SUPPORTING NEW PROFESSIONAL LEARNING COMMUNITIES IN A RURAL, COMPREHENSIVE HIGH SCHOOL: AN ACTION RESEARCH CASE STUDY

by

DALE MORRIS SIMPSON, JR.

(Under the Direction of Sheneka Williams)

ABSTRACT

This action research case study examined the benefits and challenges experienced by social studies teachers when developing new professional learning communities (PLCs). Additionally, the study sought to assess how interventions developed by a school leadership team supported the development of these new PLCs, if at all. The study examined three research questions:

1. What benefits do high school social studies teachers experience when engaging in new professional learning communities?
2. What challenges do high school social studies teachers experience when engaging in new professional learning communities?
3. How do interventions developed by a school leadership team support the development of new professional learning communities, if at all?

The results of this study have several implications for school leaders. First, findings indicate that PLCs could be a worthwhile initiative for improving schools in terms of both school culture and student achievement. Second, administrators should not expect teachers to achieve high levels of collaboration immediately. Instead, teachers need to spend their initial time getting to know each other, and calibrating their beliefs and philosophies. Third, administrators should

not utilize the PLC framework to mandate identical instruction across classrooms. While consistency was developed through this process, teachers strove to maintain their own individuality as teachers. Finally, if teachers are expected to collaborate, they must receive the structural and relational supports needed to sustain their work. In this study, these supports included time to meet during the school day, common unit assessments and a rapid data analysis tool to collect and analyze student learning data, and the supportive leadership of a department chair and school leadership team.

INDEX WORDS: action research case study, professional learning communities, teacher collaboration

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DALE MORRIS SIMPSON, JR.

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by

DALE MORRIS SIMPSON, JR.

Major Professor:	Sheneka Williams
Committee:	Karen Bryant
	Karen Watkins

Electronic Version Approved:

Suzanne Barbour
Dean of the Graduate School
The University of Georgia
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DEDICATION

This dissertation is dedicated to my beautiful family.

Christy, I could not have done this without you. I recognize that every moment I spent working on this meant one more thing you had to handle alone. Thank you, and I promise I will start doing more laundry now!

Reace, my son, I am so proud of you. You love learning more than I ever did. You are an intelligent, hard-working, sweet boy. You remind me so much of your mom. When this is all over, I promise to take you fishing.

Tinley, my beautiful baby girl, I started this program right after you were born. Over these years, I have watched you grow into the fine little lady you are. You always take care of your big brother and little sister. You have also helped mom when daddy had to work on the computer. Thank you, sweet girl! I will have much more time to drink tea with you now, and chase you around the house like a monster.

Bella Kate, my baby, your smile warms my heart. I hope you remember the nights you pulled me away from my typing – I just couldn't resist chasing you in our bedroom, hearing that sweet laugh of yours while your little feet ran as fast as they could. You love life, and you always have. Daddy will spend much more time teaching you all about the world, and, yes, you can play with the computer keyboard now.

To my unborn son or daughter, I simply can't wait to meet you! We are going to spend lots of time together.

To my family, you are my sunshine, my joy, my greatest accomplishment. I love you!

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Thank you to all the cohort one members. You were all so kind, encouraging, and supportive. I could not have finished without your help!

Thank you to my family. I know that every moment I spent on this was a moment away from you. I look forward to regaining all those moments soon – let’s have some fun!

Finally, thank you to God. You have blessed my path every step of the way. I owe every good thing I have to You.

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CHAPTER 1

INTRODUCTION

In 2013, I began my journey as a doctoral student in educational leadership to improve my leadership skills and prepare myself to transition into school administration. In this program, I benefited from challenging coursework, relevant field experiences, knowledgeable professors, and a very supportive cohort. This ultimately prepared me to accept my first administrative position in 2014. As a new high school assistant principal, I observed teachers working primarily in isolation, not capitalizing on the collective experience of their colleagues. I also heard their frustration with being asked to collaborate with other teachers, while receiving very little support for actually doing so. This dissertation tells the story of how our school leadership team developed, implemented, and evaluated interventions to support teachers in learning and working together in professional learning communities. Most importantly, it shares what teachers experienced during this process.

Problem

The literature suggests that professional learning communities (PLCs) offer many benefits to teachers, including collective learning, collaboration, and improved practice (Vescio, Ross, & Adams, 2008). However, research on the process of implementing these new PLCs is sparse (Spillane, 2005). The scholarly community has been much more interested in the characteristics of PLCs rather than how to actually develop them. Also, most of the research on PLCs has taken place in elementary and middle school settings; there is a need for more studies to be conducted at the high school level (Vescio, Ross, & Adams, 2008).

This action research case study aims to capture and share the experiences of teachers and administrators while participating in and supporting new PLCs at Panther Country High School, a pseudonym. More specifically, it seeks to understand the benefits and challenges faced by teachers in these new communities, and to assess how the interventions developed by a school leadership team support this new initiative. Finally, it is the goal of this study to serve as a resource for other school leaders who are considering implementing PLCs in their own schools. These leaders need access to high quality, practical research studies to guide their implementation, and to help them achieve success.

Purpose and Research Questions

The purpose of this action research case study is to examine the benefits and challenges experienced by social studies teachers when developing new professional learning communities (PLCs). The study also seeks to assess how interventions developed by a school leadership team support the development of these new PLCs, if at all. Thus, the following research questions were examined:

1. What benefits do high school social studies teachers experience when engaging in new professional learning communities?
2. What challenges do high school social studies teachers experience when engaging in new professional learning communities?
3. How do interventions developed by a school leadership team support the development of new professional learning communities, if at all?

Context

This study was conducted in a rural, comprehensive high school in the Southeastern United States. The school system in which Panther Country High School (PCHS) is a part of

consists of seven elementary schools, three middle schools, and two high schools. It serves approximately 7,400 students, and employs over 500 certified staff members. One of the primary challenges faced by the system is its finances. From 2007 to 2015, it faced nearly $32 million in austerity reductions from the state. Additionally, it lost approximately $7 million in local tax revenue due to a declining tax digest. These funding issues were further compounded by increased enrollment, and heightened expectations from lawmakers in terms of both assessment and accountability.

PCHS is a rural, comprehensive high school that serves approximately 1,100 students. In the 2015-2016 school year, 78% of PCHS students were White, 11% were Hispanic, 5% were Asian, 4% were African American, and 2% were multiracial. Also, 51% of students were male, and 59% were female. PCHS employs approximately 70 certified staff members, who were 97% White and 3% African American; also, 57% of the staff were female while 43% were male.

Conceptual Framework

There are two components to the conceptual framework for this study, both of which are antecedents of powerful professional learning communities: enabling school structures and collegial trust. As Gray, Kruse, and Tarter (2016) stated, the formal aspects of the school represent enabling school structures while informal aspects represent collegial trust. Hord (2007) posited both structural and relational conditions must support PLCs if the teacher communities are to truly improve instructional practice and impact student learning. She described two conditions required "for PLCs to function productively: (1) logistical conditions such as physical and structural factors and resources, and (2) the capacities and relationships developed among staff members so that they may work well and productively together" (p. 3).

Hoy and Sweetland (2000, 2001) described schools with enabling structures as those where teachers perceive that administrators support their work, not hinder it. Applying the work of Adler and Borys (1996) on enabling school structures to schools and universities, Hoy and Sweetland (2001) investigated positive and negative aspects of bureaucracy in schools through two unique spectra: formalization and centralization.

Formalization refers to the extent of rules and procedures in place in the organization, while centralization is how much leadership is shared with employees. In a school with hindering formalization, rules are put in place to force compliance on teachers and staff; this typically results in stressed, isolated, unhappy teachers who are frequently absent from work (Sinden, Hoy, & Sweetland, 2004). In a school with enabling formalization, the motivation behind rules and procedures are to help staff members through problem-solving and best practices; also, interpreting and operationalizing these procedures employs the professional judgment of teachers, not blind obedience (Sinden, Hoy, & Sweetland, 2004). Schools with hindering centralization have administrators who cling to their authority, and often interrupt problem-solving rather than support it. Finally, schools with enabling centralization have administrators who "use their power and authority to help teachers by designing structures that facilitate teaching and learning; in brief, they empower their teachers" (Sinden, Hoy, & Sweetland, 2004, p. 464).

Wu, Hoy, and Tarter (2013) posited that in schools with enabling structures, teachers and administrators work together to solve problems, which develops the structural conditions for teachers to work and succeed. In schools with hindering structures, teacher leadership is reduced because the school is tightly controlled by the principal (Hoy, 2002). Hoy and Sweetland (2007) argued that, in order for schools to improve, they must develop a "structure that enables

participants to do their jobs more creatively, cooperatively, and professionally" (p. 362-363). Of course, this idea is consistent with the whole premise of professional learning communities.

Collegial trust is the degree to which teachers feel they can depend on each other (Tschannen-Moran & Hoy, 1998). Hoy (2012) stated that collegial trust is "the collective belief that the word and promise of another individual or group could be relied upon, and further, that the trusted party would act in the best interest of the faculty" (p. 78). Tschannen-Moran (2014) described five facets of trust in her book *Trust Matters: Leadership for Successful Schools*: benevolence, honesty, openness, reliability, and competence. When teachers trust each other, they are willing to be open and vulnerable; this is the level of trust required for PLCs to thrive. Absent of this, teachers are not likely to share their true thoughts and practices with one another. Also, the development of PLCs requires teachers to become interdependent instead of autonomous. While trust influences a complex process like how, or if, a teacher shares their true beliefs on a subject, it also acts in a more visible way by determining if a teacher relies on their peer to complete a task before the next meeting. Finally, an important distinction between trust and enabling school structures is time. While enabling structures should be developed prior to implementing PLCs, trust is developed over time as teachers learn and collaborate. Gray and Summers (2016) supported this assertion when they stated, "We contend that as teachers work together, collegial trust increases, and vice versa" (p. 2). They also summarized the idea by stating, "the structures of the school must enable or help teachers to do their jobs more effectively; teachers should have trust in each other and belief in the ability of their colleagues" (Gray & Summers, 2016).

A visual diagram of this conceptual framework is presented below (see Figure 1).

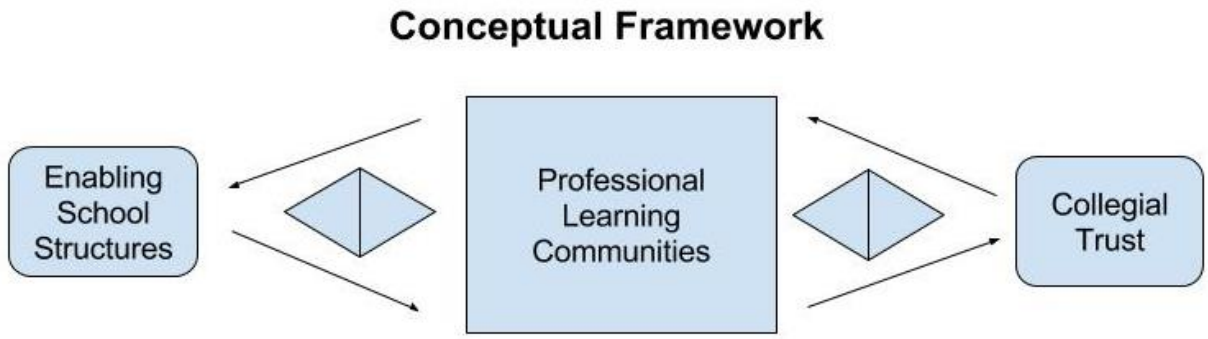

Figure 1

Conceptual Framework for Developing Effective PLCs

Methodology

The methodology of this study utilized both action research and case study. While action research was used to frame the work of the school leadership team, case study was used to document the story of what occurred, and evaluate its results. Stringer (2013) defined action research as "a systematic approach to investigation that enables people to find effective solutions to problems they confront in their everyday lives" (p. 1). Coghlan and Brannick (2014) stated that it "focuses on research in action rather than research about action" (p. 6) and that its goal "is to make that action more effective while simultaneously building up a body of scientific knowledge" (p. 6). My interpretation of these statements is that, while action research is a systematic and scientific methodology that contributes to both knowledge and literature, it is grounded in developing solutions that address real issues faced by individuals in their personal, social, and professional lives.

Yin (2009) described case study as an "empirical inquiry that attempts to investigate a contemporary phenomenon that occurs in a real life context" (p. 18). Merriam (2009) recommended that case studies be used when the goal of the researcher is to provide a

descriptive and heuristic account of a phenomenon. The current study is descriptive in that it provides a rich, detailed account of the benefits and challenges experienced by teachers in new PLCs; it also describes how interventions developed by a school leadership team support the new teacher communities, if at all. The study is heuristic in that it expands on what is collectively known about PLCs, and how to implement them.

Several strategies were used to establish validity in the study, including triangulation, member checking, and thick description (Creswell & Miller, 2000). The data used to support the study's findings was collected from various sources, including semi-structured interviews, observations, field notes, and document analysis. Ruona's (2005) four-step process was used to analyze the qualitative data collected. In summary, the data collection, data collection, and validity procedures described above supported me in developing a thick, rich description of data and findings in subsequent chapters.

Significance

This study is significant in several respects. First, it has a direct impact on both teachers and leaders at Panther Country High School, as well as the school system at large. The school's success with professional learning, and professional learning communities, has been inconsistent in prior years. To fully capitalize on the benefits of PLCs described in the literature, including improved teacher practice and enhanced student achievement, it was important for the team to adopt effective interventions that were evidence based. Second, it is my hope that this study will serve as a resource for other educators who are currently considering the implementation of PLCs in their own schools. If they are to be successful in this, they need access to high quality, practical research studies to guide their first steps. Finally, this study is significant because it will contribute to several gaps in the PLC literature. These gaps include how new PLCs develop and

evolve, how high schools implement PLCs, and what supports are required in terms of both structure and relationships (Vescio et al., 2008). Importantly, the study will also build on the work of Gray, Kruse, and Tarter (2016), who included enabling school structures and collegial trust in their conceptual framework for PLC development, but conducted their study using a quantitative methodology.

Organization of the Dissertation

Chapter 1 introduces the problem, purpose, research questions, context, conceptual framework, methodology, and significance of the dissertation. Chapter 2 examines the current literature available on professional learning communities, and expounds on the theoretical and conceptual frameworks for the study, which include professional learning communities, enabling school structures, and collegial trust. Chapter 3 explains the research procedures I used to collect, analyze, and validate data so as to answer the stated research questions. Chapter 4 presents the case study, which documents how the school leadership team supported new social studies PLCs. Chapter 5 reveals the findings that emerged for each of the three research questions. Chapter 6 discusses and analyzes the findings, and presents eight themes that emerged from the data.

CHAPTER 2

LITERATURE REVIEW

This chapter reviews the literature pertaining to professional learning communities (PLCs) in order to provide theoretical and empirical grounding for the current study. Numerous publications were examined, including both books and journal articles; this scholarship was found using various databases and research tools, including Galileo, Google Scholar, EBSCO, ERIC, and Proquest.

Theoretical Framework

As a theoretical framework, this study relies on the work of Shirley Hord (1997) regarding professional learning communities. While there is no universally accepted definition of the term "professional learning community" (Stoll, Bolam, McMahon, Wallace, & Thomas, 2006), Hord (1997) provided a concise explanation when she stated that they are groups of educators who "continuously seek and share learning, and act on their learning" (p. 6). In the first phase of her study *Creating communities of learners: The interaction of shared leadership, shared vision, and supportive conditions*, Hord (1997) synthesized the work of several researchers relating to what was called professional communities of learners (Rosenholtz, 1989; McLaughlin & Talbert, 1993; Darling-Hammond, 1996). In her analysis, conducted in conjunction with the Southwest Educational Development Laboratory (SEDL), she identified the following five characteristics, or dimensions, of professional learning communities:

- supportive and shared leadership;
- collective creativity;

- shared values and vision;
- supportive conditions; and
- shared personal practice.

Over the years, Hord (2004, 2009), Hipp and Huffman (2003, 2010), Hord and Sommers (2008), and, finally, Hord and Tobia (2012) revised these dimensions. Most recently, Hord and Tobia (2012) offered the following six dimensions of professional learning communities:

- supportive and shared leadership;
- shared beliefs, values, and vision;
- intentional collective learning;
- physical or structural conditions;
- collegial or relational conditions; and
- shared practice.

Supportive and shared leadership, provided by a school's administration, is considered a prerequisite for establishing professional learning communities (Hord & Sommers, 2008). To support PLCs, school and district administrators must be willing to share power and authority by sharing responsibility for decision-making with faculty and staff members (Hord & Tobia, 2012). Often facilitating PLC teams themselves, principals should be careful not to stifle the creativity or spontaneity of their staff. Instead, members should feel safe asking questions, raising concerns, and proposing solutions. These blurred lines between the roles of teacher and administrator could potentially be uncomfortable for some principals. However, it is an essential step in implementing professional learning communities effectively (Hord & Sommers, 2008).

Hord and Tobia (2012) also asserted that members should share common beliefs, values, and visions of what the PLC is to accomplish, which should include improved student learning

and achievement as the primary objective. According to Hord and Sommers (2008), the shared commitments of a PLC determine how teachers behave, what they value, and how they spend their time. Consequently, when teachers are truly committed to improving student learning, it is visible in every meeting, discussion, or activity carried out by teachers. When this type of evidence is not visible, this might indicate that the focus of the PLC is not where it should be.

The learning that occurs in PLCs should intentionally seek to enhance teachers' instructional practices, ultimately resulting in improved student learning (Hord & Sommers, 2008). However, if new knowledge or skills are not implemented in the classroom, student learning will not be impacted as a result of teacher participation in PLCs (Hord & Tobia, 2012). To ensure that teachers learn in PLCs, and subsequently apply this learning in their classroom, Hord and Sommers (2008) provided a plan for intentionally and explicitly planning for teacher learning. First, based on the group's shared areas of opportunity, they suggested that teachers identify a focus area for professional learning. After collectively identifying a focus, PLCs should engage in collaborative learning experiences designed to develop their knowledge and skills in this area. Finally, after applying these new skills in their work, teachers should assess the usefulness of their learning and co-construct a plan for moving forward (Hord & Sommers, 2008).

To maximize the effectiveness and efficiency of PLCs, the proper physical and structural conditions need to be in place, including the allocation of sufficient resources (Hord & Tobia, 2012). Importantly, PLC members must have adequate time, and physical space, to meet. Additionally, Hord and Sommers (2008) suggested that the classrooms of same-grade or same-subject teachers be in close proximity to encourage spontaneous conversations and collaboration amongst teachers. Of the structural conditions identified by the literature, time seems to be the

most significant. Hord (1997) identified time as a resource to PLCs when available, and a barrier when it is not. Finally, Hord and Tobia (2012) argued that it is the responsibility of school leaders to ensure that the conditions and resources necessary for supporting PLCs are in place.

Like structural conditions, relational conditions must also be in place for PLCs to develop effectively (Hord & Tobia, 2012). As discussed later in this review, of the relational conditions necessary for PLCs to thrive, trust seems to be paramount. When absent, collaboration is often ineffective because teachers are less willing to share honest and open feedback (Hord & Sommers, 2008).

Finally, shared practice occurs when teachers conduct peer observations, provide constructive feedback on each other's performance, or co-teach lessons together (Hord & Tobia, 2012; Hord & Sommers, 2008). Teachers conducting these activities with their colleagues do so to improve their professional practice, which will ultimately have a positive impact on their students (Hord & Tobia, 2012). Critically, Hord and Sommers (2008) stressed that true shared practice does not occur when teachers do not trust each other.

Conceptual Framework

As a conceptual framework, this study utilizes two powerful antecedents for effective professional learning communities: enabling school structures and collegial trust. As Gray, Kruse, and Tarter (2016) stated, formal aspects of a school might represent enabling school structures while informal aspects might represent collegial trust. If teachers are to truly improve their instructional practice and thereby impact student learning, Hord (2007) reasoned that both structural and relational conditions must support the work of teachers in their learning communities. She stated, "for PLCs to function productively: (1) logistical conditions such as

physical and structural factors and resources, and (2) the capacities and relationships developed among staff members so that they may work well and productively together" (p. 3).

Hoy and Sweetland (2000, 2001) described enabling structures as schools in which teachers perceive administrators as supports to their work instead of hindrances. Applying the work of Adler and Borys (1996) on enabling school structures to schools and universities, Hoy and Sweetland (2001) investigated positive and negative aspects of bureaucracy in schools through two unique spectrums: formalization and centralization. Formalization refers to the extent of rules and procedures in place in the organization, while centralization is the degree to which administrators share leadership with staff members. In a school with hindering formalization, rules are put in place to force compliance on teachers; this typically results in stressed, isolated, unhappy teachers who are frequently absent from work frequently (Sinden, Hoy, & Sweetland, 2004). In a school with enabling formalization, the motivation of rules and procedures is to help staff members through problem-solving and best practices. Also, interpreting and operationalizing the procedures employs the professional judgment of teachers, not blind obedience (Sinden, Hoy, & Sweetland, 2004). Schools with hindering centralization have administrators who cling to their authority and often interrupt problem-solving rather than support it. Finally, schools with enabling centralization have administrators who "use their power and authority to help teachers by designing structures that facilitate teaching and learning; in brief, they empower their teachers" (Sinden, Hoy, & Sweetland, 2004, p. 464). Wu, Hoy, and Tarter (2013) posited that schools with enabling structures have teachers and administrators who work together to solve problems; this develops structural conditions necessary for teachers to collaborate and succeed. In schools with hindering structures, the principal tightly controls the school, resulting in lower levels of teacher leadership (Hoy, 2002). Hoy and Sweetland (2007)

argued that, for schools to improve, they must develop a "structure that enables participants to do their jobs more creatively, cooperatively, and professionally" (p. 362-363). Of course, this idea is consistent with the premise of professional learning communities.

Collegial trust is the degree to which teachers perceive that they can depend on each other (Tschannen-Moran & Hoy, 1998). Hoy (2012) stated that collegial trust is "the collective belief that the word and promise of another individual or group could be relied upon, and further, that the trusted party would act in the best interest of the faculty" (p. 78). Tschannen-Moran (2014) described five facets of trust in her book *Trust Matters: Leadership for Successful Schools*: benevolence, honesty, openness, reliability, and competence. When teachers trust each other, they are willing to be open and vulnerable with each other; this is the level of trust that is required for PLCs to thrive. Absent of trust, teachers are not likely to share their true beliefs and instructional practices with others. Importantly, the development of PLCs also requires teachers to move from autonomy to interdependence. While trust might influence a complex process such as how a teacher decides to share their true beliefs on a topic, it also acts in a much simpler way by determining if a teacher trusts a colleague to complete a task before the next meeting.

While both enabling school structures and collegial trust support the development of PLCs, the literature suggests that one important distinction between the two is timing. While enabling school structures are needed before implementing PLCs, trust is developed over time as teachers interact and work with each other. Gray and Summers (2016) supported this assertion when they stated, "We contend that as teachers work together, collegial trust increases, and vice versa" (p. 2). They further added that "the structures of the school must enable or help teachers to do their jobs more effectively; teachers should have trust in each other and belief in the ability of their colleagues" (Gray & Summers, 2016).

A visual diagram of this conceptual framework is presented below (see Figure 2).

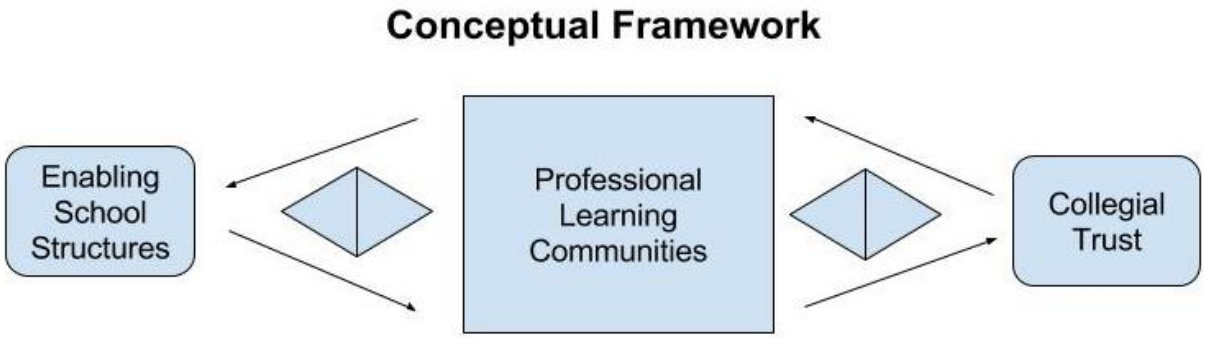

Figure 2

Conceptual Framework for Developing Effective PLCs

Empirical Studies

In this section, a synthesis of empirical studies on PLCs is provided. The three focus areas for this review are the benefits, challenges, and supportive conditions associated with developing effective PLCs. These areas align with the three research questions for the study:

1. What benefits do high school social studies teachers experience when engaging in new professional learning communities?
2. What challenges do high school social studies teachers experience when engaging in new professional learning communities?
3. How do interventions developed by a school leadership team support the development of new professional learning communities, if at all?

Research on PLCs suggests that they can effectively facilitate teacher learning. As teachers learn, their instructional practices improve, resulting in enhancements to student learning. However, even when teachers are very committed to the process, developing an effective PLC is not easily or quickly accomplished. Even so, some researchers argue that PLCs

are still an idea well worth pursuing as a means of improving schools through enhanced teacher practice and student learning (Bolam, McMahon, Stoll, Thomas, & Wallace, 2005). For schools that choose to adopt this type of professional learning and collaboration structure, it is crucial for school leaders to intentionally develop the conditions necessary for supporting teachers.

Teacher Learning

Researchers identify many potential benefits of implementing professional learning communities, including teacher learning, teacher instructional practices, and student achievement. Before teachers making any substantial changes to their instructional practices, they must experience a change in beliefs, knowledge or attitudes; in other words, teacher learning must occur. In a literature review conducted by Vescio et al. (2008), eight studies explored the relationship between PLCs and teacher learning. In all eight studies, evidence indicated that PLCs had positive implications for teacher learning. Butler et al. (2004) claimed that PLCs offer teachers the opportunity to co-construct knowledge with their colleagues, reflect, and subsequently revise their prior knowledge and assumptions. However, if teachers are to truly benefit from this learning, they must embrace their role as *learners* when working in these teacher communities (Nelson, 2009).

One of the first researchers to call for more professional collaboration in schools was Susan Rosenholtz (1989). In her study of 78 elementary schools, she identified two types of schools in terms of learning: learning enriched and learning impoverished. In learning enriched schools, teachers work collaboratively to improve instruction, analyze teaching practices, and share ideas for improvement and growth. In learning impoverished schools, these types of activities rarely occur, as teachers work primarily in isolation. According to Rosenholtz (1989),

teachers in these learning enriched schools experienced gains in their pedagogy, efficacy, and commitment to their schools.

Hollins, McIntyre, DeBose, Hollins, and Towner's (2004) study also identified teacher learning as a benefit of PLC collaboration. They described a 12-member PLC in which teachers initially focused on disassociating their personal backgrounds from those of their students; eventually, however, these teachers shifted their conversations to identifying ways they were similar to their students, and recognizing how their students' personal lives might affect their academic engagement. Also, Hollins et al. (2004) reported that, as teachers moved away from defending their instructional practices in PLC meetings, they began to work together to develop new solutions for meeting the unique needs of their students; they collaboratively examined research, shared suggestions and best practices, and co-developed lesson plans. Through their participation in PLCs, Hollins et al. (2004) shared that teachers learned more about themselves, their students, and quality teaching.

Nelson (2009) also explored teacher learning within a collaborative work setting. These teachers adopted on-going cycles of inquiry to learn, improve, and reflect. Teachers reported that this work facilitated the development of solutions for the instructional problems they faced; also, it resulted in positive shifts in their dispositions toward teaching and learning.

Results of empirical studies indicate that teacher engagement in PLCs, and the activities commonly engaged in by these groups, could have positive implications for teacher learning (Rosenholtz, 1989; Hollins et al., 2004; Nelson, 2009). This agrees with the argument of Hargreaves et al. (2001), who stated that the age of autonomous teachers in the United States is transitioning into one of collegiality. However, researchers do not propose that these changes are made easily. Aubusson et al. (2007) warned that school leaders implementing PLCs should

expect to encounter struggles along the way. This was confirmed in Hollins et al.'s (2004) study when the teachers struggled to establish norms of productivity, focus, and collaboration in the early stages of their work together. However, as demonstrated by Hollins et al. (2004) and according to Aubusson et al. (2007), overcoming these obstacles provides much of the professional growth teachers will experience through their participation in PLCs.

Hargreaves et al. (2001) argued that PLCs are a powerful form of teacher professional development because they situate the learning that occurs within teachers' everyday work lives. However, this is not the case with more traditional forms of professional development, such as workshops or in-service meetings (Butler et al., 2004). Quite to the contrary, it is argued that these types of professional development opportunities offer very limited improvement in terms of both knowledge and practice (Randi & Zeichner, 2004); Darling-Hammond and Sykes (1999) label them as both shallow and fragmented.

