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# Overcoming Barriers of PLCs at the High School Level: A Case Study of the First-Year Implementation of the PLC+ Framework

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OVERCOMING BARRIERS OF PLCS AT THE HIGH SCHOOL LEVEL: A CASE  
STUDY OF THE FIRST-YEAR IMPLEMENTATION OF THE PLC+ FRAMEWORK

By  
Jessica McAbee

A Dissertation Submitted to the  
Gardner-Webb University College of Education  
in Partial Fulfillment of the Requirements  
for the Degree of Doctor of Education

Gardner-Webb University  
2022

## Approval Page

This dissertation was submitted by Jessica McAbee under the direction of the persons listed below. It was submitted to the Gardner-Webb University College of Education and approved in partial fulfillment of the requirements for the degree of Doctor of Education at Gardner-Webb University.

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Pursuing my doctoral degree was something I always thought I would do, but I was not sure how and when that might happen. During the summer of 2020, on a walk at Cowpens Battleground, I made up my mind that I was going to pursue the degree. Everyone who has pursued a doctoral degree understands its impact. It requires many hours of hard work, dedication, and much support from family and friends. Throughout my journey, God has placed many people in my path who have greatly influenced me and helped me to get to the point where I am today. I would like to thank my committee for all their time, support, and guidance. To my chair, Dr. Stephen Laws, I am eternally thankful for your constant guidance, patience, and understanding (as well as your “real talks”) throughout the dissertation process. You kept me focused and in line to meet my goal of graduating in 2 years. Your abundant expertise and experience helped me improve my writing and get to the finish line. To Dr. Bernard Frost, committee member, you are an inspiration to all you meet, and I am forever grateful for the investment you have made in my life. Thank you for your time, energy, and willingness to be by my side throughout the pursuit of my doctoral degree. To Dr. Bonnie Bolado, committee member, your determination and passion for education are contagious. I express my gratitude for your time and constructive feedback on my dissertation. To my parents, Joe and Sandy Turner, I would not be who I am today and where I am today without your continued support and direction in my life. Thank you for modeling hard work and perseverance for me. To my husband Adam McAbee, we had no idea what we were signing up for when we began this journey. Thank you for allowing me the time to achieve my goals and supporting me along the way. To my boys, Turner and Grayson McAbee, this was for

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## **Abstract**

### **OVERCOMING BARRIERS OF PLCS AT THE HIGH SCHOOL LEVEL: A CASE STUDY OF THE FIRST-YEAR IMPLEMENTATION OF THE PLC+ FRAMEWORK.**

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This study was prompted by a desire to understand the perceptions of teachers on the characteristics of effective professional learning communities (PLCs) at the high school level. Data were collected via survey and focus group interviews to answer questions regarding barriers high school PLCs face as well as what effective PLCs look like at the high school level. The survey population included 122 high school teachers currently involved in PLCs in one school district in the upstate of South Carolina. Survey questions were on a Likert scale that assessed three areas regarding the effectiveness of PLCs: critical elements, human resources, and structural conditions. Follow-up focus group interviews further investigated teacher perceptions on defining effective PLCs, contributions PLCs have on student achievement, and barriers to effective PLCs. The study was grounded in Knowles and Holton's (2005) and Drago-Severson's (2021) adult learning theories. Key findings in the study are in line with the current body of research on adult learning theories and the characteristics of effective PLCs (Drago-Severson, 2021; DuFour et al., 2016; Knowles & Holton, 2005). In order for PLCs to be effective, teachers shared the importance of proper structural conditions such as: accountability, time, and an agenda. They shared the desire to work collaboratively using data to drive instructional practices and work toward a common goal. They want to have a voice and a choice in what they do within the PLC. The findings of this study may contribute to empirical research on the effectiveness of PLCs as well as how to overcome specific

barriers that exist at the high school level.

*Keywords:* professional learning communities (PLCs), adult learning theory, PLC+, collaboration, high school PLCs

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## Chapter 1: Introduction

Prior to professional learning communities (PLCs), teachers worked in isolation. This resulted in individual thinking, decision-making, and learning in classrooms. It was each teacher's responsibility to determine proper instructional strategies, content, and assessment. Subsequently, teachers were analyzing these data on their own and making instructional decisions in isolation. This posed many difficulties for school leaders to determine the needs of teachers and provide effective support. PLCs first appeared in research in the 1960s and served as a way to counterbalance this isolated approach to education (Fisher et al., 2020).

In 1985, principal Richard DuFour set out to improve student achievement by implementing PLCs at Stevenson High School in Lincolnshire, Illinois (McLester, 2012). Only 3 years after implementation, DuFour noted a 30% decrease in the number of students who were making Ds or Fs in their classes and subsequently a 25% increase in the number of students who earned As or Bs (McLester, 2012). DuFour defined PLCs as a recursive process of collective inquiry and action research to increase student achievement (DuFour & Eaker, 2008).

Little (1987) reported that teachers benefited from the collaborative work of PLCs. She found that learning was enhanced by the collaborative commitment of teachers in a setting that promoted collaboration. Rosenholtz (1989) conducted a study of 1,213 teachers from 78 different schools. Rosenholtz argued, however, that collaboration does not happen by chance. Rather, collaborative norms should be set in place by the principal and upheld by teachers. Collaborative norms are said to be the product of intentional social engineering with a focus on school goals by principals who promote

teacher leadership and hold the belief that teachers can improve. Principals who promote teacher leadership should provide opportunities for collective teacher involvement in instructional decision-making (Rosenholtz, 1989). It is important to note that no evidence currently exists of instances where a school-wide PLC was created and sustained without effective leadership and proper monitoring for fidelity by the principal (DuFour et al., 2016). Thus, the role of the principal is essential in creating and sustaining effective PLCs.

Hord (2015) believed that the PLC, when implemented correctly, is “the most powerful structure and strategy for enhancing educators’ effectiveness and increasing students’ successful learning” (p. 38). PLCs typically consist of small groups of teachers who share a grade level or content area. In PLCs, teachers work together to improve professional practice and increase student achievement. Much research suggests that PLCs are effective in increasing student achievement. Effective PLCs have the potential to drive systemic change in schools that promote student achievement and improve teachers’ professional practice.

### **Statement of the Problem**

Historically, the PLC model gives schools a framework to build teacher capacity by which teachers can work collectively to meet the needs of all students. PLCs are cyclical in nature, as DuFour (2004) suggested that PLCs must center around four questions:

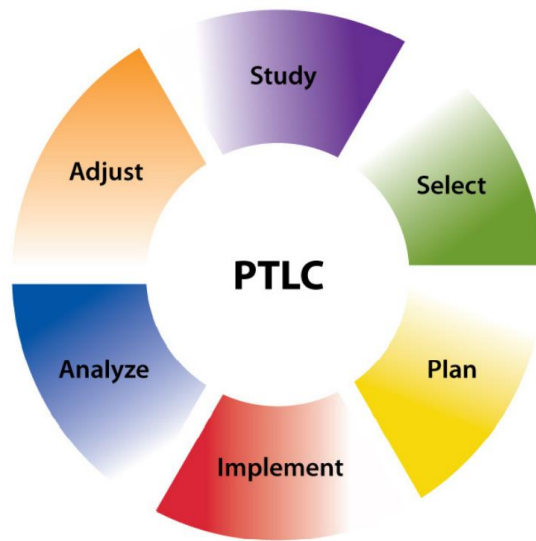
1. What do we expect our students to learn?
2. How will we know they have learned it?
3. How will we respond when some students do not learn?

4. How will we extend and enrich learning for students who have demonstrated proficiency?

Tobia (2007) discussed the Professional Teaching and Learning Cycle (see figure).

**Figure**

*Professional Teaching and Learning Cycle*



*Note.* Adapted from Tobia (2007).

Within Step 1, Tobia (2007) described that teachers should study (or unpack) the standards to fully understand the depth by which students will be assessed according to the standard. Teachers then select research-based teaching strategies they plan to utilize to teach the depth of the standard to their students. Within this step, teachers in the PLC agree upon assessment techniques. In the planning phase, teachers agree upon the student evidence that will be used later. In the implementation phase, teachers carry out the agreed-upon lesson within the agreed-upon time frame and collect the evidence to be analyzed and discussed. Teachers then revisit the unpacked standard and analyze a

sample of student work to determine what “meets” looks like so they can sort student work accordingly. Lastly, teachers discuss what worked and what did not during the adjustment phase. Also during this phase, teachers make collective decisions about next steps in regard to students who did not understand the material (Tobia, 2007).

In order for effective PLCs to take place, Eaker et al. (2002) described shifts that must occur in order for traditional high schools to transform into PLCs. These can be seen in detail in Table 1.

**Table 1***Traditional Schools Versus PLCs*

Traditional high schools	Professional learning communities
In regard to collaboration: <ul style="list-style-type: none"> <li>● Teacher isolation</li> </ul>	In regard to collaboration: <ul style="list-style-type: none"> <li>● Collaborative teams</li> </ul>
Mission statement is <ul style="list-style-type: none"> <li>● Typically, generic</li> <li>● Centers around brief statements</li> </ul>	Mission statements: <ul style="list-style-type: none"> <li>● clarify what students will learn,</li> <li>● address the question “How will we know what students are learning?”</li> <li>● clarify how the school will respond when students do not learn.</li> </ul>
Vision statements are <ul style="list-style-type: none"> <li>● average opinions</li> <li>● often ignored</li> <li>● developed by a few</li> </ul>	Vision statements are <ul style="list-style-type: none"> <li>● collaboratively shared</li> <li>● research-based</li> <li>● focused on essentials</li> <li>● used as a blueprint for improvement</li> </ul>
Goal statements are <ul style="list-style-type: none"> <li>● Random</li> <li>● Excessive in number</li> <li>● Focused on means rather than ends</li> <li>● Impossible to assess or measure</li> <li>● Not monitored</li> </ul>	Goal statements are <ul style="list-style-type: none"> <li>● Linked to vision</li> <li>● Few in number</li> <li>● Focused on desired outcome</li> <li>● Translated into measurable performance standards</li> <li>● Continuously monitored</li> <li>● Designed to produce short-term wins and also stretch aspirations.</li> </ul>
In regard to learning: <ul style="list-style-type: none"> <li>● Primarily focus on teaching.</li> </ul>	In regard to learning: <ul style="list-style-type: none"> <li>● Primarily focus on learning.</li> </ul>
In regard to curriculum: <ul style="list-style-type: none"> <li>● Each teacher decides what he or she will teach.</li> <li>● Curriculum overload is common</li> </ul>	In regard to curriculum: <ul style="list-style-type: none"> <li>● Curriculum is collaboratively agreed upon and is focused on what students are expected to learn.</li> <li>● Reduced content allows meaningful content to be taught in depth.</li> <li>● Assessment is collaboratively developed.</li> <li>● A plan for responding to students who are not learning is developed through collaboration.</li> </ul>

(continued)

Traditional high schools	Professional learning communities
<p>In regard to collective inquiry:</p> <ul style="list-style-type: none"> <li>• Decisions about improvement strategies are made by “averaging opinions.”</li> </ul>	<p>In regard to collective inquiry:</p> <ul style="list-style-type: none"> <li>• Decisions are research-based with collaborative teams of teachers who seek out “best practices.”</li> </ul>
<p>In regard to research and results:</p> <ul style="list-style-type: none"> <li>• Effectiveness of improvement strategies is externally validated. Teachers rely on others outside the school to identify what works.</li> <li>• Emphasis is placed on various approaches that teachers like.</li> </ul>	<p>In regard to research and results:</p> <ul style="list-style-type: none"> <li>• Approaches are internally validated. Teams of teachers try various approaches and collaborate on how the approaches affect student learning.</li> <li>• The effect on student learning is the primary basis for assessing various improvement strategies.</li> </ul>
<p>In regard to leadership:</p> <ul style="list-style-type: none"> <li>• Administrators are viewed as being in leadership positions while teachers are viewed as followers.</li> </ul>	<p>In regard to leadership:</p> <ul style="list-style-type: none"> <li>• Administrators are viewed as leaders of leaders. Teachers are viewed as transformational leaders.</li> </ul>

Traditional teaching in isolation must shift toward teachers working in collaborative teams. The school’s mission and vision should be co-created and based on measuring student learning, implementing systems of support, and used as a blueprint for improvement. The mission and vision should be the shared responsibility of the school, not the work of one or a few in the system. Each PLC should set one to two goals that are in line with the vision of the school. Goals should be both measurable and attainable with a monitoring system in place. There must be a shift in focus from what the teacher teaches to what the students actually learned. The scope and sequence of curriculum must be viable and agreed upon in PLCs. Teachers must begin to make decisions based on best practices rather than what is comfortable. There must be a sense of trust and reliability within the PLC so teachers can begin to take ownership of student learning as they try new strategies and discuss results with each other (Eaker et al., 2002).

