeing our lesson plans just being put out there, even on screen, you know, just breaking that information down, I think that makes a big difference, and it’s very helpful.”

The teachers reported that the PLCs offered them a supportive environment in which to share their thoughts and even review each other’s work. The administrator and the school

district leaders also supported these teachers as evidenced by PLC training and the administrator's attendance at the PLC meetings.

Data-driven Instruction. These ELA teachers collected data on their students' learning progress and achievement. From EOG scores (NC Public Schools, 2014b), EVAAS[®] probabilities (SAS, n.d.), AR tests (Renaissance Learning, 2014), benchmark data (NCDPI, n.d.b), and academic checks to classroom work on annotation, they had a plethora of data available from which to plan instruction. However, I observed that they used this data only to determine student placement in STEP remedial classes and leveled grouping within the classroom.

It was unclear the extent to which they discussed the assessment data in their PLCs. For example, Maribel gave the ELA teachers a data spreadsheet for recording the collected data. They did not talk about it during the PLC, but it may have been because they had previously discussed using the spreadsheet and needed to fill in the necessary data. The spreadsheet was the venue through which teachers could track the collected data.

All three ELA teachers said that the ELA PLC was data driven. In speaking about the ELA PLC, Tia said they talked about "how to look at data and to adapt what we know about our kids to our lessons," and Maribel matter-of-factly stated:

It's data driven. If we know that this process [a particular teaching strategy] is working in my classroom, what backs that up? Can you back that up? Do you have evidence? Do you have your information to support what you're talking about right now? . . . If you don't have the data to support what's going on in your classroom, then it's [the strategy] gonna be worthless.

Similarly, Batrice said that when teachers met in their ELA PLC, “First thing we’d discuss is data.”

Tia and Maribel showed me their ELA PLC notebook where all student data was stored for sixth and seventh grade. Batrice showed me that all student data for every grade level was stored in PowerSchool (NCDPI, n.d.b, Home Page section) online and said the data was accessible to individual students and their parents as well as teachers, administrators, and county office personnel. Therefore, teachers had a way to organize and share the data that they collected. Tia explained, “There are reports that you can actually print out and it [PowerSchool] tells you what skills that the students are lacking in.” She added that teachers shared these reports with individual students and their parents as progress reports.

Because teachers knew how to collect data, they had organized the data, and they knew exactly the skills their students needed according to the assessments they used, they collaborated within their grade level PLC in order to group students for remediation and leveled groups. However, they were addressing only one part of the PLC equation. DuFour and Eaker (1998) said that PLCs should also enhance instruction through collaborative inquiry, which these teachers did not engage in. Collaborative inquiry is challenging current beliefs, assumptions, and practice; creating an action plan for improving instruction; and implementing the plan, then analyzing the results and repeating the cycle. The ELA PLC offered teachers a space to collaborate with data in hand and engage in collaborative inquiry about improving instruction. In the first focus group interview, these ELA teachers said they did not regularly consult research literature in their field – a prime resource for collaborative inquiry that could enhance teaching knowledge and instruction.

The ELA PLC offered these teachers at least three affordances for the development of their PCK. However, several limitations appeared to impede the development of teachers' PCK within this PLC.

Significant Limitations

Inadequate Time. Probably the foremost limitation of the ELA PLC was time, more specifically, inadequate time for meeting, collaborating, and for conducting collaborative inquiry. As illustrated in the PLC observations for the nine weeks of this study, the ELA PLC met only twice for 30 minutes each time, even though the school district mandated one-hour meetings. Several factors influenced the ELA PLC meeting time including countywide early release, in which students left school at 11:30 a.m. so teachers could attend professional development sessions mandated by the school district; after-school technology training; impromptu county office meetings for department chairs; and after-school social events, including sports activities and baby showers.

When asked about the challenges they had faced as a group participating in PLCs, Tia and Maribel's primary response was "time." More specifically, Tia felt that teachers had "No time to try out the new ideas" she found from online research or from sharing ideas with other her colleagues. On the other hand, Maribel perceived that

Because we have a small faculty, it's very difficult for us to meet exactly when we say we need to meet because we're on different committees. We have several different committees or meetings going on all the time, so it kind of puts a strain on us as a group.

It was obvious in the study that the grade level PLC met regularly while the ELA PLC did not. Tia explained:

After school, we all have different directions we are pulled in, but during the school day, our grade level PLCs are built in. That's why we meet unless something else comes up. But I think it's mainly because of the time. During the day, it's scheduled, but then in the afternoons whenever we have our department meetings, anything could come up. That's why we don't meet as regularly as scheduled.

Batrice said she was okay with not meeting regularly because she checks in with her mentor, Maribel, quite often. She also said:

We all attend the same ELA workshops most of the time, and if we don't, one comes back and reports what they learned or what they found at that meeting, but I haven't really found anything negative yet to us not being able to meet. Most of the time we either fill each other in or something or it comes from somewhere, I don't feel like it's missing.

However, not meeting in a PLC goes against one characteristic of PLCs set forth by DuFour and Eaker (1998) – collaborative inquiry. Tia said that she missed the collaboration when the PLC did not meet, especially learning new ideas from her colleagues. She stated, "There's some things that I would love to incorporate because I don't know everything and I'm always willing to learn new things.

Through her statements, it seemed that Tia understood that collaboration and inquiry are important components of PLCs. Both Tia and Maribel reported that PLCs were important because they provided time for collaboration and communication.

Teachers' Limited Experience. The second limitation with significant impact was these teachers' limited experience working in PLCs. At the time of this study, this group of ELA teachers worked together in the ELA PLC for the first time. Batrice had never participated in a formal PLC. Though they had previous PLC experience, Tia and Maribel reported that this was their second year working in PLCs under the current administrator. It is unclear whether their prior training to participate in PLCs included training in the collaborative inquiry described by DuFour and Eaker (1998) for improving instruction. Teachers' limited experience working in PLCs may have been one reason that they did not engage in collaborative inquiry in order to enhance their teaching knowledge and skills and why they relied heavily on data collection in the classroom.

Some researchers suggest that teacher PCK develops through reflection (e.g., Cochran et al., 1993; Gess-Newsome, 1999; Hashweh, 2005). DuFour and Eaker (1998) suggest that teachers in PLCs should reflect on and challenge current assumptions, beliefs, and practices in order to improve instruction, but these teachers did not go deeply enough in their PLC conversations to challenge themselves or each other. Additionally, in the grade level PLC, teachers analyzed the student data they collected but for student grouping purposes, not to challenge or enhance instruction.