Burbank & Kauchak (2003) argued that, instead of continuing to offer teachers failed methods of professional development, school leaders should provide opportunities for teachers to engage in a collaborative and evolving examination of their teaching practices as compared with the relevant research literature. Butler et al. (2004) asserted that this progressive form of professional learning can make deep rooted changes in teaching and learning, and can reshape teachers' conceptual knowledge through collaborative reflection and co-construction of knowledge. Hollins et al. (2004) summarized this approach by stating that professional learning should consist of as ongoing processes of reflection on current practices, learning and collaborating with colleagues, and, as a result, implementing new skills and knowledge.

Instructional Practices

While Hollins et al. (2004) suggested that professional learning should include ongoing processes of reflection, learning, collaboration, and the implementation of new knowledge, unfortunately, professional learning does not always lead to changes in instructional practices (Nelson & Slavit, 2007). According to empirical research, professional learning communities are one viable option for impacting both teacher learning and teacher practice. For example, Andrews and Lewis (2007) found that Australian teachers' participation in PLCs improved their knowledge and practices inside the classroom. Again, these changes in instructional practices are not typical of traditional forms of professional development such as workshops and in-service days (Butler et al., 2004). Instead, what is required are ongoing opportunities for teachers to co-construct new knowledge and revise their current understandings through processes of shared reflection and dialog (Butler et al., 2004).

Ermeling (2010), like Nelson (2009), suggested that collaborative teacher inquiry is a method for promoting positive shifts in teacher practices as a result of collaboration. Because this inquiry cycle highlights the cause-effect relationship between teaching and learning, Ermeling (2010) argued that it prompts teachers to reconsider and revise their typical instructional approaches to make them more effective. He further suggested that teachers in effective teams have four overall features: they identify and concern themselves with important instructional problems, connect research with their instructional decisions, use evidence of student learning to guide their work, and are committed to making detectable improvements in teaching and learning. In interviews, teacher participants indicated that these four features helped them re-evaluate their practices, and make meaningful changes to them.

In similar results, Burbank & Kauchak (2003) found that pre- and in-service teacher participation in action research teams had positive implications on their instructional practices. While the studies of Ermeling (2010) and Burbank & Kauchak (2003) did not directly examine professional learning communities, both teacher inquiry and action research are large parts of what teachers do in PLCs; this made both of these reports relevant to the current study.

As stated previously, teacher learning does not always lead to changes in teacher practice. Unfortunately, this lack of impact can also occur when teachers learn in professional learning communities. Supovitz (2002) argued that this is prone to occur when PLCs focus their work on issues other than teaching and learning. For example, one of the PLCs Supovitz (2002) examined spent a large amount of time on administrative work, student discipline, and paperwork. While the teachers in this PLC did experience benefits from working together, like increases in collegiality and job satisfaction, they did not make any detectable changes in their instructional practices. To avoid this, Supovitz (2002) suggested that PLCs focus their efforts on collaboratively planning for instruction, teaching together, observing each other, and sharing responsibility for student learning.

Student Achievement

When teachers collaborate, they share experiences and knowledge with each other that has the potential to improve their knowledge in terms of both content and pedagogy; this, in turn, benefits students and their learning (Goddard, Goddard, & Tschannen-Moran, 2007). Several studies indicate that improved student learning should be the center of teachers' work in professional learning communities (Bolam et al., 2005; Vescio et al., 2008; McLaughlin & Talbert, 2006). Additionally, consensus is gathering that effective PLCs have the potential to improve student learning (Bolam et al., 2005; Vescio et al., 2008; McLaughlin & Talbert, 2006;

Hollins et al., 2004; Rosenholtz, 1989; Berry, Johnson, & Montgomery, 2005). In the PLC studies reviewed by Vescio et al. (2008), all eight reported increases in student achievement when PLCs were implemented. In agreement with these findings, McLaughlin and Talbert (2006) also noted strong correlations between PLCs and teachers' use of several research-based instructional strategies.

Working with the Center on Organization and Restructuring of Schools (CORS), Lee, Smith, and Croninger (1995) studied 820 high schools characterized as professional learning communities. In these schools, teachers worked together to collaboratively develop stronger, more rigorous learning activities for their combined 11,000 students. In their results, Lee et al. indicated that schools with the strongest PLCs also had the highest gains in math, science, language arts, and social studies. Additionally, disparities between socioeconomic groups were smaller in these schools, suggesting that PLCs could be a promising strategy for closing the achievement gap.

Goddard, Goddard, and Tschannen-Moran (2007) reported similar results in their study of 47 elementary schools in a Midwestern school district. They found that students in schools with higher levels of collaboration amongst teachers also had higher assessment results in both reading and mathematics. When reflecting on these results, Goddard et al. suggested that there is preliminary evidence that providing teachers with more opportunities to work together on instructional matters is a promising strategy for improving student achievement. Hollins et al. (2004) also explored teacher participation in PLCs and its relationship with student achievement; however, unlike Goddard et al. (2007), Hollins et al. used both qualitative and quantitative methods to understand this relationship best. Ultimately, their results indicated that teachers who

participate in PLCs can become more effective at teaching reading, particularly to struggling readers.

Mokhtari, Thoma, and Edwards (2009) also agreed that teacher participation in PLCs can positively impact student learning and achievement. In their case study of Westwood Elementary School, Mokhtari et al. (2009) reported that PLCs were an effective strategy for addressing stagnant growth in student reading scores. The percentage of students receiving a proficient or advanced score on summative assessments rose from 84.8% to 92% for third-grade students, 89% to 95.1% for fourth-grade students, and 79.6% to 94.5% for fifth-grade students. In interviews, both teachers and school leaders attributed these gains to the implementation of professional learning communities in the school.

Phillips (2003) provided a similar case study in which PLCs and student achievement were examined. After observing a disparity in the achievement of magnet students and non-magnet students, the educators at Woodsedge Middle School launched a PLC initiative to address teacher learning, teacher collaboration, the use of research-based strategies, and cultural relevance. After the PLC initiative was implemented, student achievement scores rose dramatically. In 1999-2000, 50% of students passed all subject areas on the Texas Assessment of Academic Skills (TAAS); in 2001-2002, this indicator rose to over 90%. Again, participants attributed this rise in achievement data to the school's intensified focus on teacher learning and collaboration as a means of improving student achievement.

In Strahan's (2003) three-year study of three elementary schools that surpassed expectations for low-income and minority student growth, he reported that, as these schools worked toward developing collaborative cultures, they also strengthened instructional practices. Over three years, student achievement rose from a 50% pass rate on standardized

assessments to over 75%. Informed by student demographic and achievement data, interviews, and observations, Strahan (2003) concluded that a supportive, collaborative culture contributed to these gains. Teachers in the three schools worked together to improve instruction using data-driven conversations, collective identification of improvement areas, and co-development of strategies designed to address these areas.

Although the strength of PLCs in promoting growth in student achievement is well documented, the use of achievement data to measure PLC effectiveness is not without criticism. While few researchers or practitioners disagree that the focus of PLCs should be on improving student learning (Vescio et al., 2008), some call for these groups to include both means and ends in their goals for collaboration (Levine & Marcus, 2010; Rinke & Stebick, 2013). In other words, instead of guiding the work and evaluation of PLCs exclusively by achievement data, Levine and Marcus suggested that PLCs also concern themselves with other important indicators, such as those relating to content, pedagogy, relationships, and assessment. The failure to consider these additional factors can limit PLCs because, if they are not observable in student data, they may not be prioritized, or addressed at all.

Rinke and Stebick (2013) also encouraged school leaders and PLC members to carefully consider the student achievement data they are using in their work. While standardized test scores are frequently emphasized in this era of accountability, they are not always the best source of data and are rarely the exclusive indicator for how students learned. Instead, Rinke and Stebick suggested that multiple data sources be used to get a more accurate assessment of teaching and learning.

Some studies also directly challenge the influence of PLCs on student learning, such as the one conducted by Visscher & Witziers (2004). In their study of professional learning

communities in secondary mathematics departments, Visscher and Witziers (2004) utilized a sample of 975 students to demonstrate that shared goals, shared decision-making, deprivatized practice, and teacher collaboration are critical to any effort to improve schools, but are insufficient on their own to changing teacher practice and student learning. To make significant contributions in these areas, PLCs must go farther and develop specific goals, procedures, and strategies for making changes to the process of teaching and learning within the school. Similar to Nelson (2009) and Ermeling's (2010) collaborative inquiry approaches, Visscher and Witziers suggested that PLCs bring in student achievement data, including both formative and summative assessments, to create a feedback loop that guides teacher collaboration. They argued that this approach would be more effective than the "softer approach stressing reflexive dialogue, sharing materials, shared vision and the inner value of professional development" suggested by typical PLC literature (p. 798).

Supportive Conditions

Time. Researchers argue that lack of adequate time can inhibit the work of PLCs. This has been shown to hinder teachers' ability to engage in PLC activities like action research (Burbank & Kauchak, 2003), individual and shared reflection (Aubusson et al., 2007), project implementation (Hollins et al., 2004), collaborative inquiry into problems (Nelson, 2009), and collaboration with colleagues outside their own subject, grade, or school (Nelson & Slavit, 2007). Teachers in Aubusson et al.'s (2007) study demonstrated the importance of time when they reported that one of the project's greatest strengths was the release time it provided for teachers to engage in the work. Since teachers have multiple, and sometimes even competing, demands placed on their time (Hollins et al., 2004), it is important for school leaders to consider this supportive condition when developing plans for implementing PLCs.

When seeking to launch collaborative action research teams, Burbank and Kauchak (2003) emphasized the need to provide structural opportunities for groups to meet and work together as teams. Ermeling (2010) indicated that PLC meeting times should occur on a regular basis; additionally, meeting times should be dedicated to PLC work and protected from interruption by school leaders. School leaders should also ensure that teachers are free from other responsibilities during this time, such as meeting with parents or tutoring students. If school leaders do not protect PLC time, it could communicate to teachers that the work is not important, or valued by school leaders.

In their study of professional learning communities in rural China, Sargent and Hannum (2009) found that PLCs are a viable strategy for facilitating teacher professional learning even in school systems with very limited resources. They also found that implementing PLCs is largely affected by the conditions in which they are expected to operate; timing is one of those conditions. From survey data and interviews, they found that other work responsibilities limit teachers' participation in PLCs. For example, when teachers had higher demanding teaching assignments, this affected the number of PLC meetings they attended. The schools in Sargent and Hannum's study adopted several strategies to address this lack of participation. One school implemented weekly sessions for collaborative lesson planning as their primary form of professional development. Another school moved the offices of all its teachers to one large room to encourage collaboration. In both cases, the schools made these changes to support teachers' PLC work in terms of time and space.

While most of the above studies examined a few PLCs within each school, some schools may attempt to launch PLCs at full scale, with all teachers participating in at least one community. In this case, the task of scheduling PLC meetings becomes much more complex. In

Ermeling's (2010) case study, one school chose to implement a weekly late start for students; this provided teacher teams with an additional 75 minutes to engage in PLC activities. While this option may not be possible, or even appropriate, for all schools, it is vital that school leaders designate and protect times for teachers to work in PLCs. Servaise, Sanders, and Derrington (2009) echoed this when they identified the commitment of time as a primary condition for implementing PLCs in any context.

Structure. While the commitment of time is vital to establishing professional learning communities, school leaders' responsibilities for supporting new PLCs does not end there (Nelson, 2009). Instead, additional scaffolding will be needed to help teachers learn how to engage productively with other teachers. According to Wood (2007), the quality of teacher conversations in PLCs greatly influenced their impact on teacher learning and student achievement. While teachers need to feel supported and nurtured through the process of establishing PLCs, they also must be willing to approach the process as *learners* (Nelson, 2009). One way to encourage this is to use shared, structured processes for guiding teachers through their initial collaborative activities and conversations. Absent of these structural supports, groups may make little progress toward becoming an effective team (Nelson, 2009).

Nelson (2009) attempted to fill this need through ongoing cycles of teacher collaborative inquiry. As teachers learned together and made improvements to their instruction, they reflected publicly on how these improvements affected student learning and achievement. As this process continued through multiple cycles, teachers developed solutions for important instructional problems, and also refined their own dispositions toward teaching, learning, and improvement. Similarly, Lieberman (2009) employed Japanese lesson study to structure teacher collaboration. In this study, teachers co-authored lessons together based on research-based

practices; next, one member of the group implemented the collaboratively-developed lesson while other group members observed, took notes, and eventually offered feedback. The lesson was then revised and improved by the group, and the cycle continued. This highly-structured approach to teacher collaboration challenged the traditional norms of teacher isolation and autonomy; it also showed evidence of positive changes in teachers' dispositions toward teaching and learning.

When implementing professional learning communities, some schools also choose to structure teacher collaboration with the use of protocols. Protocols can help teachers maintain focus on things they can control and intend to impact (Levine & Marcus, 2010). This scaffold starkly contrasts with the much more common practice of assigning teachers to work groups, and ambiguously charging them to improve student achievement, which is a much less effective strategy for improving teaching and learning (Levine & Marcus, 2010). Instead, protocols help teachers work more productively in PLCs by providing an explicit process for them to follow; this results in a sense of direction and continuity within groups (Ermeling, 2010). Nelson and Slavit (2007) also stated that protocols can be helpful when moving PLCs to scale because they provide common processes and language across teams. In a case study of a rural elementary school in North Carolina, Berry et al. (2005) demonstrated the effectiveness of structuring PLCs with protocols. To develop solutions for problems identified in the school's achievement data, school leaders launched PLC teams using protocols for structure. In their findings, Berry et al. reported that student achievement rose considerably; most notably, the percentage of students performing at or above grade level rose from 56% to 83% in only four school years.

However, the use of protocols in PLCs is not entirely without criticism. In the study of a district that recently implemented PLCs, Wood (2007) described that teachers used protocols to

structure collaboration and provide a focus for conversations. Before launching the PLC, group members received training on how to use various protocols effectively. Eventually, the use of protocols infiltrated not only PLC meetings, but also whole-faculty meetings. At some point, however, the highly structured design of protocols became problematic because teachers were led to reach quick consensus, and the solutions they developed did not challenge current assumptions or promote deep learning for teachers. In summary, protocols became the purpose of the meeting instead of a strategy. As a result, most schools in the study did not see growth in student achievement. This study, as well as Ermeling's (2010), demonstrates the importance of using protocols in a way that provides structure, but also does not limit the group's freedom, creativity, or spontaneity.

Hollins et al. (2004) recommended a supportive, but not inflexible, structure to foster productivity and focus in PLC meetings. Hollins et al. (2004) used a study group approach to promote teacher learning consisting of five steps: identifying and unpacking challenges, developing approaches for addressing these challenges, implementing these approaches, evaluating implementation, and formulating implications for future action. The results of the study validate this approach, as reading scores rose significantly over a three-year period. The teachers and school leaders in the study attributed these improvements to participation in PLCs.

Facilitator. According to Nelson and Slavit (2007), protocols and other structural supports for teacher collaboration can be implemented with greater fidelity when guided by a facilitator. Facilitators can help PLCs by encouraging collaboration, and helping teachers maintain focus on activities that will move them toward shared goals and purposes (Nelson & Slavit, 2007). They can also help develop teacher engagement in the process through early, explicit assistance (Nelson & Slavit, 2007).

Facilitators have several responsibilities when working in PLCs, including training teachers on how to use various protocols, group development and sustainment, supporting learning within the PLC, and advancing the PLC's inquiry to benefit others in the system (Nelson & Slavit, 2007; Drennon, 2002). Facilitators may also be asked to recruit PLC members, set meeting times, develop agendas, encourage collaboration and dialogue, facilitate group reflection, and assist teachers with the collection, analysis, and reporting of data to inform the work of the team (Drennon, 2002). Finally, facilitators have the critical responsibility to keep teachers focused on actions and conversations that help them achieve the goals they set for themselves (Nelson & Slavit, 2007).

Ermeling (2010) argued that facilitators can assist both new and established PLCs. This could be problematic for schools wishing to implement PLCs on a large scale, as multiple facilitators may be needed to serve all PLC teams in the school. To address this concern, Ermeling (2010) suggested training teacher leaders, such as department chairs, to fulfill this role. In addition to saving money by not contracting with external facilitators, an added benefit of this approach is that teacher-facilitators would most likely have an instant rapport with their colleagues. Also, since they have greater knowledge of the context, teacher facilitators could have a greater understanding of whether the PLC is working on topics that are relevant to the actual needs of students and teachers.

While overall the research literature is supportive of the potential role of facilitators in increasing the effectiveness of PLCs, Grossman, Wineburg, and Woolworth (2001) issued a strong warning against letting such individuals have too much authority over the conversation of groups; when this is the case, the direction of conversations may go in directions that are consistent with the facilitator's beliefs instead of the group's. Also, when facilitators dominate

these groups, teachers may not feel safe or comfortable voicing their concerns or beliefs; instead, concerns could become underlying tensions or disagreements, and linger just below the surface of the PLCs' conversations.

Shared Goals. It is also important for teachers participating in professional learning communities to have a shared vision of what they would like their learning community to achieve. While it does not consider PLCs directly, Melville and Yaxley's (2009) study emphasized the importance of shared vision when implementing professional learning programs. In this study, school administrators implemented a mandatory 12-hour individual professional development requirement for teachers in the science department of a secondary school in Australia. Because the initiative did not provide clear directions and expectations for teachers meeting its requirements, ultimately it did not influence the instructional practices of teachers, and was abandoned as a result. Scribner, Sawyer, Watson and Myers (2007) echoed this sentiment. In their study of factors fostering or hindering the work of two teacher work teams, they found that teams are more successful when they share clearly defined purposes for their work.

For teacher teams to be effective, members must share common goals for working together (Burbank & Kauchak, 2003). Grossman et al. (2001) illustrated this when they highlighted differences in the learning needs of high school and elementary school teachers. While high school teachers typically hold advanced degrees in their subject areas and teach their subjects because of their own content-area interests, this may not be the case for elementary school teachers, who are responsible for teaching all content areas to their students. In this case, high school teachers and elementary school teachers may not share common goals and developmental needs, indicating that working together in a PLC may not be

helpful. The results of Ermeling's (2010) study also confirmed this need for job-alike teams. In interviews, teachers in this study expressed that it was helpful to collaborate with colleagues they could identify with. Since effective collaboration consists of teachers helping each other solve common problems or produce common products (Ermeling, 2010), it would be very difficult to establish it in teams that do not work in similar roles.

Shared and Supportive Leadership. The success of PLCs in fostering improvements in teacher learning, instructional practices, and student achievement is highly dependent upon the leadership of a supportive principal (Huffman, Hipp, Pankake, & Moller, 2001). Murphy, Smylie, Mayrowetz, and Louis (2009) stated that principals can support and sustain PLCs, kill them quickly, or kill them slowly through neglect. While in theory, such as Hord's (1997) dimensions of professional learning communities, PLCs are democratic groups where leadership is shared amongst all members, in reality, these groups are never the entirely democratic group we wish them to be (Drennon, 2002). This is unfortunate because shared decision-making is a common characteristic of PLCs that actually influences student learning (Darling-Hammond, 1997). Desimone, Porter, Birman, Garet, and Yoon (2002) also indicated that teachers should be involved in making decisions regarding their professional learning.

In a qualitative study of leadership in schools, Hulpia, Devos, and Van Keer (2009) found that schools led by a leadership team that utilizes a distributed leadership structure are more effective. This research also indicated that teachers are more committed to the school when they perceive high levels of cooperation and collegiality amongst school leadership teams. Furthermore, the support provided by leadership teams to teachers is most welcomed when its support functions are equally allocated amongst the leadership team members instead of reserved for a few dominant personalities. In contrast, though, teachers did not report satisfaction with

supervisory responsibilities being equally distributed. The teachers in this study preferred clear supervision from one formal leader instead of having the possibility of conflicting directions and feedback from different members of the school leadership team (Hulpia et al., 2009). Teachers who feel they have a voice in school decision making also feel more committed to the school. However, teachers feelings regarding decision making are less important to teachers than having a cooperative and supportive leadership team. In summary, the size of the leadership team had no effect on the teachers' commitment to their school.

Trust. While establishing trust amongst teachers is essential for promoting the long-term efficacy and sustainability of PLCs, it often takes a considerable amount of time to develop. This is especially true when PLC members do not know each other before beginning their work together (Nelson & Slavit, 2007). In these cases, teachers will likely spend initial meetings getting to know each other personally and professionally. Without first learning more about other PLC members, teachers are usually unwilling to share their true thoughts, beliefs, or practices with the group (Nelson & Slavit, 2007). Teacher leaders, facilitators, and school leaders can support PLCs through this process by helping them design action plans for developing trust in the group. Nelson (2009) stated that leaders should ensure there is a learning orientation in the group, enabling teachers to feel helped by their PLCs, not judged. This idea was also supported by Hammerness et al. (2005).

While school leaders may wince at the slow progress made by PLCs during their initial stages, this relationship-building is critical to the long-term success of the learning community (Nelson & Slavit, 2007). The studies of both Aubusson et al. (2007) and Nelson and Slavit (2007) emphasized the need for PLCs to develop trust. Aubusson et al. (2007) planned to incrementally develop trust amongst teachers through activities such as experience sharing;

unfortunately, these strategies were mostly unsuccessful. Aubusson et al. found that ultimately it took teachers opening up their classrooms and practices to each other in incremental stages to develop trust in the group. Nelson and Slavit (2007) argued that the support of school leaders and facilitators is necessary for PLCs to achieve trust.

Beatty (2007) argued that, to address deficiencies in trust, school leaders should model self-reflection and feedback in their own practices. This includes remaining open to dissenting opinions, exhibiting humility, and not taking conflict personally. Murphy et al. (2009) also supported this type of modeling, stating that leaders who ask teachers to do things they are not modeling themselves will often be unsuccessful in their implementation. Tschannen-Moran (2009) echoed the call for school leaders to develop trust in their schools through modeling honesty, integrity, kindness, and shared leadership. Stoll et al. (2006) found that, absent of trust, teachers are not as likely to participate in common PLC activities such as conducting peer observations, providing open, honest feedback, or having candid discussions about instructional practices.

Conclusion and Empirical Studies Table

This chapter presented the theoretical and conceptual frameworks for the study, including professional learning communities, enabling school structures, and collegial trust. Furthermore, empirical research was shared and synthesized to situate the study within the PLC literature. Importantly, the benefits and challenges of PLCs were examined, including the impacts they could have on teacher learning, teacher instructional practices, and student achievement. Finally, the supportive conditions necessary for PLCs to thrive were examined.

In the following table, several empirical studies relating to PLCs are provided. This tool was utilized to help situate the current study within the PLC literature. It also provided valuable insight into how the leadership team might go about launching and supporting PLCs at PCHS.

Table 1

Empirical Findings Table

Author	Title	Sample	Methodology	Key Findings
Ermeling (2010)	Tracing the effects of teacher inquiry on classroom practice	4 teachers	Document analysis, interviews, observations, recordings	Teachers working together in collaborative inquiry groups helped teachers see cause-effect relationships between their practice and student learning. This influenced instructional practices.
Hollins, McIntyre, DeBose, Hollins, & Towner (2004)	Promoting a Self-Sustaining Learning Community	12 teachers	Field notes, interviews, observations, student achievement data	Over time teachers' conversations shifted to be more positive about students, learning, and teaching. They also began to share and co-develop improved instructional practices.
McLaughlin & Talbert (2006)	Building school-based teacher learning communities: Professional strategies to improve student achievement	9 schools	Student achievement data, surveys	PLCs are an effective way to influence teacher learning, instructional practices, and student achievement, although they are not often capitalized upon by schools.
Nelson (2009) *see also, Nelson & Slavit (2007)*	Teachers' collaborative inquiry and professional growth	9 PLCs	Interviews, observations, recordings	A specific process for conducting collaborative teacher inquiry was helpful in changing teachers' beliefs about students, teaching, and learning.
Supovitz (2002)	Developing communities of instructional practice	79 schools	Document analysis, interviews, observations, student achievement data, surveys	Collaborating for the sake of collaboration does not impact instructional practices or student learning. PLCs with evidence of a strong focus on instructional matters showed growth in their student achievement.
Wells & Feun (2008)	What has changed? A study of three years of professional learning community work.	1 school	Interviews, surveys	Teachers often resist establishing purpose, authentically collaborating, sharing their practice, and focusing on student learning in new PLCs. It is also critical that they are supported through this process and allowed adequate time to do so.

CHAPTER 3

METHODOLOGY

This chapter presents the methodology of the study. As stated previously, the purpose of this case study is to examine the challenges and benefits experienced by teachers when developing new professional learning communities (PLCs). It also seeks to understand how interventions developed by a school leadership team support the development of these teacher communities. Three research questions guide the study:

1. What benefits do high school social studies teachers experience when engaging in new professional learning communities?
2. What challenges do high school social studies teachers experience when engaging in new professional learning communities?
3. How do interventions developed by a school leadership team support the development of new professional learning communities, if at all?

Qualitative Inquiry

As a researcher develops their research design, they outline how they will collect and analyze data (Creswell, 2013). More specifically, Nachimias and Nachmias (1992), as stated in Yin (2009), stated that

> A research design is a plan that guides the investigator in the process of collecting, analyzing, and interpreting observations. It is the logical model of proof that allows the researcher to draw inferences concerning causal relations among variables under investigation (p. 26).

Creswell (2013) noted that the problem under study, the personal experiences of the researcher, and potential audience members should inform research designs. In this qualitative inquiry, I designated action research and case study as the primary methodologies. The work of a school leadership team in supporting new PLCs was examined through the lens and process of action research; the case study tells the story of what took place. The target audience for this study is school leaders who are in the early stages of launching PLCs in their own schools.

Merriam (2009) stated that qualitative researchers "are interested in understanding how people interpret their experiences, how they construct their worlds, and what meaning they attribute to their experiences" (p. 5). Denzin and Lincoln (2013) posited that qualitative researchers study "things in their natural settings, attempting to make sense of or interpret phenomena in terms of the meanings people bring to them" (p. 6-7).

Merriam (2009) identified four characteristics of qualitative research: "the focus is on the process, understanding, and meaning; the researcher is the primary instrument of data collection and analysis; the process is inductive; and the product is richly descriptive" (p. 14). These characteristics align closely with the objectives of the current study. Because action research was used to look, think, and act on a problem experienced in a specific context alongside those who are affected by the problem (Stringer, 2013), the focus of this study clearly concentrates on the process, understanding, and meaning, as recommended by Merriam. The purpose of this study is to examine the benefits and challenges experienced by social studies teachers in a rural, comprehensive high school when implementing new professional learning communities. Furthermore, it seeks to understand how interventions developed by a school leadership team support this implementation, if at all. In my opinion, the qualitative methods I chose provided richer, more detailed data than I could have gathered through quantitative

surveys or questionnaires. However, these open-ended tools, including interviews and field notes, did require me to serve as the primary instrument of data collection and analysis, the final feature of the qualitative methodology described by Merriam (2009).

When I evaluated potential topics for this study, I considered three main criteria. First, the topic needed to help me contribute to the success of my school. It was critical for me to select a problem that, if addressed, would improve teaching and learning in my building. Second, I wanted to produce something that would be helpful to other school leaders. While I am ultimately only responsible for my own school, if this story helps just one other leader facilitate the development of effective PLCs in other contexts, it has the potential to impact hundreds of other teachers, and thousands of other students. Finally, the study needed to exist at a critical gap in the literature. In this case, there is much research on what happens during PLCs, but not how leaders launch and support them. Also, there is a scarcity of studies on PLCs in high school settings. In summary, this study regarding the benefits, challenges, and supportive conditions of PLCs meets the previously outlined criteria of being helpful in the context, serving as a resource for other school leaders, and contributing to a significant gap in the literature.

Importantly, this study took an inductive approach to generating new meaning; that is, I did not start from a predetermined set of hypothesis to test. Instead, I left it to the participants to express their thoughts, feelings, and reflections through interviews, observations, field notes, and documents. My goal for the study was to generate new meaning regarding the benefits and challenges new high school PLCs experience, and how leaders can best support them.

Finally, Merriam (2009) stated the product is richly descriptive. In this study, I hoped to report how teachers truly perceive the benefits and challenges they experienced in new PLCs. I also hoped to share how the work of the school leadership team supported them, if at all. To

accomplish this, I included specific quotations from interviews and field notes to support my findings; I also dedicated an entire chapter to describe the story as it unfolded.

Action Research

Stringer (2013) defined action research as "a systematic approach to investigation that enables people to find effective solutions to problems they confront in their everyday lives" (p. 1). Coghlan and Brannick (2014) stated that it "focuses on research in action rather than research about action" (p. 6) and that its goal "is to make that action more effective while simultaneously building up a body of scientific knowledge" (p. 6). My interpretation of these statements is that, while action research is a systematic and scientific methodology that contributes to both knowledge and literature, it is also grounded in developing solutions that address real issues faced by individuals in their personal, social, and professional lives.