PLCs have been established for decades. Many books, articles, and even

dissertations have been published, centered around the big idea of collaborative work and student assessment. Typically, such publications are focused on elementary or middle schools that have implemented PLCs. Rarely do these publications center around high schools. Harrington (2019) stated that “high school teachers have been teaching in silos, alone in their classroom solitudes. The standards and objectives are given and teachers, in turn, teach the way they were taught, assessing and planning without collaboration with other educators” (p. 1). According to DuFour (2004), even though there is compelling evidence that stipulates working collaboratively is best practice, teachers in many schools continue to work in isolation. Furthermore, in schools that claim to endorse the idea of collaboration, the willingness of staff often stops at the classroom door and teachers often equate the term “collaboration” with congeniality with a focus on building camaraderie (DuFour, 2004). Herein lies the problem: Constructive PLCs are difficult to implement and maintain at the high school level.

Many teachers have become accustomed to the privacy and autonomy to teach what they want and when they want (Levine, 2021). When teachers teach in isolation, they are making instructional decisions in isolation. They are assessing students in isolation. They are making decisions based on those assessments in isolation. It is difficult to close achievement gaps in isolation. A case study conducted in New York explored student achievement data from chemistry teacher isolation. The study compiled data from 895 public schools in New York, focusing on 2,321 chemistry teachers. Results indicated that more than half of the schools of study had isolated chemistry teachers, and students of those who were teaching in isolation performed lower than their counterparts (Padwa et al., 2019). Some teachers have deeper pedagogy than others. Some teachers



have a better understanding of the purpose of formative assessment than others. Some teachers are able to differentiate better than others. It just makes sense to break the isolation barriers and give teachers tools to enhance their craft. This requires a change in the mindsets of teachers.

Marzano et al. (2006) discussed two types of change that can guide principals when posed with the challenge of creating and sustaining PLCs. First-order change includes attempts to slightly shift and extend past efforts. The more challenging and transformative is second-order change models:

- perceived as a break with the past
- lies outside existing paradigms
- conflicts with prevailing values and norms
- requires the acquisition of new knowledge
- requires resources currently not available to those responsible for implementation
- may be resisted because only those who have a board perspective of the school see change as necessary (Marzano et al., 2006, p. 113)

With the end goal being for teachers to build on their professional practice and foster shared responsibility in helping all students move forward in their learning, teachers need the time, space, place, and framework to be able to work collaboratively within the contracted school day (Barber et al., 2020). A lack of scheduled time or insufficient use of minimal time scheduled are two common challenges for effective PLCs (Hairon et al., 2014).

Not only do teachers need the time, space, and place to meet collaboratively, but

they also need common goals. Cockerell (2008) suggested that teams seem to work better when they have a common goal. At the high school level, teachers often teach multiple subjects, and some teachers have no one to collaborate with as they are the only teacher in that content area. This poses another problem for the implementation of effective PLCs, as many PLCs are overly focused on content rather than skills (Hansen, 2015). Goals provide the “public acknowledgement” of the direction the PLC is taking (Fisher et al., 2020).

According to Peery (2011), educators often have difficulty in effective implementation, despite having various training and resources related to PLCs. There is a continuous need to discover new ways to help secondary teachers to find success in their practice of constructive PLC work. In general, secondary teachers tend to focus more on teaching the content rather than on student learning. Also, if they do not find value in the actual assessment, they tend to overlook the importance of data analysis (Peery, 2011).

### **Purpose**

For the past 6 years, the school district of study has journeyed through various styles of PLCs. One principal in the district tells her story. Beginning in 2016, the school district first introduced PLCs using the Solution Tree framework: PLC at Work. The following year, the school district launched a district-wide afterschool professional development session in which teachers would attend 2.5-hour monthly meetings. During these meetings, teachers and instructional coaches would discuss their PLCs and learn from Vagle (2015), author of *Design in Five*. In subsequent years, new groups of teachers, recommended by their principals on a voluntary basis, would be trained. Three cohorts of teachers have completed this training, and a fourth cohort is expected to begin

in the summer of 2021. Two years ago, teachers in the four core content areas began working with members of Core Collaborative to train and participate in the High Impact Teams Process. In retrospect, it seems the idea was for each school to send teacher leaders from each subject-specific PLC to be trained. While the district of study has provided multiple resources and professional development training sessions over the years, the secondary schools in the district have struggled to successfully implement and sustain PLCs.

In the PLC+ framework, the focus shifts from what students have and have not learned to the role the teacher plays in moving learning forward. One barrier principals face at the high school level is the number of subjects a teacher must teach. This is especially difficult at a smaller high school where it is less likely that one teacher will ever have one prep at any point within the school year. In the PLC+ framework, the idea of a common challenge is presented. Fisher is a teacher in a small high school, and he is the only teacher of his subject (Fisher et al., 2020). He is a firm believer in the common challenge, as it is not tied to content or standards (Fisher et al., 2020).

The PLC+ framework centers around five key questions:

1. Where are we going?
2. Where are we now?
3. How do we move learning forward?
4. What did we learn today?
5. Who benefited and who did not benefit?

PLC + includes a new component that authors claim is missing from past PLC structures. This component is what the “+” stands for: the teacher. “Examining instruction is now

part of the equation” (Fisher et al., 2020, p. 9). Researchers suggest that teachers need time to “reflect on current practices, determine whether quality experience has been provided for students, and then continue to learn about practices or strategies that would most likely further impact student learning” (Fisher et al., 2020, p. 9). There are also four cross-cutting and fundamental values that are the bones of the PLC+ framework. These are equity, high expectations, individual and collective efficacy, and activation. Another piece of the framework that sets PLC+ apart from other PLC structures is the role of the activator. According to the book, activators should not be administrators or even instructional coaches. Activators should be teachers who have been intentionally and specifically trained on how to be an effective activator. Each activator goes through a 2-day training with the authors of the book and is provided a copy of the *PLC+ Facilitation and Activator’s Guide* by Dave Nagel. The role of the activator is to move the conversation forward and to stay on task through proper protocols within the PLC+ structure when the group begins going astray.

The hope for the PLC+ model is that it “exemplifies the collective nature of teachers working together to talk about teaching and learning and then taking action as a result of those discussions” (Fisher et al., 2020, p. 27). Furthermore, discussions should center on research-based high-impact strategies. According to Fisher et al. (2020), the end goal of the PLC+ framework is to “create classrooms and schools where collaboration and collaborative expertise permeate the culture and climate” (p. 27). Subsequently, the hope is that the PLC+ framework will expose the learning component and create an environment in which teachers no longer teach in isolation and only share information but want to engage in new learning together (Fisher et al., 2020).

The purpose of this study was to examine the first-year implementation of the PLC+ framework for high school PLCs in the school district of study. PLC leaders from each PLC group and instructional coaches were trained prior to the implementation in the 2021-2022 school year. This was a first-year program evaluation of the PLC+ framework. The goal was to determine the effectiveness of the PLC+ framework in creating and sustaining constructive PLCs at the high school level.

### **Research Questions**

This case study was intended to provide answers to the following research questions:

1. How do high school teachers define effective PLCs?
2. How do high school PLCs contribute to increased student achievement?
3. What are the barriers to effective high school PLCs?
4. What components are needed to encourage effective PLCs?

### **Significance**

There are numerous publications by various authors who share expertise regarding PLCs. Unfortunately, little research exists surrounding the success of high school PLCs. Most authors and books focus on the successes of elementary and middle schools engaging in constructive PLCs. In most elementary schools, grade-level teachers share planning periods, meaning there is built-in time for teachers to collectively plan every day. Also, teachers teach the same subjects as their colleagues, making collaboration easier. School culture also plays a big factor in the success of PLCs at elementary and middle schools. Typically, elementary-level teachers desire to work collaboratively, while high school teachers tend to work in solitude. Due to the nature of

high school instruction and high stakes testing, teachers are often focused on covering the standards. Pair that with the fact that many high school teachers have multiple preps and are faced with various high stakes tests that require certain standards be covered, and time also becomes an issue to overcome.

The district of study was in the first year of the new PLC+ framework at the high school level. Since the PLC+ framework itself is fairly new, there have not been any studies conducted analyzing the effectiveness of this framework at the high school level. Therefore, it was important to conduct a case study to determine if this new framework helped high school PLCs function effectively. Furthermore, this case study analyzed components of effective PLCs at the high school level which helped both district and school leaders to navigate their PLCs to become effective, which has a positive impact on increased teacher capacity and student achievement.

### **Overview of Methodology**

A case study of methodology was used to conduct this study. I used survey data and followed the surveys with focus group interviews to gain a deeper understanding of the perceived effectiveness of PLC+ in a high school setting.

### **Setting**

The school district of study is a rural school district in the upstate of South Carolina. Currently, the school district of study consists of two high schools, three middle schools, and nine elementary schools along with a career center. The first high school of study is located in a city in the upstate of South Carolina. In 2021, it had an estimated population of 9,508, which is an increase of 15.7% since the last census in 2010. The median household income is \$79,187 with a poverty rate of 4.5%. The second high

school of study is located in a small town in the upstate of South Carolina. In 2020, it had an estimated population of 989 people with a 1.64% increase since the last census in 2010. The median household income is \$31,546, and the poverty rate is 29.3%. The demographics of each city/town are listed in Table 2.

**Table 2**

*Demographics Breakdown by Town*

Race	Town of High School 1	Town of High School 2
White	80.3%	79.0%
African American	12.8%	16.6%
Asian	3.4%	0.0%
Other	1.9%	2.33%
Two or more races	1.6%	2.0%

The school district of study launched its district-wide PLCs in the fall of 2015. Prior to the launch, administrators, instructional coaches, and select teachers were invited to participate in training sessions during the summer of 2015. The intent was for each PLC to be led by a teacher leader who had been trained. Due to various circumstances, many teachers could not attend the training, as it was held over the summer break. In fact, most groups did not have a teacher leader who was able to attend the training. For the past 4 years, the expectation has been that PLCs meet weekly in their content-specific groups; however, not all teacher leaders were initially trained in the PLC process. Also, most teach at least two different preps and some teach four classes without a planning period. Pair this with secondary teachers' content-driven nature, and this creates an environment that is not conducive to learning from one another. Constructive PLCs, in

general, have been difficult to implement and sustain at the high school level.

Elementary schools within the district that are adhering to the PLC process with fidelity are seeing student achievement gains in real time. This is even more reason to study how effective PLCs can be implemented and sustained at the high school level. A new PLC framework is being implemented in middle and high schools within the district of study; therefore, it is necessary to perform a case study on the new framework for secondary schools within the district.

### **Role of the Researcher**

I am currently an instructional math coach at one of two high schools within the district of study. Having been in the district of study for my entire career, I have witnessed the unfolding of PLCs from the start. Recently, I have received training in the PLC+ framework and have begun a book study on the PLC+ framework with the lead teachers in the district. Intricately involved in the PLC process, I work closely with both building-level administration and district-level administration. I work with the other instructional coaches in the district to lead professional development throughout the district.

### **Definitions**

#### ***Activator***

A trained PLC+ member who drives the conversation and direction of the PLC+ such that they stay the course and remain productive and on topic throughout the duration of the PLC+; this person not only facilitates the group, but adds ideas, asks questions, notices nonverbal cues, and helps the team make decisions.



***Collaboration***

The collective effort of teachers working together to help all students progress in their learning.

***Collective Efficacy***

The collective belief in one another within a PLC+ that all students can learn; the foundation for effective PLCs; is built on the following: mastery experiences, collective learning from models, social persuasion, and affective state (Fisher et al., 2020).

***Common Challenge***

Agreed upon goal by the whole PLC+ group that must do the following four things: be grounded in evidence gathered during the “where are we now?” phase, be observable and actionable, make a significant difference in student learning, and mobilize and motivate teachers to engage in the work required to meet the goals they have for themselves and their students (Fisher et al., 2020).

***Competence***

One component of teacher credibility by which teachers have an appropriate level of expertise in their content area.

***Content Learning Intentions***

What students are expected to learn; relates directly to the skills, knowledge, and content presented in the standards (Fisher et al., 2020).

***Credibility***

“Belief held by students that they will learn from this adult because this adult is competent, trustworthy, dynamic, and responsive” (Fisher et al., 2020, p. 15).

***Dynamism***

One aspect of teacher credibility by which the teacher possesses a level of passion in regard to their content; “the ability to communicate your enthusiasm for your subject and your students” (Fisher et al., 2020, p. 17).

***Equity***

The goal of the PLC+ is to keep the equity of access and opportunity for learning at the forefront of each collaborative team meeting (Fisher et al., 2020).