Two important ways that teachers can learn more about their particular field and about research in their field are attending professional conferences and reading professional journals. Teachers shared that they were members of their district reading association but not the state level or national level reading associations. The state level reading association – the North Carolina Reading Association (NCRA) – holds yearly conferences at which

researchers and educators present current research on topics to broaden literacy knowledge (NCRA, n.d., Mission and Goals section). This conference is open to teachers, university professors, and literacy professionals.

Additionally, the International Literacy Association (ILA) and the National Council of Teachers of English (NCTE) are national and international professional organizations for literacy professionals. These organizations, too, hold annual conferences and publish several professional resources from which teachers can gain knowledge about teaching and instruction in literacy (ILA, 2015; NCTE, 2015). These organizations publish research literature (e.g., *The Journal of Adolescent Literacy*, *The Reading Teacher*, *Language Arts*, *Voices from the Middle*) from which teachers can learn more about their field and about collaborative inquiry that impacts professional knowledge and skills. The teachers in this study stated that the *Journal of Adolescent and Adult Literacy* was in their school media center but that they had not used it, except for Tia who had used it “maybe twice.”

None of the teachers said they had attended a professional conference or used professional journals to enhance their knowledge and skills. Given the cost of these activities and resources, the teachers may have had limited opportunities to attend conferences and buy these resources, thereby limiting their experiences for professional growth through these activities and resources which could have contributed to collaborative learning in their PLC.

Because Shulman’s (1986, 1987) concept of PCK includes adapting content “to the diverse interests and abilities of learners, and presented for instruction” (p. 8), it is interesting to note that Maribel and Tia, the more experienced teachers in this group, said that they considered student needs when deciding how to teach content. Whereas, Batrice said she

turned to curriculum materials when deciding how to teach content. This limited experience may have been one reason why teachers missed prime opportunities to engage in collaborative inquiry.

Missed Opportunities for Collaborative Inquiry. The ELA PLC meetings offered these teachers several opportunities for collaborative inquiry as well as access to an experienced instructional leader to possibly facilitate collaborative inquiry. For example, the administrator had engaged Tia and Maribel in actively learning about text annotation during the previous school year. It appeared that she knew about and supported collaborative inquiry as a way to improve instruction. The administrator stated that she attended the ELA PLC as often as possible (personal communication, October 8, 2014).

In the first ELA PLC meeting, Maribel gave teachers the data spreadsheet on which to record student data. Teachers reported that they tailored the academic checks to particular ELA content objectives and that they had access to the particular content objectives assessed on the benchmark tests. Since teachers also explained that they researched content teaching strategies on the Internet, they could have discussed their findings with each other during their ELA PLC. Additionally, teachers could have created their own action plan for implementing strategies they found, and then reported in their PLC meeting on student learning after they used the new strategies. Maribel reported that teachers must document student learning from teaching strategies using data to back up why the strategy “worked.” She said, “If you don’t have the [student] data to support what’s going on in your classroom, then it’s [the strategy] gonna be worthless.”

Another collaborative learning opportunity came during the second ELA PLC meeting. Tia and Maribel extensively discussed their students' poor performance on an academic check. They expressed surprise and frustration during the meeting that their students seemed to daydream and were tired. For me, the most eye-opening point they made was when they expressed frustration that one student had not annotated anything on the entire academic check because this strategy for close reading of text was stressed schoolwide. However, the student had scored 100% on the academic check, meaning that he knew the ELA content being assessed. Perhaps the student did not need to annotate text and comprehended well during reading. However, Tia and Maribel quickly decided that the student did not go through the necessary thought processes for reading comprehension, in the face of a perfect score. Again, since academic checks were tailored to assess particular learning objectives, since students scored so poorly, perhaps teachers could have analyzed the particular objectives and researched better ways for teaching those particular content objectives on which students scored low. Then, as DuFour and Eaker (1998) explained with collaborative inquiry, they could have created an action plan for improving instruction on those content objectives, implemented the plan, and reported in their ELA PLC about the effectiveness of re-teaching using different strategies.

A prime learning opportunity for Maribel would have been in learning more about student-centered instruction, giving students more autonomy over their own learning. She expressed this idea twice during this study – in the first ELA PLC meeting and in the second personal interview. At the first ELA PLC meeting, Maribel expressed concern about “letting go” and “letting the kids do the work.” Batrice and Tia expressed surprise about what their

students were able to do when they gave them autonomy in their learning, possibly to encourage Maribel to try it. During a classroom observation, I noticed that Maribel arranged students into five groups of six students each, but the next day, she had rearranged her classroom back into the large rectangle without groups. She said, “They couldn’t handle it” (personal communication, November 14, 2014).

Later, Maribel spoke about having a difficult time moving students from working independently to working in groups. She said:

I can’t stand the chaos. There are so many students that, one student can make everything go out of balance, so as far as me developing as a teacher, I know that’s what I have to do and what I need to do because I want my students to be successful. As the ELA department chair, Maribel could influence the other two ELA teachers, too. While it was unclear entirely the extent of her influence based on her data, the other teachers did refer to her experience. For example, Tia spoke of getting feedback from Maribel on a lesson plan. She said

She’s [Maribel] more experienced than I am and so something that she mentioned, I said ‘Hey, I can do that’, so I tried it the following week, and it worked out fine because apparently, she knew what she was talking about. But really, her suggestion was really good! She told me, ‘Don’t let them do it in a group; let them do it independently and then put them in a group and see how it works’, because we’re working on our project based learning. I was reluctant to let them [the students] do something, just a small project, and they were able to do it with this project and create a PowerPoint. But she said take it slow, and that’s why it took me so long to do one;

we had been in school 13 weeks, and I was nervous about letting them [the students] do it, but you know, you have to let them take control sometimes, so I'll sit back and let them do their thing.

It seemed that Tia felt limited because of the advice she received from Maribel about letting students work independently rather than in groups.

Not only did teachers express frustration with student performance on academic checks. They also expressed frustration with their own incomplete follow through on products of their ELA PLC meetings.

Incomplete Follow Through. Both Tia and Maribel said that another challenge they had faced in their ELA PLC was the group's incomplete follow through on required PLC products and the stressful overload they experienced when trying to meet every week. In the first focus group interview, Maribel said that the group had trouble "staying committed to a topic." In other words:

We get new information, we might get an email or read an article . . . a teacher gave me an article in the hallway, and it was just something that kinda sparked my interest, and I took it to the PLC . . . it kinda consumed the conversation because it was just something spur-of-the-moment, but it was interesting. It was something that needed to be said.