Lewin (1946) developed a cyclical process of inquiry for AR; the steps in this process include planning, implementing, and evaluating. Coghlan and Brannick (2014) offered a model for conducting action research that consists of a pre-step, context and purpose, and four cyclical steps: constructing, planning action, taking action and evaluating action. In the pre-step, context and purpose, action researchers seek to understand the context and setting in which their project resides; they also define the desired outcomes of their work. After this pre-step, the goal becomes to construct what the issues pertinent to the project are, attending to both practical and theoretical matters. Next, initial action(s) are planned with all the previous steps in mind and subsequently implemented. Finally, the last phase of the cycle examines the outcomes caused by the actions taken (Coghlan & Brannick, 2014). Importantly, Coghlan and Brannick (2014) cautioned researchers not to adopt the steps so rigidly that they limit a team's spontaneity or creativity. Quite contrarily, lines between each step of the AR cycle often blur due to the

multiple overlapping cycles of action research that may take place simultaneously or concurrently. Stringer (2007) echoed this when he stated AR is not "a neat, orderly activity that allows participants to proceed step by step to the end of the process" (pp. 9-10). However, the steps do provide much-needed guidance on the complex process of conducting action research.

In addition to the fluid action research cycle described above, another distinguishable aspect of action research is its inclusion of stakeholders as direct participants in the research process. As Stringer (2007) stated, "Action research works on the assumption that all people who affect or are affected by the issue investigated should be included in the processes of inquiry" (p. 6). This inclusion is part of an effort to ensure that action research is democratic, equitable, liberating, and life enhancing to those whose lives are affected by the issue under study (Stringer, 2007). Specifically relating to school contexts, Spaulding and Falco (2013) argued that, if school leaders conducted action research in isolation, the results of the project would probably not be fully embraced by teachers.

Finally, Coghlan and Brannick (2014) argued, "a good action research project contains three main elements: a good story, rigorous reflection on that story and an extrapolation of usable knowledge or theory from the reflection on the story" (Coghlan & Brannick, 2014, p. 16). Stringer (2007) added, "if an action research project does not make a difference, in a specific way, for practitioners and/or their clients, then it has failed to achieve its objective" (Stringer, 2007, p. 12). To educate stakeholders about action research, I created an abbreviated job aid that summarizes the intent and process (see Appendix D).

Case Study

Yin (2009) described a case study as an "empirical inquiry that attempts to investigate a contemporary phenomenon that occurs in a real life context" (p. 18). Merriam (2009)

recommended that researchers use case study when their goal is to provide a descriptive and heuristic account of a phenomenon. The present study is descriptive in that it provides a rich, detailed account of the benefits and challenges experienced by teachers in a new PLC; it also provides an equally descriptive account of how interventions developed by an AR team support this new PLC. This study is also heuristic in that it could grow readers' understanding of PLCs, interventions for growing PLCs, action research, and educational change.

Due to this heuristic nature, an instrumental case study design was chosen (Stake, 2006). In this type of case study, the primary goal is not to develop a stronger understanding of the case itself, but something larger. In the present study, the goal was to develop more robust knowledge of the benefits and challenges associated with new PLCs, and how school leaders can best support these new teacher communities.

Creswell (2013) noted that a case study is an exploration of a bounded system. In the current study, the bounded system is the social studies department at Panther Country High School, a pseudonym. The following section explains additional inclusion criteria for this sample group. As Simons (2009) recommended, participants were selected "who have a key role in the case and events to observe from which you are likely to learn most about the issue in question" (p. 34). In this study, I concluded that teachers were the most appropriate group with whom to inquire about the development of PLCs.

Research Samples

This study employs criterion sampling to select participants. In this type of sample selection process, participants are chosen based on a predetermined set of criteria (Patton, 2001). The criteria for the intervention group were: (1) the participant must be a current social studies teacher; (2) the participant must teach U.S. History or Economics; (3) the participant must agree

to participate; and (4) school leadership must approve their participation. At the outset of this study, I planned to include more teachers as participants in the study. However, I quickly realized this would not be feasible. Consequently, all teachers in the school benefited from certain interventions, while others were limited to the intervention group on a trial basis. For example, the revised bell schedule affected all teachers at the school, while only the intervention group developed common assessments as part of this project.

Social studies teachers were selected for the intervention group for several reasons, not the least of which was my own professional background. My knowledge of the social studies content and curriculum would allow me to better understand the phenomena taking place, rather than spending most of my time learning about the content discussed in PLCs. Secondly, the participants must teach U.S. History or Economics. The Georgia Department of Education considers these two courses "tested subjects," meaning that they have a tremendous impact on our school's accountability results. Importantly, we realized that the teachers of these courses face immense pressure for test results, and would probably benefit most from the support that would be provided by our interventions. Finally, each participant was required to agree to participate, and a school administrator was required to approve their participation.

The criteria for the action research group were much simpler, as the school leadership team was selected to conduct the action research. While this was not the original plan, it quickly became apparent that this would be the best possible option. Quite simply, this group held the most interest in developing PLCs; we also held the school-wide authority and support to make changes to support these new teacher groups. Importantly, much of the work for this project took place naturally as we carried out our shared leadership responsibilities of identifying, observing, planning and intervening to solve the problems of our school. This framework for active

instructional leadership aligns with Stringer's (2013) framework for action research: looking, thinking, and acting. So as to avoid making unilateral decisions, we sought feedback and ideas from multiple teacher groups before implementing any intervention. For example, a group of teachers assembled over the summer months to evaluate, and further solidify, our plan for offering remediation to students during their extended lunch period.

Sampling in Action Research

Sample selection is a critical process in all research approaches, including action research. This section explains how the sampling procedures for the study align with the tenets of action research. As an insider action researcher, I served both as a researcher and participant in the study; in other words, I was both an investigator and an agent of change (Coghlan & Brannick, 2014). Stringer (2013) noted that action researchers shape and monitor the process and outcomes of an AR study. While this level of involvement is appealing to me due to my desire to make positive changes in my school, there is also a burden of responsibility because I had to be hyper aware of my opinions and beliefs throughout the study. Also, I needed to accept that the views and beliefs I held were not always best, or right.

The next layer of participant selection consisted of the action research and intervention groups. The criterion sampling described above is consistent with Stringer's (2013) call for action researchers to purposefully select participants based on a set of characteristics. He argued that AR's democratic nature requires this type of sampling because participants should be included based on how they have been, or will be, impacted by the issue under study. The study also included convenience sampling, which is when a sample is "based on time, money, location, availability of sites or respondents, and so on" (Merriam, 2009, p. 79).

In this study, there are two participant groups. The first group consisted of the school leadership team, which engaged in action research to design interventions to support new PLCs in the school. The criteria for this group, described in the previous section, was both purposeful and convenient. It was convenient in that it allowed me to conduct this project with a group I was already a part of, the leadership team; this eliminated the need for me to attend additional meetings, or even leave my workplace, to conduct this work. The criteria were also selected conveniently, as much of the groundwork took place during the summer months, when only administrators are on contract to work. Finally, the criteria were purposeful in that the group conducting action research also had authority over the allocation of time and resources in the school; it was evident from the onset of this project that this level of support would be needed to make the necessary changes. Further description of leadership team members is below (see Table 2).

Table 2

Members of the School Leadership Team

Participant	Profile	Years of Experience & Education
Dr. Bones Principal	White Male	20 Ed.D. University of Georgia
Mrs. Porter Assistant Principal • Instruction • Scheduling • Testing	White Female	27 Ed.S. University of Alabama
Mr. Simpson Assistant Principal • Instruction • Testing • Gifted *Insider action researcher*	White Male	6 Ed.D. Student University of Georgia
Mr. Kennedy Assistant Principal • Operations • Discipline	White Male	28 Ed.S. Lincoln Memorial University
Mr. Smith Athletic Director	White Male	17 Ed.S. University of West Georgia

The second sample group consisted of the social studies teachers who participated in PLCs and provided data on their experiences. Again, the selection of the criteria for this group was both purposeful and convenient. The criteria are convenient in that my own teaching

background is closely related to social studies, which allowed me to better understand the conversations that took place because I was already familiar with the content. The criteria selection was also purposeful. Both courses in the criteria are tested subjects, meaning that the would administer End of Course (EOC) assessments at the course conclusion. While the leadership team did not select this criteria simply because these courses have a significant impact on our school's accountability, we did consider the immense pressure placed on these teachers to perform. Importantly, all the teachers and students benefited from several of the interventions developed in this project, while the intervention group only benefited from others. For example, all teachers gained more time for collaboration from the revised lunch schedule. However, only a small group of teachers were chosen to provide their rich, descriptive experiences based on the selection criteria agreed on by the leadership team. A description of the four teachers in this sample group is located below (see Table 3).

Table 3

Members of the Intervention Group

Name	**PLCs**	**Profile**	**Years of Experience**
Matt Justice	• U.S. History • World History	White Male	11
Glen Ross	• Economics	White Male	11
Abe Reagan	• Economics	White Male	19
Christina Lewis *Department Chair*	• U.S. History • World History	White Female	19

Matt Justice. Matt was one of the few social studies teachers who were not new to PCHS in 2015-2016. He was in his 11th year of teaching, with most of those at PCHS. He previously taught Government, AP European History, AP Human Geography, World History, and U.S. History. He earned his bachelor of science in education, master of education, and educational specialist degrees in social studies education. After the project concluded, Matt reported that one of his instructional interests is project-based learning.

Glen Ross. In 2015-2016, Glen was in his 11th year of teaching; this was his first year at PCHS. He previously taught AP Macroeconomics, AP Microeconomics, Economics, Government, AP Government and U.S. Politics, U.S. History, World History, Psychology, and Current Issues. Importantly, he is a former Georgia Economics Teacher of the Year, and also a school-level Teacher of the Year. He graduated with a bachelor of arts in history from a Georgia university, as well as a master of education in social studies education. His instructional interests include simulations, role-plays, discussion, and, in general, utilizing a more hands-on approach to teaching social studies.

Abe Reagan. An AP Human Geography and Economics teacher, Abe was in his 19th year of teaching. He holds a bachelor of science in secondary education, a master of science in health studies, and an educational specialist in the pedagogy of coaching. One of his primary instructional interest is increasing student engagement in social studies through the use of technology. In addition to online simulations, Abe also uses videos, Google Applications for Education, and Prezi to enhance his lessons, and make them more interesting for students.

Christina Lewis. Christina was in her 19th year of teaching. She has experience teaching all levels of social studies, including technical, college preparatory, honors, and Advanced Placement. Her main focus areas have been Geography, World History, and U.S. History, but she

has also taught AP European History, Law, Current Issues, and American Government. Christina holds a bachelor of science degree in social studies education. She is also certified in gifted education, and has attended numerous in-service training opportunities. Her instructional interests include literacy across the curriculum, writing, document-based questions, primary document sources, and project-based learning. Importantly, Christina has experience writing, training, and scoring for large-scale assessments, including AP World History exams. She was also honored by a local bar association as the Law Teacher of the Year.

Research Site

The Panther Country School System (a pseudonym) comprises of seven elementary schools, three middle schools, and two high schools. The system serves approximately 7,400 students in grades Pre-K through 12; it also home to approximately 500 certified staff members. There are two clusters in the system in order to serve students in the area in which they live. One cluster, on the east side, consists of four elementary schools, two middle schools, and one high school. The poverty rate on this side of the county is approximately 60%; student demographics in this cluster are predominately white, with less than 5% of students identifying as African-American and/or Hispanic. The second cluster, on the west side, consists of three elementary schools, one middle school, and one high school. Of the three elementary schools serving this cluster, one has a Title I school-wide assistance program, another has a Title I targeted assistance program, and the other does not receive any Title I funding at all. The middle school has a school-wide Title I program, while the high school does not participate in the Title I program.

The setting for this study is Panther Country High School (PCHS), a pseudonym, which is the high school that serves the west cluster described above. PCHS is a rural, comprehensive high school that serves approximately 1,100 students. In the 2015-2016 school year, 78% of

PCHS students were white, 11% were Hispanic, 5% were Asian, 4% were African-American, and 2% were multiracial. Also, 51% of students were male, and 59% were female. In addition to students, PCHS is also home to approximately 70 certified staff members, four school administrators, and many support staff members. Of the 70 certified staff members, 97% were white, and 3% were African American; also, 57% were female, and 43% were male.

Data Collection

Using multiple sources of data adds both validity and reliability to a case study (Yin, 2009). This action research project was ripe with multiple data sets to choose from; however, like most studies, the struggle was in selecting and reducing the data, not finding it. As an insider action researcher, I also had to be careful to balance my data collection with the needs of the study, and the needs of the school.

In balancing both of these requirements, I chose to base the data collection for this study on four primary sources: interviews, observations, field notes, and document analysis. As described in the next section of this document, I collected data in observations using field notes. This is consistent with Creswell's (2014) recommendation for qualitative researchers to "collect multiple forms of data and spend a considerable time in the natural setting gathering information" (p. 189-190). The selection of these data collection strategies, as well as the extended time I spent in the setting, added triangulation and validity to my final findings.

PCHS provided consent to access two major sample groups: the school leadership team, and teachers in the social studies department. Fortunately, I was allowed to interview teachers on campus when it was convenient for them. Table 4 outlines the data collection strategies for this study.

Table 4

Data Collection Strategies

Data Collection	Description	Timeline
Semi-structured Interviews	Teachers in sample groups participated in 1-2 hour interview; follow-up interview as needed	4 weeks
Observations & Field Notes	Leadership team and PLC meetings observed, and field notes taken	On-going
Document Analysis	Artifacts gathered from the 2015-2016 school year pertaining to the leadership team and social studies department PLCs	On-going

Qualitative Data Collection Methods

I utilized four primary forms of qualitative data collection in this study: interviews, observations, field notes, and document analysis. Primarily, I conducted semi-structured interviews with teacher participants. These interviews lasted approximately 45 minutes and collected data on all three research questions. As Merriam (1998) suggested, these interviews consisted of open-ended questions to capture a rich and thorough explanation of participants' thoughts, reflections, and feedback. The semi-structured design facilitated a safe, conversational experience for participants while also focusing on the topic at hand (Patton, 2002). For example, in the interview guide, I listed several probes for each question; as needed, I utilized these follow-up questions to more fully capture what the participant was trying to communicate, or uncover additional details about their thoughts or reflections. A copy of this protocol is available in the appendix of this document.

The second form of data collection used was observation. As supported by Creswell (2015), I took on various roles during these observations. In some cases, I participated alongside others as I also observed the process. For example, in leadership meetings, I observed what was taking place, while also adding my own thoughts and ideas to the conversation. In other

situations, I was an observer and did not participate at all. For example, during PLC meetings I was a silent observer, as my goal was to see how the group functioned at a typical meeting.

At the outset of planning for data collection, I intended to audio record leadership and PLC meetings. However, I quickly realized this was not feasible or appropriate in my working context. In leadership meetings, we discussed sensitive issues that were not always appropriate for recording. Also, much of our work took place informally, virtually, or spontaneously; this work pattern made audio recordings difficult to capture. I also planned to record PLC meetings, but not all teachers in the department agreed to participate. To honor the wishes of these teachers while also continuing to collect data, I documented these observations without audio by taking field notes. While this did place a limitation on my study, as it relied on my personal skills of observation (Creswell, 2015), I believe that both groups were more forthcoming with their thoughts and reflections due to this change.

Finally, my third data collection strategy was document analysis. I collected many documents pertaining to the implementation of PLCs at PCHS; this included meeting minutes, meeting agendas, and faculty handbook instructions. I also collected artifacts produced or discussed in PLC meetings, including common assessments, student work, and formative assessment data. Creswell (2015) noted document analysis enables researchers to capture the language and words of participants and allows them to examine to what participants give their attention. The strategy is not without limitation, though, as documents may be incomplete, inaccurate, or difficult to access (Creswell, 2015).

Summary

To answer the research questions for this study, I utilized multiple methods of data collection. Reviewed above, these methods included documents, observations, field notes, and

interviews. This is consistent with Creswell's (2015) recommendation that qualitative researchers "collect multiple forms of data and spend a considerable time in the natural setting gathering information" (pp. 189-190). Yin (2009) also argued that using multiple data sources adds validity and reliability to case studies. Finally, Merriam (2009) added that using various data collection strategies "helps to uncover meaning, develop understanding, and discover insights relevant to the research problem" (p. 86). A summary of data collection, including timelines, is located below (see Table 5).

Table 5

Data Collection Timeline

Description	**Strategy**	**Timeline**
Leadership meetings	Observations Field notes (minutes, reflections) Documents	May 2015 - June 2016
PLC meetings	Observations Field notes (minutes, reflections) Documents	August 2015 - May 2016
Intervention group interviews	Interviews	May 2016
Document analysis	Documents	On-going

Data Analysis

The purpose of data analysis is to uncover themes or patterns from the data (Ruona, 2005), and ultimately make sense of what was collected (Merriam, 2009). In this study, I used

Ruona's (2005) four step process for conducting qualitative data analysis. First, I organized and prepared my data by conducting an inventory of what was present. I then sent audio interview files to a contracted service for transcription. When I received these transcriptions back, I confirmed their accuracy by comparing the text and audio from 10 random, two-minute samples. I also entered all written field notes and reflections into a free, online tool called Evernote; this enabled me to access these documents from any computer, and easily search and filter this information. Also, a critical part of this step was purging unnecessary data, in which I removed data that did not pertain to the research questions from the field notes and interview transcripts.

Second, I familiarized myself with the data so as to fully understand what was available, and reflect on its contents (Ruona, 2005). It was critical in this step to develop a broad view of my data landscape; I also began to take notice of the patterns and themes that would later emerge.

Third, I analyzed the data by categorizing it on similarity; this process is called coding (Ruona, 2005; Merriam, 2009). I read each line closely and assigned codes to units of text based on its meaning. Importantly, I used open coding during this phase of analysis. As I reviewed each unit of text, I determined if there was already a code assigned to the meaning of that particular unit. If there was, I assigned that particular code to the unit of text. If there was not, I generated a new code and added it to the code bank to assign to the unit of text. By adopting this method of open coding, I avoided trying to make the data fit into a mold already created, in the form of a predetermined code bank.

Finally, I generated meaning from the data by observing the patterns and trends that emerged (Ruona, 2005). After coding, I generated a report that listed each code, and every unit of text assigned to it. In this process, I also noticed that some themes in various codes were

divergent. For example, I quickly noticed that one code for "time" was not adequate. Instead, this code needed to be broken down to time as a benefit (RQ 1), challenge (RQ 2), and intervention (RQ 3).

Trustworthiness

According to Creswell (2015), in valid qualitative studies the "researcher checks for the accuracy of the findings by employing certain procedures" (p. 201). He also described validity as trustworthiness, authenticity, and credibility. To ensure that the results of my study are accurate, I employed several strategies, outlined below.

First, triangulation was utilized to ensure the validity of the findings. In addition to semi-structured interviews, I also observed meetings, took field notes, and analyzed relevant documents. Use of these multiple data sources enabled me to build consistent evidence toward the findings of the case study (Creswell, 2015; Checkland & Holwell, 1998).

Second, member checking was used to verify the accuracy of the interview comments included in the findings. Creswell (2015) described member checking as "taking the final report or specific descriptions or themes back to participants and determining whether these participants feel that they are accurate" (p. 201). In this study, I used member checking to ensure I represented the interactions, thoughts, and beliefs of research participants in an accurate and complete way. After I received transcripts back from the transcription service, participants were sent a copy of their quotes to ensure it accurately represented what they said, and what they intended to say.

Finally, I spent a prolonged period in the research setting to develop an "in-depth understanding of the phenomenon under study" (Creswell, 2015, p. 201). Of course, this is one

strength attributed to action research (Checkland & Holwell, 1998), especially insider action researchers (Coghlan & Brannick, 2014).

Subjectivity Statement

Action researchers practice "research in action rather than research about action" (Coghlan & Brannick, 2014, p. 6). As an insider action researcher, I acted as both a researcher interested in PLCs and as an agent of change invested in the success of the project (Coghlan & Brannick, 2014). Unlike what might take place in more traditional research methods, it was actually my goal to help shape and monitor the process and outcome of the study (Stringer, 2013). Coghlan and Brannick (2014) provided an example of this role duality when they stated that action researchers continually transition between their roles as practitioners and researchers. They wrote, "you may be in your office or at a meeting in your organization exercising your organizational role (physical and spatial), while at the same time probing for answers to questions in your research role" (p. 138). While this level of involvement was appealing to me because of my desire to make positive changes in my school, it also required me to have a greater sense of self-awareness.

First, I needed to be honest about what I hoped to accomplish in this work. While my initial reason for starting this project was to fulfill my own academic requirements, as the project unfolded my purpose shifted to making a true, lasting change at my school. I also wanted to disseminate our story and outcomes beyond our context by contributing to practical scholarship about the development of new PLCs (Checkland & Holwell, 1998).

Second, I needed to be honest with myself and others about any beliefs I held that might influence the process or outcomes of the study. Recognizing this, I shared that I previously worked in a school where PLCs were the norm in all subject areas. Additionally, I viewed PLCs

as a powerful vehicle for school improvement. I also believed that developing these PLCs at PCHS would positively influence teacher learning, teacher instructional practices, and student achievement. Regarding the social studies department, I thought the instructional program needed greater consistency between classrooms; in other words, I believed we needed a guaranteed, viable curriculum (Marzano, 2000). I disagree that what students learn, and what they are assessed on, should be determined solely by the teacher they are assigned by an automated scheduling software. With that said, I also respect teacher agency; in my opinion, teaching is both an art and science. Teachers should be encouraged to teach in a way that expresses their creativity, passion, and strength, while also ensuring that students master the standards in terms of both content and complexity. This agrees with the premise of Marzano's (2000) guaranteed, viable curriculum mentioned earlier; that is, teachers have freedom to teach to their strengths, while also ensuring that what students learn, and how much time they have to learn it, is consistent across classrooms.

While traditional researchers are instructed to be as unobtrusive as possible, as an insider action researcher I acted as both a facilitator and consultant (Stringer, 2013). However, so as to prevent my own beliefs from unduly determining the direction, process, or outcomes of the study, I explored and communicated these beliefs before engaging in the work. This communication ultimately formed this section, my subjectivity statement. I am proud that my involvement in this project agreed with Creswell's (2015) idea that qualitative researchers should participate in a "sustained and intensive experience *with* participants" (p. 187). In fact, this experience provided valuable professional learning on instructional leadership and educational change. It also strengthened this case study as a true qualitative inquiry (Merriam, 2009).

Conclusion

In conclusion, this chapter describes the methodology for this study. Grounded in qualitative research, a case study was used to describe how a school leadership team engaged in the action research process of looking, thinking, and acting (Stringer, 2013) to develop supportive interventions for developing new PLCs. The primary data collection strategies included semi-structured interviews, observations, field notes, and document analysis. Ruona's (2005) four step plan for data analysis was used to examine the data and synthesize it into themes and patterns. A summary of this data plan, organized by the research questions, is available below (see Table 6).

Table 6

Data Collection and Analysis Plan

Research Questions	**Anticipated Date to be Collected**	**Sample**	**Analysis Approach**	**Proposed Timeline**
1. What benefits do social studies teachers in a rural, comprehensive high school experience when forming new professional learning community teams?	Observations Documents Interviews	*Site/Setting:* PCHS *Participants:* Teachers	Ruona (2005)	On-going On-going May 2016
2. What challenges do social studies teachers in a rural, comprehensive high school experience when forming new professional learning community teams?	Observations Documents Interviews	*Site/Setting:* PCHS *Participants:* Teachers	Ruona (2005)	On-going On-going May 2016
3. How do focused interventions developed by a school leadership team support the development of new professional learning community teams?	Observations Documents Interviews	*Site/Setting:* PCHS *Participants:* Teachers	Ruona (2005)	On-going On-going May 2016

CHAPTER 4

CASE STUDY

This action research case study is situated in the social studies department of a rural, comprehensive high school. Uniquely, five of the seven teachers in this department were new to the school. As a school leadership team, we understood the importance of supporting these teachers in developing trusting relationships with each other. Additionally, we hoped to achieve more consistency in the department regarding instruction, which we believed would ultimately enhance teacher practice and student achievement. Therefore, we began the process of developing, implementing, and evaluating interventions designed to improve teaching and learning in the social studies department. Importantly, this type of work was not new to this leadership team, as several other issues were resolved utilizing a similar framework.

Entry Process

As both a researcher and active member of the context for this study, my initial contact regarding this project was the principal of PCHS. In May 2014, school system leaders requested all certified employees to complete the Standards Assessment Inventory 2 (SAI2). With a 27.8% response rate, teachers shared on this survey that only "sometimes" did they meet with their PLCs to improve student learning. Additionally, most of the teachers indicated that "seldom" did they have the opportunity to observe each other as a form of job-embedded professional learning. After reviewing this information, and discussing anecdotal observations about teacher professional learning and collaboration, the leadership team recognized the need to implement and support PLCs to improve teaching and learning at PCHS. Importantly, we also added PLC

development as a component of our school improvement plan, which made us even more accountable for implementing this work effectively.

Stringer (2007) encouraged action researchers to develop an understanding of the social dynamics of the context by identifying stakeholders and stakeholder groups in the initial stages of the project. Internal stakeholder groups for this project included the school's students, teachers, and administrators. External stakeholder groups included parents, community members, and district leaders.

Leadership Team Members

The PCHS leadership team engaged in the process of action research to develop, implement, and evaluate interventions designed to support new PLCs. By action research, I mean the team employed the phases of looking, thinking, and acting to resolve an organizational problem (Stringer, 2007). While the boundaries of this case only included teachers in the social studies department, faculty and students in all academic departments benefited from several of the interventions designed by this team.

Criterion sampling was used to select the action research team. In this type of sample selection process, researchers select participants based on predetermined criteria (Patton, 2001). The criterion used to select the action research group was very simple, as the PCHS leadership team facilitated this project. While this was not my original plan, it quickly became evident that this was the best possible option. Quite simply, this group held the most interest in developing PLCs at PCHS; it also held the school-wide authority to enact and support the adopted interventions, such as the revised bell schedule. Finally, much of the project planning took place during the summer months, when only administrators were on contract to work.

While Stringer's (2007) framework served as the model for this case study, this was very similar to how the team regularly solved problems in the school. For example, before this project began the leadership team observed that some students did not understand plagiarism, its consequences, or how to avoid it. As a team, we examined the situation closely, developed potential solutions, and enacted targeted interventions. In other words, we engaged in action research.

Also, to ensure that teachers had a voice in the intervention plan, we provided multiple opportunities for faculty to share their ideas and feedback. This supports the democratic nature of action research, which suggests that teams gather feedback from the multiple stakeholder groups that will be affected by its work (Stringer, 2013). Members of the action research team are described below (see Table 7).

Table 7

Members of the School Leadership Team

Name	Responsibilities	Profile	Years of Experience & Education
Dr. Bones	Principal	White Male	20 Ed.D. University of Georgia
Mrs. Porter	Assistant Principal • Instruction • Scheduling • Testing	White Female	27 Ed.S. University of Alabama
Mr. Simpson (researcher)	Assistant Principal • Instruction • Testing • Gifted	White Male	6 Ed.D. Student University of Georgia
Mr. Kennedy	Assistant Principal • Operations • Discipline	White Male	28 Ed.S. Lincoln Memorial University
Mr. Smith	Athletic Director	White Male	17 Ed.S. University of West Georgia

Dr. Bones

Dr. Bones was in his second year as principal of PCHS. He previously served as an assistant principal at a much larger high school, with over 3,000 students. As a first year principal, his goal was to improve rigor at PCHS. He also valued, and celebrated, innovation with faculty meetings regularly.

Dr. Bones kept the leadership team centered on the goals of facilitating teacher collaboration, and ultimately improving student achievement. With a teaching background in

social studies, he provided an insightful perspective on the most critical activities for social studies PLCs to engage. Without hesitation, one of the greatest contributions he made to the project was the hiring of the new social studies department chair, and several new teachers. His vast experience and professional network contributed to the selection of several highly qualified, experienced teachers for the 2015-2016 school year.

Dr. Bones was also always willing to take time away from his work to support the interventions that were selected. For example, when some students began leaving campus without permission during the extended, flexible lunch period, he volunteered to supervise the student parking lot once per week. Without the support of Dr. Bones, the success we experienced in this project would not have been possible.

Mrs. Porter

Mrs. Porter was in her ninth year as assistant principal for instruction at PCHS. Before serving as an AP, she was a math teacher and department chair at PCHS for some years. She primarily supported the math, science, special education, and fine arts departments. However, in years prior to 2015-2016, she provided primary instructional support for all academic departments.