***Immediacy***

One aspect of teacher credibility by which students perceive the teacher as accessible and reliable; the ability to “communicate a sense of urgency in the lesson that signals to the students that their learning is important” (Fisher et al., 2020, p. 17).

***Initial Assessments.***

Given to students prior to new learning that will assess what they already know to help teachers determine what material they need to cover.

***Language Learning Intentions***

“Provide a venue for us to lay out the language demands of the day...not limited to verbal communication and can include written communication or verbal representations of thinking across all content areas” (Fisher et al., 2020, p. 44).

***Learning Progression***

Logical order of what students are expected to know, understand, and be able to do according to the unpacked standard(s).

***Self-Efficacy***

Belief in oneself to achieve goals.

### ***Social Learning Intentions***

“Allow teachers to develop and leverage social or social-emotional learning outcomes within their classroom culture” (Fisher et al., 2020, p. 44).

### ***Success Criteria***

“Evidence that students are expected to produce that will make their learning progress visible” (Fisher et al., 2020, p. 46). It can be teacher constructed or co-constructed with students

### ***Teacher Clarity***

Teacher ability to understand learning intentions (what is to be learned from the lesson) and a shared understanding of success criteria between students and teachers.

### ***Trust***

One component of teacher credibility by which students believe the teacher has their best interest at heart through relationship building.

### ***Unpacking Standards***

Identifying the nouns and verbs within a standard to make sense of the expectation of the standard.

### **Summary**

Much research exists regarding the success of constructive PLCs at the elementary and middle school levels. Very little research exists regarding establishing and sustaining constructive PLCs at the high school level. Fisher et al. (2020) published the book *PLC+* less than 3 years ago, meaning this particular PLC framework is fairly new. Since the school district of study is implementing PLC+ into all middle and high school schools in the district, it is noted that this research will be significant and

groundbreaking. A case study methodology will be used to investigate the effectiveness of the PLC+ model. This would be a first-year evaluation of the PLC+ framework.

## **Chapter 2: Literature Review**

### **Overview**

PLCs have been around for decades, and much research is formed around the effectiveness of PLCs. The PLC model requires a common time for teachers to unpack standards, develop success criteria and learning intentions, create common assessments, analyze data, and make decisions based on that data (DuFour, 2004). While finding a common time in the master schedule is relatively easy at the elementary and even the middle school level, this poses an issue at the high school level.

This literature review focuses on how effective PLCs can incorporate adult learning theories espoused by Knowles and Holton (2005) and Drago-Severson (2021). The literature review begins with the background of PLCs and moves to adult learning theory focused on the six assumptions of andragogy by Knowles and Holton and the four pillars of adult learning and expands on the components of effective PLCs under the PLC+ framework.

### **Background of PLCs**

The term PLC has become so loosely phrased to describe practically any grouping of individuals who share a common educational interest (DuFour et al., 2016). Thus, it is important to understand the intended meaning behind PLC when described in this study. PLCs are purposeful entities that center around the best instructional practices, as well as specific connections to the daily work of the teacher in their classroom teaching young adults with individual needs (Mesa & Pringle, 2019). DuFour is considered the PLC guru. DuFour (2004) described a common situation that occurs in schools where teachers teach a unit of study to the best of their abilities and some students get it, while others do not.

While responses and reactions vary widely among teachers, one common theme emerges; a lack of congruence in two aspects: the commitment to all students learning the material and the response to those students who do not understand (DuFour, 2004). In a PLC, there are both negotiable and nonnegotiable elements. For instance, teachers should collectively make decisions on what to teach, the order in which they will teach, assessments that will be used to improve instruction and student learning, how they will assess student work, their agreed-upon team norms, and the goals for their PLC (DuFour et al., 2016). Teachers have the autonomy to make these decisions within their PLC; thus, these are considered negotiables. In order for a PLC to be effective, DuFour et al. (2016) described elements that all members must adhere to:

1. Educators work together – not in isolation – and take collective responsibility for students to learn the material.
2. Members of the PLC are mutually responsible for working together to meet a common goal.
3. The team establishes a common pacing guide and adheres to that guide to ensure all students have the same opportunity to learn.
4. The team develops common formative assessments (CFAs) to gauge student learning and make instructional decisions.
5. The school has a system of interventions to ensure that struggling students have opportunities to receive additional support and advanced students have opportunities to enrich their learning.
6. The team uses student learning to verify and advise the individual and collective practice of the PLC.

To ensure school-based PLCs are effective, DuFour (2004) suggested that they center around three main concepts: making sure all students learn, a collaborative culture, and a focus on learning outcomes. PLCs should focus on the following questions:

1. What do we want each student to learn?
2. How will we know when each student has learned it?
3. How will we respond when a student experiences difficulty in learning?

(DuFour, 2004).

4. How will we provide extended learning opportunities for those who do not understand the material? (DuFour & Reeves 2016).

The most effective interventions utilize thorough, systemic, focused, and immediate or small-group instruction (DuFour & Reeves, 2016).

The term PLC is used loosely in the education field. While most schools claim to embody the PLC process, DuFour and Reeves (2016) emphasized the importance of implementing and sustaining a true PLC process. “While there is no universally accepted protocol for initiating a PLC, there is a consensus among educators that PLCs should emerge in response to the common vision of improving student learning” (Mesa & Pringle, 2019, pp. 6-7). A typical department meeting shifts to an actual PLC when teachers shift their focus to include the learning needs of students among various subgroups (Mesa & Pringle, 2019). For educators to be working in a true PLC, they must embrace the following:

- collaboratively take ownership of student learning;
- agree upon a guaranteed and practical curriculum that specifies the knowledge, skills, and learning progression students are expected to learn in

each unit;

- implement an assessment process that includes continual, co-created CFAs; and
- use the outcomes of CFAs to make instructional decisions:
  - discover students who do not yet understand;
  - identify students who do understand and need enrichment;
  - recognize areas of personal strengths or weaknesses in teaching strategies based on individual student outcomes and make data-driven decisions; and
  - discover and address areas where no team member was able to help students reach desired learning outcomes (DuFour & Reeves, 2016).

The initial stages of implementing an authentic PLC will lay the foundation for creating an environment where teachers can talk about and explore their teaching practices by sharing and reflecting on ideas in a safe space (Fataar & Feldman, 2016). Fataar and Feldman (2016) also described the importance of facilitators within the PLC whose role is “to support and assist the conversations to progress productively by situating the teachers’ adaptation in a dialogue that centered on the perplexity of the teachers’ pedagogical change” (p. 99). In forming a new PLC, teachers sometimes have trouble getting past discussing what is not working and tend to focus more on behavior management rather than instructional strategies; therefore, a facilitator could be used to reign in the conversation and keep the conversation focused.

In order for teachers to identify those who do and do not understand the material, both teachers and students need to be clear in their learning intentions. In Hattie’s (2017) updated list of factors influencing student achievement, teacher clarity ranks in the top



three impacts teachers can make on learning, along with teacher estimates of student achievement and microteaching. Teacher clarity, according to Hattie's research on what influences student learning, "remains one of the most robust instructional practices" (Fisher et al., 2017, p. 26). Teacher clarity is beneficial for both teachers and students, as "students seem more engaged and directed with their learning when they know why they are doing it" (Forster, 2016, p. 21).

Not only should PLCs provide teacher clarity, but they should also help build teacher efficacy. According to Hattie (2017), collective teacher efficacy has the greatest effect on student learning – even higher than factors like teacher-student relationships, home environment, or parental involvement. PLCs should be structured to provide protected time within the school day for teachers to be able to discuss, plan, and implement instructional learning strategies (DuFour et al., 2016).

### **Adult Learning Theory**

Andragogy, by definition, is "the art of science and helping adults learn" (Merriam, 2001, p. 5). Andragogy theory states that adults learn best when the new learning is relevant and it will directly impact their work (Merriam, 2001). Self-direction, learner-centeredness, and reflection are critical components of adult learning theory (Knowles & Holton, 2005).

### **Six Assumptions of Andragogy**

#### ***Learner's Need to Know***

Knowles and Holton (2005) explained that adults need to know the purpose of learning something prior to learning it. Adults need to weigh the benefits of learning against the consequences of failing to learn. This is particularly important for facilitators

of learning to know and understand. Since adults typically manage other aspects of their own lives, it is logical that they should be capable of being self-directed (or at least able to assist) in their own learning (Merriam, 2001). Thus, there are some tools for facilitators to help satisfy the adult learners' need to know. These include but are not limited to job-embedded appraisal systems, rotation of jobs, sharing expectations for performance, and subjection to role models (Knowles & Holton, 2005). Any way the facilitator can show the adult the value of learning is high will be of benefit under this assumption. Whether it is improving the outcomes of student learning or simply the quality of life, understanding the adult learner's need to know will affect how adults receive new information (Knowles & Holton, 2005).

In a study aimed at providing collaboration for principals, one assistant superintendent, an innovative adult learning coordinator, and an instructional coordinator from Chicago sought to provide a leadership coaching cohort for both school- and district-level administrators (Axelsen et al., 2019). The group of administrators met four times in person and an additional three to six times virtually with their partner throughout the school year. The goal was to reflect on and grow in their practice. As difficulties arose in meeting in person over the summer, one colleague shared a free app that would allow participants to have a discussion in a flexible manner. Administrators could leave a message that could be heard either live or at a later time with the click of a button (Axelsen et al., 2019). As administrators climb the hierarchical ladder, collaboration becomes more difficult due to time constraints and the lack of staff on hand with whom to share ideas. Since administrators typically have few colleagues to collaborate with, they are more likely to want to participate, as they need to know other administrators.

Thus, this study aligns well with Knowles and Holton's (2005) assumption that learners need to know. Participants were willing to collaborate with one another because they often do not have others to collaborate with, and being able to reach out to someone in their same position can offer a great deal of knowledge and experience to share.

### *Learner's Self-Concept*

Knowles and Holton (2005) explained that adults understand that they are accountable for their own decisions, and they have an emotional need to be treated by others as capable of self-direction. Adults do have control over a vast number of day-to-day decisions (Merriam & Bierema, 2013). Thus, adults tend to resist change or new learning when it is forced on them (Knowles & Holton, 2005). In typical training situations that are geared for whole groups without choice, adults tend to equate themselves with students in a classroom, which poses a threat to their understanding and self-concept. When adults enter a mandatory training session, they tend to revert back to their school-age years and insist on being taught (Merriam & Bierema, 2013). According to Knowles and Holton, this contradicts a psychological part of adult learning, as adults need to be independent in their own learning. Adults have a desire for control and choice in how they want to learn, much like students (Muñoz et al., 2018). Oftentimes, best practice for student learning aligns with best practice for adult learning. Facilitators of adult learning need to understand the need for adults to be autonomous in how and what they learn.

In a study that aimed to investigate both the goal orientations and self-regulation of learning in both adult and traditional learners, Lin and Wang (2018) analyzed a total of 469 learners, where 220 participants were identified as traditional and 234 were identified

as adult learners. This study aligned with Knowles's six assumptions of andragogy, as results suggest that adult learners are more mastery approach goal-oriented than traditional learners who are more apt to learn simply to avoid appearing like they lack the knowledge to be considered competent by their peers (Knowles & Holton, 2005; Lin & Wang, 2018). The findings of this study suggest that adult learners desire to seek or apply knowledge, whereas traditional students have a strong interest in appearing competent, which drives their learning (Lin & Wang, 2018). In facilitating adult learning, this is important to understand, as adults are intrinsically motivated and therefore desire self-direction and control over their learning.

### ***Role of the Educator's Experience***

Adult learners bring their personal experiences with them; this includes their preferences, interests, and backgrounds (Muñoz et al., 2018). For this reason, it is important to note and understand that adults approach new learning differently than youth (Knowles & Holton, 2005). Much of this is due to the level of experience adults have encountered, for which there are several consequences for adult education. First, for any large group of adults, a wide range of differences will exist – much greater than if it were a group of youth (Knowles & Holton, 2005). Thus, they will come to the new learning with differentiated backgrounds, motivations, needs, and interests (Knowles & Holton, 2005). Facilitators should be aware of these differences and be prepared to meet the needs of all adult learners. Another consequence due to a wide variety of experiences is that many times adults possess the knowledge but lack the application. They need opportunities to collaborate with each other where they can participate in group discussions and problem-solving activities with like-minded colleagues (Knowles &

Holton, 2005; Muñoz et al., 2018). In most cases, adults need opportunities to collaborate with other adults to build on their experience and expertise. Whole-group professional development and training sessions tend to be more scripted and less supportive, which can become a barrier for adult learners (Newberry et al., 2018). For adults, experience is not just something that happens to them, it is who they are (Knowles & Holton, 2005; Merriam & Bierema, 2013). Thus, facilitators should shy away from ignoring or devaluing any experiences adults share (Knowles & Holton, 2005). In fact, ignoring life experiences that adults have accumulated over time will devalue their independent self-concept – Knowles and Holton’s (2005) first assumption (Merriam & Bierema, 2013). Rather, they should embody them; they should get to know their adult learners and appreciate diversity. “The discerning facilitator fosters an exchange of knowledge and uses it as a springboard to greater understanding” (Muñoz et al., 2018, p. 75).