Maribel seemed to feel guilty about straying from their PLC rule of staying on topic during PLC meetings. Since one purpose of the PLC agenda was to keep PLC members on topic, it appeared that Maribel believed she had broken that rule.

Tia agreed, “I also think sometimes you can be on overload. You get all these new ideas in your PLCs and so you wanna try everything, and sometimes you just don’t have the time to do so.” Maribel expounded more on Tia’s response, saying, “I like to say that we could schedule those PLC meetings every other week . . . that’s why we don’t meet formally every week because it’s just, it really is overload.” The teachers made it clear that though time is a significant factor hindering their ELA PLC meetings, they were overwhelmed by the new ideas they learned about in the PLC and wanted to try in their classrooms. They also reported that meeting every week was “overload.”

These teachers were particularly concerned with the district requiring PLCs to submit tangible products (e.g. presentations of student achievement or demonstrations of effective teaching strategies) to show as follow through with their ELA PLC. Maribel said:

I think one thing [goal for our group] in particular is being organized, so that the things that we do share [in the PLC] actually have a product to show each of the things that we’ve discussed, whether it be something I used in my class that I share with the other ELA teachers or there’s something that they want to share, we could have that product. . . . Sometimes we have enough time get it started, and then we’re called to do something else, so we don’t really get the chance to see it through to the end of the assignment . . . Something is always going on, but I think if we could get that finished, we could have more finished products.

These teachers expressed feelings of being overwhelmed because classroom observations showed that the inordinate data collection in their classrooms took vast amounts of time. Incomplete follow through on products these teachers created as evidence of the

effectiveness of their PLC and overload of information could be a reason why these teachers did not analyze student achievement data effectively.

Ineffective Data Analysis. As stated previously, teachers used student achievement data to organize students into STEP groups and leveled work groups in the regular ELA classrooms. According to DuFour and Eaker (1998), in PLCs, teachers should track student achievement, but for the purpose of enhancing instruction. However, data collected in this study did not suggest that teachers used data to reflect on instruction or to engage in collaborative inquiry. Teachers discussed data in the grade level PLC and could have used the ELA PLC time to study and reflect on their teaching strategies and explore new strategies to help students learn particular skills, which assessments showed were lacking. It seemed that student achievement data analysis was an important limitation for these teachers' PCK development, since teachers used it for grouping students, not for improving instruction. If they had had adequate time to meet in their ELA PLC and if they had more experience with collaborative inquiry, they might have used their student achievement data in ways that were more beneficial. They might have developed their PCK further and thus influenced student achievement even more.

Conclusion

This study explored how ELA teachers at Murray Middle School experienced PLCs as a form of professional development. Three themes emerged from the observation and interview data. These were

- teachers experienced underdeveloped and underutilized PLCs
- they had inconsistent perceptions about the impact of their ELA PLC, and

- they sacrificed content teaching in their efforts to collect student achievement data.

Though the ELA PLC had several limitations including inadequate time, teachers' inexperience, missed opportunities for collaborative inquiry, incomplete follow through, and ineffective data analysis, it did offer several potential affordances. These included a space for content collaboration and the sharing of teaching knowledge, strategies, and resources; a supportive environment; and data-driven instruction.

CHAPTER FIVE: DISCUSSION AND IMPLICATIONS

This case study posed the questions, “How did the ELA teachers in this case study experience PLCs as a form of professional development?” and “What were the affordances and limitations of participation in the PLC for these teachers to further develop their PCK?” I was most interested in learning about how a PLC composed of three ELA teachers with relatively little experience working in a PLC would develop their PCK. Research suggests that teacher PCK is developed through reflection, professional development, and experience teaching (e.g. Cochran et al., 1993; Grossman, 1990; Park & Oliver, 2008b). By studying how PLCs function, we can learn more about how they could be used as a professional development tool to improve PCK.

In this case study, the primary participants were three middle school ELA teachers. They taught in a minority majority, high-poverty, historically low-performing middle school, according to state data (AdvancED, 2013; NCDPI, n.d.a, NC School Report Cards section). These teachers comprised the entirety of the ELA department at the small, rural school, and the school district required them to meet in PLCs specifically designed based on the Professional Learning Communities at WorkTM model of PLCs (DuFour & Eaker, 1998).

Data collected over the course of this study included focus group and individual interviews, as well as observation data gathered during PLC meetings and classroom observations. These data were analyzed to better understand how these teachers experienced the PLCs as well as to examine the affordances and limitations of their participation in the PLCs in terms of their own PCK development. These teachers met in two PLCs – an ELA PLC and a grade level PLC. Since the PLCs at WorkTM model (DuFour & Eaker, 1998) was

used to guide the development and implementation of PLCs in this district, I observed the ELA PLC in this study to analyze how closely it aligned with the principles set forth by DuFour and Eaker.

The data analyzed yielded three themes about these ELA teachers' experiences in the PLCs. First, I found that the work of the PLC appeared underdeveloped and underutilized. Although they had been trained to participate in PLCs and to conduct the meetings, they did not appear to engage in systematic and intentional team learning. According to DuFour and Eaker (1998), this practice is vitally important for improving instruction and influencing student learning. Collaborative inquiry occurs when teachers reflect on current beliefs, assumptions, and practices; share insights from their reflections; create an action plan; and implement the plan to improve their teaching practices (DuFour & Eaker, 1998).

Second, I found that teachers' reported perceptions of PLC conversations were inconsistent with conversations I observed during the two ELA PLC meetings. Teachers reported discussing new reading methods, sharing knowledge gained from other professional development venues, and sharing teaching strategies to enhance instruction. However, I did not observe these types of discussions in the ELA PLC meetings. Rather, I witnessed very brief discussions of some teaching-related topics during the PLC meetings. Finally, I discovered that these teachers collected inordinate amounts of student achievement data that seemed to interfere with content teaching. They used the data to create remedial groups for STEP and leveled groups in their classrooms. Indeed, they devoted the majority of class time to collecting achievement data on their students, including implementing various forms of assessments, primarily through text annotation.

Despite significant limitations including inadequate time to meet, inexperience engaging in collaborative inquiry within the PLCs, ineffective use of student achievement data, and missed opportunities to engage in collaborative inquiry, the PLCs offered potential affordances for the teachers. These potential affordances included providing space for content collaboration regarding content knowledge as well as for sharing teacher knowledge, instructional strategies, and resources. Furthermore, these affordances included a supportive environment and data-driven instruction.