In this project, Mrs. Porter took a leadership role in supporting the remediation program for all subject areas. She worked with teachers to coordinate rosters, collect attendance, and even issue consequences to students if they skipped required sessions. She also coordinated the master schedule, which was critical for supporting the new extended lunch program. As part of her instructional leadership responsibilities, Mrs. Porter also worked with PLCs to evaluate and secure instructional resources, such as textbooks. Finally, she and I collaborated to facilitate a

book study on rigor with the social studies department chair. Again, the success of his project would not have been possible without Mrs. Porter's support.

Mr. Kennedy

Mr. Kennedy was in his ninth year as assistant principal at PCHS. Like Mrs. Porter, before becoming an AP, he taught at PCHS for some years. His primary administrative responsibilities included facilities, safety, and student discipline. He also worked closely with athletic and fine arts programs.

Mr. Kennedy made several significant contributions to the team. He supported Mrs. Porter in enforcing the attendance requirements for the student remediation program. Most importantly, however, he ensured safety in all areas of the building during the extended lunch period; this included monitoring the cafeteria, courtyards, media center, hallways, and gymnasium. This role was even more complex than usual, as students had much more flexibility with their new, unstructured lunch time. Finally, Mr. Kennedy served as the liaison between our school and the school nutrition staff; again, strong communication was needed even more than usual because the unique lunch schedule required our cafeteria to change some of their operating procedures.

Mr. Smith

Mr. Smith was in his third year as athletic director at PCHS. Before entering this role, he taught construction at PCHS for several years. In addition to overseeing all athletic programs, Mr. Smith also worked closely with fine arts, activities, and student organizations; finally, he supported Mr. Kennedy with discipline as needed.

Importantly, the original idea of altering the fourth-period schedule to facilitate PLCs originated with Mr. Smith. When the team did not fully understand how this might work, he put

his proposition in writing to help us visualize it. He also developed informational documents to share with teacher leaders about this intervention. Finally, Mr. Smith worked with Mr. Kennedy to assign times for each lunch period, and monitor student safety throughout campus.

Action Research Cycles

The leadership team met regularly to explore the problem and develop solutions for resolving it. Stringer (2013) described three stages of action research: looking, thinking, and acting. He noted that evaluation is embedded in each of these phases. In the looking phase of this project, the leadership team considered how PLCs were currently functioning at PCHS. We also considered what the desired state was, and why. In the thinking phase, we began developing plans for achieving the ideal state we hoped for. In the acting phase, we put the interventions into place and supported their success. As Stringer (2013) suggested, evaluation occurred throughout the project. As stated previously, this process of looking, thinking, and acting lent itself naturally to our role as school leaders.

Looking

In this phase, the leadership team considered how PLCs currently functioned at PCHS; as well as the desired state we hoped to achieve. We observed that, while some teachers worked together to plan lessons, this type of collaboration was limited; additionally, the collaboration that did occur was mostly activity based. Again, while some teachers did design lessons together, they did not often develop common assessments, review student learning data, or learn together about new strategies.

The team also recognized that structures were not in place to facilitate teacher collaboration during the school day. We discussed the possibility of asking teachers to collaborate before or after school but quickly rejected this because many teachers had coaching

or student activity responsibilities that would prevent their attendance. We assessed that this approach would not be effective unless all teachers had the opportunity to participate. Another option the team discussed was common planning; however, from a master scheduling perspective, this would be very difficult for a school our size to support.

Considering the work of Hord (2006) on supportive conditions for PLCs, we identified time, trust, supportive leadership, and access to student learning data as significant areas of need. While trust and supportive leadership are relational supports, time and access to student learning data are structural supports. Our priority was to allocate time during the school day for teachers to meet; again, this was because we felt that it was critical for all teachers to have the opportunity to participate in their PLC. Additionally, teachers needed timely access to instructional data to make informed decisions about their instruction, and support collegial conversations about improvement. The team also recognized the importance that supportive department and school leadership would play in this process, while also providing teachers with the professional autonomy needed to make the work meaningful and effective for them. Finally, trust needed to be established for teachers to share their personal practice. Uniquely, while trusting relationships would support the work of PLCs, it was also a byproduct of the time teachers would spend collaborating and learning together. Table 8, below, identifies these needs and explains their relationship to the conceptual framework for the study.

Table 8

Teachers Needs and Conceptual Framework

Need	Relationship with Conceptual Framework
Time	Enabling School Structures
Trust	Trust
Supportive leadership	Enabling School Structures Trust
Data	Enabling School Structures

Thinking

In the thinking phase, we planned interventions to support new PLCs in the social studies department. While we did not implement all the ideas we discussed, all ideas were valuable in that they grew our understanding of the problem, and how to address it.

Based on research, as well as our experience in the school, the leadership team recognized that no effort to implement PLCs would be successful without providing time during the school day for teachers to meet. This aligns with the premise of enabling school structures, a component of the conceptual framework for this study. Teachers have many competing demands placed on their time (Hollins, McIntyre, DeBose, Hollins, & Towner, 2004), so they need sufficient time during the school day in which to work for PLCs to be successful (Hord, 1997). We discussed providing teachers with common planning periods to accomplish this, but ultimately decided that our small size prevented us from developing a master schedule to support this. We also considered asking teachers to meet before or after school for PLCs, but did not

select this because many teachers already had before- or after-school responsibilities. For these reasons, the leadership team proceeded with developing a plan to set aside time during the school day for teachers to meet.

In a leadership meeting, Mr. Smith proposed extending the lunch period from 25 minutes to 50 minutes. He explained that this would allow teachers to keep their 25 minute lunch period, but also have 25 minutes to meet in PLCs. To support this additional meeting time, students would need to have a full 50-minute lunch period as well. He proposed awarding students with passing grades an extended lunch period to eat, socialize, study, or play sports in the gymnasium. Students who were failing classes would attend mandatory remediation sessions.

While the team was optimistic about this plan from the beginning, we questioned how teachers could tutor remediation students during lunches while not missing their PLC meetings, or eating lunch. This led us to assign one teacher a "remediation segment" during fourth period as part of their regular course load schedule. Students could then report to remediation during the first 25 minutes, and eat their lunch during the last 25 minutes. This would enable remediation teachers to provide academic support to struggling students during the first 25 minutes of each of the two 50-minute lunch segments. During the last 25 minutes of each segment, they would eat their lunch or attend PLC meetings, depending on when the other teachers in their department were assigned lunch. This plan supported two important goals, facilitating teacher collaboration during the school day, and providing additional support to students who needed it.

At this point in the project, we believed this plan would operationalize the concept of enabling school structures, as presented by Hoy and Sweetland (2001). In other words, it would provide the structure PLCs needed to be successful. Also, the remediation program would offer a

response to the fourth question teachers should address in PLCs: "How will we respond when students do not learn?" (DuFour, DuFour, Eaker, & Karhanek, 2004).

A copy of the revised schedule we developed is provided below (see Figure 3).

Extended Lunch Schedule		
	Start	*End*
1	8:00	8:50
2	8:55	9:45
3	9:50	10:40
4 *R1* L1 *R2* L2	10:45 *10:45* 10:45 *11:35* 11:35	12:25 *11:10* 11:35 *12:00* 12:25
	Students requiring remediation will report to R1 or R2 and then their regular lunch	
5	12:30	1:20
6	1:25	2:15
7	2:20	3:10

Figure 3

Revised Bell Schedule

Trust is another critical component for establishing effective PLCs, and is part of the conceptual framework for this study. While the team recognized that trust is vital to the success of the project, we did not implement any artificial trust-building exercises, such as team-building games, into our intervention plan. It was our opinion that the most effective way for teachers to build authentic, trusting relationships was to spend time working, collaborating, and learning

with each other. Several researchers, including Gray and Summers (2016) and Hord (1997), also support this position. We also feared that, if the previous condition of teachers working in isolation prevailed, the level of trust we desired would never materialize. Interestingly, trust was unique in that it was both a condition and outcome of teachers working together.

The leadership team also desired to develop consistency in instruction between classrooms, and facilitate shared data-driven decision making in PLCs. To facilitate this, we adopted a common assessment intervention in which all course-alike PLCs collaboratively developed each unit assessment. Prior to each unit, we asked PLCs to examine the standards and objectives for that unit, and design an assessment with this end in mind. We then visualized that teachers might share ideas and resources for helping students master these learning goals. Finally, after students took common unit assessments, teachers would have access to useful instructional data to gauge their success.

To make this process as efficient as possible, we recommended a rapid data analysis tool to provide teachers with timely, robust feedback on student learning. We evaluated several commercial tools, but eventually selected All In Learning. Fortunately, we received district support for purchasing this tool. Working from any computer with Internet access, teachers could create and share assessments with various types of items, including multiple choice and constructed response. Each teacher could then administer the assessment to their classes using computers or a special bubble sheet. When finished, they could scan and store the assessment using their webcam or smartphone. Finally, after scoring assessments, teachers could review robust data, aggregated by assessment, item, standard, and student. Teachers could also compare results at each of these levels with other teachers in the school. Our goal was to enable teachers to give, score, and analyze assessments quickly and easily, thereby engaging them more

meaningfully in the assessment program. Importantly, we wanted teachers to be able to analyze data quickly, rather than compile it manually using endless spreadsheets and chart.

Critical to all the interventions described above, the leadership team prioritized hiring a department chair to lead this work. Supportive leadership is a required prerequisite for successfully implementing PLCs. In the summer of 2015, the school hired a new department chair. Before joining our school, her extensive experience included developing assessments, facilitating PLCs, analyzing data, and leading social studies departments. Her previous administrators also commended her instructional leadership skills. Importantly, the team desired to provide teachers with consistent access to an experienced social studies curriculum leader.

Consistent with the democratic nature of AR (Stringer, 2013), we shared the details of our intervention plan with teachers before finalizing decisions. For example, in the summer of 2015, a group of teachers met to provide feedback on the extended lunch and remediation plans. This teacher group also took a leadership role in working out more details of the schedule, such as which teachers would be assigned remediation, and where they might meet.

Table 9, below, includes the needs we observed, the interventions we developed, and how these relate to the conceptual framework for the study.

Table 9

Teacher Needs, Interventions, and Conceptual Framework

Need	**Interventions**	**Relationship with Conceptual Framework**
Time	Revised school schedule that includes daily common planning time	Enabling School Structures
Trust	Weekly PLC meetings to collaborate, learn together and review data	Collegial Trust
Supportive leadership	Department chair attendance at each PLC meeting; school leader attendance when requested	Enabling School Structures Collegial Trust
Data	Common assessments for each unit; remediation program for struggling students; access and support for a rapid data analysis tool	Collegial Trust Enabling School Structures

Acting

In the acting phase, we implemented the interventions planned in the thinking phase. The intervention plan included a revised bell schedule, common unit assessments, a new department chair, and access to a rapid data analysis tool. Importantly, the leadership team asked multiple teacher groups to give feedback before implementing any interventions.

Throughout this project, the leadership team prioritized time as the most important of supportive conditions for new PLCs. Accordingly, we developed a new master schedule to support a 50-minute lunch period for teachers and students. Teachers spent the extra 25 minutes of daily time collaborating in PLCs; students spent their extra time in enrichment or academic remediation, depending on their course grades. During pre-planning, the leadership team presented this revised schedule to teachers in small groups so as to facilitate conversation and question-asking. It was no surprise that most teachers were supportive of the plan. We attributed this to teachers having the opportunity to give feedback through their peers. This provided them with a voice in the decisions that were made.

While faculty supported the revised lunch schedule, the leadership team thought it would be beneficial to ease students into the new routine. Also, there were not enough grades to determine the student remediation rosters at this early point in the school year. Even with these precautions, we still encountered some logistical issues. First, we quickly realized that lunch lines were too long. Mr. Kennedy worked with the cafeteria staff to open an additional salad line in a former concession stand. Some students also abused their new flexibility by going to unauthorized locations on campus; for example, one group of students consistently tried to eat in the hallways, which interrupted instruction in nearby classrooms. In rare situations, some students left the building entirely and went to the soccer and baseball fields. To address this, the leadership team used posters, announcements, and the student video news show to review the locations students were authorized to be in during their lunch period; in this case, they could go to the media center, lunchroom, gymnasium, or courtyard. Mr. Kennedy and Mr. Smith were instrumental in maintaining safety and appropriate behaviors during this time. Additionally, all

leadership team members, including Dr. Bones the principal, helped supervise the student parking lot, which was also a problem area during fourth period.

The leadership team also prioritized consistency in instruction between social studies classrooms. To help with this, and to facilitate shared data-driven decision making, we implemented a common assessment intervention. Before starting a unit, teachers closely read and analyzed the appropriate learning standards in their PLC. As a team, they then developed common learning objectives, and common unit assessments to assess student mastery. After administering the common assessment, teachers analyzed and compared their results to facilitate shared data-driven decision making, and professional learning. In the initial phases of developing the first common assessment, we realized that this would be an extremely complex process. Unfortunately, the assessments our teachers previously developed comprised mostly of lower-level, fact-based questions. However, the assessments ultimately led to profound conversations about expectations, rigor, and assessment, which resulted in professional growth. While this intervention took much more time, energy, and negotiation than we expected, in the end our teachers developed assessment products that were rigorous and aligned with standards. For example, every common assessment included a constructed response item, which was not the case previously.

Even this year, after this project concluded, the social studies team continues to work on improving their assessment practices in terms of rigor. For example, in a department-wide PLC meeting on September 21, 2016, social studies teachers discussed the distribution of higher and lower depth of knowledge items on common assessments. Also, the U.S. History course-alike PLC developed a common midterm for students to experience an assessment similar to the state summative assessment for that course (see Appendix E).

A rapid data analysis tool, All In Learning, was also purchased to provide teachers with timely, robust feedback on their students' learning. Additionally, this tool enabled teachers to quickly develop common plans for acceleration and remediation so students could keep moving forward. Once teachers created and shared common assessments, they scanned and scored their assessments using a special webcam, or their smartphone. After scoring, teachers accessed learning data aggregated by assessment, item, standard, or student. Importantly, teachers also compared their data with those of the other teachers in the PLC. Instead of spending hours creating spreadsheets and charts to facilitate data work, All In Learning completed this in a matter of minutes.

Importantly, teachers did require training on this tool before using it. I utilized a train-the-trainer model whereby I provided in-depth training to two social studies teachers, who then trained and supported their PLCs. These trainings focused on entering students, creating rosters, developing and sharing assessments, analyzing personal learning data, and compiling data for PLC meetings (see Appendix F for a sample agenda).

Supportive leadership from the department chair was critical for the effective implementation of PLCs in the social studies department. As explained previously, the leadership team hired a new social studies department chair in the summer of 2015. Mrs. Lewis was selected based on her extensive experience developing common assessments, facilitating PLCs, analyzing data, and leading teachers. Since the department consisted mostly of teachers new to PCHS, one critical aspect of her work was developing trust in the department. While we recognized the importance of trust in this study, and in general, the leadership team did not choose to initiate any activities like team-building games, as we believed any feelings of goodwill gained by these types of activities would be short-lived. Instead, we felt that teachers

should develop authentic trust by spending time talking, learning, collaborating, and sharing ideas. The new department chair was instrumental in supporting this process; she made it her priority to ensure that each teacher felt respected and safe, both inside and outside of PLC meetings. I was also impressed that, in the second semester, she inspired other teachers in the department to take leadership roles as well. By May 2016, these teachers led meetings and developed assessments; they also felt comfortable expressing their thoughts and ideas in course-alike and department PLCs.

Additionally, I amended data collection plans to include only two observations of actual PLC meetings. While I initially planned to attend all PLC meetings, I ultimately decided against this plan. Trust is a critical component of the conceptual framework for this study, and it was the belief of the school leadership team that we could trust teachers to lead their PLCs. Instead of attending each meeting, I conferenced regularly with Mrs. Lewis, the department chair and PLC facilitator for social studies. This emphasized the term "professional" in professional learning communities. Also, environmental circumstances made it very difficult for administrators to attend these meetings regularly. Since students had more free time on their hands, we felt that one way we could support teachers during the lunch period was to monitor student safety and behavior. Of course, we did attend PLC meetings when teachers requested our help. For example, I was asked to review information on the rapid data analysis platform at one PLC meeting. At another, Mrs. Porter was invited to discuss how the PLC might go about selecting instructional resources for the next school year. Because we could not physically attend all PLC meetings, I made sure that we regularly reviewed agendas and minutes; I also had regular meetings with the department chair to stay abreast of what was taking place.

A comprehensive listing of the interventions, desired outcomes, timeline, and the data collected to assess effectiveness is available in Table 10, below.

Table 10

Interventions, Desired Outcomes, Timeline, and Evaluative Data

Proposed Intervention	Desired Outcomes	Timeline	Evaluative Data Collected
Revised school schedule	• Teachers have time to meet during the school day • Remediation program for students who are struggling	Plan: Summer 2015 Implement: 2015-16 SY	• Semi-structured Interview • Field Notes • Document Analysis
Scheduled PLC meetings (weekly)	• Teachers have a designated time to meet, so it becomes a priority • Teachers will collaborate, learn together, and analyze data • Teachers will develop trust for each other • Teachers will be more consistent in their instruction as they cover all state and district standards	2015-16 SY	• Semi-structured Interview • Field Notes • Document Analysis
Department chair attendance at each PLC meeting	• Teachers have access to someone experienced with working in PLCs, content, pedagogy, and common assessment, and data analysis • The implementation process is monitored closely, from the inside	2015-16 SY	• Semi-structured Interview • Field Notes • Document Analysis
School leader attendance when requested	• Teachers feel that their administrator is willing and able to help when needed • Teachers do not feel like they are watched for compliance	2015-16 SY	• Semi-structured Interview • Field Notes • One-legged Interview • Document Analysis

Common assessments for each unit	• Teachers learn from each other on content, standards, and assessment practices • Greater consistency on the curriculum across multiple classrooms • Assurance that district and state standards are being taught and assessed in all classrooms • Stronger assessment program through focus on rigor, DOK • Ability to compare results across multiple classrooms • Enhanced student achievement in course grades and standardized testing programs	2015-16 SY	• Semi-structured Interview • Field Notes • Document Analysis
Remediation program for struggling students	• Classroom differentiation; teachers can assist students who are struggling during their lunch period • More students learn, students learn more • Enhanced student achievement in course grades and standardized testing programs	2015-16 SY	• Semi-structured Interview • Field Notes • Document Analysis
Access, training, and support for a rapid data analysis platform	• Teachers will be able to quickly collect and analyze student learning data to improve instruction • Teachers will be able to easily share and compare their data with other teachers; allowing each other to learn from each other's successes and opportunities • Classroom differentiation; teachers can assist students who are struggling during their lunch period • More students learn, students learn more • Enhanced student achievement in course grades and standardized testing programs	2015-16 SY	• Semi-structured Interview • Field Notes • Interview • Document Analysis

Reflection and Concluding Thoughts

In reflection, it was not difficult to examine our work through the lens of action research because this was how our leadership team typically worked. For example, in a previous project we observed that many students did not fully understand plagiarism, why it was not allowed, and how to avoid it. To address this problem, we examined it, developed possible solutions, and implemented an intervention plan to resolve it. In summary, the action research process was previously used by the team to proactively lead the school.

Also, while the leadership team discussed many ideas, not all were selected for implementation. However, all ideas were valuable in that they helped jointly construct the problem and solution for developing new PLCs. One example of this was my initial plan to develop a workshop to help teachers understand the core work of PLCs. In the end, however, a new department chair was selected by the leadership team to support teachers through this process interactively instead of through an isolated workshop.

Finally, I was intrigued that many solutions in this project came from unlikely sources. For example, it was actually our athletic director who proposed changing our bell schedule to allow teachers to meet in PLCs during an extended lunch period. While this AD was more involved with academics than others I had worked with, this was unlikely because he was not part of the PLC discussions we had already conducted. Also, after Mrs. Porter and I discussed common assessments, we were puzzled about how to help teachers turn results into actionable data. My mother-in-law, who also works in education, told me about a presentation her district had on a tool called All In Learning. Also in good fortune, the Panther Country School System assisted us financially in adopting this tool. These are just a couple of examples of solutions coming from unlikely places; this demonstrates how important it is for school leaders to “keep

their ear to the ground" regarding the problems their schools face, as the true experts for solving them are all around.

CHAPTER 5

FINDINGS

The purpose of this action research case study is to examine the benefits and challenges experienced by social studies teachers while developing new professional learning communities (PLCs). The study also seeks to assess how interventions developed by a school leadership team support the development of these new PLCs, if at all. This chapter explains the findings related to each of the following three research questions:

1. What benefits do high school social studies teachers experience when engaging in new professional learning communities?
2. What challenges do high school social studies teachers experience when engaging in new professional learning communities?
3. How do interventions developed by a school leadership team support the development of new professional learning communities, if at all?

These findings are summarized in Table 11, below.

Table 11

Summary of Findings

Research Question	Findings
1. What benefits do high school social studies teachers experience when engaging in new professional learning communities?	1. Teachers valued the collaboration and support that took place in professional learning communities. 2. Teachers perceived that participating in professional learning communities enhanced their instructional and assessment practices. 3. Teachers developed trusting relationships with their colleagues by participating in professional learning communities.
2. What challenges do high school social studies teachers experience when engaging in new professional learning communities?	1. Teachers perceived that the effectiveness of professional learning communities develops over time, as trusting relationships are established amongst teachers. 2. Teachers strived to balance interdependence with autonomy while participating in professional learning communities.
3. How do interventions developed by a school leadership team support the development of new professional learning communities, if at all?	1. Teachers valued a revised bell schedule that provided designated time for professional learning communities to meet during the school day. 2. Teachers valued common assessment and a rapid data analysis platform, stating that these interventions prompted individual and group reflection that resulted in improved instruction and assessment practices. 3. Teachers valued support from their department chair and school administrators in developing new professional learning communities, while expecting different types of support from these two distinct leadership roles.

Research Question 1: Benefits of Professional Learning Communities

Three themes emerged from data relating to the first research question: What benefits do high school social studies teachers experience when engaging in new professional learning communities? The first theme is, "Teachers valued the collaboration and support that took place in professional learning communities." The second theme is, "Teachers perceived that participating in professional learning communities enhanced their instructional and assessment practices." Finally, the third theme is, "Teachers developed trusting relationships with their colleagues by participating in professional learning communities." In the sections that follow, data supporting each of these themes is examined.

Teachers valued the collaboration and support that took place in professional learning communities

The first theme for the first research question indicates that teachers valued the collaboration and support that look place in PLCs. Teachers often stated that collaborating with colleagues led to professional growth. For example, even in the beginning of the project, Glen stated in a personal communication that he believed PLCs were "about bringing professionals together collaboratively to help each person in the group improve their practice." He further elaborated by stating that PLCs resulted in teachers "sharing ideas to build, not just what you do in your classroom, but what the whole department and what each of you does as a group."

In PLC meetings, teachers frequently shared ideas and resources with each other, essentially creating a repository of instructional ideas and strategies to pull from. Christina identified this benefit of PLCs when she stated, "One of the great benefits of the PLC is that we share what we are going to do every day. 'I'm doing this. You're doing that.' We would give copies and send electronic versions of different things." In one department-wide PLC, Christina

actually provided an example of this when she shared a choice board activity with the other teachers. Teachers who also taught World History decided to use this tool with their classes, and several teachers of other classes adapted it to fit their curriculum. This is just one example of the many instructional strategies and tools that were shared in the social studies PLCs. A copy of this resource is included in Appendix G of this document.

According to participants, collaboration was helpful in other ways as well. Christina contended that, when teachers felt less confident in a particular area, collaboration with peers served as a support for them. In her final interview, she stated, "It really makes you feel confident to think, 'Okay, even though this might not be my strongest topic, I've got support because so-and-so's already done this, and they were very successful. I can just do what they did.'"

Matt indicated that collaboration helped him when he had inadequate time to plan for the multiple courses he taught, or when he needed to improve on the existing strategies he used to teach concepts. Ultimately, he felt much more confident in his ability to make positive instructional changes. He stated:

> If you are busy with your other subject area, or you feel like an idea you have been using for years is not working well, it provides an opportunity for you brainstorm with another professional to get other assignments and activities; it makes the whole thing a lot less overwhelming.

When teachers collaborated in PLCs, they interacted with educators who held a diverse set of experiences, interests, and skill sets; often, this resulted in professional learning, risk taking, and the adoption of new ways of teaching. This point was demonstrated by Abe and Glen's relationship. While Glen often used interactive strategies, like role plays and simulations,

Abe relied on more traditional methods such as direct instruction and classroom discussions. Abe also integrated technology into his lessons, frequently sharing these resources with Glen. Glen indicated that these differences in style were beneficial, as both teachers learned from each other as they tried strategies that were outside of their typical instructional repertoire. Glen stated:

> It was beneficial for me because I was able to take somebody who has a different teaching style than I do, and we were able to do things together that really direct both of us to be better. It was interesting to see that even though I am more of an activities-based kind of teacher, and Abe is more of a lecture and discussion guy, we could actually do a lot of things together and learn from each other.

Abe indicated that both he and Glen respected each other's differing teaching styles; he also agreed that the two teachers learned from each other, and that their diversity was beneficial. Abe responded:

> We have really different styles, but I think we both respect each other's styles. We've really, I think, learned a lot from each other this year about how we approach teaching the same course. I think we both do it successfully. It's been kind of neat sharing how I do things versus how he does things and then merging them together into one.

Again, all of the participants commended the collaboration that took place within their PLCs. Importantly though, a trusting environment was necessary for teachers to openly share their ideas and resources with colleagues. Prior to making these contributions, teachers needed to feel confident that they would not be judged, criticized, or dismissed by others in their PLC. Glen captured this idea in one of the very first meetings. He described:

> In an ideal setting, I think we will compare what we did in our classrooms, and talk about what was successful and what was a downfall. Hopefully this is in a trustworthy

> environment where, just because I'm telling you what happened in my classroom, you're not going to judge me and think I'm a bad teacher or vice versa. We understand that we want to make each other better, so we're willing to set forth our ideas, share our strengths and weaknesses, and learn from each other so that we improve.

While teachers did prioritize the need to feel safe sharing ideas and resources within their PLC, they did not indicate that this led to all ideas being accepted in order to preserve the goodwill of the group. Abe helped lead to this conclusion when he responded to a probe by stating that, "Nobody's feelings are hurt. We might ask, 'How can we merge your idea with my idea to get to a middle ground?'"

Also, teachers were proactive in setting norms for handling how resources were shared, and subsequently used or not used by other members of the group. More specifically, the teachers developed a norm that whether or not a resource was adopted by other teachers was not a measurement of the resource's quality, but simply a reflection of the unique styles of each teacher in the PLC. A frequent sharer in both department-wide and course team PLC meetings, Christina shared, "We would share things, and always with the understanding that we could use this, tweak it, edit it to make sure it works for all of us, or not use it at all."

According to teachers, collaboration was among the highest of priorities for their work together. Teachers shared ideas, identified their areas of strength and weakness, learned new things, and provided support for one another. Importantly, the focus of this collaboration was on teachers growing into more effective educators for the benefit of their students. Matt stated:

> I think the most important task for us was getting together to collaborate, to share ideas. We had time to figure out strengths and weaknesses, and then talk through how to effectively get standards taught to the students. We learned new ideas, new technology,

or just said “I don’t do this very well; can you help me?” PLCs ultimately helped us be on the same page, and actually communicate about the subject area we are teach. The short answer, we collaborated to become more effective teachers for our students.

In conclusion, teachers were positive when reflecting on the collaboration and support that occurred within PLCs. Several benefits to this collaboration were shared by teachers, including the development of an ecosystem of ideas and resources to pull from, peer support, and exposure to new ideas and teaching styles in order to continue evolving as an educator. Importantly, teachers recognized the need to establish trust in order to freely share their personal practices within their PLC.

Teachers perceived that participation in professional learning communities resulted in their professional learning and growth

The second theme for the first research question indicates that teachers perceived that participation in PLCs resulted in professional learning and growth. At the very outset of the project, Glen expressed hope that PLCs would bring “professionals together collaboratively to help each person in the group improve their practice.” Furthermore, he emphasized that this improvement should not be limited to one teacher in the group, but should extend to every member of the social studies department. Speaking to his colleagues, he promoted sharing ideas because they “build not just what you do in your classroom, but what the whole department and what each of you does as a group.”

Abe cautioned that, in order for PLCs to actually affect student learning, teachers had to make instructional changes as a result of their work together. Emphasizing the importance of enhancements to teacher practice as a result of collaboration in PLCs, he explained:

> I remember at my last school, we would do some PLCs early on when it became a "thing" in education. But, at the end of the day I'd go in my room and teach my way. Somebody else would go teach their way. It really doesn't benefit the students that way because, at the end of the day, they're going to have to take the common state assessment at the end of the year.

An important benefit of working with their colleagues in PLCs that was expressed by teachers was collective learning. While Abe admitted that some of this learning might have taken place even if PLCs had not been implemented, he proposed that PLCs were a quick, easy way for teachers to learn from each other. He stated, "I've been doing this, it'll be year 20 next year, and you always are learning from your colleagues, but this just allows you an easy way to facilitate that learning from each other."