In one particular study, the interactions between two middle school teachers were studied in hopes of discovering ways to create supportive and trusting relationships (Newberry et al., 2018). These two teachers were placed into a mentoring relationship, and the aim of this study was to discover ways teachers can move from a working relationship to one that embodies social, emotional, and professional support (Newberry et al., 2018). The two participants of this study had little interaction with each other before they participated in this study. For 14 weeks, the two participants met for a total of seven mentoring sessions after hours following a specific protocol (Newberry et al., 2018). Three interactional dimensions of change emerged: vulnerability, validation, and intersubjectivity; which shows that they needed opportunities to be vulnerable with each other by showing their true identity to validate each other in their practices and to

experience true collaboration. These two teachers first had to establish a personal relationship before they could impact each other on a professional level (Newberry et al., 2018).

### ***Readiness to Learn***

Under this premise lies the idea that timing is essential in understanding developmental readiness in adult learning. Timing is key in linking learning experiences with developmental tasks (Knowles & Holton, 2005). It is important to understand that adult learning is not one-size-fits-all. Much like student learning, adult learning should be individualized to fulfill the individual needs of each learner. Even though every adult learner might not be ready for learning to occur, Knowles and Holton (2005) shared that it is not necessary to sit and wait passively. Instead, they share some ways to help adult learners increase their readiness. Since much of adult learning is focused on preparation for the future and related to the current social roles of the adult, it is important to understand that these roles create teachable moments (Merriam & Bierema, 2013). These include observing models of high-quality career exploration and hands-on experiences among other techniques (Knowles & Holton, 2005). Whenever possible, rearrange the learning space so learners face one another. This will send the message that everyone contributes to the learning process (Muñoz et al., 2018).

### ***Orientation to Learning***

While subject-centered orientation is necessary for children and adolescents, adults need to approach learning through the lens of real-world problems. In order for adults to learn, they must be able to relate the new learning to a problem or task at hand. “Adults are motivated to learn to the extent that they perceive that learning will help them

perform tasks or deal with problems that they confront in their life situations” (Knowles & Holton, 2005, p. 67). Basically, adults are motivated to learn when they are presented with an immediate problem to solve (Merriam & Bierema, 2013). As a facilitator of adult learning, it is important to understand the approach the adult learner must have to new learning; that is, the approach of adults to new learning within the real-world context. Generally, adults do not learn for the sake of learning a new subject (Merriam & Bierema, 2013). They need to align their learning with purpose – a purpose that will help them navigate their tasks and problems. In the case of providing a platform for collaboration between administrators in Chicago (as already discussed), the reality is that administrators do not have a large selection of close-proximity individuals to collaborate with and they often do not have much time outside of their workday to participate in said collaboration (Axelsen et al., 2019).

Much like the two teachers who were assigned to be in a mentoring relationship (Newberry et al., 2018), teachers often do not take the time to get to know other teachers without understanding how they can help each other out or without being placed into that relationship. Oftentimes, teachers tend to focus inward on their own classrooms and students (Newberry et al., 2018). It is easy to avoid getting to know other colleagues. Thus, participants found purpose in participating in the cohort as their learning and experiences aligned with their real-world experiences.

### ***Motivation***

There are some external motivators that are believed to affect adult learning, such as “better jobs, promotions, higher salaries and the like” (Knowles & Holton, 2005, p. 68). However, the argument is that adults learn best when motivations come from within

themselves (Knowles & Holton, 2005). Muñoz et al. (2018) suggested that adults are self-sufficient and autonomous in their lives, and they strive to control their own learning; this includes what they learn and how they learn. Giving adults the choice in what and how they will learn will intrinsically motivate them (Knowles & Holton, 2005). If adults can see why something is important for them to learn prior to the learning, they are more apt to be intrinsically motivated to participate in that learning (Merriam & Bierema, 2013).

### **Four Pillars of Adult Learning Theory**

Drago-Severson (2021) shared her adult learning theory model, which emerged from her research in 2008. She described the growth of adults as “transformational learning.” This theory is based on Robert Kegan’s constructive-developmental theory, which is founded on two fundamental premises:

We actively make sense of our experiences (constructivism); and the ways we make meaning of our experiences can change - grow more complex - over time (developmentalism). A person’s way of knowing shapes how she understands her role and responsibilities as a teacher, leader, and learner, and how she thinks about what makes a good teacher, what makes a good leader, and what constitutes effective teaching practice. (Drago-Severson, 2021, p. 61)

Drago-Severson (2021) shared that in order to understand how each adult develops, we must also understand the different ways that people come to know. She shared the three most common approaches in which people can come to know: the instrumental way of knowing, the socializing way of knowing, and the self-authoring way of knowing (Drago-Severson, 2021).

Those who have the instrumental way of knowing have a very real approach to



life. In learning new ideas, these people often hold the perspective of “what do you have that can help me” and “what do I have that can help you?” (Drago-Severson, 2021).

Instrumental knowers often feel supported when they are provided with explicit instructions so they can fulfill their own learning intentions (Drago-Severson, 2021).

Those who understand through a socializing way of knowing are very prone to reflective practices. They have the ability to think outside of the box and to consider other people's feelings, expectations, and opinions (Drago-Severson, 2021). Oftentimes, socializing knowers will put other people's desires in front of their own. While they are most concerned with others' feelings, judgments, and opinions, they often struggle when interpersonal conflict arises. The approval and acceptance of others are forefront in socializing knowers' minds (Drago-Severson, 2021).

Those with the self-authoring way of knowing are able to create their own value system by which they are able to take ownership. They are strong at assessing others' expectations while comparing them to their own. They have the capacity to reflect and manage relationships; however, they often struggle when faced with completely opposing views (Drago-Severson, 2021). People who hold this way of knowing are very passionate about their points of view as they have taken a great amount of time to compare their own expectations with the expectations of others and feel that they have a sufficient strategy.

In Drago-Severson's (2021) research that coined the four pillars for adult learning, she explored how 25 principals from different schools in the United States are able to create positive school climates and utilize practices that support teacher growth. She found that principals used four practices to support teacher growth: teaming, providing leadership roles, collegial inquiry, and mentoring (Drago-Severson, 2021).

### ***Teaming***

Teaming allows teachers to question not only their own thinking, but that of their colleagues regarding teaching and learning philosophies and processes of leadership while providing opportunities for reflection and collaboration (Drago-Severson et al., 2013). Teaming allows the time and space for educators to learn from each other and to consider other perspectives. Characteristics of PLCs share the same opportunities for teachers as Drago-Severson's idea of teaming. PLCs offer the time and space for teachers to analyze student data, learn strategies from each other, and make real-time decisions on that data to move student learning forward. PLCs share the same ideas of teaming with respect to collaboration and reflection. It is important to note that teachers who approach learning in different ways will experience teaming differently (Drago-Severson et al., 2013). Understanding the different ways of knowing will help leaders know appropriate ways to both support and challenge their teachers through teaming. Providing various opportunities for teaming to teachers will help to establish trust and connections (Drago-Severson et al., 2013).

### ***Providing Leadership Roles to Adults***

This practice is understood by principals as inviting teachers to share both responsibility and authority in making decisions in order to promote change and build capacity within the school (Drago-Severson, 2021). Harris and DeFlaminis (2016) indicated that the effectiveness of distributed leadership is based on the emphasis of leadership as practice rather than a defining role as well as interactions rather than initial actions.

A study conducted by Liu et al. (2020) focused on 200 schools, selecting 20

teachers at random. Data were analyzed from both the perspectives of teachers and the principal through questionnaires. Distributed leadership had a positive indirect effect on teacher job satisfaction through collaboration, a school culture, and teacher self-efficacy (Liu et al., 2020). Therefore, implementing a distributive leadership approach that engages teachers should have a positive effect on teacher satisfaction with their careers (Liu et al., 2020)

Drago-Severson et al. (2013) mentioned the importance of providing scaffolded support to those who hold instrumental and socializing ways of knowing as assuming an authoritative role might be initially intimidating, while those who hold a self-authoring approach to learning might appreciate the opportunity. Demerath (2018) focused on examining the improvement culture of one high school in the United States by analyzing the last 3 years of ethnographic data. This research was a part of a 5-year evaluation study of school improvement efforts (Demerath, 2018). Observation, interviews, and documentary data were analyzed (Demerath, 2018). Among findings, the school's emotional culture was related to school leadership, by which the principal believed that in order to build true collaboration, teachers must begin sharing ownership of student learning (Demerath, 2018). The leadership model the principal implemented in the school was a distributive leadership model composed of eight distinct groups (Demerath, 2018). Teachers reported that their leadership was valued by the school (Demerath, 2018). When the principal was asked "what is it in your leadership that really builds collaborative culture, he responded, getting others to lead" (Demerath, 2018, p. 496). Thus, providing leadership roles to teachers plays a key role in instructional improvement and the culture of the school as a whole (Demerath, 2018).

### *Collegial Inquiry*

In order for colleagues to feel comfortable in sharing thoughts and ideas, trust must be established and the environment must be considered safe. Drago-Severson et al. (2013) described collegial inquiry as both a practice and a process, indicating that the more one engages in collegial inquiry, the more our awareness of beliefs, values, and assumptions grows. Depending on one's way of knowing, educators can expect to engage and experience collegial inquiry differently (Drago-Severson, 2021). One example of this is the way different people perceive feedback. Those who have an instrumental way of knowing might perceive feedback from a supervisor as right or wrong, whereas those who have a self-authoring way of knowing are able to weigh the feedback of their supervisor against that of their own to determine whether or not to implement suggestions (Drago-Severson et al., 2013).

The following are examples of collegial inquiry:

- independently indicating in writing a response to probing questions, followed by conversation
- collaborating in the process of setting goals and assessing with others
- responding to questions related to a school's mission and instructional practices
- reflecting collectively in settling disputes (Drago-Severson, 2021, p. 62)

Each of these examples provides a way for educators and colleagues to reflect, discuss, and respond collectively. This correlates well with collaborative inquiry, which takes place in a well-established PLC.

As a part of an ongoing case study of five schools in three different communities,

Carpenter (2017) explored the collaborative inquiry process in well-established PLCs where he asked questions regarding what collaboration looks like, to what extent did teachers participate in the collaborative inquiry process, and what had to take place for effective collaborative inquiry to occur. Using qualitative methodology and 60 participants in total, Carpenter set out to determine what teaching and learning transformations occurred from the collaborative inquiry process. Carpenter wanted to know precisely what educators do in an effective PLC that may lead to innovative teaching practices. He looked at perceptions and practices of actual experiences of PLC members participating in the collaborative inquiry process (Carpenter, 2017).

In regard to the structure of collaboration within PLCs, Carpenter (2017) found that the structure of some PLCs was provided by the administration through a crafted agenda, some were crafted by the teachers within the PLCs, and some had no structure at all. Educators were able to collaborate more effectively when they had developed their own agenda rather than being handed one by administrators. Furthermore, schools that had participated in PLCs by allowing teachers to construct their own agendas also had an inquiry structure instituted by teachers (Carpenter, 2017). Teachers who participated in PLCs where they had little to no say in what they were doing were resentful of those who did not participate and felt like the agenda was more of a checkoff list rather than an opportunity to collaborate (Carpenter, 2017). With regard to how teachers participate in the collaborative inquiry cycle, Carpenter, through interviews and observations, uncovered a common theme of “use of data” (p. 1077). All schools participated in the first step of collaborative inquiry, which was to analyze student achievement data.

Carpenter (2017) found that educators must be able to direct themselves in their

learning in PLCs, participate in the collaborative inquiry process, and appreciate learning to learn. Part of this study was to determine how learning takes place in PLCs. This aligns with Knowles's assumptions of learning that adults need to have a self-concept of their learning, must be ready to learn, and must have an orientation to their learning (Knowles & Holton, 2005).

### ***Mentoring***

Mentoring can take many forms including but not limited to pairing new teachers with more experienced ones, pairing teachers with a deep understanding of the mission and vision with other teachers, and even group mentoring (Drago-Severson, 2021). Principals involved in the study shared the importance of considering the fit between both the mentor and mentee in establishing a mentor relationship (Drago-Severson, 2021). “This practice creates a context for broadening perspectives, examining assumptions, and sharing expertise” (Drago-Severson et al., 2013, p. 40). Basically, mentorship is an opportunity for both colleagues to learn from each other. Both the mentee and the mentor have equal opportunities to broaden their perspectives and examine their personal assumptions, which will lead to growth on both sides of the mentoring relationship. Much like the other three pillar practices, different people with varying ways of knowing will experience this practice differently (Drago-Severson, 2021). It is important to understand, then, how each type of person will need support in their learning.