Revisiting PCK Development

Pedagogical content knowledge (PCK) is the special knowledge domain of teachers that is necessary for effective teaching (Cochran et al., 1993; Park & Oliver, 2008a). PCK includes the pedagogical strategies teachers use to translate content knowledge for students, including representations, analogies, illustrations, examples, and explanations (Shulman, 1986). These strategies are “organized, represented, and adapted to the diverse interests and abilities of learners, and presented for instruction” (Shulman, 1986, p. 8). PCK also includes an awareness of the topics that students might misunderstand and a teacher’s ability to address and clarify these misunderstandings.

In the *Guidelines for the Preparations of Teachers of English Language Arts*, NCTE’s Standing Committee (2006) stated that ELA PCK is “that set of pedagogical knowledge and skills specific to the teaching of ELA” (p. 37). This is developed through “reading about, reflecting on, and practicing strategies and techniques as described and refined by many scholars, researchers, theorists, and other practitioners in their particular field” (NCTE, 2006, p. 43).

Teachers Exhibited PCK

These teachers exhibited their PCK in various ways, but it is difficult to attribute this to their participation in the ELA PLC. For instance, Tia and Maribel acknowledged that they could influence student achievement by planning content and strategies based on their students' needs, not on curriculum alone. Additionally, all of the ELA teachers created leveled student groups in their classrooms for the purpose of differentiated instruction based on assessment data.

However, awareness of student learning needs is only one part of PCK. Knowing the content and using the best teaching strategies based on research and practice for teaching that content are also components of PCK (Shulman, 1986; NCTE, 2006). In the two ELA PLC meetings I observed, there was little evidence of the ELA teachers reflecting deeply on their practice or engaging in collaborative inquiry that would influence their instructional practice. Rather, they spoke of "what works" and "what doesn't work" without identifying how they determined effective and ineffective teaching strategies.

All three ELA teachers in this study said they "researched" to find teaching strategies for particular content or learning objectives. They described "Googling" teaching strategies and finding YouTube videos of other teachers teaching specific content. However, in their first focus group interview, I asked these teachers whether they were members of any professional organizations and whether they read and used research journals. All said they were members of their local reading association but not the well-known national or international professional organizations for reading and language arts (NCTE and ILA), and none had attended any professional conferences. They also said they did not use research

journals published by these professional organizations. This is not surprising due to the costs associated with such memberships and research journals. Reasons for not attending conferences and not using research journals may have been due to costs and lack of support from the district in the form of registration and journal costs or substitute teacher costs.

PCK Growth

PCK can grow and develop in multiple ways (Cochran et al., 1993; Grossman, 1990; Hashweh, 2005; Park & Oliver, 2008b), but three avenues are especially pertinent to the findings of this study – reflective practice, teaching experience, and professional development opportunities. Hashweh (2005) and Park and Oliver (2008b) believed that the development of PCK is a continual process, growing through reflective practice. Grossman (1990), Cochran et al. (1993), and Park and Oliver all recognized that PCK develops through continued experienced teaching. Cochran et al. said that novice teachers developed PCK through inservice professional development programs that fostered the growth process.

PCK and Reflective Practice

The ELA teachers in this study seemed to engage in reflective practice to a degree but did not follow through completely. For example, they collected inordinate amounts of student achievement data in their classrooms, organized the data into notebooks, and analyzed the data in their grade level PLC meetings. However, they used the data to form remedial groups for STEP and leveled groups in the classroom to facilitate small group and individual instruction. They did not seem to use the student achievement data to reflect on new ways to teach content nor to engage in collaborative inquiry to improve their knowledge and instruction. Again, they spoke anecdotally about “what works” and “what doesn’t work”, but

never truly identified how they arrived at effective and ineffective teaching strategies.

Regular classroom teaching was limited mostly to teaching students how to annotate texts, as evidenced by the classroom observations. These teachers seemed to use the text annotation strategy as a go-to teaching strategy as it was a primary classroom activity. Teachers taught text annotation, and most student classwork involved annotating text. Annotation was also the primary tool for assessing student learning through the academic checks administered every three weeks. It appeared that the teachers knew annotating text was an important strategy but used the strategy in excess.

Current education research shows that participation in PLCs can contribute to the development of PCK. In fact, DuFour et al. (2006) purport that in their PLC model, educators work interdependently to build a shared knowledge base, to develop their skills and capabilities, and to impact and improve their knowledge and classroom practice. DuFour and Eaker (1998) describe this interdependent work as the heart of PLC work.

The Potential of PLCs for Developing PCK

The findings of this study demonstrate that in their present state, these PLCs lacked an important component, collaborative inquiry, which could potentially contribute to the development of these teachers' PCK. The factors that appeared to limit collaborative inquiry included inadequate time for collaboration in subject area PLC meetings and teachers' inexperience working in PLCs. The current body of educational research on professional development illuminates the potential of PLCs for improving PCK.

Educational research suggests that effective professional development promotes collaboration, shared knowledge building, and the development of teachers' skills and

capabilities (e.g. AMLE, 2010; Darling-Hammond et al., 2009; West, 2011). Research on effective professional development reflects the importance of experiences that develop and improve teachers' knowledge and skills (Darling-Hammond et al., 2009; Jaquith et al., 2011) and that empower and encourage teachers to become reflective practitioners (Kennedy & Shiel, 2013). Garet et al. (2001) stated that content specific professional development with opportunities for active learning integrated into the school day seemed to have a more positive impact on teachers' knowledge and skills, in turn, positively affected student achievement levels. Additionally, teacher collaboration that focused on teacher inquiry and reflection on issues of importance to them in their daily work have proven effective for building teachers' knowledge and skills (Darling-Hammond et al., 2009; Katzenmeyer & Moller, 2009; West, 2011). Darling-Hammond et al. (2009) stated that professional development that encourages collaboration and collaborative inquiry promotes strong working relationships among teachers and builds PLCs. Research on PLCs shows that teachers can build shared knowledge and expand their teaching capabilities through participation in PLCs (e.g. Darling-Hammond, 2009; DuFour & Eaker, 1998; DuFour et al., 2006).

In this study, the ELA teachers met collaboratively in their PLCs and shared knowledge. However, these meetings did not appear to positively impact the development of the teachers' skills or build the knowledge they needed for teaching more effectively. For example, in the second PLC meeting, Tia and Maribel expressed their frustration with the low student scores on the most recently administered academic check. Rather than research more effective instructional strategies that might promote student success, Maribel focused

on one student in particular who made a perfect score on an academic check, yet did not annotate the text on the assessment. Her frustration lay in the fact that the student did not use the annotation strategy. She failed to acknowledge that he might not have needed the strategy to assist him in accurately reading and comprehending passages of text. The teachers' solution to low scores on academic checks seemed to be ensuring that content area teachers in the grade level PLCs adhered to annotating text, the go-to strategy. More effective perhaps would have been determining whether the assessment strategy was the most suitable way to measure student reading comprehension, then finding other research-based strategies for teaching the particular learning objectives students needed to master.