Teachers often reported that seeing and hearing how their colleagues approached teaching the same, or similar, content prompted them to reflect on their own practice. Christina captured this idea exceptionally well, when she recounted that her participation in PLCs prompted her to reflect on her own teaching practice; more specifically, she considered what things she was doing well, and what things she needed to improve. According to Christina, this enabled her to see outside of the way she always taught things and consider new ideas and strategies. Christina explained:

> It's really made me think about my own teaching practices. What am I doing that is good? What am I doing that I need to improve on? Seeing the other teachers teach, and how they handle topics that I teach, it's enlightening. That's been one of my favorite things, being a part of collaboration where we can see rather than just think I'm stuck in this rut of "I'm doing it this way because I've always done it this way."

In another example, Glen indicated that seeing how Abe integrated technology into his lectures and classroom discussions prompted him to more closely consider student engagement when planning his own lessons. While Glen did say that he always considered student engagement when planning lessons, collaboration provided him with a comparison point to understand how well he was doing. He stated:

> It's definitely made me be more cognitive of what is engaging and beneficial for students. Not that I wasn't coming to that before, but now I have a comparison. The PLCs just made me really ask myself "Alright which combinations of methods is going to be the best to get students engaged in the class?"

Matt also reported that reflection was a byproduct of his participation in PLCs. He stated that this collaboration forced him to think about how he taught material, assessed mastery, and prioritized the course standards. He said:

> I think it forces you to think about what you're doing in your room, how you're going to assess stuff, and whether it's worthwhile or not, because you're brainstorming with these other teachers.

Again, an important finding in this theme is that, in order to actually improve student learning, collaboration in PLCs has to enhance actual teacher practice in the classroom. Christina, as social studies department chair, observed these positive changes in the classroom. She attributed this growth to PLC collaboration, as well as holding high expectations for teachers in terms of performance. She reported that this helped teachers feel more valued as a member of the team, have greater confidence in their ability to improve, and experience positive professional improvement. She stated:

> I believe they have become better teachers, that's ultimately my goal. I think we have seen some evidence of that. I can think of a couple of people in the department that have definitely shown some growth this year because of the PLCs. The collaboration is awesome, and while that collaboration, and support, are a big part of what we do, having high expectations is also a big part of it as well. When there are members that have been isolated before or just have always been doing it their own way because they didn't think anybody was watching or paying attention or even cared, suddenly that's changed for them. I think they have liked having a set of expectations that, "Okay. This is the way it is now, and this is what we're going to do. This is how we're going to do it." I think it makes them feel like a more valued member of a group, and that their input does matter, and that they can change. I would hope it would make them a better teacher. I think there has been some growth. I can think of a couple of things, right off the top of my head, where I've seen growth.

These positive shifts were also present in the field notes I took throughout the project. In one example, Dr. Bones shared in a leadership team meeting that he observed Abe and Glen combine their classes in the media center for an economic simulation. While this type of activity was something Glen commonly used, based on prior observations this was something new for Abe. When asked how this combined lesson came about, they shared that it was something Glen learned at a conference and shared with Abe. In reflection, both teachers felt that it was an effective lesson for helping students learn about scarcity.

Similarly, I documented in December 2015 that Matt implemented a document-based question (DBQ) instructional strategy with his World History students. From previous interactions, I knew this was not something he used before. When asked about this lesson, Matt

shared that he frequently heard about the successes Christina experienced with these writing strategies, and decided to give them a try.

Interestingly, Christina reported hearing about instructional improvements from paraprofessionals that rotated through several classrooms in the department. She stated:

> Of course, I have a lot of conversations with the paraprofessionals that visit between our classes. So even if I'm not able to go into a classroom, or even if a teacher doesn't share in the PLC that, "Well, I did this and it worked really well." sometimes, somebody else, like a para, will come to me and say, "Oh, well, this is what's going on in there. This is what they're doing, and it was so awesome, and the students were engaged." You find out anyway, and that's a good thing.

Importantly, while teachers reported improvements in their practice as a result of working in PLCs, they did not suggest that their entire instructional repertoire was changed either. Instead, Glen shared that their approach was to share feedback and ideas with each other, while also maintaining their own individuality as a teacher. He stated, "Our philosophy was we're going to comment on this, share ideas, but not force each other to be what we're not in the classroom each day." Regarding his own improvement as a teacher, based on participating in PLCs, he reflected:

> Overall, I can't say that the PLCs entirely changed the way I do things. They might have reinforced some things, and given me a different perspective on others, but they didn't totally change me as a teacher either.

Later, Glen shared an actual example of this when he explained how collaboration enabled him to see how other teachers used instructional resources, such as videos, to enhance student engagement. He stated:

> As far as changing things, I think the PLC made me look at teaching resources differently. Other people in my PLC used, maybe, videos and things like that more than I do. I've been able to gain a lot from that. It helps me, you know, break up things for the activities I do to kind of add this one extra piece of engagement for students.

Abe also emphasized the importance of teachers maintaining their individuality, while also developing consistency between classrooms. Through the lens of his prior experience in other schools, he proposed that teachers should work together to build common outcomes, knowing that the way each teacher actually teaches the material will be unique based on their own interests and teaching styles. In this way, he believes teachers will be most effective; that is, each teacher teaches to their strengths. He recounted:

> That's one thing we did at my last school. As the years went on, we started saying, "Okay, we have to try to build this common idea with some individuality" because you don't want to take that individuality out of teaching. I want to teach to my strengths and let Glen teach to his strengths, but at the same time, we have to benefit the students by having some consistency, if they had to go to another teacher to learn the material.

Additionally, when teachers did implement an idea or strategy they learned in their PLC, it did not always result in them adopting the same strategy again in the future. Glen, for example, worked out a common plan for remediating students when they failed a test with Abe. However, this is not something he hopes to do again in the future. Importantly, both teachers agree that this is not a reflection on the quality of the remediation plan, but rather differences in their instructional philosophies and preferences. Glen stated:

> The way I had remediated students in the past was different than the way we remediate students now. Abe and I came up with a plan where students could, if they failed a test in

> our class, could go online and do a different type of test, and then average it with their original test score. This is not something I honestly liked.

In a department-wide PLC, Christina cautioned teachers that sometimes ideas shared with them will work, and sometimes they will not. She attributed this to differences in the way teachers teach, and indicated that taking these risks is fine because it is a part of the learning process. She reflected on this statement when she said:

> I'm free to experiment, and I'm free to try something new because so-and-so's ... Sometimes, it doesn't work. Sometimes, one teacher will do something and then another teacher will try it, and it doesn't work quite the same way. That's okay because it's part of the learning process.

Finally, the positive changes in instructional practices that teachers reported were not immediate, especially when it involved teachers branching out of their typical teaching styles. When Abe described implementing an active learning simulation, which he collaborated with Glen on, he expressed that the experience was outside of his comfort zone. More specifically, he was unsure of how to formatively assess students throughout the lesson, which is something he consistently does during his typical lessons. However, since he believes this type of activity does engage students in the content, he planned to watch Glen more closely throughout the year to learn more about the strategy, and develop comfort with implementing it more often. He shared:

> It’s still hard for me, again, because it was outside my comfort zone, it’s hard for me to gauge what you’re learning during a simulation as opposed to what I’m used to, which is kind of a formative assessment throughout the class period, of talking about things and discussing it with students. The simulation is a thing where you’re going to do it one

> period, then you're going to come back to it the next day, and maybe do your formative assessment of, "What did you learn? What'd you get?" Just wrapping my head around that was a little different. I definitely think it's something different that the students like to engage in, and I could definitely see watching him do more and more of it throughout the year. Once his students became used to it, they got it and they understood that there was a lesson in it. That's why I guess I would say, moving forward, it would be something that I would do more and more.

Throughout this project, I held weekly meetings with Christina. In one of our early discussions, she shared that one of her biggest challenges was helping her teachers to see, and ultimately accept, that there are more effective ways to teach social studies than traditional lectures. She advocated for more hands-on, interactive instructional strategies as a more engaging way to teach. Reporting on her department's progress, she shared:

> That has been one of our biggest challenges, just getting some of the teachers to see that there are different ways to do things, and that's okay. It's okay to still, I mean, I used to do things a different way. I've changed the way I teach. I used to teach back in stand and deliver. The lecture method was the only way you taught. Everybody did that. To try to get them to see that more students in our hands-on approach are successful, sometimes that's hard for teachers to break with their old tradition and try something new. I've seen a lot more of that, a lot more trying to be more engaging with our teaching. We still have some work to do in that area, but we're moving in the right direction.

In conclusion, the second theme for the first research question indicates that teachers perceived that participation in PLCs resulted in their professional learning and growth. Early in the implementation process, teachers committed themselves to collaborating with these teacher

communities in order to enhance their effectiveness individually and as a department. Additionally, they emphasized that in order for PLCs to positively impact student learning, they first had to enhance teacher instructional practices. Because PLCs provided an efficient way for colleagues to learn and share personal practices with each other, they often prompted teachers to reflect on their past practices and try new approaches. While several sources indicated that growth in teaching practices did occur for multiple participants, teachers were also clear that their participation in PLCs did not entirely change their individuality as a teacher either. Additionally, the shifts that did occur were not always positive, and occurred gradually, not immediately. However, participants, including department and school leaders, reported being very pleased with the improvements that did take place.

Teachers developed trusting relationships with their colleagues by participating in professional learning communities

The third theme for the first research question indicates that teachers developed trusting relationships with their colleagues through their participation in PLCs. Because this project took place in a social studies department that consisted of mostly teachers who were new to the school, this was a critical finding for the study. Teachers often reported that their relationships with colleagues improved over the course of the school year, and as a result of working closely together in PLCs. This resulted in teachers eventually developing trusting relationships. One example of this was shared by Abe in his final interview; he recounted that, while working in a new PLC was strange at first, his team's collaboration improved as relationships developed. Actually, their cohesiveness eventually grew to the point that they collaborated even outside of the formal PLC meetings. Abe stated:

> Honestly, early on it was a little weird for both of us; I could tell. But as the year went on, I felt like we developed, I think, a really strong relationship through the PLC. I think we both have an understanding now that we trust each other. We'll even text each other sometimes, like "Hey, what about this for an idea?" or something like that. It's like an informal PLC. I've really enjoyed it.

As one of the few social studies teachers who was not new to the school, Matt also attributed the development of trusting relationships to PLCs. He proposed that PLC meetings forced teachers to work and learn with each other, naturally facilitating trust over time. He stated:

> I think trust developed naturally as we got to know each other. I think the PLCs kind of forced you to get together and learn about each other, and communicate and share information. I feel like all that happened naturally, the way it should in the profession.

Furthermore, from the department leadership perspective, Christina attributed the development of trust to teachers following through with their commitments, working together, treating each other with professionalism, and, overall, spending time with each other. She first stated:

> I think people have a relaxed feeling when they are together, and I think the trust is built on the fact that when we say we're going to do something, we follow through with it. If we agree that we're going to approach something this way, or we're going to do this with the data, or we're going to have this on the common assessment, we follow through on that.

Adding to this, she later reflected:

> I think we bonded as workers, and also by the professionalism that everyone approaches their job with; this has built a level of trust. I don't think we'd have that if it wasn't for the PLCs. It would be very hard to develop that, because it's hard to develop trust with people if you don't spend time with them in a close and connected way. The fact that we all talk openly about our political beliefs in an election, for example, shows an enormous level of trust.

Interestingly, Abe explained that trust in his colleagues, and in PLC collaboration, was solidified when he and Glen experienced success on the semester end-of-course exam. While he does not believe that teacher effectiveness is determined solely by test scores, he did indicate that the strong results built even more trust in his PLC. He stated:

> It gets back to trust. We both, especially, I hate to say it like this, but when the test scores came back and they were good, it kind of builds the trust even more between the two of us that we are doing something right here.

Teachers also reported that, once trust is built, it is important to preserve it. Christina commended teachers for handling conflict particularly well, which is an area that trust could potentially be diminished in if handled improperly. When these situations arose, Christina shared that the teachers presented their point of view, the team discussed it, and then came to a decision about what to do next. She stated:

> How we solve conflict, everybody presents their point of view and then we discuss it, and we come to a decision on what we are going to do about it. It's that simple. There is no high drama. If someone disagrees, they don't get all defensive. They say, "Okay. Well, I understand. Let's talk about this."

Importantly, teachers often said that their relationships with each other became stronger over time. Essentially a new department, teachers also reflected that they were able to develop relationships quicker as a result of working together in PLCs. Matt, who was one of the only teachers not new to the school, reflected:

> We all get along very well, and everyone works well together, and everyone works hard, and it didn't take long to figure that out. But, there was a time period when we were not sure about each other, and I think that is going to happen in any high turnover department or situation. If the PLCs hadn't been there, it would have taken a lot longer to come together. They forced us to get in and talk and get to know each other.

Unlike Matt, Abe was new to the school, and he also indicated that PLCs enabled teachers to develop relationships more quickly. He recounted that he learned more about his new colleagues as they held conversations in PLCs, particularly their practices regarding teaching and assessment. Additionally, since PLCs worked so closely together, Abe was able to make inferences about his peers as they experienced struggle; an example of this was when he observed to see if his colleagues would ask for help when their common assessment results were not as strong. Abe stated:

> The PLCs allowed us to get to know each other, from a professional perspective. You're seeing how they teach their class, how they assess their class, how they deal with it when the assessments don't go the way they wanted them, how they deal when things in their class didn't go great, and if they're willing to say, "Hey, what did you do? I may do that." I think then you realize who they are as a person and professional. It allows you to develop trust. Whereas, if you're just meeting and randomly talking occasionally, you don't develop that strong relationship. Instead we would be on two different islands,

hoping that the other island was doing their job. The PLCs are a bridge of communication that allows us to bounce ideas off of each other, and understand what we are doing in each of our classrooms.

When considering factors that may have expedited their relationship building, teachers provided various suggestions. For example, Glen believed it was helpful for his PLC to learn more about each other, talking through their general ideas before collaborating on specific content matters. He reflected:

> I think once we got to know each other, it came pretty naturally. I think we got to know each other a little bit more before we actually started trying to get things off the ground. The fact that we kind of talked about just general ideas before we got into specific content, and nuts and bolts, I think that was a more helpful way to start.

Christina emphasized the need for teachers to feel supported, safe, and comfortable in their PLCs. She believed that, when this is the case, participants shared more of themselves, which lead to stronger relationships in the department. When asked about this, she responded:

> I see our PLCs as a place for teachers to come, where they can talk, where they can collaborate, where they can get what they need, both personally and professionally. Within that, I want teachers to feel the freedom to be able to say what they need to say without fear of criticism or reprisal, or this is going to be taken the wrong way, or this is going to go down the gossip chain somewhere where I don't want it to go. I work very hard at ensuring that level of trust. I think it needs to be a place where teachers can come together and trust each other, and support each other. I want it to be a place where they can feel like, "I can take a breath. I can rest here. It's okay."

Christina explained how critical these relationships were by tying them to teacher job satisfaction, and productivity. She argued:

> I mean, if you don't care about the people you work with and the people that you work for, you're not going to be a happy worker. You're not going to be a productive worker either.

In conclusion, the third theme for the first research question indicates that teachers developed trusting relationships with their colleagues through their participation in PLCs. While these relationships did take the time to develop, teachers reported that working together in PLCs expedited them by encouraging teachers to work closely together; this resulted in teachers learning more about the teaching and assessment practices of their colleagues more quickly.

Research Question 2: Challenges of Professional Learning Communities

Two themes emerged from data relating to the second research question: What challenges do high school social studies teachers experience when engaging in new professional learning communities? The first theme is, "Teachers perceived that the effectiveness of professional learning communities develops over time, as trusting relationships are established amongst teachers." The second theme is, "Teachers strived to balance interdependence with autonomy while participating in professional learning communities." In the sections that follow, data supporting each of these themes are examined.

Teachers perceived that their effectiveness in professional learning communities developed over time, as trusting relationships were established amongst teachers.

The first theme for the second research question indicates that teachers perceived their effectiveness in PLCs developed over time, as trusting relationships were established with colleagues. In the beginning stages of implementing PLCs, teacher participants reported feeling

anxious about collaborating with each other; this angst was increased by the fact that most of the teachers in the department were new to the school. However, Glen shared that he had never collaborated with another teacher of the exact same course, even at his previous school. This is not unusual, especially since many smaller schools only have one Economics teacher. Glen was concerned about how his methods would be received by another teacher. He recounted:

> Having somebody else that actually taught the exact same subject matter was a challenge for me at first, not any particular challenge, just realizing that I might actually have to, other than just being myself and I, I might have to work with somebody else. For me, one of the concerns was how is my ego versus, not my ego, the way I do things, how is that going to coincide with someone else?

He elaborated further:

> I think the first challenge was just having to realize that we're going to have to do things together, and we have to get them done. This seemed like a challenge at first, but once we got going, like on common assessments, once we got going it was okay. At first it seemed like an overwhelming challenge, and getting beyond that fact that, "Hey, sometimes I might have to give a little more than I might necessarily want to." That was a challenge.

Even as someone who was not new to the school, Matt also reported feeling apprehensive about starting the PLC collaboration. He recounted that it was difficult for him to share his prior assessments with the new teachers. While he felt the assessments needed improvement, he perceived that both he and the new teachers struggled to openly and honestly communicate about this. He shared:

> I think it's also hard to give someone an assessment. Well, like the old test, and you don't feel really good about the test you wrote, and so you say, "Here's what I used last year"

> and someone says “Well, that's not very good” and you're like, “Well I don't, okay, it's not because I don't, you know I'd love to make this better. But it's just a matter of logistical time.” I think that was hard for them to kind of say, “Well we're going to need to change that” and you saying, “I think it does need to be changed.” Kind of working out that communication. This is what I used, and I really want it to be better, but I don't have the time, or we didn't have this PLC time in the past.

Also relating to assessment, Abe and Glen struggled in the beginning stages of their PLC to establish consistency between their two classrooms. Because the two teachers had previously approached the course in two different ways, they had to spend time establishing a common vocabulary and ways of explaining concepts to students. This frequently involved making compromises with the other teacher. Abe recounted:

> We developed common assessments, so we are testing our students in the same way, in the same language, in the same format. At first, that was a challenge for us because we had to, like I said, we teach the course in kind of different ways. We had to come up with common vocabulary for ourselves to use when we presented it to our students, so that when we assessed them, they weren’t hearing one set of vocabulary from me and one set from him, when it’s really the same thing. That was a challenge early on.

Although working in the new PLC felt strange to Abe at first, he shared that over time he and Glen established a positive, trusting relationship with each other. In fact, their collaboration even extended past formal meetings into everyday conversations. Abe added:

> Honestly, early on it was a little weird for both of us. I could tell, but as the year went on, I felt we’ve developed, I think, a really strong relationship with the course. I think we both have an understanding now that we trust each other. We’ll even text each other sometimes

like, “Hey, what about this for an idea?” or something like that, even an informal PLC. I’ve really enjoyed it. It gets back to trust.

While several teachers reported that working in PLCs was initially uncomfortable, they also acknowledged that it was necessary in order for them to experience the benefits of PLCs, such as improving teacher effectiveness and student learning. Recounting his experience at a previous school, Abe shared:

> I can remember at my last school, we would do some PLC's early on when it became a thing in education, but at the end of the day, I'd go in my room and teach my way. Somebody would go teach their way. It really doesn't benefit the students that way because at the end of the day they're going to have to take the common assessment at the end of the course.

As the department leader, Christina prioritized cohesiveness as one of her primary goals for the department. In field notes, I recorded that Christina and I discussed the importance of helping the “old guard” and the “new guard” become “one guard.” I noticed that Christina worked toward this goal in several ways; one example of this was placing the department’s vision statement at the top of every meeting agenda (see Appendix H). Christina reflected:

> One of the biggest challenges was getting the people that had been here to merge and blend, and for us to make it feel like we were one department and not the old guard and the new guard. That was kind of a challenge at first, trying to get everybody to really be one department, be on board. This is what our mission is. This is what our goal is. That's why on the agenda that I do for a department meeting, I put our vision for the department. It's to remind them that we are one department, and we're going to work together, and we're going to achieve, and we're going to help our students because our students are our

highest priority. That was one thing that was a big challenge, and it got easier as the year has gone on.

Teachers also shared various ways that trust developed in PLCs, adding to their effectiveness. For example, Glen proposed that he and Abe's rapport developed quickly because they both held high expectations for themselves, paired with strong work ethic. He stated:

> Abe and I both have very high expectations for ourselves, and we want things to be done a certain way; that certain way being really good and effective. I think that allowed us to mesh much quicker than had one of us been less willing to do what it took to get things moving along, the performance level you wanted to get.

Glen also believed it was helpful for his PLC to start slow by learning more about each other and talking through general ideas prior to collaborating on specific content matters. He reflected:

> I think once we got to know each other, it came pretty naturally. I think we got to know each other a little bit more before we actually started trying to get things off the ground. The fact that we kind of talked about just general ideas before we got into specific content, and nuts and bolts, I think that was a more helpful way to start.

Abe suggested that intentional communication, paired with a willingness to compromise, was key for developing strong relationships with his fellow PLC members. He stated:

> I think it's about communication, the more we talked. The thing about our PLCs, I think they were scheduled on Tuesdays. We probably, early in the year, met three times a week any way during lunch, and just talked about things, even if they weren't official PLC meetings. The more we talked, I think things started to make more sense. Then just the fact that both of us were willing to concede a little bit. "I'd be willing to do that, would

you be willing to do this?" "Yes." I think the trust built there. Early on, anytime you're in a new place, it's feeling each other out a little bit.

While Glen and Abe shared their thoughts on their course-alike PLCs, Christina described the effectiveness of the department-wide PLC. In the first few months of school, Christina made most of the contributions during meetings. In field notes, I documented a conversation with Christina about how she shared resources in the department-wide PLC. When sharing, she stated that she includes a caveat that teachers may change or tweak the resource however they see fit; also, she makes no guarantees that these strategies will work well for everyone. Christina emphasized that it was important for her to model that resources do not have to be perfect before sharing them with colleagues. She solicits and accepts feedback on what she shares, showing teachers that constructive feedback is a good thing. When asked about this in her final interview, she reflected:

> It was very tenuous at first. I was actually the one that really started just throwing things out there. Sometimes I would send stuff around that I was doing, just to let the teacher know that here's something that's available, and something I've been doing, and everything like that. I would always preface with, "Feel free to change it, edit it. I can't guarantee this is going to work for you like it works for me." I think by me showing that I can be vulnerable, that, "Whoops, there's an error here." or "Whoops, this is, maybe I should look at that again." or something like that. I think the other teachers saw that, "Hey, that's okay." Over the course of the year, there's been a whole lot more sharing. I think that teachers have become, most of them. Not everybody's there yet, but it's getting better. I know that the majority of the department now is very free, sharing their stuff without worrying about, "Is this going to be good, or is this just right?" Something like

that. I sent around review the other day and just told them, “I haven’t even checked the key on this. I got this from another teacher in Dacula” and I just happened to have it because I was department chair. That’s why I had it. I told them, “You know, you might want to look over the key before you start going with this because I haven’t had time.” Again, it just shows that, “Yeah, we’re all human. I’m going to try to send you some good stuff, but you might want to look over it.”

As department chair, Christina reported seeing progress in department cohesiveness. In addition to observing teachers collaborate more frequently, and even outside of structured times, Christina also stated that teachers make more contributions during course-alike and department-wide PLCs. Christina believed that, over time, teachers began sharing their personal practice with other colleagues in the department. She stated:

I think it’s because of that bonding experience, that just spending so much time together. In fact, here’s just an example. My teachers know my door is always open. Literally, it’s always open. Even when I’m not in the room, it’s always open. Even though we establish parameters for our meetings, and our times and everything like that, all those lines became blurred over the year. We’re just always together. Even if we don’t have a scheduled meeting, for example, teachers come in here and sit and eat lunch, just so they can visit, just so we can talk. Invariably, it drew us off into what we’re doing in our classrooms, and different things like that. A lot of times, we do some of our actual work in a time that wasn’t normally structured for work. We end of up collaborating, just because we’re together. I think that has built that level of trust, that amount of time that we spend with each other. I think the fact that everyone has been, we don’t have a department full of judgmental people. Everything is open. If someone has a concern or an issue, they know

> they can bring it to the table, and we'll talk about it in a professional way. You don't have this, there's no tension, as far as I can see. I think people have a relaxed feeling when they're together.

In conclusion, the first theme for the second research question indicates that teachers perceived their effectiveness in PLCs developed over time, as trusting relationships were established amongst teachers. While teachers encountered various uncomfortable experiences in the beginning stages of PLCs, over time their effectiveness improved. Teachers attributed this improvement to the development of trusting relationships with colleagues. Importantly, while teachers did say that their initial PLC work was slowed by an absence of established, trusting relationships, over time PLCs became the vehicle by which this trust developed.

Teachers strived to balance interdependence with autonomy while participating in professional learning communities.

The second theme for the second research question indicates that teachers strived to balance interdependence with autonomy while participating in their new PLCs. Teachers often reported that it was difficult to meet the collaborative expectations of their PLCs while also preserving their individuality as teachers. Christina emphasized the importance of this autonomy for teachers when she, in the beginning stages of the project, shared what she considers to be the core function of PLCs:

> I think it's a place where we should be able to plan as a group. We should be able to plan common assessments, plan lessons, still though, being able to retain that individualism that we treasure as social studies teachers.

At the beginning of the school year, Glen expressed apprehension about his PLC collaboration. At his previous school, Glen was the only Economics teacher and did not

collaborate with any other teacher who was assigned the same course. He was concerned about how his methods would coincide with those of another teacher, with whom he had no pre-existing professional relationship with. He stated:

> Having somebody else that actually taught the same exact subject matter was a challenge for me at first, not any one challenge in particular, just realizing that I might actually have to, other just being myself and I, work with somebody else. For me, one of the concerns was how are my ego versus, not just ego, but the way I do things, how's that going to coincide with somebody else?

Christina reported that initially it was quite difficult to gain engagement from teachers in the PLC process, and make instructional improvements in the department. She also felt responsible for being sensitive to the fact that her, and most of the other teachers, were new to the school. Even so, Christina was compelled to address these challenges immediately because there were positive changes that needed to occur. She described:

> It was hard at first to get, not all, but some of the teachers fully on board with, “This is the way that we're going.” Not the new teachers, but the teachers that had already been here, it was harder for them. I tried to take that into consideration. We were like the Mongols coming in and all of a sudden, “Okay. We're here and we're taking over,” trying to see it from their perspective that, “Hey. We've been here a long time, and we've always done things this way,” and trying to just convince them, and show them the evidence. I understand it was this way before, but now, if we can make some changes, things will be better. We can move forward. It was very tenuous at first. There were some people that were just not going to be on board at all. It took time, but they started coming around.

In my field notes, I documented a conversation with Christina from the middle of the year. After observing several social studies teachers, I met with her to analyze the progress that was made the first semester. Christina, and the leadership team, valued designing more hands-on, engaging learning experiences for students. According to Christina, it was challenging for her to also get this buy-in from all her teachers. This was a new way to teach for many of them, as in some cases lecture was their primary instructional strategy. Christina remembered:

> That was the big challenge. Just getting some of those teachers to see that there's a different way to do things, and it's okay. It's okay to still, I mean, I used to do things a different way. I've changed the way I taught. I used to teach back in stand and deliver. The lecture method was the only way you taught. Everybody did that. To try to get them to see that more students in our hands-on approach is more effective, sometimes that's hard for teachers to break with their old tradition to try something new. I've seen a lot more of that, a lot more trying to be more engaged. We still have some work to do in that area, but we're moving in the right direction.

Another critical change for teachers was the adoption of common unit assessments, which was one of the interventions implemented in this project. Importantly, this was new for both teachers who were new to PCHS, and those who had worked at PCHS in previous years. According to Christina, it took teachers some time before they saw value in it. However, eventually teachers began realizing that the assessments ensured alignment to standards, fostered high expectations for all students, and provided common data sets for teachers to compare and analyze. Importantly, these data conversations led to teachers having discussions about their personal practices and learning from each other. Christina described:

> The common assessments have been the biggest thing we've probably done all year. When I came in, nobody was doing common assessment. In fact, the idea was a little foreign and new to most of the teachers, and I'm not sure even everybody was on board initially. That was something that we really had to talk about the benefits of, how this is going to help, how this is going to be better. If everyone collaborates on the common assessment, we can compare our data and it will be relevant because we're all doing the same thing. You can still teach individually, however you want to teach and whatever you typically do, but we're still all teaching the same standards at the end of the day. The common assessment has to match the standards. It gets the teachers buy-in, definitely, knowing that, number one, they don't have to create the assessment, but that they've got a say in it. Number two, that we are all responsible, ultimately, for the same thing, and that it really doesn't even matter on levels whether somebody's got a co-taught class or someone's got an upper-level group. At the end of the day, we're still going to have data that's going to be comparable between the classes. We can assess ourselves by looking at it and saying, "Okay. It looks like," in fact, we've done this, "Alright, it looks like a lot of students missed this question. Let's go back and look at this question to see, how did you teach it, and how did you teach it? Is this about the question? Are the answer choices valid? Do we need to omit this question and throw it out, or do we need to tweak it to make it better for next year?"