A study conducted by Charner-Laird et al. (2016) focused on 17 new teachers’ experiences of interactions with their colleagues in their first year of teaching. This was a longitudinal qualitative study by which they were asked a series of questions in two separate interviews: one right after graduation and the other after their first year of

teaching. Results from the first survey indicated that most wanted to find jobs where they could collaborate with their colleagues (Charner-Laird et al., 2016). The next set of questions that were asked after their first year of teaching centered around the question, “How do 17 first-year teachers describe the collegial supports they received in their first year of teaching?” (Charner-Laird et al., 2016, p. 4). Results indicate that most first-year teachers did not have opportunities to engage in collaborative practices such as evaluating and critiquing their techniques. Furthermore, there was only one teacher who experienced a higher level of critical dialogue as mentioned in this study. This teacher shared an experience in which he described a shared responsibility of teaching. His input was valued, and he was a part of a team (Charner-Laird et al., 2016).

This study was based on Little’s (1990) four forms of collaboration: storytelling and scanning for ideas, aid and assistance, sharing, and working jointly. When teachers engage in storytelling and scanning for ideas, they share experiences, collect data, and foster friendships (Little, 1990). When teachers independently seek out advice from one another, they are engaged in aiding and assisting. Oftentimes, this does not allow teachers the opportunity to discuss these ideas (Little, 1990). Trading ideas and materials is an example of sharing. The final form of collaboration is joining work. When teachers are engaging in joint work, they are sharing the responsibility of the work. They have collaborative commitments. According to Little (1990), joint work is inherently interdependent. While teacher responses from the second interview cover the continuum of collegial supports, only a few teachers reported that they were engaged in critically evaluating student learning with their colleagues. Since they did not seem to meet the mark of Little’s (1990) joint work, Charner-Laird et al. (2016) coined the term critical

dialogue, as these instances did not seem to contribute to shared accountability.

Among the collegial interactions the 17 teachers experienced, four teachers reported that they experienced isolation from their colleagues (Charner-Laird et al., 2016). Most teachers reported that they experienced aid and assistance at least one time throughout the school year. Many of the teachers in the survey reported at least one interaction with colleagues that fell under Little's (1990) term sharing. Three teachers reported experiences that fell under critical dialogue, and there was only one who reported shared accountability, which is moving toward what Little (1990) described as joint work. Charner-Laird et al. (2016) shared that in-depth collaboration can play a huge role in achieving goals for improvement by which all teachers and students will stand to benefit.

The main idea behind PLCs is for adults to learn and grow both individually and collectively. In order for adults to learn, it is important to understand how adults come to learn; to come to know new things. Thus, it is important to know and understand adult learning theory. Drago-Severson's (2021) four pillar practices and Knowles's six assumptions (Knowles & Holton, 2005) should be taken into consideration when planning new experiences under the PLC umbrella. Most importantly, it is inherent to share with others the varying ways of knowing and to create a safe environment in which educators can feel comfortable sharing.

### **Characteristics of Effective PLCs**

There are six vital characteristics of an effective PLC:

- shared mission, vision, and goals
- collaborative teams



- collective inquiry
- action orientation and experimentation
- commitment to continuous improvement
- results orientation (DuFour et al., 2016)

### ***Shared Mission, Vision, and Values***

For a PLC to be effective, members must agree upon a shared mission and vision; they have to know what it is they want to accomplish together and why they desire that outcome. Of course, this shared mission and vision must center around student learning. Hord (2015) explained that the actions and conversations of group members are grounded in the mission and vision of the PLC. For a mission truly to be shared by the members of a PLC, it must be co-created (Dufour et al., 2016). In order for the mission of the school to be co-created, the leaders of the school should first work with a small group of teachers based on their influence with other teachers – called a core group (Dufour et al., 2016; Graham & Ferriter, 2010). Establishing a clear vision is critical to the development of an effective PLC; in fact, every PLC should start with an agreed-upon vision (Graham & Ferriter, 2010). When educators in a PLC collectively develop a shared vision of the culture they are working together to try to create, they gain clarity and a sense of purpose. Bloomberg and Pitchford (2016) shared that the first step toward effective teaming is to first identify the purpose (the why) and then identify the shared beliefs of team members. It is evident that research suggests the importance of PLCs to first determine their shared mission and vision.

Easton (2016) stated that strategic accountability is the criteria that distinguishes effective PLCs from ineffective PLCs. Easton emphasized that this accountability must

come from within the PLC and be tied to the district's mission and vision. The model of strategic accountability includes formal, informal, and ultimate accountability. Informal accountability includes norms, self-assessment, and reflection. Formal accountability includes sharing results with other teams or the whole school using compelling evidence and artifacts (Easton, 2016). The ultimate accountability is student achievement data. Easton emphasized the importance for educators to relentlessly strive for ultimate accountability, however noting that sometimes improvement in student data takes time.

Friedman (2021) conducted a study to determine what sets high-performing teams apart. He surveyed 1,106 office workers in the United States by which they rated the effectiveness of their teams and compared their team's performance to others (Friedman, 2021). He found five key characteristics that highlight the desire to feel connected to others on the team. Of those, one was that high-performing teams are more strategic with their meetings, showing that they were 39% more likely to require pre-work from participants, 26% more likely to introduce an agenda, and 55% more likely to begin with a check-in with team members (Friedman, 2021). While research suggests that autonomy is essential in building a high-performing team, it is important to note that there is a need for strategic accountability to ensure that teams are productive (Easton, 2016; Friedman, 2021).

### ***Collaborative Teams***

Collaboration is working and learning together to generate new ideas, problem solve, and collectively improve pedagogy and practice (Bloomberg & Pitchford, 2016). Once a shared mission and vision is established, members of a PLC work together interdependently toward a common goal. For true collaboration to exist, trust must first

be established. Graham and Ferriter (2010) shared that when PLC members are not willing to be vulnerable and have honest conversations with each other, PLC time is wasted; there is not much that can be accomplished. Dufour et al. (2016) argued that the question should not be “Are PLCs collaborating,” but “What are they collaborating about?” Furthermore, Dufour et al. went on to share that effective PLCs focus on their commitment to helping all students move forward in their learning by ensuring that they are focused on the four questions that should drive the nature of the work for PLCs.

Surette (2020) sought to address research gaps regarding early career teachers and career changers in the realm of mentorship and PLCs. The study explored the perceptions of the experiences of science and mathematics teachers with their mentors and PLCs. The cohort was made up of eight early-career secondary math teachers, five of whom were considered career changers. The question of the study surrounded how the professional practices of early-career science and mathematics teachers are impacted by the interactions with both mentors and PLCs. Using a qualitative research approach over a 4-month period of time, Surette sought to understand the experiences of participants as they interact with mentors and navigate PLCs through a semi-structured interview process. Teachers were given pseudonym names, and a topological analysis was performed utilizing predetermined codes (Surette, 2020).

With regard to professional communities within schools, several participants described high levels of interaction with group members (Surette, 2020). These group members were other teachers with similar content-area expertise or those who taught many of the same students (Surette, 2020). These school-based professional communities met during common planning time, over lunch, or during another time

within the school day. It was evident that participants frequently navigated these PLCs as they often became safe places where they could openly and freely seek advice regarding problems they were experiencing in their classrooms (Surrette, 2020). Friedman (2021) identified authenticity as one of five characteristics that highly effective teams establish. In order for teams to be authentic, the environment must be conducive to vulnerability. Also in this study (Surrette, 2020), six participants shared how PLCs had an impact on their ability to incorporate active learning opportunities into their instructional practices. Two teachers believed that PLCs influenced their willingness and ability to include best practice strategies in their teaching. These two teachers reported that they interacted almost daily with these PLCs. One teacher shared that the interactions with colleagues as a part of PLCs helped him to shift his teaching from content-driven to inquiry-based investigations (Surrette, 2020).

While more teachers described positive interactions, there was a teacher who reported negative interactions with a PLC. She shared that the main focus of the PLC each week was relatively the same with a focus on classroom management and behavior. She shared that there was no discussion of instructional practices, assessment, or educational technology (Surrette, 2020). This is very important to note, as this is an example of how a well-intended idea of PLCs can go very wrong when not properly implemented and evaluated.

Collaboration among PLC members should not feel like another thing to check off their never-ending list; therefore, there must be structured time within the school day for PLC teams to meet and effectively collaborate. While almost 90% of all teachers are part of a team, most spend less than 1 hour per week collaborating with their colleagues

(Bloomberg & Pitchford, 2016). If teams are only meeting 1 hour a week in a structured environment, it is even more important that the time spent together is worthwhile.

Bloomberg and Pitchford (2016) shared the impact team model, which is focused on two specific areas: teachers and students as partners in the formative assessment process and learning how to meaningfully learn together to increase teacher expertise. What began as a collaborative effort between principals in an Arizona school district ended up as a means for teachers to collaborate even across schools (Bishop et al., 2019). In an effort to understand and implement a district initiative, five principals in an Arizona school district developed a PLC among themselves. As all five schools were facing similar challenges with teachers unpacking standards and developing success criteria, the principals decided to work together to provide professional development for their teachers. These principals found that in order for teachers to work together in true collaboration, they must push through the congenial relationship. This requires both a safe environment and motivation. When trust is established among administrators and teachers, teachers feel safer sharing their data and concerns and developing plans of action (Lasater et al., 2019). Principals wanted teacher relationships to continue long after the professional learning took place. They motivated teachers by setting a goal, purchasing a traveling trophy, and establishing a goal to see which school had the most learning targets posted on an interactive virtual site (Bishop et al., 2019). Bishop et al. (2019) found that when teachers follow the same scope and sequence of content, establishing true collaboration is easier.

Teachers have historically been willing to collaborate about topics such as dress code, policy, and other things as long as they are allowed to go back to their classrooms and do what they have always done (DuFour et al., 2016). The reason teachers are

provided with a structured time within the school day and asked to focus on certain questions and specific tasks is that they will utilize these skills and strategies to maintain a positive impact on student learning when they go back to their respective classrooms (DuFour et al., 2016).

### ***Collective Inquiry***

Collective inquiry hinges on action research. Action research is centered around improving one's own practice through self-examination, which requires time for reflection (Graham & Ferriter, 2010). Members of the PLC continuously search for new teaching and learning tactics, put those strategies to the test, and consider what worked and what did not. The key point in collective inquiry is that the PLC team follows up to evaluate the effectiveness of the strategies implemented (Graham & Ferriter, 2010). Constructing shared knowledge of current reality and instructional best practices is integral to the decision-making process. Bloomberg and Pitchford (2016) shared that "learning together, taking action together, analyzing the impact of those actions, and responding strategically improves instruction" (p. 108). One of the most difficult challenges for teachers, however, is being able to detach the personal value from their favorite teaching practices (Graham & Ferriter, 2010). Teachers learn by being learners and teachers.

In order for members of the PLC to be successful in the inquiry process, there must be some degree of autonomy and ability to make decisions within the group (Huguet et al., 2017). Graham and Ferriter (2010) shared the balancing act that must occur for PLCs to be effective: On one hand, they must experience autonomy, while on the other hand, there must be some structure laid out from administration. Dufour et al.

(2016) echoed this phenomenon that while certain tasks must be accomplished and critical issues addressed, individual members and teams can benefit from a level of autonomy and freedom in terms of how they accomplish their tasks.

Huguet et al. (2017) performed a qualitative study focused on two schools whose principals, Tamara and Ursula, had two very different approaches to oversight. This was a part of a larger case study on teacher use of data. The goal of this study was to analyze the perspectives of teachers from both schools regarding the use of data within PLCs at each school (Huguet et al., 2017). Tamara provided expectations and structure for her teachers, sharing that at least half of the time spent in each PLC meeting should be centered around student data. Tamara was described as “flexible” (Huguet et al., 2017, p. 383). It is also important to note that she made changes to the school schedule to ensure that her teams could meet during the school day four times per week. Ursula, on the other hand, was more structured and particular with monitoring forms that some teachers shared took a great deal of time to fill out. She was described as “prescriptive” (Huguet et al., 2017, p. 383) and provided about an hour and a half a week for her teams to meet. That time was not always protected, according to some teachers. Findings indicated that protecting time for PLCs to meet could be a critical component of data analysis and collective inquiry (Huguet et al., 2017). Data also suggested that allowing teachers to have some freedom within the structure of PLCs has a positive impact on data analysis (Huguet et al., 2017).