These ELA teachers agreed that the PLCs at their school provided a collaborative space for sharing knowledge, strategies, and resources. They said that the PLCs offered a supportive environment. However, all said that time was a limiting factor for the ELA PLC. Time was also a limiting factor for Batrice, especially since she was the cheerleading sponsor and her extracurricular duties conflicted with the PLC meeting times. At the same time, of the three ELA teachers, Batrice was the least experienced. She was a lateral entry teacher working toward certification and teaching for only two months in public school at the time of this study. If anyone needed collaboration and support, perhaps it was Batrice. Yet, in the second focus group interview, Batrice said that she was

...okay with it [not meeting regularly in the PLC] because even though we may not meet regularly during the time that we're supposed to, I still might chat with Ms. Walker [Maribel] to the side about something or check in with Ms. Marin [Tia] or something like that."

Batrice seemed satisfied to meet informally, when in reality, the research on PLCs and professional development (e.g. AMLE, 2010; Darling-Hammond et al., 2009; DuFour & Eaker, 1998) stress collaboration and collaborative inquiry. In fact, the AMLE (2010) stressed that “teachers of a particular subject must have regular opportunities to meet” (location 513-514).

Furthermore, Garet et al. (2001) found that opportunities for active learning integrated into the school day positively impacted teachers’ knowledge and skills. Throughout this study, the ELA PLC at Murray Middle School met after school for a half hour and only twice in nine weeks, while the grade level PLC met for 1-1/2 hours during the school day once every week. The difference seemed clear, as the classroom observations indicated which PLC made the most impact on instruction in the classroom.

Overall, this study illuminated some issues in the PLCs that should be addressed if instruction is to make an impact on student learning. DuFour (2004) explicitly wrote that teachers in PLCs must be committed to learning as a team, to improving instruction, and to ensuring success for every student. He said:

The powerful collaboration that characterizes professional learning communities is a systematic process in which teachers work together to analyze and improve their classroom practice. Teachers work in teams, engaging in a cycle of ongoing questions that promote deep team learning. This process, in turn, leads to higher levels of student achievement.

By implementing some important action steps, the teachers in the PLCs at this school have the potential to improve their instruction and to impact student achievement.

Implications of the Findings

DuFour and Eaker (1998) were clear in their explanation that the heart of growth for teachers in the PLCs at WorkTM model is collaborative inquiry. They said that collaborative inquiry “enables team members to develop new skills and capabilities, which in turn lead to new experiences and awareness” (p. 26). This means that teachers grow professionally when they learn new teaching methods from others and try them in the classroom. These new experiences should create an awareness that teaching knowledge and practice can improve. DuFour and Eaker also promoted an action orientation in the PLCs at WorkTM model whereby members of these PLCs should be willing to experiment with and test new and existing theories, use the results to improve skills and pedagogical knowledge continuously, and simultaneously work toward the shared values and mission of the PLC. An action orientation means that teachers create an action plan for instructional improvement and then implement the action plan. DuFour and Eaker (1998) stated that the effectiveness of these PLCs should be evaluated based on tangible results that demonstrate purposeful improvement. In other words, when teachers implement an action plan for instructional improvement, they should evaluate the effectiveness of the instructional improvement based on tangible student learning results. An instructional improvement that resulted in student learning would indicate purposeful improvement. Because improvements are a team effort, PLCs at WorkTM should focus on the team and not the individual teacher.

Meeting in well-developed PLCs is a prime way for teachers to experience meaningful professional development that researchers have written about (e.g. Darling-Hammond, 2009; Kennedy & Shiel, 2013; West, 2011). When teachers in PLCs

conscientiously follow DuFour and Eaker's (1998) principles, the PLCs are content specific and situated within the school environment, connected to school improvement initiatives, supported by the school district, and focused on student learning. With these points in mind, I offer the following specific recommendations for leveraging the ELA PLC as a professional development tool for these ELA teachers.

Collaborative Inquiry

Since collaborative inquiry is an important component of the work of PLCs to encourage teacher and student growth, teachers in this study need time and opportunities to engage in systematic, intentional inquiry. DuFour (2004) said that in order for PLCs to ensure success for every student, educators and schools must ask three crucial questions:

“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?” (p. 8).

Answering these questions determines how PLCs operate in schools to affect student learning. In order for this to occur, teachers need guidance and training about the collaborative inquiry process. This includes:

- 1) reflecting on and challenging current assumptions, beliefs, and practices
- 2) sharing insights from these reflections
- 3) planning action steps toward improvement, and
- 4) implementing the action plan (DuFour & Eaker, 1998)

Once the inquiry cycle is completed, members analyze the results of their actions and begin the process again.

Because the school district offered PLC training before, perhaps those who are familiar with the PLCs at Work™ model could offer training in the teacher inquiry cycles required in this model. Teachers could engage in real problem solving for their individual classrooms and learn about action research for teachers. Research has shown that teachers who engage in collaborative inquiry continually explored ways to improve practice and impact student achievement (West, 2011). The CEE (1994) also recommends that inservice ELA teachers work together to investigate issues and questions they have identified as important.

Within this environment of inquiry, these teachers could benefit from mentor teachers, veteran teachers, or curriculum coaches within the school district who are more knowledgeable and more experienced. Darling-Hammond et al.'s (2009) research on effective professional development supports direct mentoring and coaching of teachers.

Scheduling

It is reasonable to believe that if the ELA PLC experienced time limitations, then maybe other subject area PLCs at this school did, too. Perhaps subject area PLCs could be integrated into the school day in the same way as the grade level PLCs. Professional development that is integrated into the school day has shown positive effects on teacher knowledge and skills and student achievement levels (Garet et al., 2001; Good, 2009).

Both types of PLCs at this school could feasibly rotate on an every-other-week schedule to allow teachers time to explore research-based strategies, implement them in the classroom, and evaluate the results. This cycle could provide the necessary follow through the teachers sought as well as support their development of finished products to demonstrate

their progress. With time to complete a cycle of learning, teachers could feasibly develop demonstrations of effective teaching methods or presentations of student achievement based on classroom data collection. This type of schedule would also allow for the lesson plan tuning of which teachers spoke but had difficulty completing because of time issues. Lesson plan tuning should enable teachers to share lesson plans and obtain feedback from their colleagues.