While, as indicated above, teachers were favorable to the common assessments, they also reported losing some autonomy as a result of this intervention. Matt supported this finding when he stated that some of his individuality as a teacher was compromised because the common assessments determined the sequence, pace, and prioritization of each course standard. He stated:

> Or, if I have an idea about dot-dot-dot, I really prefer to do it this way and someone really preferred to do it another way. Mainly with pacing, I think. I prefer to cover that at this time and you don't. We didn't have any problems, but you do lose a bit of autonomy in regards to that. I usually like to do that and then do this, which was not a problem, but it is a little bit of a, if everything is common, then you do lose a little bit of that individuality. Kind of like a stamp on what you like to do, or what you know more about. I think the con, the biggest setback, is kind of taking a little bit of autonomy away.

When probed for more information, Matt added:

> I think the pushing of, well, I want to spend four weeks on this, and you just want to spend two. How are we going to work this out? There was some, there was a little push and pull there, which is fine.

Finally, I asked Matt how this struggle affected his actual classroom instruction, and the learning of his students. He reflected that, in his World History course, he was not able to spend enough time making connections between the units; additionally, since there was a focus on treating each standard equally, some "power standards" did not get any extra attention. Overall, Matt indicated that his PLC collaboration limited his autonomy to make these improvements on his own; rather, he was somewhat bound by the decisions of the group. He stated:

> My philosophy is less is more, and more can be less, if you're jumping around the entire globe. Sometimes I felt like we weren't making connections in World History. It's just a hard class to teach. I feel like philosophically, I can say, hey, I didn't cover that standard last year because I didn't want to jump to Africa and randomly talk. But I understand we need to do it, but I feel like it's almost a waste of a week, whereas if we could connect it this way and cover it in a day, it would be more beneficial.

Several teachers reported that, even from the beginning of the project, they set out to protect their individuality while also collaborating with others. This was especially important to Glen, who mentioned this several times in his final interview. While some teachers felt that they needed to teach the same thing as the other PLC members, and in the same way, Glen did not believe this was the intent. Instead, he stated:

> I think sometimes people work through PLCs thinking, "Oh we've got to be the same." It really kind of reinforced for me that you don't have to be the same. It was helpful to see that even though we might be teaching things a different way, we're going through the same goal.

In response to a probing question, he added:

> Our philosophy was that we're going to comment on this, share ideas, but not force each other to be what we're not in the classroom each day. I think that made us more effective and able to deal with structural issues that might be more of a problem for other groups of people.

Abe also shared this philosophy. In regard to collaboration at his prior school, he stated that over the course of several years, he and his colleagues came to a conclusion that, while they did have to collaborate and develop some consistency across classrooms, they needed to do so while preserving each teacher's ability to teach to their own strengths. Abe shared:

> That's one thing we did at my last school, as the years went on, we started saying, "Okay, we have to try to build this common idea with some individuality," because you don't want to take that individuality out of teaching. I want to teach to my strengths and let Glen teach to his strengths, but at the same time, let's try to benefit the students, if they had to go to anybody to learn the material.

Even though teachers did strive to protect their autonomy, they reported that some was lost because of their PLC collaboration. This often occurred when compromises were made with other teachers in the PLC. Glen recounted:

> I think the first challenge was just having to realize that we're going to have to do things together and we have to get them done. Which seemed like a challenge at first, but once we got going, like common assessments, once we got going that was pretty easy. At first that seemed like an overwhelming challenge, and getting beyond that fact that "Hey, sometimes I might have to give a little more than I might not necessarily want to." That was a challenge.

When asked a probing question, Glen responded with a specific example of this. He shared that he had to change the way he remediated students when they were unsuccessful on an assessment. He recounted:

> Abe and I came up with a plan where students could, if they failed a test in our class, could go online and do a different type of test and they could average that in with their test numbers. This is not something honestly I like.

Importantly, teachers indicated that decisions were made democratically. For example, Abe and Glen both contributed to making decisions in their PLC; no one person dominated the instructional choices. However, Matt did have concerns about how some decisions were made in his PLC. He shared that, when he perceived that most of the other PLC members felt one way, he did not always express his disagreement. Additionally, when Christina expressed her opinions, he was even more hesitant to push back due to her leadership role. In reflection, he stated that he probably should have been more open in communicating his ideas. He stated:

> If it's two to one, there was never a vote, but if it’s clear that I can see what the other two people want to do, I just kind of go with it. I think there's a little bit of, if the department head says it, then the hierarchy kind of gets you, too. If the department head was hired by the boss, and works with the boss, then there's a little bit of that dynamic, too. I probably should have pushed more. It didn't fit; it didn't make a lot of sense to go on because it was a great starting point.

While teachers acknowledged their loss of autonomy, they were still very positive about the collaboration that occurred in PLCs. Matt, who probably expressed the most concern about PLCs impacting his individual teaching style, stated, “You still have that autonomy in PLCs, but you also feel like you’re working with others.”

Abe shared that, while he had a different teaching style than the other members of his PLC, he also learned from merging these ideas together. He stated:

> We have really different styles, but I think we both respect each other's styles. We've really, I think, learned a lot from each other this year about how we approach teaching the same course. I think we both do it successfully. It's been kind of neat sharing how I do things versus how he does things and then merging them together into one.

Importantly, he extended this professional learning to actually impacting his work with students. He reflected:

> I think it benefited our students. I'm trying to think how I should say it; it was interesting to see some of the students that I knew that were in his class, that they could come to me, let's say during remediation, and they still would get what we were talking about, because again we were using the same common vocabulary, and a lot of the same assignments. I think it benefited the students to have that. I can remember at my last school, we would do

> some PLC's early on when it became a ‘thing’ in education, but at the end of the day, I'd go in my room and teach my way. Somebody would go teach their way. It really doesn't benefit the students that way because at the end of the day they're going to have to take the common assessment at the end of the course.

In conclusion, the second theme for the second research question indicates that teachers strived to balance interdependence with autonomy while participating in their new PLCs. Some teachers indicated that collaboration with another teacher who teaches the same course was a new experience for them, while others had experience with PLCs at their previous schools. In all cases, the PLCs at PCHS were new, as this was a new initiative. Because the social studies department consisted almost entirely of teachers who were new to the school, the process of balancing interdependence with autonomy was even more complex. For example, the department chair expressed the delicate nature of recommending improvements while also not alienating the teachers who previously worked at the school.

Research Question 3: Interventions to Support New Professional Learning Communities

Three themes emerged from data relating to the third research question: How do interventions developed by a school leadership team support the development of new professional learning communities, if at all? The first theme is, “Teachers valued a revised bell schedule that provided designated time for professional learning communities to meet during the school day.” The second theme is, “Teachers valued common assessment and a rapid data analysis platform, stating that these interventions prompted individual and group reflection that resulted in improved instruction and assessment practices.” The third theme is, “Teachers valued support from their department chair and school administrators in developing new professional

learning communities, while expecting different types of support from these two distinct leadership roles." In the sections that follow, data supporting each of these themes are examined.

Teachers valued a revised bell schedule that provided designated time for professional learning communities to meet during the school day, but also desired additional time in which to collaborate with colleagues.

The first theme from the third research question indicates that teachers valued a revised bell schedule that provided designated time for professional learning communities to meet during the school day. This schedule allowed teachers a 25 minute period of time during each school day to collaborate in PLCs; a more complete description of the intervention is available in Chapter 4 of this dissertation.

Teachers often expressed appreciation for having designated time during the school day to meet and collaborate. While many schools designate specific days and times for teachers to collaborate before or after school, Glen did not feel that this is an effective practice for supporting PLCs. He also shared that he and Abe sometimes altered the schedule when unexpected situations occurred. For example, when one of the two teachers was absent, it was easy to reschedule this meeting for another day, as the 25 minute period was available to teachers every single school day. Glen stated:

> I don't have a comparison, but if we did not have that time during the day, I can tell you it probably wouldn't be as effective, just knowing that you have that protected time. Saying that the beginning of the day or the end of the day is going to be a PLC time, that sounds really nice in theory, but things happen that get in the way. If you know it's in the middle of the day and it's there, it's a lot easier. Even if you can't get as much as you want out of it, you still know you're going to be able to get something out of it. Even if it's just ten

> minutes here. Abe and I, I felt a lot of times, we had to kind of adapt. We'd say "We'll do ten minutes here today and we'll go and be here again tomorrow." Knowing we wouldn't always have the full time, but just knowing you had that time during the day everyday you could go to each other, I think that was very beneficial.

Abe also responded favorably to having time during the school day to meet with his PLC. He recounted struggling at his old school when these meetings were held before or after school, and even during the teacher's regular lunch period. He shared:

> That was unbelievably helpful. When we first started doing PLCs at my last school, we started doing them after school, and that's a nightmare. Coaching duties, this thing is going on, things just came up. Then we tried doing it before school. Another nightmare. People running late. You've got students in your classroom that want to make something up. By the third year, I think we had done them for 4 years, we didn't call them PLC's at first, but we were doing them, I don't even remember what we called them, but last year, we had set aside time during lunch but we didn't get extra time during lunch. It was just, "On this Thursday you're going to do this during your lunch." It was still way better. You didn't always get as much done as you wanted to get done, but it just was way easier than trying to build time in after school or before school. Now, here, with the schedule we had and the ability to have that extra time to meet, and not really have to scramble to get through lunch and have a meeting at the same time, it made it very, very easy.

Teachers also shared that they were able to perform critical tasks that were previously neglected as a result of having time during the school day to work together. For example, Abe discussed how his PLC met after each assessment to analyze the data. Without this time, he was unsure if this important post-step would have occurred. He recounted:

> At our next meeting we would, since we have All in Learning, we would look at the data to see which questions our students were missing. We would just basically break down the data and look at where we felt like we were weak, where we felt like our students were weak, where we felt like the questions might have been misleading, and just went from there. That was usually what we did. After every assessment, we would spend our PLC meeting time doing that.

Teachers also reported that the revised bell schedule provided them with additional time to have professional conversations with their colleagues. Matt shared this very succinctly when he stated, “It was a designated time where you can get together and talk about your course. I just don’t think it would have happened otherwise.”

While overall teachers were positive about the revised bell schedule, they also indicated that the amount of time they received was not always adequate for all that needed to be done. For example, Glen shared that 25 minutes was not a sufficient amount of time for working on comprehensive projects; however, he also believed that limiting the time to 25 minutes helped keep the PLC collaborations on task. He stated:

> If you've got something drawn out you're trying to do, no it's probably not enough time. I think as far as keeping you focused on the task and just getting it done, I think it is a decent amount of time.

Matt expressed concern that, with only 25 minutes to meet, not every teacher had the opportunity to contribute to the discussion. When one PLC member was very vocal, it limited the participation of other teachers. Matt recounted:

> I think, some days with the amount of time we had, if someone's very vocal, they can end up talking a lot and you kind of have to figure out if someone's going to wait for there to

be silence to talk, or they may just never get to talk. So there were a lot of time where I want to say something, or someone else wants to say something. Or it could happen where the bell rang and now we have to go but we only heard from two people, or three.

When asked a probing question for more information, Matt added:

> The main obstacle we have is time. By the time you get your lunch, and heat it up and go talk, there are a lot of unfinished conversations. I mean, you can see each other in the hall, but it's not the same as the 25 minutes. It's just a challenge with any job, especially this job. You could always have more time to make it better. I don't know if we had extra planning time to collaborate, I don't know if that would be fruitful. I think it would, but I don't know, I've never done that schedule.

Christina also felt that more time would further improve the effectiveness of the social studies PLCs. While she believed the 25 minute PLC period was sufficient for most tasks, for others it was not. She indicated that, as a result, many times teachers would designate other days and times to finish the work, such as outside of school hours or during lunch. She shared:

> I'd like to have more time, obviously. I think it is adequate for most of the things that we need to do. For some of the things that we need to do, it's not adequate. It just depends on what we're working on, but we've learned to adjust to that. We've learned that, sometimes members of the team will say, "Can we go back to this? Can we do this some more?" That kind of thing. We've learned to adjust, knowing that we only have that short amount of time.

When asked a probing question for more information, Christina shared some additional items her PLCs might be able to accomplish if granted additional time to collaborate. She reflected:

> We haven't done nearly as much as I wanted to this year, but we've started, and we've done a lot. I hope to build on it. There's so many more things I want to do, but again it is an issue of time. Even though we have the common time to meet, it's gone like that. I think that we should be doing all these different things, as far as planning and deconstructing the data, seeing how that affects our instruction, what we need to be changing about our instruction, how do we need to be approaching remediation or response to intervention or anything like that where we've got students struggling. What I'm seeing right now, in our discussions, is that we've got a lot of different things going on. We've already talked this year about some of the things that we want to make more department-wide next year so that we can come together a little bit better, collaboratively. I'd like to spend more time on those things.

Christina also proposed one potential solution to this problem, indicating that common planning might help alleviate the issue. However, she also recognized that this scheduling strategy is very challenging for high schools. Furthermore, she expressed frustration that social studies did not often reap the same benefits from these schedules as the other academic departments. She stated:

> I know it's really hard to work out common planning, having been in a school that tried that and failed miserably. Social studies always seemed to get the short end of the stick. Everywhere I was, it was like everybody had common planning except social studies, because one department couldn't and we were it. Because of the fact that we've got this lunch schedule, it's huge. I just don't even know what to say. If we don't have a structured meeting during that time, something that's scheduled, people can also go do what they need to do to take care of their planning or whatever.

Overall, teachers expressed appreciation for having time to meet and collaborate with their colleagues. Abe commended the school's administration for intentionally building this into the schedule. He emphasized that teachers have a very busy schedule, and setting aside the PLC time was an effective strategy for ensuring that collaboration actually occurs. He said:

> I think it's fine. I think the big thing was, again I don't have anything to compare it to last year, but setting that time aside. I think that was really good of the leadership of this school to try to do. I think that was a huge hit because, you know how it is being a teacher. If you can free up time for people to get together, then you're going to be appreciated for that. There's not a lot of time in the day to get everything done. I walked in today thinking I didn't have a whole lot to do. Then about 15 minutes later I figured I've got like 50 things I've got to do today. Anytime you can set that time and say, "This is the time" I think the teachers appreciate that. I think that's the support that you guys gave, just giving us the time to do it.

Similarly, Matt also indicated that he appreciated having the designated time to work; like Abe, this was at least in part due to his busy schedule. He also shared that he believed the PLC collaboration actually saved him time, as he was often able to utilize resources shared at these meetings rather than creating materials all on his own. He stated:

> I think having the time to talk, a designated time to talk helped. If you're in a week when you're busy with your other subject area or you feel like an ideas not working that you've done for years, kind of lets you brainstorm with another professional. It allowed me to get assignments, to get activities, which helped and allowed the assessment making process to no be overwhelming. I feel like it was more effective for the department.

In conclusion, the first theme for the third research question indicates that teachers valued a revised bell schedule that provided designated time for professional learning communities to meet during the school day, but also desired additional time in which to collaborate with colleagues. Several teachers reported that they had previously been asked to meet for PLCs before or after school; however, this was often ineffective because their colleagues could not always attend because of other before- or after-school obligations, such as athletics. Teachers appreciated having time during the school day to collaborate with their colleagues, and commended the school's administration for setting aside this time. While teachers did respond very favorably to the intervention as a whole, they also expressed that the 25 minutes was not always adequate for all tasks.

Teachers valued common assessment and a rapid data analysis platform, stating that these interventions prompted individual and group reflection that resulted in improved instruction and assessment practices

The second theme from the third research question indicates that teachers valued common assessment and a rapid data analysis platform, stating that these interventions prompted individual and group reflection that resulted in improved instruction and assessment practices. The interventions included the team development of common unit assessments for social studies courses, and the purchase of All In Learning to administer and analyze the results of these assessments. The intervention is described in detail in Chapter 4 of this document.

Importantly, teachers reported that access to All In Learning, a rapid data analysis tool, was critical to the success of their PLC collaboration. Matt, for example, reflected that All In Learning made "collecting data and looking at data doable in my opinion." When asked a

probing question, he shared his excitement for the benefits of this tool, and also indicated that its use prompted critical reflection about areas he can improve in. He stated:

> Using a data collection system like All In Learning to assess that; that was a big change. I think it's the thing I'm most excited about, because I've run data before, but I have never been able to, kind of, look at it so easily, following up on it, you know. I feel like it's going to be a great way to actually look at your professional practice, and see how you can improve, instead of just guessing.

Glen also responded positively regarding this intervention; he shared that it was an improvement over the tool he and Abe previously used to assess students. He indicated that All In Learning allowed his PLC to more closely analyze data, and also to compare their data across classrooms. Finally, he perceived that the tool allowed his PLC to operate more efficiently because teachers could spend less time calculating numbers, and more time looking critically at the learning data. He reflected:

> I think the thing that was most important was that we needed some kind of way to share data quickly. First, before we had All In Learning, we used a different tool that was free. It was a little frustrating because we were just comparing different numbers. Once we were on All In Learning, and we could actually share data, that was actually really powerful. That made things a lot quicker. I actually probably dealt with not having, to go back to the previous statement, not having to deal with structural issues because we could quickly compare data. Snap, and make quick decisions. "Alright. These questions are not good. What could we do different? These need to be thrown out." That made things a lot quicker, being able to share that data, I think really helped.

Glen continued:

> Without that platform, it makes it a struggle, and it takes more time because you're spending your time trying to figure out the numbers instead of getting actually to the point, of "Hey was this effective? Here's some numbers. Let's look at this. Here's what other people are answering. Why did they answer that way?" That kind of thing. I think without that, it makes it a lot more difficult.

In field notes, I documented a conversation with Abe about how his PLC went about improving their common assessments. After each assessment his PLC identified ineffective questions or distractors by examining each question individually. Then, they marked these questions on the test in order to remember not to include them in the future. According to Abe, if the PLCs did not have the ability to analyze these results so quickly, even at the question level, PLCs would not be able to improve their assessments so rapidly. He stated:

> The first thing we would do after an assessment is we would look at what questions typically almost everybody got right, or almost everybody got wrong. We would mark those as probably not-good questions. Sometimes we would throw questions away once we went back and saw that only 13% of the students got it right, we would say, "We're just going to throw that one away and not count it on the test." Mainly, at that point, a lot of times, what I would do is I would go on my computer copy of the test and I would mark it. I wouldn't change it or anything, but I would mark it for next year, so that next year when we go into our PLCs we know "This was an issue." But I didn't want to delete it because I wanted to be able to remember what we were having issues with, because maybe it was just the wording of it or something like that. That's mainly what we would do. Basically just look at what our students were really, really missing and whether or not we

> felt like it was our fault for the question, or our fault because we didn't teach it right, or if it was just one of those things where it was just not essential and it just got mixed into the test and we didn't realize it.

Christina stated that All In Learning allowed her to work more efficiently by inputting questions and answers into the computer and then sharing the assessment with other teachers. Afterward, she was able to analyze the data across all classrooms. Like Glen, she believed this intervention enabled teachers to analyze data rather than calculate it. She recounted:

> The All In Learning platform has made my work so much easier. Being able to, when we create the common assessments, get those keys entered, share it with everybody, being able to pull up the data and look at yours, everybody else's, that is huge. That saves us an enormous amount of time. We can look at one thing about a test and say, “Wow. Everybody missed this one. What's wrong with this question?” Or, “Look at these averages. Why are these classes all high, but this one class here is really low? What was going on that day? What was going on in the life of the school? What happened?” There's just a lot of different ways that we can view the data because it's so readily available.

Importantly, the data analyzed using All In Learning were common assessments implemented in each classroom. Teachers responded favorably when asked to evaluate the common assessment intervention; they often indicated that it forced them to reflect on their instruction, including how this instruction compared to those of other teachers. Matt, for example, shared that common assessments prompted him to consider his teaching practices, and how he prioritized course standards. He also expressed hope that the common assessments themselves would improve as PLCs continued editing and refining them in future years. He stated:

> I think it forces you to think about what you're doing in your room, and how you're going to assess stuff, and whether it's worthwhile or not, because you're brainstorming with these other teachers. So yeah, I think it does change because you feel like one the department is more kind of linked up. I think the assessments being common is a good thing. I think it will be better in the future because now that we have them we can go back through them and discuss what we like or don't like. I think that data collection that we'd look at in the PLCs will change, at least let me, or allow me to think about how I should change. I think they'll even be better in the future because one it was our first year working together.

Like Matt, Abe also believed that common assessments would improve over time. Because the creation of these assessments began this school year, in future years he believed PLCs could continually refine, improve, and update them. When asked to describe the test creation process, he shared:

> I'm trying to think how we did this, on a test or a quiz or a summative assessment over a unit, a lot of times what we would do is we would literally say, "Will you bring the test that you've given in the past? I'll bring the one that I've given in the past." We're not necessarily going to just merge the two together because I don't like to do that anyway. I like to edit things and change things year to year anyway, because examples change and stuff like that, but they at least give us a framework for what types of things we are going to ask, with the standards, making sure we cover the standards. We might say, "We'll take this question, this question, but let's reword this question, this question." That's one thing we would do.

After an additional probe, Abe expounded further on how common assessments positively impacted instruction. He indicated that they provided consistency in curriculum, instruction, and assessment across classrooms. Describing activities in PLCs, he stated:

> We develop common assignments. We talk about merging assignments, and then we basically hash out common assessments. These are important so that we're testing our students in the same way, in the same language, in the same format. At first, that was a challenge for us because we had to, like I said, we teach the course in kind of different ways. We had to come up with a common vocabulary for ourselves to use when we presented it to our students, so that when we assessed our students, they weren't hearing one set of vocabulary from me and one set from him when it's really the same thing. That was the challenge early on, but once we got it going, it was pretty simple. We would talk about how we approached different subject matter and kind of hashed it out that way.

Matt shared that common assessments enabled him to compare his data with that of his colleagues. While he expressed skepticism about reducing student learning to a single test score, he valued the collaborative analysis of standard, item, and student results. Additionally, he expressed hope for the future. This year, PLCs spent a lot of time creating assessments, next year he believed they would be able to use their time analyzing data and developing improvement plans instead of creating each assessment from scratch.

> Individually it allowed me to see my average compared to the other averages, which is good and bad because there's more to it than that. It allowed me to see what question we should probably eliminate due to, not just because a bunch of people missed them, but if a bunch people missed them it was probably due to something. I remember one we found. I thought there were three good answers and we talked about it as a team and we just pulled

> the question. That didn't happen all the time. Actually that's what I'm excited about next year. We can get in more of the questions because a lot of the time we meet back and it's time to plan for the next assessment instead of looking back at our data. Compared to the red sheets you run through a Scantron ... I like to have said I would go and find it, but putting it out there and seeing the question makes it seem possible to do more next year. This year we didn't do a whole lot more than put them in and grade them and see what the average was. Individually teachers would, or I would anyway, go back in a see, most tests, see wow we ... A certain question ... I didn't do a good job telling them about that or a question seems kind of funky.

Christina identified common assessment as the department's largest project for the year. She indicated that, while all teachers were not initially on board, they eventually recognized value in the work. She shared that it was important for PLCs to preserve teacher individualism, while ensuring that students were assessed consistently. She also believed that teachers benefited from not having to develop their assessments all on their own, which allowed them to work more efficiently. Across all classrooms and levels, common assessments provided a measurement of how students learned. After administering only a few assessments, teachers quickly began to value this intervention. She stated:

> The common assessments have been the biggest thing we've probably done all year. When I came in, nobody was doing common assessment. In fact, the idea was a little foreign and new to some of the teachers, and I'm not sure even everybody was on board initially. That was something that we really had to talk about the benefits of it, how this is going to help, how this is going to be better. If everyone collaborates on the common assessment, we can compare our data and it will be relevant because we're all doing the same thing. You can

still teach individually, however you want to teach and whatever you do, but we're still all teaching the same standards at the end of the day. The common assessment has to match the standards anyway. It gets the teachers buy-in, definitely, knowing that, number one, they don't have to create the assessment, but that they've got a say in it. Number two, that we are all responsible, ultimately, for the same thing, and that it really doesn't even matter on whether somebody's got a co-taught class or someone's got really an upper-level group. At the end of the day, we're still going to have data that's going to be comparable between the classes. We can assess ourselves by looking at it and saying, "Okay. It looks like …" In fact, we've done this, "All right. It looks like a lot of students missed this question. Let's go back and look at this question to see, how did you teach it, and how did you teach it? Is this about the question? Are the answer choices valid? Do we need to omit this question and throw it out, or do we need to tweak it to make it better for next year?" Those are some of the discussions that we've been having regarding the assessment piece. We created common assessments for every unit in World and US History this year. The Economics team did the same thing. Even though the standards are going to change slightly in World History and US, well, in all social studies in another year, we've got such a great foundation that we're not going to have to reinvent the wheel. We won't have to start from scratch again, which was a very difficult process. I think by the time we were through the first two or three common assessments, I think everyone else could see the benefit of that. Then I had total commitment. It was good.

In conclusion, the second theme for the third research question indicates that teachers valued common assessment and a rapid data analysis platform, stating that these interventions prompted individual and group reflection that resulted in improved instruction and assessment

practices. Teachers shared that the development of common assessments improved their efficiency, and provided a common measurement of how students learned across classrooms. They also indicated that All In Learning enabled them to analyze and compare data easily across PLCs. Without this tool, teachers felt like most of their time would be spent calculating data rather than acting on it.

Teachers valued support from their department chair and school administrators in developing new professional learning communities, while expecting different types of support from these two distinct leadership roles

The third theme from the third research question indicates that teachers valued support from their department chair and school administrators in developing new PLCs, while expecting different types of supports from these two distinct leadership roles. While the department chair facilitated actual PLC meetings, school administrators developed the interventions for supporting PLCs. These interventions included a revised bell schedule, common unit assessments, support from school and department leaders, and a rapid data analysis platform.

Matt indicated that Christina's support was critical for developing common assessments. He shared that she helped both logistically and instructionally with creating these assessments. He reflected:

> Oh, she has been great. She put together the assessments, so to kind of take that on, she had such a vast amount of resources to write the questions. I felt like the questions were good. I feel like she did a good job of ... I mean she would make the copies for us and have them, so I feel like she really led us in making the common assessments and even in the pacing kind of structuring that out. Just kind of facilitating the conversations every time of what we're doing and reminding us ... Just kind of getting everybody on the same

> page. Specifically, yeah I think I'm most thankful for her and her direction in making the common assessments. They were good. It was so valuable because making assessments, in my opinion, is really hard and we don't have time to do it. I thought she did a good job with that.

Elaborating further, he also stated that Christina had a wide variety of resources, and was always willing to share them with the department. He could easily take what Christina shared, tweak it, and then implement it in his own classroom. Importantly, he also stated that many of the resources Christina shared utilized different instructional approaches than he typically used. This often led to him trying new instructional strategies as a result of the collaboration. He recounted:

> Resource-wise, she has just such a vast amount of resources. She can pull in almost any subject and not ... Yeah, thinking about ... Some things I'd take from her, like the choice board idea, and tweak it to be, what I thought, would be more effective or what she called the Frayer model. Just a graphic organizer way to put thoughts down. I think it made me think through just like with ... Yeah, I think if she definitely ... If she presented something and we said we didn't have something she would volunteer that to us. A lot of it was a little different than the way I did it or the way I've been doing it this way for several years, let me try that. A lot of differentiation stuff, I think, just thinking about that choice board kind of gets the kids thinking about ... Kind of allows them a day to kind of research something within a unit that they wanted to do more.

Glen also believed that department members responded well to Christina's leadership. He provided an example that, when she set the direction for developing common assessments in PLCs, the team followed her lead. Interestingly, he also pointed out that, while he felt supported by Christina, he did not feel micromanaged. Because he worked in a different course-alike PLC

than Christina, he felt like she trusted teachers to carry out their work in a professional way, mostly on their own. However, he emphasized that she was available to their PLC when needed. He stated:

> If there was something we needed to do, she would ... When she said we needed to do common assessments, we did common assessments. We did them, so there wasn't a need to come in and say "Hey, we need to change this." For us, we had the benefit of it was just the two of us teaching it, where a common statewide assessment half way through the year, so we had feedback and we knew what we had to know pretty quick. Compared to other departments where that's not necessarily the case. I think we did what we were supposed to do, so it wasn't an issue of "Are these other things being addressed." We did have guidance, and I think she would give us support. When we went asked her a question she would tell us who we needed to go talk to, or "I'll go talk to somebody about that for you." I feel like we had the support, but not this overwhelming breathing over your back, check up on you kind of mentality.