### ***Action Orientation and Experimentation***

Not only do effective PLCs recognize the importance of student engagement and learning, but they understand the importance of learning by doing. The work of the PLC

is at the heart of action research. PLCs engage in an ongoing cycle of teaching, learning, and collecting and analyzing evidence with the goal of moving student learning forward. Each time the PLC moves through the cycle, they enter at a higher level, spiraling through collective teaching and learning. Bloomberg and Pitchford (2016) described this as collectively making decisions and trying new instructional strategies, continually improving their practice, taking time to reflect on the impact of their practice, and sharing what they have learned with the PLC group. Gaining new knowledge and instructional strategies are certainly action-oriented ideas; however, it is important to note that teachers need time to implement these ideas and reflect on their impact on student learning.

In a study conducted on over 100 data teams, Wasta (2017) and his team found that as much as 90% of the time was focused on student learning, and very little time was spent on instructional strategies teachers were designing and implementing. In this study, Wasta emphasized the importance of placing high expectations on teachers, stating that if we expect students to meet teachers' high demands, there must be high expectations of teachers. DuFour (2015) shared that oftentimes, teachers fail to use the evidence of student learning to improve instruction. Rather, they are more likely to blame the students for their lack of learning. Through this study, Wasta shared how effective teams were able to identify an aspect of teaching practice – one team chose to focus on feedback and co-constructed exemplary implementation success criteria for teachers to look for when visiting each other's classrooms. Without success criteria, the question will remain whether or not the strategy was flawed or if it was simply poorly implemented (Wasta, 2017).



### ***Commitment to Continuous Improvement***

PLC members are constantly seeking better ways to achieve goals and help all students move forward in their learning. Each team engages in an ongoing cycle of collecting evidence of current learning, developing strategies to confront weaknesses in learning, executing new strategies, looking at the impact of those strategies, and applying new knowledge into the next cycle of ongoing improvement. With any innovative practice, it is important for members of the PLC and administrators to understand that sometimes innovations fail, and that is okay. In a study conducted by Lasater et al. (2019), data ownership was one of the six data use characteristics that influence data culture within schools. When teachers and leaders are willing to accept the responsibility for student learning outcomes and improve personal practices in the classroom, they are owning the data (Lasater et al., 2019). Furthermore, participants discussed the idea of shared ownership – that everyone was collectively responsible for the growth of all students. In order for this to occur, both trust and collaboration must be established so teachers and leaders can share ownership (Lasater et al., 2019). Thus, in an effective PLC, when students are not successful, the group feels a sense of shared ownership rather than making excuses. Lasater et al. found that within data ownership, five factors appeared to influence the level of data ownership: the genuine belief that data could be used to support student and professional growth, personal sense of self-efficacy, teacher agency, administrators' willingness to take part in the shared ownership of data, and that data are not used as an evaluative weapon. When data are used to blame teachers, they are more likely to become defensive and shift the blame to the students (Lasater et al., 2019).

Graham and Ferriter (2010) emphasized that while failure is a part of innovative practice, this does not mean it is okay for teachers to accept that students fail. An effective PLC will understand that it is okay for teachers to try new instructional strategies, and they will sometimes fail, as this is integral in maintaining an environment that supports the exploration of new ideas (Graham & Ferriter, 2010). This speaks to the teachers' self-efficacy in believing that they possess the skills and knowledge to collect student data, analyze student data, and make real-time adjustments to their instructional strategies based on data (Lasater et al., 2019).

In order to collect evidence and compare with other teachers, the use of CFAs is a must. Dufour et al. (2016) shared that the creation and implementation of frequent, high-quality CFAs is one of the most powerful strategies a PLC can utilize. Formative assessments can provide helpful information regarding what students know and do not know, and their effectiveness hinges on how teachers use them and what feedback teachers give students. "When done well, formative assessment advances and motivates, rather than merely reports on, student learning" (Dufour et al., 2016, p. 142). Not only do CFAs promote efficiency for teachers, but they also provide equity for students (Dufour et al., 2016). As teachers are committed to learning together, teachers become leaders, leaders become learners, and teaching practices change (Bloomberg & Pitchford, 2016).

### ***Results Orientation***

The emphasis on results and continuous improvement originates from the nature of accountability and school reform in public education. School goals are typically written based on accountability measures. The goals of the PLC should be written from one of the school or district goals (Graham & Ferriter, 2010).

In the second phase of a study conducted by Lasater et al. (2019), data were collected from 52 participants through both focus groups and interviews with the purpose of examining teacher and leader experiences with data in the state of Arkansas. Analysis of data led to six factors that contributed to the data cultures of the schools; one of those being purpose and data use (Lasater et al., 2019). Under this characteristic, two broad purposes of using data emerged: improvement and compliance. In schools where improvement was the focus, teachers and leaders genuinely believed that data use could support students and improve schools (Lasater et al., 2019). On the other hand, in schools that focused on compliance, discussions by teachers and leaders focused on test prep and accountability to local, state, and federal mandates (Lasater et al., 2019). While the end goal is certainly to see an increase in student achievement, focusing on test scores as the means for the use of data in PLCs neglects the fact that improvement is a process that informs instruction (Lasater et al., 2019).

By nature, teachers are focused on the results, the outcome of teaching and learning. Equally important then is the focus of PLCs on the outcome of their innovative strategies. It is important for PLCs to utilize a structure for analyzing data together, as it can be an emotionally heightened time. Dufour et al. (2016) suggested that in order for teams to move past the emotions of whose students performed better is that the PLC must practice building a shared understanding of what student learning looks like and how they can learn from each other.

Bloomberg and Pitchford (2016) shared a particular protocol that effective PLCs can utilize to help determine the impact of the innovative practice. The Evidence, Analysis, Action protocol is one of many that focus on the formative assessment process

within the classroom. In this protocol, teachers would develop and administer a CFA that they analyze and determine next steps for all students in their learning (Bloomberg & Pitchford, 2016). Regardless of what protocol the PLC decides to use to analyze data, members of the PLC base their impact on student learning on evidence that students actually understood the material. The work of PLCs is after all meaningless if there is no impact on student learning.

### **PLC+ Framework**

Fisher et al. (2020) began their book with the story behind PLCs, in general sharing the history and background of PLCs beginning with the six factors considered for PLCs to thrive shared by Hord in 2004:

- structural conditions
- supportive relational conditions
- shared values and vision
- intentional collective learning
- peers supporting peers
- shared and supportive leadership (Fisher et al., 2020, pp. 6-7)

Fisher et al. (2020) went on to discuss the four driving questions developed by DuFour et al. (2016), which put the PLC into action:

1. What is it we want our students to learn?
2. How will we know if each student has learned it?
3. How will we respond when some students do not learn it?
4. How can we extend and enrich the learning for students who have demonstrated proficiency? (p. 19)

Fisher et al. (2020) held both the six factors and the four questions described above as necessary in focusing on student learning; however, the PLC+ framework identifies a crucial gap in only examining student learning: the examination of teaching practices. “There is a link between learning and teaching, and to examine only one side of the equation limits our ability as educators to take action” (Fisher et al., 2020, p. 7). Fisher et al. (2020) argued that teaching is based on inquiry, which makes it a necessity to question both the practice and the outcomes. In the PLC+ framework, Fisher et al. (2020) shared that the “plus emphasizes not only the learning that we want to occur in students, but also the teaching and learning component for ourselves” (p. 8).

The PLC+ framework is centered around five essential questions:

1. Where are we going?
2. Where are we now?
3. How do we move learning forward?
4. What did we learn today?
5. Who benefited and who did not benefit? (Fisher et al., 2020).

### ***Where Are We Going?***

While this is the first question each PLC+ should ask themselves, it is important to note that this is the launching point for every PLC+. Teachers must first be clear on the depth of the standard(s) before determining what students must learn, meaning teachers must unpack standards, determine learning intentions, and then develop success criteria. There is no one right way to organize the flow of learning, but there are probably incorrect ways (Fisher et al., 2020). Thus, it is important for teachers to base their instructional decisions on high-impact strategies. Teachers must have high expectations

for all students to establish equity (Fisher et al., 2020). The rigor of the standard(s) should remain constant, while the pathway for how students arrive at mastery might look different (Fisher et al., 2020).

### ***Where Are We Now?***

This question focuses on collecting initial assessment data, determining equity gaps, addressing bias in how data are collected and analyzed, and determining how PLC+ teams can identify a common challenge (Fisher et al., 2020). In order to maximize instructional time with students, it is important that we do not waste time teaching material they already know. “It has been estimated that somewhere between 30 and 40 percent of instructional minutes are wasted teaching students things they already know” (Fisher et al., 2020, p. 64). After answering the first two guiding questions, teams begin to uncover learning gaps, any of which can serve as a common challenge for the group to focus on (Fisher et al., 2020).

### ***How Do We Move Learning Forward?***

When discussing how to meet the learning needs of each student, conversations will likely center on what is most likely to work. When teams begin to engage in and understand instructional best practices, they become empowered to address their common challenge (Fisher et al., 2020). It is also important for teams to analyze assessments for rigor, develop “compensatory and adaptive approaches” (Fisher et al., 2020, p. 113) to learning, and implement strategies for teachers to participate in professional learning opportunities such as microteaching and evidence walks.

### ***What Did We Learn Today?***

When answering this question, teams collectively reflect on the influence their

instructional strategies have on student learning. “True reflection connects our learning with actions moving forward” (Fisher et al., 2020, p. 124). Reflecting on our implementation could prompt us to consider what could have been done differently and what we might do differently in the future (Fisher et al., 2020).

### ***Who Benefited and Who Did Not Benefit?***

Engaging in conversations about this question can help teachers identify when certain students do not learn and are not successful (Fisher et al., 2020). Student growth and achievement can only happen when teachers reflect on who learned and who did not. Either learning barriers need to be removed or interventions should be put into place. “RTI is not louder, longer, and more of the same” (Fisher et al., 2020, p. 171). For instance, we do not need to raise our voices for someone who is blind; they can hear just fine. At the same time, it is important to note that learning should not be compromised; the rate at which students learn might need to be adjusted (Fisher et al., 2020).

Within the framework, Fisher et al. (2020) also discovered and developed four cross-cutting values they considered to be fundamental to the PLC+ process. The four cross-cutting values are “equity, high expectations, individual and collective efficacy, and activation” (Fisher et al., 2020, pp. 9-10). In regard to equity, Fisher et al. (2020) emphasizes the importance of understanding and valuing the backgrounds of each student to ensure that all students have equal access to the curriculum and that the curriculum is appropriate and affirming to all students. It is important for teachers to hold all students accountable for reaching the same level of achievement while embracing the individual pathways by which each student will arrive (Fisher et al., 2020). Thus, teachers must have high expectations for all students, understanding that success many times is reached

in a variety of ways – and this is linked to equity (Fisher et al., 2020).

The next cross-cutting value is individual and collective efficacy. Fisher et al. (2020) stated that there is “an incredible amount of brain power we can capitalize on when we take our individual capacity and contribute it to a collective whole” (p.10). This framework calls for teachers to build collective efficacy and hold the belief that the group as a collective can impact each student (Fisher et al., 2020).

The last cross-cutting value is activation. Fisher et al. (2020) shared that a high-functioning PLC does not occur by chance, rather the PLC+ needs someone who can keep the discussion focused and move the conversation forward: an activator. “An activator not only facilitates the group but also adds ideas, asks questions, notices nonverbal cues, and helps the team make decisions” (Fisher et al., 2020, p. 11). The term facilitator is not used, as this person is typically not a full member of the team, whereas an activator is.

The five PLC+ guiding questions combined with the four cross-cutting values create a foundation for the work of the PLC, while also considering the teaching and learning perspective of each teacher. This environment will provide a safe space for collaboration and learning (Fisher et al., 2020). Along with the five questions and the four cross-cutting values, there are three beliefs PLCs must hold regarding the structure and function of the teams:

1. We must keep the equity of access and opportunity to learn at the forefront of each PLC+ collaborative team meeting.
2. We must ensure that the dialogue provoked by the five questions is facilitated in such a way that the work of the PLC+ is not hindered or impeded.



3. We must develop learning experiences that make our expectations for learning clear to all students (Fisher et al., 2020, p. 14).

With a shift in focus toward the practices of the teacher rather than solely on the student, it is necessary to identify factors that contribute to teacher success. Individual teacher credibility and individual teacher efficacy can be contagious in a PLC. Fisher et al. (2020) believed that these two are essential ingredients to an effective PLC+. With an effect size of 0.90 (Hattie, 2012), teacher credibility has a strong influence on student learning. When students believe a teacher is competent, dynamic, trustworthy, and responsive, they believe they can learn from that teacher (Fisher et al., 2020). Self-efficacy is the belief that we can reach the goals we set before us. Without teacher credibility and teacher self-efficacy, there is limited capacity for establishing Hord's six characteristics of an effective PLC (Fisher et al., 2020).