If student learning is to improve, teachers must have opportunities to collaborate meaningfully in their content area (AMLE, 2010; CEE, 1994; DuFour, 2004). These teachers must have sufficient time to participate in the “recursive process” (CEE, 1994, p. 127) of changing practice that contributes to their own professional development. In order for that to happen, subject area PLCs must become a priority at this school.

Book Study and Professional Conferences

Because teachers in this study did not yet demonstrate deep reflective practice, perhaps they could engage collaboratively in book studies about reflective practice during their PLC time. The CEE (1994) recommends that inservice teachers have opportunities to read and study research to uncover their own assumptions about teaching and learning. Through these activities, teachers can gain “the necessary tools to reflect on their own practices and . . . mak(e) changes when necessary” (CEE, 1994, p. 126). Teacher participation in study groups has been shown to transform teaching practices (Egawa, 2009).

With minimal financial investment, these teachers could also explore and share research journals from professional organizations in their field. From my own experience, I know that Live Oak School District invested in teachers in the past by making opportunities

available to attend state conferences. Perhaps these ELA teachers could take advantage of such opportunities. During this study, the administrator spoke to me of several ELA professional development workshops that she wanted the ELA teachers to attend (personal communication, November 5, 2014). She seems to support these teachers' development as practitioners who can influence student achievement.

Focus on Student Learning

Perhaps one of the paramount findings of this study was the amount of student achievement data these teachers collected and analyzed eclipsing the amount of time for teaching content. Again, for the purposes of this study, I defined content teaching as the explicit teaching of the content standards found in the CCSS (NGA, 2010). Because the theoretical framework for this study was Shulman's (1986) concept of pedagogical content knowledge (PCK), I interpreted teaching as the transformation of content into forms that students could understand. In other words, for the purposes of this study, teaching occurred when teachers used illustrations, metaphors, examples, explanations, and analogies by which Shulman (1986) defined PCK.

During this study, much of the students' engagement with content standards came through copying information into their notebooks and filling in worksheets. While remedial groupings and leveled groups in classrooms based on student achievement data are admirable, without direct intervention with research-based, student-centered instruction that impacts learning, these student groups will not grow and flourish. High-achieving students will not be pushed to achieve even more.

A focus on more effective instruction is only part of the purpose of the PLCs at WorkTM model. Another part is a focus on student learning. Without these components working together, the PLC cycle is incomplete and student learning impeded. Again, DuFour (2004) said that in order for PLCs to ensure success for every student, educators and schools must ask three crucial questions: “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?” (p. 8). Answering these questions determines how PLCs operate in schools to affect student learning. DuFour and Eaker (1998) described the collaborative inquiry process for improving instruction as one in which teachers reflect on their beliefs, assumptions, and practice; share their reflection with others in the PLC; create an action plan for improving instruction; and implementing the plan. Once the action is complete, teachers should collectively analyze the results and begin the inquiry cycle again.

Perhaps a better form of data collection would be formative assessments that test individual learning on a small scale. A variety of ways exist for assessing student learning this way, even something as simple as students writing three things they learned in class. These could be administered at the end of a class in just five minutes, yet teachers would gain instant data for reteaching objectives as quickly as the next day. This type of assessment would facilitate more student-centered instruction and eliminate the need for gross amounts of time spent administering 90-minute summative assessments like the academic checks.

Future Research

This study answered questions about ELA teachers’ experiences in PLCs as a form of professional development and noted potential affordances and significant limitations of the

PLCs at Murray Middle School to further develop these ELA teachers' PCK. Yet, the findings of this study prompted more questions about PLCs and teacher development.

Specifically, future studies could include questions such as

- How do veteran teachers experience PLCs?
- How do other subject area teachers experience PLCs at this school?
- What happens when teachers learn to conduct action research in their classrooms?
- How does consistent, effective leadership impact teacher learning in PLCs?
- How do the Common Core State Standards (NGA, 2010) influence teacher learning in PLCs? Since the CCSS is a relatively new curricular framework, teachers may still be learning the content and finding effective teaching strategies for addressing those content standards. New curricular frameworks require teachers to study and learn more about teaching the standards. Perhaps this could be a topic teachers could study through collaborative inquiry within a PLC.
- What are students' experiences in data-driven schools?
- How do PLCs reflect the priorities of schools?

Limitations of this Study

This study has limitations because it was a single case study conducted at a small, rural school with only three ELA teachers. This study would look quite different if conducted at a larger, urban school or other context and with teachers from other backgrounds and with different experiences. Feasibly, this study design could be replicated in other schools with different characteristics, different student demographics, higher student achievement levels, and in more affluent communities. The results would be interesting to compare and contrast.

Consequently, these ELA teachers were working with a particularly difficult demographic of students – a historically low achieving, high-minority population in a high-poverty community. These student demographics may have largely impacted the results of this study, particularly because this school historically has been low performing. The student population alone presented huge challenges for these ELA teachers. State testing data showed that these students needed critical assistance in reaching reading goals and achieving substantial growth in reading. Studying the influence of the demographics on instruction at this school would be interesting. Because I was unfamiliar with this school, I was most interested in exploring how teachers were teaching at this school and how their participation in PLCs influenced their instruction. For this reason, I did not focus on student demographics in relation to learning.

Additionally, the current testing culture in schools across the United States plays a role in teaching and learning to a large degree. In PLCs, teachers are asked to collaborate, but current teacher evaluations and student test scores are used to measure individual teacher performance and impact on student achievement. Therefore, the incentive for educators to collaborate and share knowledge and instructional strategies is virtually non-existent and could cause a disconnect between actual instruction, data collection in classrooms, and PLC conversations. Another limitation of this study was the limited opportunity to observe the ELA PLC meetings since teachers did not meet often. However, because the ELA PLC meetings were limited to approximately 30 minutes, teachers did not have adequate time for collaborative inquiry within the PLCs even if they knew how to conduct inquiry for improving instruction. This limited time to focus on content and instruction compared to the

substantial amount of time dedicated to data analysis in the grade level PLC could be an indicator of the school/district priorities. I had no access to the grade level PLC and therefore, could not observe and collect data in those meetings. Findings might have been different if this data had been included.

With Common Core State Standards (2010) being implemented statewide, teachers are still learning their content and need time to develop strategies for teaching the CCSS content. New curriculum standards require teachers to study and learn the new standards and find effective way to teach the content. This new curriculum may have been a new pressure on the ELA teachers in this study and therefore might have impacted the results.