He continued:

> For me, this part our department head just basically let, "Hey, our goals be highly effective department." That's all I need to hear, because I already want to be really good teacher. I already take great pride in what I do. I felt like for our situation, we just need "Hey, here's what we want you to do. Here's some guidance. You go do it." I think the fact that we did it, didn't bring the need for other "Hey, you didn't do this. Let me check on you." I don't think we had to deal with that part of the PLC, where other PLC's might've had to deal with it.

Like Glen and Matt, Abe also indicated that Christina's leadership of the social studies PLCs was effective. He shared that she clearly articulated the expectations for the department, developed and communicated a shared vision, and facilitated various instructional improvement initiatives. Abe also perceived that Christina wanted their department to be the best in the building, and actively supported them in achieving this goal.

> As a department and department meetings, I felt she was really good at facilitating "this is the expectation". I feel like she has a vision for our department and the vision includes collaboration and PLC's. I think if you ask her, I don't know if you've talked to her, but the little talks I've had with her about, like the common assessments especially, some of the people that had been here a while, by the end of the year, I know just talking to Brubaker that they were all, "This is so much better now." I think the vision there is good and I think the people in the department trust that she has a good vision for our department. She wants and we all do to be the best department in the building. I think every department should want that. If every department wants that, then you're going to have a heck of a school. Our department meetings on top of the PLC's were very work-oriented. We would still be collaborating on things even though we might not teach the same subject. We would show in our department "Here's something that we used in Econ, a software program that we use or an online program that we use that you might be able to use in US History." I felt like that was good for her. She was the facilitator of that.

When asked about her goals in her first year as department chair, Christina quickly stated that her goal was to help teachers improve. She also recounted that she had seen evidence of this growth, due in part to the strong collaboration that occurred in PLCs. According to Christina, this was not how teachers in the department were accustomed to working. She stated:

> I would like to hope that they've become stronger teachers. That's ultimately my goal. I think we have seen some evidence of that. I can think of a couple of people in the department that have definitely shown some growth this year because of the PLCs, because of the ... The collaboration is awesome, and that support and that collaboration is a big part of what we do, but the expectation is also a big part of it, setting a level of expectation. When there's members that have been isolated before or just have always been doing it their own way because they didn't think anybody was watching or paying attention or even cared, suddenly that's changed for them. I think they have liked having a set of expectations that, "Okay. This is the way it is now, and this is what we're going to do. This is how we're going to do it." I think it makes them feel a more valued member of a group, and that their input does matter, and that they can change. I would hope it would make them a better teacher. I think there has been some growth. I can think of a couple of things, right off the top of my head, where I've seen growth.

When asked about her hopes for PLCs, Christina stated that she wanted PLCs to serve a safe place for teachers to communicate, collaborate, and get help. She shared her own need for structure when working in these groups, while also stating that she wanted teachers to feel free to participate, and even disagree, without fear of reprisal. She argued that trust was a critical component for PLCs. She reflected:

> I see the PLC as a place for teachers to come, where they can talk, they can collaborate, they can get what they need, both personally and professionally. Obviously, I like structure. I'm a very structured person anyway, so I like having structure and I like having organization. Within that organization, I want teachers to feel the freedom to be able to say what they need to say without fear of criticism or reprisal or this is going to be taken

> the wrong way or this is going to go down the gossip chain somewhere else where I don't want it to go. I work very hard at ensuring that level of trust. I think it needs to be a place where teachers can come together and trust each other and, again, support. Sometimes that support is academic support, helping with a subject area, maybe somebody is struggling with, helping with materials or lesson plans or just whatever they need, but also a place where they can feel like, "I can take a breath. I can rest here. It's okay." You know?

Uniquely, this study took place in a social studies department in which most teachers were new to the school. When asked about the challenges of her first year as department chair, Christina reflected that developing cohesiveness of the team was her greatest challenge. To address this, she developed a shared vision for the department, and continually reminded teachers of this vision. She was also intentional about centering the work of PLCs on enhanced student learning; she commented that putting students first was something all group members could identify with. At the end of the year, Christina expressed that she was optimistic about next year, and so were her teachers. She stated:

> One of the biggest challenges was getting the people that had been here to merge and blend, and for us to make it feel like we were one department and not the old guard and the new guard. That was kind of a challenge at first, trying to get everybody to really be one department, be on board. This is what our mission is. This is what our goal is. That's why on the agenda that I do for a department meeting, I put our vision for the department. It's to remind them that we are one department, and we're going to work together, and we're going to achieve, and we're going to help our students because our students are our highest priority. That was one thing that was a big challenge, and it got easier as the year's gone on. I have high hopes for next year. I think next year's going to be awesome. The

> teachers are already talking about next year. That's why I know next year is going to be so awesome, is because as we're finishing up, they're already talking about what we're going to do next year. When I come back in August, when we come back in August, we need to do this. I've already started a list because every time somebody says, "We should do this," and I love it when they say, "We. We should do this." I'm writing it down so that we can have that to work from when we do come back.

While Christina communicated her confidence about the team making progress this year, she also expressed that there was still work to be done. In future years, she hoped to continue building on their success, but also felt that her team struggles with time. Because there were so many tasks PLCs needed to work on, teachers often had to compromise by only working on items that were urgent at that given time. She reflected:

> We haven't done nearly as much as I wanted to this year, but we've started, and we've done a lot. I hope to build on it. There's so many more things I want to do, but one of our issues is time. Even though we have the common time to meet, it's gone like that. I think that we should be doing all these different things, as far as planning and deconstructing the data, seeing how that affects our instruction, what we need to be changing about our instruction, how do we need to be approaching remediation or response to intervention or anything like that where we've got students struggling. What I'm seeing right now, in our discussions, is that we've got a lot of different things going on. We've already talked this year about some of the things that we want to make more department-wide next year so that we can come together a little bit better, collaboratively.

Finally, Christina reflected on the qualities important for high school department leaders to emulate. She shared:

> Most important ... Be the example. Be the model. Be the sport, and that's hard. I'm a flawed human like everybody else. I don't ever want to come across as being better or condescending. They're all my equals, but I want my experience and where I've already been to be a guide for them, to help give them some new ideas, give them some incentives, give them some hope, give them some support. I'm a person that believes that a person who leads is a person who serves.

While teachers shared their appreciation for the very active support of their department chair, Christina, they also responded favorably to the school's administration. Importantly, they identified distinctions between the support they expected from their department leader and their school leader. Glen provided one example of this. While Christina was very active in the instructional decisions that were made, he offered that one of the most helpful things administration could do to help him was allowing him to take risks. He stated:

> Just promote the idea that hey, we're okay with you taking the risk and we're not going to have repercussions on you just because you tried something that didn't work out. From an administrator perspective.

He elaborated further:

> Okay. To know that "Hey, I have your back. I'm going to support you as long as you're doing your job. I might not do what you want me to do, but if you'll at least listen to me, and at least seem like you want to maybe address an issue." That's helpful. Just not being afraid to ask "Hey, what can I do to help you?" Really mean that and seem, whether you really do it or not it's a different case, but just seem like you really want to know what some ideas. I think that's helpful.

In other words, Glen wanted school leaders to trust him. Furthermore, he also needed to know that he could trust administrators to support him when needed.

When probed further, Glen responded that, while he worked very closely with Christina, he valued the administration trusting teachers to engage in PLCs. He remembered prior experiences in which administrators monitored the work of PLCs very closely, and reflected that this actually reduced the effectiveness of the teacher teams. He stated:

> I think it's helped. I'm going to answer this and it's not going to seem like support, but it really is. The fact that they just left us alone and knew that we were professionals and could take care of it, that was actually support to me. I've been in situations where it was kind of a PLC but sometimes they're kind of watching your back and questioning things, and that doesn't help you be effective. It's almost like you're doing something to answer somebody else's questions and deal with. The fact that it was a lot to actually just let us work and get it done, actually was very supportive. I know people might not interpret it that way, but for me it is. If you give me time to allow me to do my job, I'll be happy. If I'm having to do my job but also explain to you why I'm having to do it, that is annoying. Takes away from the effectiveness and makes you almost hate the time other than wanting to use it effectively.At the same time, if I feel like our department head and administration would be more than willing, if we needed to come see them about something that time, they'd be willing to provide that and actually give us that. Whether it be feedback or just time, I think I feel like that was allowed.

In his final interview, Abe also agreed with these thoughts. He also remembered prior instances in which administrators attended the PLC meetings. He valued that administration trusted teachers to engage in the work, and quite simply did not get in their way. He stated:

> We've done it in the past where we've had to have an administrator in our PLC and I feel like then it's just awkward because "Why are you here? We're going to do what we're going to do. I guess it's good, but you could probably be using your resources better than to just sit in a meeting for the sake of sitting in a meeting." I don't think that there's anything else that you guys could have done as administrators. I kind of enjoy the fact that you let us do it.

Abe also pointed out that school administration supported teachers by designating time during the school day for them to meet. Because teachers are so busy, he observed that setting aside this time made collaboration more likely to occur. He stated:

> I think it's fine. I think the big thing was, again I don't have anything to compare it to last year, but setting that time aside. I think that was really good of the leadership of this school to try to do. I think that was a huge hit because you know how it is being a teacher. If you can free up time for people to get together, then you're going to be appreciated for that. There's not a lot of time in the day to get everything done.I walked in today thinking I didn't have a whole lot to do. Then about 15 minutes later I figured I've got like 50 things I've got to do today. Anytime you can set that time and say "This is the time" I think the teachers appreciate that. I think that's the support that you guys gave, just giving us the time to do it.

Similarly, Matt shared that, by setting aside time during the school day, school administrators communicated the value they had for the initiative. He also stated that previously teachers did want to collaborate, but did not have sufficient time for doing so. He reflected:

> I think scheduling the time was definitely a ... I think the time showed us that ... Nobody didn't want to do it, but it showed us you know ... It's hard to find time to do everything

> well, but to put it in the day shows us that ... Like I said, I think everyone wanted to do this, it's just a matter of ... No one's resisting. It's just ... We don't ... We had to connect all the dots and that connected the dots for us to go and meet, and I think we needed more time.

Reflecting on the support she received from school administrators in her first year, Christina also had positive things to say. She identified this support as critical to performing her work, and uplifting after working in previous schools without it. She shared:

> The administrative support, I can't imagine doing this job without the administrative support we've had this year, and I mean everybody. It's so nice to be in a school where I can go to any administrator and ask them anything or say anything, having that freedom and knowing that I'm not going to get shot down or looked at like, "Are you crazy?" or just made to feel like I'm microscopic on the floor and not an integral part of what's going on because I'm the social studies person. The administration here views everybody's work as important, and everybody's input is important. I just can't tell you. From the teacher point of view, that's one of the biggest things ever in my life. That is why I could never go back to some of the situations that I've been in, other schools, because I couldn't go back to not having that support after now, that I've experienced it at this level.

In conclusion, the third theme from the third research question indicated that teachers valued support from their department chair and school administrators in developing new PLCs, while expecting different types of support from these two distinct leadership roles. Teachers reported that the support of their department chair, Christina, was critical. She helped them develop common assessments, adopt a shared vision for the department, and adopt high expectations for themselves in terms of student achievement. While teacher participants also

valued the support of school administration, they held different expectations for the support they received from departmental and school leaders. In general, they desired structural support from school leaders; for example, several teachers commended administrators for setting aside time during the school day for teachers to meet and collaborate. The support they desired from their department chair was more relational and instructional in nature.

Summary of Conceptual Framework

As a conceptual framework, this study includes two powerful antecedents for effective professional learning communities: enabling school structures and collegial trust (see Figure 4 below).

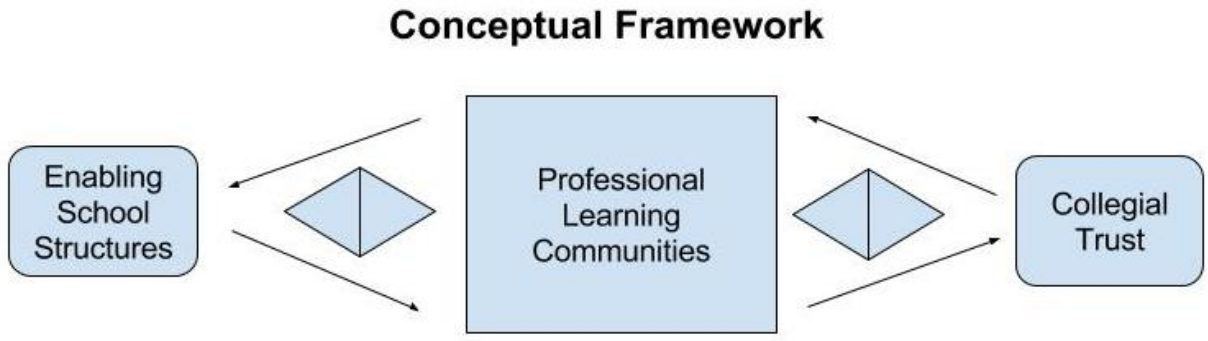

Figure 4

Conceptual Framework for Developing Effective PLCs

As Gray, Kruse, and Tarter (2016) stated, formal aspects of a school represent enabling school structures, while informal aspects represent collegial trust. If teachers are to improve their instructional practice and thereby impact student learning, Hord (2007) reasoned that both structural and relational conditions must support the work of teachers in their learning communities. She stated, "for PLCs to function productively: (1) logistical conditions such as

physical and structural factors and resources, and (2) the capacities and relationships developed among staff members so that they may work well and productively together" (p. 3).

Hoy and Sweetland (2000, 2001) described schools with enabling structures as those in which teachers perceive administrators support of their work instead of hinder it. Applying the work of Adler and Borys (1996) on enabling school structures to schools and universities, Hoy and Sweetland (2001) investigated positive and negative aspects of bureaucracy in schools through two unique spectrums: formalization and centralization. Formalization refers to the extent of rules and procedures in place in the organization, while centralization is the degree to which administrators share leadership with staff members.

Collegial trust is the degree to which teachers feel they can depend on each other (Tschannen-Moran & Hoy, 1998). Hoy (2012) stated that collegial trust is "the collective belief that the word and promise of another individual or group could be relied upon, and further, that the trusted party would act in the best interest of the faculty" (p. 78). Tschannen-Moran (2014) described five facets of trust in her book *Trust Matters: Leadership for Successful Schools*: benevolence, honesty, openness, reliability, and competence. When teachers trust each other, they are willing to be open and vulnerable with each other; this is the level of trust that is required for PLCs to thrive. Absent of this, teachers are not likely to share their true thoughts and practices with others. Importantly, the development of PLCs also requires teachers to move from autonomy toward interdependence. While trust influences a complex process such as how a teacher decides to share their true beliefs on a subject, it also acts in a much simpler way by determining if they trust a colleague to complete a task before the next meeting.

While both enabling school structures and collegial trust support the development of PLCs, the literature suggests that one important distinction between the two is timing. While

enabling school structures are needed before implementing PLCs, in many cases, trust is developed over time as teachers interact and work with each other. Gray and Summers (2016) supported this assertion when they stated, "We contend that as teachers work together, collegial trust increases, and vice versa" (p. 2). They also stated that "the structures of the school must enable or help teachers to do their jobs more effectively; teachers should have trust in each other and belief in the ability of their colleagues" (Gray & Summers, 2016).

Chapter Summary

The purpose of this action research case study is to examine the benefits and challenges experienced by social studies teachers while developing new professional learning communities (PLCs). The study also seeks to assess how interventions developed by a school leadership team support the development of these new PLCs, if at all.

Three themes emerged from data relating to the first research question: What benefits do high school social studies teachers experience when engaging in new professional learning communities? The first theme was, "Teachers valued the collaboration and support that took place in professional learning communities." The second theme was, "Teachers perceived that participating in professional learning communities enhanced their instructional and assessment practices." Finally, the third theme was, "Teachers developed trusting relationships with their colleagues by participating in professional learning communities."

Two themes emerged from data relating to the second research question: What challenges do high school social studies teachers experience when engaging in new professional learning communities? The first theme was, "Teachers perceived that the effectiveness of professional learning communities develops over time, as trusting relationships are established amongst

teachers." The second theme was, "Teachers strived to balance interdependence with autonomy while participating in professional learning communities."

Finally, three themes emerged from data relating to the third research question: How do interventions developed by a school leadership team support the development of new professional learning communities, if at all? The first theme was, "Teachers valued a revised bell schedule that provided designated time for professional learning communities to meet during the school day." The second theme was, "Teachers valued common assessment and a rapid data analysis platform, stating that these interventions prompted individual and group reflection that resulted in improved instruction and assessment practices." The third theme was, "Teachers valued support from their department chair and school administrators in developing new professional learning communities, while expecting different types of support from these two distinct leadership roles." These findings are further discussed and analyzed in the next chapter, Chapter 6.

CHAPTER 6

SUMMARY, DISCUSSION, AND IMPLICATIONS

As stated previously, the purpose of this action research case study is to examine the benefits and challenges experienced by social studies teachers while developing new professional learning communities (PLCs). The study also seeks to assess how interventions developed by a school leadership team support the development of these new PLCs, if at all. The research questions that guided the study were:

1. What benefits do high school social studies teachers experience when engaging in new professional learning communities?
2. What challenges do high school social studies teachers experience when engaging in new professional learning communities?
3. How do interventions developed by a school leadership team support the development of new professional learning communities, if at all?

This chapter presents the conclusions and implications drawn from the study, including how they relate to past, current, and future research.

Summary of Findings

Again, three research questions guided this study: (1) What benefits do high school social studies teachers experience when engaging in new professional learning communities?, (2) What challenges do high school social studies teachers experience when engaging in new professional learning communities?, and (3) How do interventions developed by a school leadership team support the development of new professional learning communities, if at all? In the data analysis

process, several themes arose from the data relating to each of these research questions. This information was presented in the previous chapter. A summary of these themes is also included in the paragraphs that follow.

Three themes emerged from data relating to the first research question: What benefits do high school social studies teachers experience when engaging in new professional learning communities? The first theme is, “Teachers valued the collaboration and support that took place in professional learning communities.” The second theme is, “Teachers perceived that participating in professional learning communities enhanced their instructional and assessment practices.” Finally, the third theme is, “Teachers developed trusting relationships with their colleagues by participating in professional learning communities.” In the sections that follow, data supporting each of these themes are examined.

Two themes emerged from data relating to the second research question: What challenges do high school social studies teachers experience when engaging in new professional learning communities? The first theme is, “Teachers perceived that the effectiveness of professional learning communities develops over time, as trusting relationships are established amongst teachers.” The second theme is, “Teachers strived to balance interdependence with autonomy while participating in professional learning communities.” In the sections that follow, data supporting each of these themes are examined.

Three themes emerged from data relating to the third research question: How do interventions developed by a school leadership team support the development of new professional learning communities, if at all? The first theme is, “Teachers valued a revised bell schedule that provided designated time for professional learning communities to meet during the school day.” The second theme is, “Teachers valued common assessment and a rapid data

analysis platform, stating that these interventions prompted individual and group reflection that resulted in improved instruction and assessment practices." The third theme is, "Teachers valued support from their department chair and school administrators in developing new professional learning communities, while expecting different types of support from these two distinct leadership roles." In the sections that follow, data supporting each of these themes are examined.

Discussion and Implications

When analyzing data related to each of the three research questions, eight themes arose regarding the benefits and challenges teachers experienced in new PLCs, and how interventions developed by a leadership team supported teachers in this process. These themes hold important implications for school leaders who are considering implementing PLCs in their own schools. The themes also contribute to existing literature in several related areas. A discussion of these themes and implications is provided in the sections that follow.

Theme 1: Teachers valued the collaboration and support that took place in professional learning communities

Teachers valued the collaboration and support that took place in PLCs. To school leaders, this suggests that PLCs could be a worthwhile initiative for improving teacher practice, and student achievement. As we know, prior to enhancing student learning, leaders must first enhance teacher learning. In this study, teachers reported experiencing professional development from their PLC collaboration. They shared that they learned about new strategies and resources from colleagues, particularly from teachers with different instructional styles. This improved their confidence in areas of the curriculum in which they previously struggled. It also prompted teachers to practice self-reflection, in which they critically considered their areas of strength and opportunity.

Also important to school leaders, the teachers in this study shared many ideas and resources with each other, essentially creating a repository of instructional strategies to pull from. While leaders often purchase expensive instructional resources to fulfill this need, this theme suggests that administrators could turn to their own teachers as instructional designers. In addition to helping teachers become more efficient in their work, shared resources could also improve effectiveness as each resource would be reviewed and revised by several educators.

Butler et al. (2004) claimed that PLCs offer teachers the opportunity to co-construct knowledge with their colleagues, reflect, and subsequently revise their prior knowledge and assumptions. However, if teachers are to truly benefit from this learning, they need to embrace their role as learners when working in teacher communities (Nelson, 2009). This theme suggests that the teacher participants embraced this learner role, which resulted in them experiencing professional development.

Theme 2: Teachers perceived that participating in professional learning communities enhanced their instructional and assessment practices

Teachers perceived that participating in PLCs enhanced their instructional and assessment practices. While Theme 1 indicated that teachers learned in PLCs, Theme 2 emphasizes that teachers applied this learning in the classroom. Importantly, school leaders should note that teachers expressed hope that PLCs would improve their professional practice even from the beginning of this project. Based on their previous experience with PLCs, some teachers observed that what is discussed during these meetings is not always implemented in individual classrooms. This could be addressed in several different ways.

In this study, common assessments encouraged teachers to adapt their instruction, and be more consistent with curriculum, rigor, and expectations. For example, these new, teacher-

created assessments comprised mostly of higher-order thinking questions. This prompted teachers to embed more critical thinking exercises in their lessons, questions, and assessments. Additionally, each common assessment had at least one constructed response item; this encouraged teachers to have students write about their learning more frequently.

The importance of this theme is underscored by the fact that professional learning must affect teacher practice prior to improving student achievement. Unfortunately, professional learning does not always lead to these changes in practice (Nelson & Slavit, 2007). According to empirical research, professional learning communities are one viable option for impacting both teacher learning and teacher practice. For example, Andrews and Lewis (2007) found that Australian teachers' participation in PLCs improved both their knowledge and their work inside the classroom. Again, these changes in instructional practices are not typical of traditional forms of professional development such as workshops and in-service days (Butler et al., 2004). Instead, what is required are ongoing opportunities for teachers to co-construct new knowledge and revise their current understandings through processes of shared reflection and dialogue (Butler et al., 2004).

Theme 3: Teachers developed trusting relationships with their colleagues by participating in professional learning communities

Teachers developed trusting relationships with their colleagues by participating in PLCs. As presented in Theme 1 and 2, PLCs could be a worthwhile initiative for improving student achievement. Because teachers' collegial trust improved when working together in PLCs, Theme 3 also suggests that PLCs could positively impact school culture. However, for trust to develop adequately, leaders should emphasize the importance of teachers following through with commitments, treating each other professionally, staying productive, and attending meetings

regularly. To facilitate the establishment of trust, leaders might also ask teachers to spend their initial meetings learning more about each other, or collaborating on simple instructional matters. If teachers began collaborating on potentially contentious matters, like how to assess student learning, trust might be inhibited from growing in the early stages of a PLC.

This theme is consistent with the literature surrounding trust and PLCs. While developing trust amongst PLC members is essential for promoting their long-term efficacy and sustainability, it often takes a considerable amount of time to cultivate. This is especially true when PLC members do not know each other before beginning their work together (Nelson & Slavit, 2007), as was true in this case study. Without first learning more about their fellow PLC members, teachers are usually unwilling to share their true thoughts, feelings, or practices with the group (Nelson & Slavit, 2007). Teacher leaders, facilitators, and school leaders can support PLCs through this process by helping them design action plans for developing trust in the group. Nelson (2009) also stated that leaders should ensure there is a learning orientation in the group, so teachers do not feel judged by their peers, but rather helped. This idea is also supported by Hammerness et al. (2005).

Aubusson et al. (2007) planned to incrementally develop trust amongst teachers through activities such as experience sharing; unfortunately, these strategies were mostly unsuccessful. Aubusson et al. (2007) found that ultimately it took teachers opening up their classrooms and practices to each other in incremental stages to develop trust in the group. Nelson and Slavit (2007) argued that the support of school leaders and facilitators is necessary for teacher teams to get to this point.

Theme 4: Teachers perceived that the effectiveness of professional learning communities develops over time, as trusting relationships are established amongst teachers

Teachers perceived that the effectiveness of PLCs developed over time, as trusting relationships were established amongst teachers. This suggests that school leaders should allow time for PLCs to mature prior to expecting significant gains. Teachers in this study felt anxious about collaborating with their colleagues, which was in part because most teachers were new to the school. However, even existing faculty worried that their work might be judged unfairly, or that their teaching styles might conflict with those of their colleagues. School leaders should be mindful of this apprehension, and work alongside teachers to establish trusting relationships. Also, leaders should remember that time is an important component for developing trust; this requires supportive structures that enable teachers to spend an extended amount of time with each other.

Based on the findings of this study, leaders might also consider asking teachers to start their work together by getting to know one another, and collaborating on simple instructional tasks. Beginning a PLC collaboration by working on potentially contentious issues, such as common assessments, is not recommended. Finally, leaders should emphasize the importance of teachers following through with their commitments, treating each other professionally, staying productive, and attending meetings regularly. Teachers also stressed the importance of a good work ethic, clear communication, and a willingness to compromise.

While PLCs can facilitate teacher professional learning (Rosenholtz, 1989; Hollins et al., 2004; Nelson, 2009), Aubusson et al. (2007) warned that school leaders implementing them should expect to encounter struggles along the way. This theme is consistent with other studies, which suggest that the effectiveness of PLCs is not immediately gained. For example, Hollins et

al. (2004) described a 12-member PLC in which teachers initially focused on disassociating themselves from their students. However, as teachers continued in the process they began to see ways they were similar to their students, and began working on improving instruction in their school.

Theme 5: Teachers strived to balance interdependence with autonomy while participating in professional learning communities

Teachers strived to balance interdependence with autonomy while participating in PLCs. This theme suggests that school leaders be clear with their intentions for implementing PLCs. While leaders might adopt the PLC framework to establish greater consistency between classrooms, it should not be the expectation for instruction to be identical in every classroom. Teachers in this study valued their individualism, and would likely have disengaged from any process that threatened their professionalism.

Hargreaves et al. (2001) stated that the age of autonomous teachers in the United States is transitioning into one of collegiality. However, no researchers propose that these changes are made easily. Aubusson et al. (2007) warned that school leaders implementing PLCs should expect to encounter struggles along the way.

Theme 6: Teachers valued a revised bell schedule that provided designated time for professional learning communities to meet during the school day

Teachers valued a revised bell schedule that provided designated time for PLCs to meet during the school day. This theme suggests that school leaders provide adequate time during the contract day for teachers to collaborate. In this study, teachers engaged in PLCs during a 25-minute period during extended lunches; teachers responded very positively to this intervention. While some leaders may consider asking teachers to collaborate before or after school, the

findings of this study do not support this approach. Many teachers, especially in high schools, sponsor student activities that prohibit them from participating outside of the school day. In schools of all grade bands, family responsibilities could also deter teacher attendance. Teachers in this study indicated that, had time not been provided during the school day, their PLCs would not have been as effective because all members would not be present.

Importantly, leaders might see teachers using this time to perform critical tasks that were previously neglected. For example, in this study teachers met to discuss student performance after every unit assessment; due to scheduling issues, previously this was not feasible. Teachers also reported that they were able to have more conversations with their colleagues about professional practice as a result of having this additional time to collaborate.

The literature also suggests that time is a critical consideration for implementing PLCs. Lack of available time hindered teachers' ability to engage in PLC activities like action research (Burbank & Kauchak, 2003), individual and shared reflection (Aubusson et al., 2007), project implementation (Hollins et al., 2004), collaborative inquiry into problems (Nelson, 2009), and collaboration with colleagues outside their own subject, grade, or school (Nelson & Slavit, 2007). Teachers in Aubusson et al.'s (2007) study demonstrated the importance of time when they reported that one of the project's greatest strengths was the release time it provided for teachers to engage in the work. Servaise, Sanders, and Derrington (2009) echoed this by identifying the commitment of time as a primary resource when implementing PLCs in any context.

Theme 7: Teachers valued common assessment and a rapid data analysis platform, stating that these interventions prompted individual and group reflection that resulted in improved instruction and assessment practices

Teachers valued common assessment and a rapid data analysis platform, stating that these interventions prompted individual and group reflection that resulted in improved instruction and assessment practice. To school leaders, this theme suggests that common assessments, paired with a tool for teachers to quickly analyze assessment data, is a critical support for PLCs. Teachers in this study indicated that the data tool, All In Learning, provided an efficient way for them to act on assessment results in order to improve student learning. Also, they identified this intervention as a crucial support for their PLC collaboration. While data analysis tools do require a financial commitment from leaders, this theme suggests that All In Learning helped teachers use their time more effectively. For example, teachers could quickly enter assessments in the platform, and then share them with other teachers in the department. After completing an assessment, teachers could efficiently analyze data to inform their next instructional steps, and make necessary improvements to the actual assessment. Importantly, these teachers were empowered to spend their time acting instead of calculating.