### **Summary**

Empirical research has been conducted on the implementation of PLCs, the effectiveness of PLCs, the perceptions of teachers and administrators on PLCs, and barriers of PLCs. Research has been conducted on the impact of effective PLCs on school culture. Time and time again, research has supported the idea that PLCs are best practice among schools across the nation. While there is a great deal of research on PLCs, there is little research on effective PLCs at the high school level. The purpose of this study was to add to current research in efforts to identify ways high schools can overcome barriers to effective PLCs specific to the high school level as well as gain insight into the characteristics of effective PLCs when teachers teach more than one subject and when only one teacher teaches a particular subject.

This literature review began with the background of PLCs and connected both Knowles and Holton's (2005) and Drago-Severson's (2021) adult learning theories to the necessary components of learning that should occur in a PLC. According to DuFour et al. (2016), the six characteristics of effective PLCs are (a) shared mission, vision, and goals; (b) collaborative teams; (c) collective inquiry; (d) action orientation and experimentation; (e) commitment to continuous improvement; and (f) results orientation. Understanding the behaviors associated with these characteristics helped to identify components of a new framework, PLC+, that will utilize traditional characteristics of effective PLCs and focus on what the teacher can do to improve student learning (teaching strategies). Each section of the literature review contributed to determining what effective PLCs look like at the secondary level. The knowledge extracted from this literature review helped determine the most beneficial questions to ask when determining the effectiveness of PLCs at the high school level.

## Chapter 3: Methodology

### Introduction

The purpose of this study was to discover from teacher perspectives the impact of effective PLCs at the high school level: what it looks like, how it affects student achievement, and how to overcome barriers that are posed specifically at the high school level in creating and sustaining effective PLCs. The school district of study is in its sixth year of implementation of PLCs at all levels. While elementary schools in the district have been successful in implementing the PLC process, this has not been the case at the high school level. The review of literature emphasized the impact of barriers high schools face when attempting to implement and sustain effective PLCs.

The problem of the study is how to implement and sustain effective PLCs at the high school level. This past year, high school teacher leaders in the study district were trained in a new framework: PLC+. Under this new framework, some of the barriers are addressed as the focus shifts from what the student has and has not learned to teacher practice and pedagogy – what works and what does not. PLC+ also addresses the problem many high school PLCs face when teachers are responsible for teaching multiple courses. PLC+ suggests that teachers from all different content areas can come up with a common challenge as a PLC group – that it does not have to be content-specific.

When it comes to analyzing PLCs, teachers are in the most vital role. Thus, teacher participation and perceptions are vital to the effectiveness of PLCs. To understand the key characteristics of effective PLCs, one must first consider how adults actually learn. This brought about an extensive review of literature of both Knowles and Holton's (2005) six assumptions of andragogy and Drago-Severson's (2021) four pillars

of adult learning. Taking into consideration how adults learn and based on the six characteristics of effective PLCs (DuFour et al., 2016), I used a mixed methods approach. Incorporating both qualitative and quantitative measures in this study helped determine and analyze the components needed to implement and sustain effective PLCs at the high school level. A case study approach was used to gain insight into the current realities of how high school teachers define effective PLCs, how PLCs contribute to increased student achievement, how to overcome the barriers of PLCs, and what teachers feel they need to help PLCs become more effective. The goal of this case study was to gain insight into how adult learning theory and characteristics of an effective PLC weave together to overcome the barriers that high school PLCs pose to teachers.

### **Setting**

The study was completed in a small rural school district located in the northern portion of South Carolina. Located in the foothills of the Blue Ridge Mountains, this school district is made up of 16 schools: nine elementary, three middle, two high, and one alternative school. Both high schools in the district utilize PLCs and were the focus of this study.

The first high school of study is a comprehensive 4-year public high school enrolling 2,356 students in Grades 9-12. This area has witnessed rapid growth as industry has boomed over the past several years. This particular city is considered a prime location as it is nestled between two interstates. The administrative team consists of one principal, six assistant principals, and one athletic director. The first high school of study employs 124 teachers, and the student-to-teacher ratio is currently 19:1. There are 16 PLC groups that meet on a weekly basis.

The second high school of study is also a comprehensive 4-year public high school enrolling 686 students in Grades 9-12. Located in the foothills of the Blue Ridge Mountains in South Carolina, the school is near the intersection of two major highways. The school serves several rural communities. The second high school of study employs 48 teachers and three full-time administrators: one principal and two assistant principals. The student-to-teacher ratio is currently 14:1.

### **Participants**

The population of study were all members of high school PLCs at the two high schools of study. I obtained permission from both district administration and principals at each high school in the form of a request letter. With regard to the survey, all teachers who participated in a PLC at each high school were sent a survey. The goal was to have a 100% return rate of responses. I sent out a bi-weekly reminder email for the duration of the survey window. Along with the survey, I sent a google survey link for teachers to volunteer to participate in a follow-up focus group interview. The google survey asked for their name, school, and content area (English, math, science, social studies, or elective course). Based on the number of volunteers, I conducted three focus groups comprised of at least two participants from each school. Each focus group consisted of five participants: one teacher from each of the four core content areas (math, science, English, and social studies) and one elective teacher. All teachers had the opportunity to volunteer to participate in a focus group interview. From the list of volunteers, I put the names in five separate lists – one for each content area. I used a randomizer to select participants – one from each pool. I ensured at least two participants from each school per focus group. If I had already randomly selected three participants from one school, I selected the next

participant at random until I met the requirement of two participants from each school. Participants only had the opportunity to participate in one focus group interview.

### **Research Design**

This study utilized a mixed methods case study approach (Creswell, 2007). The mixed methods approach is a strong methodology, as it utilizes both quantitative and qualitative data. I used this approach to investigate and analyze effective PLCs at two high schools in an upstate South Carolina school district. I chose this approach to gain understanding through survey data. Then, I used qualitative data gathered in focus group interviews to help explain the information I obtained from the survey data (Creswell & Creswell, 2018). I gathered data by survey and then probed further through focus group interviews. Since I wanted to analyze the perceptions of high school teachers on effective PLCs, I first surveyed all teachers who belonged to a PLC at that time and then used that survey data to develop questions that helped me further understand their perceptions. Gathering more than one source of data adds both credibility and validity to this study.

Quantitative research is an interrelated set of variables formed into hypotheses that specify relationships among variables (Creswell & Creswell, 2018). According to Creswell and Creswell (2018), quantitative theory is a way to help explain phenomena that occur within the world. Quantitative data collected from surveys were analyzed in the form of frequency tables to allow for easier interpretation of data. The purpose of a survey was to be able to infer about a characteristic, attitude, or behavior of the sample. From that sample, a generalization can be inferred to the population (Creswell & Creswell, 2018).

By interviewing focus groups of teachers in natural settings, I attempted to make

sense of phenomena in lieu of my research questions and outcomes (Denzin & Lincoln, 2005). The following criteria were used with a qualitative approach: (a) the research question(s) used “how” or “what”; (b) the study explored variables, behaviors, or theories; (c) the findings presented a detailed view of the subjects using a literary narrative; (d) data were gathered in a natural setting; (e) sufficient time was spent in the field; (f) the participants were receptive to a qualitative study; and (f) the researcher was an active learner instead of an expert (Creswell, 2007).

Furthermore, a case study is an empirical method that investigates a phenomenon that can be used to examine specific details of a single group (Yin, 2009). A case study requires the researcher to objectively observe and interpret the phenomenon. Using case study mixed methodology requires detailed descriptions of the setting of the study, which can be potentially incriminating. A case study includes the individuals involved, the program of study, and an in-depth analysis of the data (Stake, 1995). This study aimed to draw out perspectives of teachers regarding effective PLCs at the high school level.

I surveyed all teachers in both high schools of study who participated in a weekly PLC. Teachers received a bi-weekly email reminder for the duration of the survey window. The survey window was open for 3 weeks. Data collected from the survey were presented in a frequency distribution by response.

Using focus group interviews promoted disclosure among participants as they felt more comfortable and less likely to be judged (Krueger & Casey, 2015). Utilizing focus groups helped me to gain insights into how participants perceived their experiences (Krueger & Casey, 2015). According to Krueger and Casey (2015), focus groups are characterized by five features:

- a small group of people
- possess specific characteristics
- provide qualitative data
- in a focused discussion
- help understand a topic of interest

A small group of high school teachers (who represent the larger population of all teachers participating in PLCs) satisfied the requirement of the focus group protocol (Yin, 2018). Three separate focus group interviews were conducted with representatives from the four core content areas along with one elective teacher, making each focus group consist of five teachers.

### **Instruments**

In order to develop a description and understanding of the phenomenon, I used various instruments to capture both quantitative and qualitative data. I chose these particular instruments in order to gather the most information on teacher perceptions of the current state of PLCs. The intention of the survey (Appendix) was to gather teacher perceptions on the effectiveness of PLCs. The survey was a 15-item Likert description questionnaire that measured five dimensions. The Likert ranged from 1 (Not at All) to 5 (To a Great Extent). The 15 questions in the survey comprised critical elements, human resources, and structural conditions. This survey was validated by the National School Reform Faculty. I obtained written consent to use a validated survey from the National School Reform Faculty to gain initial insights into the perceptions of teachers regarding their perceptions of effective PLCs, how PLCs contribute to increased student achievement, the barriers that high school PLCs face, and what components might be



needed to encourage effective PLCs. All four research questions were addressed within the survey. The responses from the survey drove the focus group questions to ensure that all four research questions were answered.

Focus group questions were validated using the Lawshe content validity ratio. The focus group questions were presented to the leadership team at one of the two high schools of study. All focus group questions were validated and deemed sufficient for use as instruments in this study. The following focus group questions were designed to help answer the research questions:

1. Describe what an ideal PLC team looks like.
2. As a PLC, what are some actions that you take to ensure all students move forward in their learning?
3. What conditions hold your team back from being effective?
4. What would you change to make PLCs more effective?
5. In addition to these questions, what else would you add regarding PLCs at the high school level?

All focus group questions were aligned with research questions (Table 3). The focus group questions were designed to gain information to help answer the overall research questions.

**Table 3***Alignment Between Research, Survey, and Focus Group Questions*

Research question	Survey questions	Focus group question
1. How do high school teachers define effective PLCs?	2.1, 3.5	1. Describe what an ideal PLC team looks like. What do they do? How is their time spent?
2. How do high school PLCs contribute to increased student achievement?	1.3, 1.4, 1.5	2. As a PLC, what are some actions that you take to ensure that all students move forward in their learning?
3. What are the barriers to high effective high school PLCs?	1.1, 1.2, 3.1, 3.2	3. What conditions hold your team back from being effective?  4. What are some struggles that your team faces in being effective?
4. What components are needed to encourage effective PLCs?	2.2, 2.3, 2.4, 2.5, 3.3, 3.4	5. What can we do to make high school PLCs more effective?

With the permission of the district's superintendent, I contacted principals at each high school to discuss the data collection process and obtained consent prior to conducting the study. I obtained written consent in accordance with the guidance provided by the Institutional Review Board. After that, I sent out surveys to all teachers currently participating in a PLC. There were potentially 88 participants from School A and 34 from School B. I met with each of the four focus groups and conducted face-to-face interviews. Each focus group was voice recorded, transcribed using an online transcription tool, and coded.

**Data Collection Process**

Completion of this survey was encouraged during a regularly scheduled PLC meeting. Surveys were sent out electronically. A 3-week deadline was set. Responses

remained anonymous, and no surveys were read prior to the end of the 3-week period. There was a separate Google Form link that was sent out with the survey in the form of a single yes/no question. This question asked the participant if they were willing to participate in a focus group interview. Bi-weekly reminder emails were sent out for the 3-week period. Participants received full disclosure of the purpose of this study, which was to strengthen PLCs at the high school level, in an effort to increase teacher participation. Surveys were analyzed, and responses were displayed in frequency distribution tables.

I scheduled three focus group interviews with volunteer teachers who were randomly selected. Each focus group was made up of one representative for each of the four core subjects and one representative for an elective subject. Pseudonyms were used to protect the individual identities of the participants (e.g., Teacher 1, Teacher 2, etc.) in an effort to increase the willingness to be open and honest during the focus group interviews.

Focus group interviews were conducted in person, and all sessions were voice-recorded and then transcribed through an online transcription service. After obtaining all transcriptions, I coded the data to determine emerging themes consistent with characteristics of effective PLCs and other factors that contributed to effective PLCs. Data collected were reviewed, analyzed, coded, and categorized into themes.