Conclusion

Overall, this study demonstrates how one group of ELA teachers experienced PLCs and how PLCs have much potential for developing teacher PCK. The teachers in this study experienced underdeveloped PLCs that focused on team building rather than collaborative inquiry. They also experienced underutilized PLCs which did not offer them time for the needed collaborative inquiry that DuFour and Eaker (1998) discussed as the mode for teacher growth in PLCs. Teachers also had inconsistent perceptions about their PLC participation, in which topics of PLC conversations did not influence classroom teaching. However, with limited time available for the ELA PLC meetings, it is feasible that PLC conversations could not influence instruction to a large degree. Additionally, teachers collected large amounts of student achievement data and used it to group students for remediation, but not for the purpose of enhancing their own instruction. This could have been due to insufficient training in collaborative inquiry and limited experiences working in PLCs.

With training in collaborative inquiry and opportunities to engage in this type of learning, teachers could benefit from meeting in PLCs to improve their PCK and their instructional practices. Other professional development opportunities such as attending professional conferences and studying professional teaching literature also offer the potential for PLCs to improve teacher PCK and instruction. Student achievement data collection with the intent of focusing on student learning through improved teacher instruction could be a focus in PLC conversations that could also impact teacher PCK. Finally, as Pope and Kutiper (1998) stated, teachers need “*time* to question, consider, experiment, and reconsider; they need *ownership* of the staff development content and process; and they need *response* both from themselves and others as they change, develop, and grow as professionals” (p. 399). If teachers are to grow professionally and develop their PCK, they need adequate time to engage in collaborative inquiry activities. This study found that PLCs afford them the space if districts and schools create schedules to accommodate teacher learning through PLCs.

The results of this study add to existing research about how professional development in the form of PLCs influences teachers, as well as prior studies that investigated ELA teachers’ experiences in PLCs. This study has implications for further research on PLCs, including explorations of different types of PLCs; PCK development, including novice and veteran teacher PCK development through participation in PLCs; and professional development, including teacher learning about collaborative inquiry and action research.

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⁸ To protect district, school, and teacher identities, generic website information has been used

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APPENDICES

Appendix A

First Semi-Structured Interview Protocol

I would like to begin by thanking you for taking the time to help me with my research study. Our discussion should take about 30-45 minutes. The objective of our discussion today is to discuss your experience and beliefs as a teacher participating in professional learning communities.

I would like to audio tape our discussion and take some notes with your permission. I will be the only one who listens to the audio file, and it will be used only to help me write my report on the findings from this study. As soon as I have finished the transcription, the audio file will be destroyed.

Our discussion today is confidential in nature. When I write the report, you will have a pseudonym of your choosing so that you cannot be personally identified or your name connected with any of the data collected during this study. Your comments will be combined with observations throughout this study, and everyone's identity will be protected. You are also free not to participate, and if at any time you do not feel comfortable, we can stop. Do you have any questions before we begin?

1. How long have you been teaching?
2. What certifications do you currently hold?
3. Tell me a little about what you consider some of your best experiences as an educator.
4. Your school system has adopted DuFour's Professional Learning Communities at Work™ model of PLCs. In what ways were you prepared or trained beforehand to participate in PLCs?

Appendix A (cont.)

5. If I were a new teacher at your school, what could I expect to happen in a PLC?
6. How do you decide what content you will teach in your classroom?
7. How do you decide what strategies you will use to teach that content?
8. How are PLCs impacting your teaching knowledge and skills?

Appendix B

First Focus Group Interview Protocol

Hello, everyone. Welcome to the first focus group interview of our research study. Please know that your privacy is of great importance to me, and I will protect your identity to the best of my ability throughout this research study and in the final report. However, because this is a group interview, I cannot control members of this group and information they may share outside the group. I do ask that everyone respect each other's privacy and not share information outside the group, but again, I cannot guarantee this.

The purpose of this group interview is to gather information about how you as a group conduct your professional learning community meetings. I am interested in hearing about how you create goals for your group and how those goals influence your lesson plans and teaching practices.

Your participation in this group interview is voluntary, so if at any point you feel uncomfortable, you are free to leave without any positive or negative ramifications, and you will not be penalized in any way. I respect each of you as professionals and would ask you to extend this same courtesy to others in the group. Are there any questions before we begin? (pause) Let's begin.

1. It is my understanding that you have been meeting in PLCs for some time. Tell me about a typical PLC meeting; how do you carry out your meetings?
2. Your school district adopted DuFour's Professional Learning Communities at WorkTM model several years ago. DuFour and his colleagues say that teachers' individual teaching knowledge and skills are enhanced through collaboration and

Appendix B (cont.)

the sharing of professional knowledge and skills in PLCs. What would you say about that?

3. The PLC at WorkTM model relies on teachers enhancing their teaching knowledge and skills through outside resources. Could you talk about any outside resources your group uses and/or shares that influence your teaching practice?

Appendix C

Final Focus Group Interview Protocol

Hello, everyone. Welcome to the focus group interview marking the end of our research study. As I said before, your privacy is of great importance to me, and I will protect your identity to the best of my ability in this interview and in the final report. However, because this is a group interview, I cannot control members of this group and information they may share outside the group. I do ask that everyone respect each other's privacy and not share information outside the group, but again, I cannot guarantee this.

The purpose of this group interview is to reflect on your PLC experiences over the past seven weeks. I am interested in hearing your reflections about the effectiveness of your PLC.

Your participation in this group interview is voluntary, so if at any point you feel uncomfortable, you are free to leave without any positive or negative ramifications, and you will not be penalized in any way. I respect each of you as professionals and would ask you to extend this same courtesy to others in the group. Are there any questions before we begin?
(pause) Let's begin.

1. How do you perceive your PLC work since the beginning of school?
2. What influence do you feel you have had as a group on your students' learning thus far in the school year?
3. What do you think you might change to increase the effectiveness of your PLC collaboration?
4. What goals do you have for your PLC for the rest of the school year?

Appendix C (cont.)

5. Recall that DuFour says that teachers' individual teaching knowledge and skills are enhanced through collaboration and the sharing of professional knowledge and skills in PLCs. What would you say about that now?
6. Could you talk about any outside resources your group is now using that influence your teaching practices?
7. Is there anything I have not asked you that you would like to discuss concerning your experiences in PLCs or your development as teachers?

Appendix D

Final Semi-Structured Personal Interview Protocol

I would like to begin by thanking you for your time in helping me with my research study. Our discussion should take about 30 minutes. The objective of our discussion today is to reflect on your experiences in your professional learning community over the past seven weeks.

I would like to audio tape our discussion and take some notes with your permission. As I stated in our first interview, I will be the only one who listens to the audio file, and it will be used only to help me write my report on the findings from this study. As soon as I have finished the transcription, the audio file will be destroyed.