Importantly, the common assessments intervention empowered teachers to employ data beyond the typical standardized test scores, which are typically reviewed too late to actually change instruction for students (Young, 2006). Instead, through continuous assessment teachers could better understand areas of the curriculum in which students were struggling, and those students had already mastered. All In Learning enabled teachers to efficiently collect and analyze data; as a result, they were able to spend less time on calculation and more time on action.

Teachers were also trained on how to use his data tool to inform instruction, addressing Love's (2009) call for PLCs to receive support on how to properly analyze and use instructional data.

Theme 8: Teachers valued support from their department chair and school administrators in developing new professional learning communities, while expecting different types of support from these two distinct leadership roles

Teachers valued support from their department chair and school administrators in developing new professional learning communities, while expecting different types of support from these two distinct leadership roles. This theme suggests that school leaders carefully select department leaders, as they have a significant impact on the success of their department. In many cases, these teachers serve as both instructional and cultural leaders for their team. In this study, teachers relied on the department chair for developing common assessments, finding new instructional strategies, and implementing writing across the curriculum. Teachers also shared that the department chair had high expectations for them, communicated these expectations, and pushed them to advance toward their goals.

This theme also suggests that school leaders be intentional about how they go about supporting PLCs. Importantly, teachers in the study expected different types of support from their department and school leaders. While they valued the active support of their department chair throughout the PLC process, they viewed the support of administrators as mostly structural in nature. For example, teachers were very appreciative of the additional time they had to meet and collaborate. However, in the actual collaboration teachers wanted administrators to trust them to carry out their work professionally. In previous schools, these teachers resented when they felt like administrators attended PLC meetings simply to monitor their work.

This theme, as well as the approach enacted by the school leadership team in this study, is consistent with Ermeling's (2010) recommendation that school leaders empower teacher leaders as community facilitators. According to Nelson and Slavit (2007), facilitators can assist PLC teams by encouraging collaboration, and helping teachers maintain focus on actions that will help them move toward their shared goals and purposes. There are several responsibilities of facilitators when working in PLCs, including training teachers how to use various protocols, group development and sustainment, supporting learning within the PLC, and advancing the PLC's inquiry to benefit others in the system (Nelson & Slavit, 2007; Drennon, 2002). Facilitators may also be charged with recruiting PLC members, setting meeting times, developing agendas, encouraging collaboration and dialog, facilitating group reflection, and assisting teachers with the collection, analysis, and reporting of data to inform the work of the team (Drennon, 2002). Finally, facilitators have the critical responsibility of preventing the team from being distracted by work or discussion that is not central to the issue they are trying to address (Nelson & Slavit, 2007). In summary, Christina's leadership was critical to fulfilling these facilitative responsibilities.

Summary of Implications for School Leaders

The results of this study have implications for school leaders, including principals, assistant principals, and district staff. Specifically, findings suggest critical areas leaders should support when implementing PLCs in schools or districts.

First, findings indicate that teachers valued the collaboration and support that took place in professional learning communities. Teachers also perceived that participating in PLCs enhanced their instructional and assessment practices. Finally, teachers developed trusting relationships with their colleagues by participating in PLCs. These findings suggest that PLCs

are a worthwhile initiative for school improvement. Because teachers valued collaborating with colleagues, and developed trusting relationships with them in the process, PLCs could be a vehicle for improving teacher satisfaction and school culture. Also, teachers report that their instructional and assessment practices improved as a result of their PLC collaboration; this suggests that PLCs could also improve student achievement.

Second, teachers perceived that the effectiveness of their PLC developed over time as trusting relationships were established amongst teachers. Also, teachers strived to balance interdependence with autonomy as they participated in PLCs. These findings identify two "pot holes" leaders could experience when implementing PLCs. First, leaders should not expect teachers to achieve high levels of collaboration immediately. Teachers may begin their work getting to know each other, or starting their work together on small, non-controversial topics. Additionally, leaders may lose trust from teachers if they use PLCs to mandate identical instruction in all course-alike classrooms. Instead, teachers should be encouraged to work toward consistency in learning objectives, while preserving their unique teaching styles.

Third, teachers valued a revised bell schedule that provided designated time for PLCs to meet during the school day. Teachers also valued common assessment and a rapid data analysis platform, stating that these interventions prompted individual and group reflection that resulted in improved instruction. Finally, teachers valued support from their department and school leadership when developing new PLCs, while expecting different types of support from these two distinct leadership roles. Importantly, teachers did not believe their PLC collaboration could have been successful without time during the school day to meet. As many high school teachers have before or after school responsibilities, such as athletic coaching, all teachers would not be able to meet for collaboration if this time was not set aside. This suggests that school leaders

should provide time for teachers to meet during the actual school day. Additionally, common assessments are needed in order for teachers to have a common way to measure achievement and progress. Finally, school leaders should consider supporting teachers by securing a rapid data analysis platform; this tool empowered PCHS teachers to spend their PLC time taking action instead of calculating numbers. Interestingly, teachers in the current study perceived that school leaders supported them structurally (i.e., rapid data analysis tool, bell schedule), while their department chair supported them relationally (i.e., developing common assessments, establishing trust).

In summary, PLCs are a worthwhile initiative for school improvement in terms of both culture and effectiveness. However, leaders should not expect immediate gains; additionally, leaders should not confuse collaboration and consistency with conformity, as teachers value their own individuality and autonomy. Finally, in order for PLCs to be successful, school leaders must support them by providing the resources they need. In the current study, teachers needed time to meet during the school day, common assessments for gauging student learning, a tool to quickly analyze assessment data, and on-going support from department and school leaders.

Implications for Future Research

The literature suggests that professional learning communities (PLCs) offer many benefits to teachers, including collective learning, collaboration, and improved practice (Vescio, Ross, & Adams, 2008). However, research on the process of implementing these new PLCs is sparse (Spillane, 2005). The scholarly community has been much more interested in the characteristics of PLCs rather than how to actually develop them. Also, most of the research on PLCs has taken place in elementary and middle school settings; there is a need for more studies

to be conducted at the high school level (Vescio, Ross, & Adams, 2008). The current study sought to add to the literature in these critical areas of need.

More specifically, it presents the experience of four high school social studies teachers who engaged in new PLCs. Several interventions were enacted by a school leadership team to support teachers in this work. The intervention plan included common unit assessments, a rapid data analysis platform, a revised bell schedule to support daily PLC meetings, and the support of both school and department leaders.

Other researchers should continue adding to this stream of literature by studying how new PLCs develop in other contexts. For example, while the current study captured the experience of social studies teachers, additional studies might explore PLC implementation in other content areas, such as math, language arts, or science. Even more uniquely, specialized areas such as fine arts, world languages, or career education might be explored in terms of PLC development. Also, while this study took place in a rural, comprehensive high school, how might PLC implementation occur differently in larger, urban high schools? Or, how might PLC implementation occur differently in other grade bands, such as elementary school, middle school, or post-secondary education? While the current study sought to address gaps in the literature, many more studies are needed to increase our understanding of how teachers experience new PLCs, and how school leaders can best support them.

Concluding Thoughts

The purpose of this case study was to examine the benefits and challenges experienced by social studies teachers while developing new professional learning communities (PLCs). The study also sought to assess how interventions developed by a school leadership team supported the development of these new PLCs, if at all. The research questions that guided the study were

(1) what benefits do high school social studies teachers experience when engaging in new professional learning communities?, (2) what challenges do high school social studies teachers experience when engaging in new professional learning communities?, and (3) how do interventions developed by a school leadership team support the development of new professional learning communities, if at all?

To answer these questions, the work of a school leadership team was examined through the lens of action research. In reflection, this was not very difficult because it was how our leadership team often addressed problems in our school. For example, in a previous project we observed that many students did not fully understand plagiarism, why it was not allowed, and how to avoid it. To address the issue, we examined it, developed possible solutions, and implemented an intervention plan for resolving it. Importantly, this project was not the first time the team worked toward resolving an issue in this way.

Also, I was intrigued that many solutions in this project came from unlikely sources. For example, it was actually our athletic director who proposed changing our bell schedule to allow teachers to meet for PLCs during an extended lunch period. While this AD was more involved with academics than others I had worked with, this was unlikely because he was not part of the PLC discussions we had already conducted. Also, after Mrs. Porter and I discussed common assessments, we were puzzled about how to help teachers turn results into actionable data. My mother-in-law, who also works in education, told me about a presentation her district had on a tool called All In Learning. Also in good fortune, the Panther Country School System assisted us financially in adopting this tool. These are just a couple of examples of solutions coming from unlikely places; this demonstrates how important it is for school leaders to “keep their ear to the

ground" regarding the problems their schools face, as the true experts for solving them are already in their buildings.

I can say with great confidence that I have grown as a result of completing this project. In addition to learning an incredible amount about professional learning communities, I also grew as an instructional leader. Through my work with teachers, I learned more about the curriculum areas I supported. I also improved my skills at collecting, analyzing, and using data to inform teaching and learning at the school level. Finally, and perhaps most importantly, I developed a greater respect for trust. I came to realize that relationships are the "grease" that helps schools function optimally. Absent of strong, trusting relationships amongst teachers, students, parents, and administrators, students will not be as successful as they could be. Based on the findings of this study, I was also reminded that it is my responsibility as a school leader to ensure that teachers are supported both structurally and relationally in order to preserve their trust in me.

In conclusion, I believe the study's research questions were answered and the purpose fulfilled. When reflecting on their experience working in PLCs, teachers responded favorably to the collaboration, improvements in professional practice, and development of trust that occurred as a result of working in PLCs. However, they also experienced challenges in developing new PLCs. While school leaders often press for immediate results, it took time before PLCs achieved optimum performance. Teachers also strived to balance collaboration with autonomy. While some school leaders might adopt PLCs as a strategy for developing "cookie-cutter classrooms," this might result in them losing the trust of teachers. The teachers in this study appreciated the collaboration that occurred, and the consistency that was developed, but they still wanted to stay true to their own unique teaching styles.

Finally, to help facilitate new PLCs, several interventions were implemented by the school leadership team. Teachers were adamant that their PLC would not have been as effective without having time during the school day in which to meet. Also, teachers appreciated developing common assessments, as they allowed teachers to analyze and compare student learning across classrooms. Additionally, they were grateful to have a rapid data analysis tool to analyze and aggregate this data. This intervention empowered teachers to make informed decisions during PLC meetings as opposed to spending most of their time making calculations based on test results. Finally, the support of school and departmental leaders was crucial for supporting teachers in the initial stages of their PLC.

Both the process and the findings of this study are important to me as an assistant principal. Importantly, this work will guide my steps when supporting PLCs in the future as a principal. Even more importantly, it is my hope that the results of this study will extend even past my own practice, and will positively affect teachers and leaders in other schools. If even one student learns more because of this endeavor, whether they attend my school or another, the many hours that were poured into this project will be worth it.

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APPENDIX A

PARTICIPANT CONSENT FORM

UNIVERSITY OF GEORGIA
CONSENT FORM
Supporting new professional learning communities in a rural, comprehensive high school:
An Action Research Study

Researcher's Statement
I am asking you to take part in a research study. Before you decide to participate in this study, it is important that you understand why the research is being done and what it will involve. This form is designed to give you the information about the study so you can decide whether to be in the study or not. Please take the time to read the following information carefully. Please ask the researcher if there is anything that is not clear or if you need more information. When all your questions have been answered, you can decide if you want to be in the study or not. This process is called "informed consent." A copy of this form will be given to you.

Principal Investigator: Dr. April Peters-Hawkins
Program of Educational Administration and Policy
850 College Station Road
324 River's Crossing
Athens, GA 30602
(706) 542-4154

Purpose of the Study
The purpose of this action research case study is to assess the challenges and benefits experienced by teachers in new professional learning communities. It also seeks to understand how the interventions developed by an action research team support the development of the team.

Research Questions
This study sets out to answer the following research questions:
1) What benefits do social studies teachers in a rural, comprehensive high school experience when forming a new professional learning community?
2) What challenges do social studies teachers in a rural, comprehensive high school experience when forming a new professional learning community?
3) How do focused interventions developed by a school leadership team support the development of a new professional learning community?

Study Procedures
If you agree to participate, you will be asked to …

- Participate in interviews that discuss your beliefs and experiences with professional learning communities and action research. These interviews may or may not be recorded and then transcribed. You will be asked to participate in one interview of no more than two hours in length. You may be contacted for a one-hour follow-up interview if researchers determine they need more information
- Be observed in face-to-face and virtual settings engaging in conversations and learning about professional learning communities and action research. These observations may occur in leadership team or department meetings pertaining to professional learning communities.

- Allow relevant documents to be reviewed, at your discretion, including student assessment data, meeting transcripts, e-mail messages, and other information produced in the action research study. Only documents that are relevant to this study will be retained, and will only be used with your permission.
- The study will take place between April 2016 and December 2016.

Risks and discomforts
- I do not anticipate any risks from participating in this research.

Benefits
- There will be no extrinsic benefits or rewards from participating in this research but we hope that students will eventually benefit from improved collaboration within professional learning communities.

Audio/Video Recording
Your interviews will be recorded for the researcher's data file; however, these files will be destroyed upon transcription of your interview.

Please provide initials below if you agree to have this interview *audio* recorded or not. You may still participate in this study even if you are not willing to have the interview recorded.

_____I do not want to have this interview recorded.
_____I am willing to have this interview recorded.

Privacy/Confidentiality
The data collected in this study will not include information that identifies you directly; instead, it will be coded so that your personal information remains confidential. Coding will include pseudonyms if your data is included in the formal write up; otherwise, you will be designated a participant number that only the researcher can link back to your personal information. The data will be stored in password protected files to ensure confidentiality. All identifiers will be destroyed when the dissertation process is complete (estimated December 2016).

Researchers will not release identifiable results of the study to anyone other than individuals working on the project without your written consent unless required by law.

Taking part is voluntary
Your involvement in the study is voluntary, and you may choose not to participate or to stop at any time without penalty or loss of benefits to which you are otherwise entitled. Your decision about participation will have no affect on your employment with the Jackson County School System.

If you decide to withdraw from the study, the information that can be identified as yours will be kept as part of the study and may continue to be analyzed, unless you make a written request to remove, return, or destroy the information.

If you have questions
The main researcher conducting this study is Dr. April Peters-Hawkins, a [professor; and Dale Simpson, a doctoral candidate at the University of Georgia. Please ask any questions you have now. If you have questions later, you

may contact Dr. April Peters-Hawkins at alpeters@uga.edu or at 706-542-4154. If you have any questions or concerns regarding your rights as a research participant in this study, you may contact the Institutional Review Board (IRB) Chairperson at 706.542.3199 or irb@uga.edu.

Research Subject's Consent to Participate in Research:
To voluntarily agree to take part in this study, you must sign on the line below. Your signature below indicates that you have read or had read to you this entire consent form, and have had all of your questions answered.

_____	_____	_____
Name of Researcher	Signature	Date
_____	_____	_____
Name of Participant	Signature	Date

Please sign both copies, keep one and return one to the researcher.

APPENDIX B

RECRUITMENT AND CONSENT LETTER

Recruitment & Consent Letter

Dear :

I am a graduate student under the direction of Dr. April Peters-Hawkins, a professor in the Department of Educational Administration and Policy at The University of Georgia. I invite you to participate in a research study entitled, "Examining new professional learning communities in a rural, comprehensive high school: An action research study." The purpose of this action research case study is to assess the challenges and benefits experienced by teachers in a new professional learning community. It also seeks to understand how the interventions developed by an action research team supports the development of the team.

If you wish to participate in this research study, it will involve being interviewed by Dale Simpson. Interviews will last no longer than two hours in length. You may be contacted for a one-hour follow-up interview if researchers determine they need more information. Your involvement is voluntary, and you can choose not to participate or to stop your participation at any time; additionally, there will be no penalty or loss of benefits for non-participation. Your decision not to participate in this research will not affect any aspect of your employment with the Jackson County School System. If you decide to withdraw from the study, information that can be identified as yours will be kept as part of the study and may continue to be analyzed, unless you make a written request to remove, return, or destroy the information.

The results of the research study may be published, but your name or any identifying information will not be used. In fact, the published results will be presented in summary form only.

The findings from this project may provide information on how to best prepare brick-and-mortar teachers to teach online courses. There are no known risks or discomforts associated with this research.

If you have any questions about this research project, please feel free to call me at (770) 624-1929 or send an e-mail to simpsond@uga.edu. You may also contact my major professor, Dr. April Peters at (706)542-4154 or alpeters@uga.edu. Questions or concerns about your rights as a research participant should be directed to The Chairperson, University of Georgia Institutional Review Board, telephone (706) 542-3199; email address irb@uga.edu.

If you are interested in participating in this research, please read the attached consent form in its entirety, sign and return it to the researcher.

Sincerely,

Dale Simpson

APPENDIX C

INTERVIEW PROTOCOL

Interview Protocol

PRE-INTERVIEW

- Tell me about your teaching career in terms of length of service, teaching assignments, schools you have worked in, etc.
- Tell me about the experiences you have had working in PLCs both in your current school, and previous schools you have worked at.

RQ1: BENEFITS OF PLCS

What is your understanding of what PLCs should do and how they should function?

Probes: In these PLCs, what types of things are teachers doing? What are the most important tasks? What tasks actually get done?

Based on your experiences this year, how do you feel like being a member of your PLC has helped you, if at all?

Probes: How has it changed your teaching practices? How has it changed your ideas about effective teaching? What have you learned? How do you feel more or less confident as a teacher?

How has being a member of your PLC impacted student learning and success in your classroom, if at all?

Probes: How does learning in your classroom look different? What changes in student learning data have occurred? How has student engagement increased or decreased? How has teaching and learning changed in other PLC members' classrooms?

How have your relationships with other teachers in your department changed after working in PLCs together?

Probes: How strong are your relationships with other teachers? How were they changed by working in PLCs, if at all? How has your trust for other teachers been enhanced, if at all?

Think about a time that you engaged with your PLC in a way that successfully changed, influenced or improved your instructional practice, your relationship with certain students, etc. Tell me about this experience.

Probes: Who was involved? In what ways was your practice changed or influenced? How was this experience, and it's effects, positive and negative?

RQ2: CHALLENGES OF PLCS

What challenges have you experienced working in your PLC?

Probes: What relational challenges? What structural challenges? What resources did you need and/or use to work in your PLC?

Tell me about a time when the members of your PLC disagreed on something. Describe the situation and how it was resolved.

Probes: Who was involved? Are you satisfied with the outcome?

What additional resources or support does your PLC need in order to become more effective?

Probes: Do you think other PLC members feel the same way? How comfortable do you feel expressing these needs to your school and department leaders?

RQ3: INTERVENTION EVALUATIONS

How has the revised bell schedule with appointed meeting times enhanced your PLC, if at all?

Probes: How would your PLC be affected if this intervention were removed, or were never implemented at all? How is this intervention sufficient and/or insufficient?

How has the support of your department and school leaders enhanced your PLC, if at all?

Probes: How would your PLC be affected if this intervention were removed, or were never implemented at all? How is this intervention sufficient and/or insufficient?

How have common unit assessments and a data analytics platform (All In Learning) enhanced your PLC, if at all?

Probes: How would your PLC be affected if this intervention were removed, or were never implemented at all? How is this intervention sufficient and/or insufficient?

How has the student remediation program enhanced your PLC, if at all?

Probes: How would your PLC be affected if this intervention were removed, or were never implemented at all? How is this intervention sufficient and/or insufficient?

APPENDIX D

ACTION RESEARCH JOB AID

Action Research Job Aid

Developed for the PLC Implementation AR Team

Defining action research . . .

Action research may be defined as an "inquiry process in which applied, behavioral science knowledge is integrated with existing organizational knowledge and applied to solve real organizational problems. It is simultaneously concerned with bringing about change in organizations, in developing self-help competencies in organizational members and adding to scientific knowledge. Finally, it is an evolving process that is undertaken in a spirit of collaboration and co-inquiry" (Shani & Passmore, 2010, p. 439).

More simply, it could also be defined as a "systematic approach to investigation that enables people to find effective solutions to problems they confront in their everyday lives" (Stringer, 2014, p. 1).

Additional concepts of action research

Characteristics of action research . . .

- It is research in action rather than research about action
- It is a democratic and collaborative partnership; no one person or group holds all the decision-making capital
- It is a systematic process that approaches resolving organizational issues *with* the people who actually experience them
- It is equitable, liberating, and enhancing; stakeholders take an active role in resolving their own issues instead of being treated as subjects vulnerable to the researcher's own intervention design

Benefits to the organization . . .

- Involving organizational members in their own learning provides better learning; participants develop in the areas of teamwork, communication, intervention design, project management, and self-awareness
- Produces better data about how the organization really works; changing the organization in some way is the only true way to develop an understanding of it
- Due to the collaborative, innovative nature of action research, the resulting innovations are generally more effective and sustainable than relying on any one person

Making change through action research

Framework for change . . .

To implement change through this action research project, stakeholders will collaboratively and democratically:

1. Determine the need for change
2. Define the future state
3. Assess the present in terms of the future in order to determine the work to be done
4. Manage the transition

Threats to the change process . . .

Possible threats to this project may be placed in four categories:

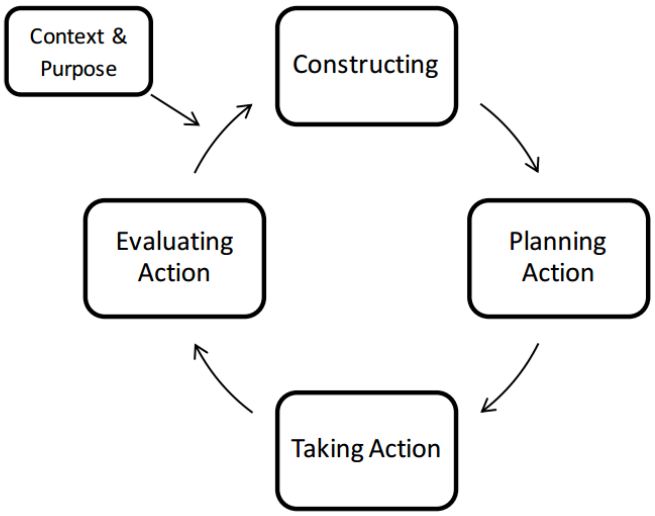
- Differing opinions regarding the need for the project
- Missteps in framing the change that is to take place
- Poor implementation in undertaking the change
- Lack of follow through in sustaining the change

Some threats are under the control and/or influence of the research team; others are not. Regardless, the team should have an awareness of the potential threats.

Staying true to the AR process will help reduce the likelihood that these threats will occur.

The Action Research Process

The action research cycle consists of a pre-step and 4 basic steps:



EQs for the AR Cycles . . .

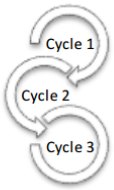
Context & Purpose: Why is this project necessary and what is prompting the change?

Constructing: What exactly are the issues? What are the practical and theoretical foundations for resolving the issues?

Planning Action: What are the steps (or first steps) we will take?

Taking Action: What are we doing to work toward resolving the issue?

Evaluating Action: What are the outcomes of what we have done (intended and unintended)?



These cycles continue throughout the course of the project in a cyclical manner.

Also, multiple cycles can operate concurrently, often overlapping each other. Some liken this to the hands of a clock.

The Research Facilitator . . .

- Active participant in the research process; a positive contributor who is not expected to withhold their own knowledge and expertise from the research process
- Not considered the all-knowing expert, but rather as a resource and catalyst in assisting stakeholders with defining and resolving issues
- Assists in implementing the plan adopted by the team, including identifying possible weaknesses, raising concerns, and helping locate resources for execution

The Research Team . . .

- Also active participants in the research process; not "subjects" or "objects" of study
- Gather data relevant to the issue at hand, including reflecting on the data to generate useful information
- Co-generate deeper understanding about the nature of the issue at hand
- Develop and implement plans designed to work toward resolving the issue
- Evaluate the outcomes of the team's actions

Sources: Action Research, 4th ed. (Springer, 2014) & Doing Action Research in Your Own Organization (Coghlan & Brannick, 2014)

APPENDIX E

DEPARTMENT-WIDE PLC AGENDA FROM SEPTEMBER 21, 2016

9/21/16 • School Improvement Plan • Registration for next school year: have conversations before Christmas break on recommendations • PL for APs looked over rigorous assignments: 50%-60% of what teachers considered to be rigorous was • From summer PL: on assessments 20% should be DOK1, 60% DOK 2, 20% DOK 3 • Choices.edu (affiliated with Brown) - check out the free downloads	Dr. Bones took our suggestions under advisement and the group agreed that the AP enrollment goal needs to be worded carefully. Dr. Bones is changing wording to reflect our concerns. In order to increase rigor add real world components, cross-curriculum units, or have students defend their stance or work. U.S. PLC is continuing work on the EOC-type mid-term to be submitted. They are working on increasing DOK level so that the test will be more rigorous and a better indicator of student performance on the spring EOC.

APPENDIX F

ALL IN LEARNING SAMPLE TRAINING AGENDA

Session 1: Rough Draft Notes w/ Resources

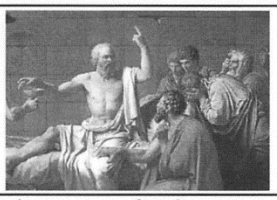
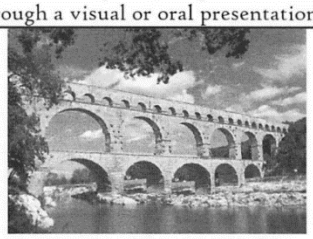
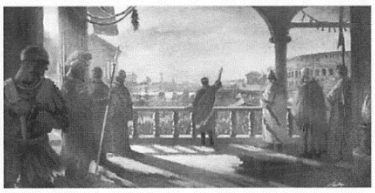
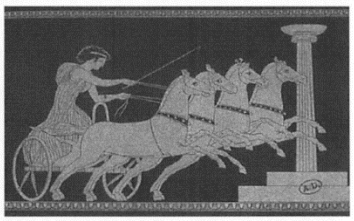
Introduction	What is AIL? • Makes assessment logistically more efficient • Aggregates assessments into useful data • Fosters data-based collaboration amongst course teams
Step 1: Creating Your Account	Getting set up is quick 1. Go to https://plus.allinlearning.com/index.php/user/signupEmail 2. Enter your school email address and click "Next" 3. Copy and paste in this subscription key: 4. Fill in the remainder of the form and click "Create my account" 5. You will be sent a validation email. Click the link in the email to validate your account. Resources: https://vimeo.com/102056106
Step 2: Creating a Class	How to Create a Class Manually 1. Click the Classes tab. 2. Click "Add New Class" on the left side of the screen. 3. Type the name of your class. 4. Select your Grade and Subject. 5. When you are finished creating your class and adding tags, click "Save." Resources: https://vimeo.com/102056107
Step 3: Adding Students	How to Add Students to Your Class Manually 1. Click the Classes tab. 2. Click the Student Roster tab. 3. Click in the blank under "Last" and type your student's last name.

APPENDIX G

CHOICE BOARD ACTIVITY SHARED BY DEPARTMENT CHAIR

GRECO-ROMAN CHOICE BOARD

Driving Question: How did Classical Greek and Roman Civilization create the foundation for Western Civilization?
Directions: Each group will chose one item from each box to complete and share with the class.
Standards: SSWH3 The student will examine the political, philosophical, and cultural interaction of Classical Mediterranean societies from 700 BCE to 400 CE.

Create a graphic organizer that compares the Greek Polis with the Roman Republic and Roman Empire. Choices – you choose the type of graphic organizer that will display your comparisons	Research, read, and analyze a philosophical quote or passage from one of the following individuals. Choices – Socrates, Plato, or Aristotle Demonstrate your interpretation through a visual or oral presentation.	
Research one the wars below. Prepare a power-point slide show (3 slides) showing the causes and effects of the war. Choices – Greek and Persian Wars, Roman Civil War (include roles of Julius Caesar and Augustus), Alexander the Great's conquests		Research one aspect of Mediterranean culture and using one of the listed methods to show your findings. Culture Choices – architecture, art, daily life, literature, science, technology, Olympics Presentation Choices – poster, brochure, skit, model
	Analyze the reasons for the fall of the Western Roman Empire using one of the choices below to explain why Rome fell. Include political, economic, and social reasons. Choices - chart or diagram, poster, Prezi, model, or your creative idea	

APPENDIX H

EXCERPT FROM DEPARTMENT-WIDE PLC MEETING AGENDA

Panther Country High School
Social Studies Department PLC Agenda

Goals:
Vision for the department: Changing the perception of social studies in high school using teaming and collaboration, strengthening communication and student engagement, and innovative teaching in order to set high expectations and increased rigor.