Our discussion today is confidential in nature. When I write the report, you will be identified only by the pseudonym you chose previously so that you cannot be personally identified or your name connected with any of the data collected during this study. Your comments will be combined with observations throughout this study, and everyone's identity will be protected. You are also free not to participate, and if at any time you do not feel comfortable, we can stop. Do you have any questions before we begin?

1. In what ways do you feel your PLC work has influenced your development as a teacher since school began?
2. Now that you are in the second grading period, how do you decide what content you will teach in your classroom?
3. How do you decide what strategies you will use to teach that content now?
4. How are PLCs impacting your teaching knowledge and skills?

Appendix E

Personal Interview 1 Analysis Matrix

Interview 1 Analysis		
Question 1 How long have you been teaching?		
Tia	Maribel	Batrice
Question 2 What certifications do you currently have?		
Tia	Maribel	Batrice
Question 3 What do you consider some of your best experiences as an educator?		
Tia	Maribel	Batrice
Question 4 Your school system has adopted DuFour's Professional Learning Communities at Work model of PLCs. Can you talk to me about the ways you were prepared or trained beforehand to participate in these PLCs?		
Tia	Maribel	Batrice
Question 5 If I were a new teacher at your school, what could I expect to happen in your PLC?		
Tia	Maribel	Batrice
<i>Subject area PLC</i>	<i>Subject area PLC</i>	<i>Subject area PLC</i>
<i>Grade level PLC</i>	<i>Grade level PLC</i>	<i>Grade level PLC</i>
Question 6 How do you decide what content you will teach in your classroom?		
Tia	Maribel	Batrice

Appendix E (cont.)

Question 7 How do you decide what strategies you will use to teach the content that you have to teach?		
Tia	Maribel	Batrice
Question 8 How are PLCs impacting your teaching knowledge and skills?		
Tia	Maribel	Batrice
Question 9 Is there anything I have not asked you that pertains to your experience of PLCs and your development as a teacher?		
Tia	Maribel	Batrice

Appendix F

Focus Group Interview 1 Analysis

Question 1 Your school district adopted DuFour's Professional Learning Communities at Work model several years ago. In the research literature, DuFour and his colleagues say that teachers' individual teaching knowledge and skills are enhanced through collaboration and the sharing of professional knowledge and skills in these PLCs. What would you say about that?		
Tia	Maribel	Batrice
Question 2 What have been some of the challenges that you all have faced as a group participating in PLCs?		
Tia	Maribel	Batrice
Question 3 What have been some of your best PLC experiences?		
Tia	Maribel	Batrice
Question 4 The PLC at Work model relies on teachers enhancing their teaching knowledge and skills through outside resources. Could you talk about any outside resources that your group uses and/or shares that influence your teaching practice?		
Tia	Maribel	Batrice
Are any of you members of a professional English teachers or reading association or the National Council of Teachers of English or the International Reading Association?		
Tia	Maribel	Batrice
Do any of you use any of the NCTE journals...Reading Research Quarterly or Journal of Adolescent and Adult Literacy, um, what is the one for IRA...the Reading Teacher? Reading Today?		
Tia	Maribel	Batrice

Appendix G

PLC Observation Document

PLC Observation #	Date:
Time:	Members present:
What I Observed	My Reflection

Appendix H

Classroom Observation Notes

Observation #	Teacher's Name:	Grade:
Date:	Time:	
What I Observed	My Reflections	

Appendix I

Classroom Observations in Comparison to ELA PLC Observation

Tia	Maribel	Batrice
Key words from PLC observations		
Corresponding classroom activities		

Appendix J

Personal Interview 2 Analysis Matrix

Question 1 Would you share with me your thinking processes in the grade level PLC?		
Tia	Maribel	Batrice
Question 2 Could you show me how you analyze the data when you work in your grade level PLC?		
Tia	Maribel	Batrice
Question 3 What do you feel is the purpose of the grade level PLC? the subject area PLC?		
Tia	Maribel	Batrice
<i>Subject Area PLC</i>		
<i>Grade Level PLC</i>		
Question 4 When you plan lessons, what thought processes do you go through in deciding how you will teach a lesson?		
Tia	Maribel	Batrice
Question 5 Is there anything I haven't asked you that you would like to discuss concerning your development as a teacher?		
Tia	Maribel	Batrice

Appendix K

Focus Group Interview 2 Analysis Matrix

Question 1 Throughout this study I noticed that your grade level PLCs meet regularly while your subject area ones do not. Could you all talk about that?		
Tia	Maribel	Batrice
Probe: How do you feel about that? I mean, you know, knowing the purpose of your subject area PLC after school, how do you feel about not being able to meet as often as maybe you would like or as often as you're required to or...		
Tia	Maribel	Batrice
Probe: So you're missing that part of the collaboration?		
Tia	Maribel	Batrice
Probe: Do you think that would be more difficult if you had a larger department?		
Tia	Maribel	Batrice
Probe: How are you doing the personal connection?		
Tia	Maribel	Batrice
Question 2 Recall that DuFour, which is the model that your PLCs are patterned after, says that teachers' individual teaching knowledge and skills are enhanced through collaboration and the sharing of professional knowledge and skills in PLCs. And I asked you this question in the first interview, so in reflecting over the last 7 weeks, what would you say about that now?		
Tia	Maribel	Batrice

Appendix K (cont.)

Question 3 What goals do you have for your PLCs for the rest of the school year?		
Tia	Maribel	Batrice
Probe: Refresh me again, your agenda stems from maybe things that each of you might wanna talk about in the PLC, also things that are required for Ms. Forester, and maybe even things that come from the county office?		
Tia	Maribel	Batrice
Question 4 Is there anything that I haven't asked you that you would like to discuss concerning your experiences in the PLCs or your development as teachers through these PLCs?		
Tia	Maribel	Batrice

Appendix L

Matrix of Non-color Coded Classroom Activity

Tia	Maribel	Batrice
Observation 1	Observation 1	Observation 1
Observation 2	Observation 2	Observation 2
Observation 3	Observation 3	Observation 3
Observation 4	Observation 4	Observation 4
Observation 5	Observation 5	Observation 5
Observation 6	Observation 6	Observation 6
Observation 7	Observation 7	Observation 7

Appendix M

PLC Meeting 1 Agenda

1. Pass out data spreadsheet
2. Discuss student passwords
3. ABC strategy (Maribel)
4. Project-based Learning workshop (Tia)
5. After-school tutoring
6. Teaching resources
7. Parent night