### **Data Analysis Process**

Once survey data were gathered, collected, and analyzed, I conducted focus group interviews. There were specific questions that I asked all four focus groups; however, due to the nature of semi-structured interview questions, I asked follow-up questions to drive the discussion and gather more information. Focus group questions were open-ended and

began with words such as “why,” “how,” or “describe” to prompt a more in-depth discussion. Thus, these follow-up questions were specific to the conversation within each particular focus group. All focus group interviews were recorded, transcribed, and coded. Data from all four focus group interviews were analyzed and coded, and themes emerged from the data.

### **Research Questions**

The following research questions provided the focus for this study:

1. How do high school teachers define effective PLCs?
2. How do high school PLCs contribute to increased student achievement?
3. What are the barriers to effective high school PLCs?
4. What components are needed to encourage effective PLCs?

Survey questions are aligned to all four research questions in Table 3.

In Chapter 5, further analysis occurs as I include the literature and studies from Chapter 2 with data collected and analyzed in Chapter 4. With these data sources, I provide answers to each research question along with implications for practice and recommendations for further study.

### **Summary**

This study aimed to determine what teachers perceived to be the components and barriers of effective PLCs. Data collection through interviews and focus groups helped determine the impact effective PLCs have on student achievement as well as components high schools should incorporate into their PLC process.

This chapter included the research design and participants. Subsequent chapters of this study describe the findings of the study after data were collected and analyzed. Using

case study qualitative design, I was able to select a target population, sampling method, instrumentation, and data collection. Furthermore, I was able to analyze data that were appropriate for drawing trustworthy findings and conclusions. These findings are found in Chapter 4 where the results of this study are revealed.

## Chapter 4: Results

### Introduction

This research study was conducted for the purpose of understanding teacher perspectives on the impact of effective PLCs at the high school level. Four research questions guided the study:

1. How do high school teachers define effective PLCs?
2. How do high school PLCs contribute to increased student achievement?
3. What are the barriers to effective high school PLCs?
4. What components are needed to encourage effective PLCs?

This chapter focuses on the results of the study. Data were collected from a survey and focus group interviews.

### Overview of Participants

The survey was administered to all 132 high school teachers who currently attend high school PLCs on a regular basis. Of this population, 35 teachers responded to the survey. According to Creswell and Creswell (2018), a response rate of 26.5% is acceptable. Since the survey was completely anonymous, I did not collect personal or demographic information.

### Survey Description

The survey was administered using Qualtrics and distributed through school email. The instrument consisted of 15 questions that addressed the critical elements, human resources, and structural conditions of PLCs. Participants were asked to rate the frequency of PLC practices through all 15 items. Ratings were selected on a Likert scale with the following options selected: not at all, somewhat, 50%, to a large degree, and to a

great extent.

For the purpose of this study, only responses “to a large degree” and “to a great extent” are viewed as positive responses. The results of the survey were analyzed based on all responses. Frequency distribution tables indicate response rates from participants that are organized by research question.

### **Research Question 1: How Do High School Teachers Define Effective PLCs?**

Survey Questions 2.1 and 3.5 pertain to Research Question 1. Table 4 shows the responses to the survey questions.

**Table 4**

*Survey Questions That Pertain to Research Question 1*

Question	Not at all	Somewhat	50%	To a large degree	To a great extent	Total
2.1: Teachers take risks in trying new techniques and ideas and make efforts to learn more about their profession.	2.86% (1)	8.57% (3)	25.71% (9)	37.14% (13)	25.71% (9)	35
3.5: Teachers have autonomy to make decisions regarding their work guided by the norms and beliefs of the professional community.	2.86% (1)	5.71% (2)	17.14% (6)	45.71% (16)	28.57% (10)	35

Of the 35 responses, 22 teachers (62.9%) said they take risks in trying new instructional strategies and make efforts to learn more about their profession, indicating that the majority of teachers are continuous learners and risk-takers. Regarding autonomy to make decisions regarding work in PLCs, 26 teachers (74.3%) feel that they have a voice and choice in what they do for the majority of the time spent in PLCs.

### **Research Question 2: How Do High School PLCs Contribute to Increased Student Achievement?**

Survey Questions 1.3, 1.4, and 1.5 contributed to answering Research Question 2.

Table 5 shows the responses to those survey questions.

**Table 5**

*Survey Questions That Pertain to Research Question 2*

Question	Not at all	Somewhat	50%	To a large degree	To a great extent	Total
1.3: Teachers assume that all students can learn at reasonably high levels & that teachers can help them.	0.00% (0)	20.00% (7)	17.14% (6)	37.14% (13)	25.71% (9)	35
1.4: Teachers not only work together to develop shared understandings of students, curriculum & instructional policy, but also produce materials & activities that improve instruction, curriculum, & assessment.	2.86% (1)	8.57% (3)	22.86% (8)	31.43% (11)	34.29% (12)	35
1.5: Through words & actions teachers affirm their common values concerning critical educational issues and in support of their collective focus on student learning.	5.71% (2)	8.57% (3)	17.14% (6)	42.86% (15)	25.71% (9)	35

Of the 35 responses, 22 teachers (62.9%) believe that all students can learn at reasonably high levels. Taking it a step further, 23 teachers (65.7%) would also agree that PLCs are a place where teachers can create materials and activities that will improve instruction and student assessment. Twenty-four teachers (68.6%) indicate that teachers are in support of their collective focus, and they affirm their common values through words and actions.

### **Research Question 3: What Are the Barriers to Effective High School PLCs?**

Survey Questions 1.1, 1.2, 3.1, and 3.2 contributed to answering Research Question 3. Table 6 shows the responses to those survey questions.



**Table 6***Survey Questions That Pertain to Research Question 3*

Question	Not at all	Somewhat	50%	To a large degree	To a great extent	Total
1.1: Faculty/staff members talk with each other about their situations and the specific challenges they face.	0.00% (0)	5.71% (2)	14.29% (5)	34.29% (12)	45.71% (16)	35
1.2: Teachers share, observe, & discuss each other's teaching methods & philosophies.	5.71% (2)	25.71% (9)	20.00% (7)	40.00% (14)	8.57% (3)	35
3.1: There is a formal process that provides substantial & regularly scheduled blocks of time for educators to conduct ongoing self-examination & self-renewal.	14.29% (5)	14.29% (5)	17.14% (6)	22.86% (8)	31.43% (11)	35
3.2: Teachers have common spaces, rooms, or areas for discussion of educational practices.	5.71% (2)	5.71% (2)	14.29% (5)	37.14% (13)	37.14% (13)	35

An overwhelming 28 teachers (80%) shared that faculty members and staff share specific challenges they face with one another the majority of the time. Also, 24 teachers (68.6%) agree that teachers share, observe, and discuss each other's teaching methods and philosophies at least half of the time. Of 35 responses, 19 teachers (54.3%) indicated there is a formal process in their respective buildings that provides substantial and regularly scheduled blocks of time where teachers can conduct ongoing self-examination and self-renewal. Twenty-six teachers (74.3%) indicate they have common spaces or rooms for discussion at least half of the time.

**Research Question 4: What components are needed to encourage effective PLCs?**

Survey Questions 2.2, 2.3, 2.4, 2.5, 3.3, and 3.4 contributed to answering Research Question 4. Table 7 shows the responses to those survey questions.

**Table 7***Survey Questions That Pertain to Research Question 4*

Question	Not at all	Somewhat	50%	To a large degree	To a great extent	Total
2.2: Teachers feel honored for their expertise within the school as well as within the district, the parent community, and other significant groups	11.43% (4)	22.86% (8)	31.43% (11)	25.71% (9)	8.57% (3)	35
2.3: Within the school, there are formal methods for sharing expertise among faculty members so that marginal and ineffective teachers can improve.	5.71% (2)	17.14% (6)	25.71% (9)	28.57% (10)	22.86% (8)	35
2.4: The school leadership keeps the school focused on shared purpose, continuous improvement, and collaboration.	2.86% (1)	5.71% (2)	2.86% (1)	34.29% (12)	54.29% (19)	35
2.5: The staff imparts a sense that new teachers are an important and productive part of a meaningful school community.	5.71% (2)	11.43% (4)	11.43% (4)	37.14% (13)	34.29% (12)	35
3.3: There are recurring formal situations in which teachers work together (team teaching, integrated lessons, etc.)	8.57% (3)	20.00% (7)	20.00% (7)	25.71% (9)	25.71% (9)	35
3.4: There are structures & opportunities for an exchange of ideas, both within and across such organizational units as teams, grade levels, & subject departments.	14.29% (5)	14.29% (5)	14.29% (5)	31.43% (11)	25.71% (9)	35

Only 12 teachers (34.3%) shared that they feel honored for their expertise within the school as well as within the district. Of the 35 respondents, 18 teachers (51.4%) agree that there are formal methods in place for teachers to share their expertise with their colleagues for teachers to be able to improve their instructional practices. A majority of respondents – 27 teachers (77.1%) – shared that school leadership keeps faculty and staff focused on the shared mission, vision, and focus of the school and provides opportunities for continuous improvement. Of the 35 respondents, 25 teachers (71.4%) agree that

faculty make new staff feel welcome and important. A little over half of the respondents – 18 teachers (51.4%) share that there are formal situations that occur regularly where teachers work together planning and teaching. Again, 18 teachers (51.4%) agree that structures and opportunities exist for teachers to share ideas with each other across subject areas and departments.

### **Selection of Interviewees**

Everyone who participated in the survey had the opportunity to fill out a separate Google Form to indicate their willingness to participate in a follow-up focus group interview. In this Google Form, volunteers provided email contact information and indicated the subject they teach as well as their home school. There were a total of 27 teachers (of 35 survey participants) who agreed to be a part of a follow-up focus group interview. Participants for focus group interviews were randomly selected from the pool of volunteers. I selected participants at random and continued to randomly select participants until I had enough teachers for three focus groups while ensuring that I had at least one participant for each of the four core subjects and one elective representative. I also ensured that at least two participants were from each school to assist in providing a comfortable setting. A total of 15 participants were selected. Each interviewee was given a code name.

### **Focus Group Interview Description**

Three focus group interviews were conducted after the survey window was closed. Subjects indicated their willingness to participate in a follow-up focus group interview through an embedded Google Form at the end of the survey. Fifteen responses were received from the larger high school, and 12 were received from the smaller high

school. The following is a breakdown of respondents by subject area: five English, six math, four science, five social studies, and seven elective teachers. I placed all respondents in an online random name selector and randomly selected enough participants to fill three focus group interviews. If I already had a teacher for a particular subject in the first focus group interview, I moved that participant to the next available focus group interview. I used the same procedure to ensure that I had at least two participants from each high school in each focus group interview. Table 8 shows a summary of the current teaching position and school of the interview subjects. HS1 represents the larger high school, and HS2 represents the smaller high school within the district of study.

**Table 8**

*Focus Group Interview Subjects*

Participant pseudonym	Current position
HS1a	Math teacher
HS1b	English teacher
HS1c	Science teacher
HS1d	Social studies teacher
HS1e	World language teacher
HS1f	Special education teacher
HS2a	Math teacher
HS2b	Math teacher
HS2c	English teacher
HS2d	English teacher
HS2e	Science teacher
HS2f	Science teacher
HS2g	Social studies teacher
HS2h	Social studies teacher
HS2i	World language teacher

Focus group interview subjects represented all four core subject areas and elective courses. There were six participants who represented the larger high school, while nine

represented the smaller high school. Of the elective participants, there were two world language teachers and one special education teacher.

I conducted all three focus group interviews and voice recorded each interview. Participants were asked five questions related to effective PLCs. Responses to the questions were transcribed and then coded for themes. Interview questions were aligned to the research questions.

Table 9 displays the emerging themes and frequencies from focus group interview data.

**Table 9**

*Thematic Analysis of Focus Group Interview Responses*

Research question	Focus group question(s)	Theme(s)	Frequency of themes
1. How do high school teachers define effective PLCs?	1. Describe what an ideal PLC team looks like. What do they do? How is their time spent?	Collaboration	11
		Data-driven curricular decision-making	10
		Structural conditions	7
2. How do high school PLCs contribute to increased student achievement?	2. As a PLC, what are some actions that you take to ensure that all students move forward in their learning?	Reflective practices	14
		Differentiated instruction	6
3. What are the barriers to effective high school PLCs?	3. What would you change about PLCs?	Scheduling	11
	4. What are some struggles that your team faces in being effective?	Structural conditions	9
4. What components are needed to encourage effective PLCs?	5. What can we do to make high school PLCs more effective?	Teacher voice and choice	7
		Structural conditions	5
		Common vision	4

Focus Group Question 1 was aligned to Research Question 1 and explored how high school teachers would define an ideal PLC regarding what they do and how their time is spent. The themes that emerged from this question were collaboration, data-driven curricular decision-making, and structural conditions. Focus Group Question 2 was aligned to Research Question 2 and asked respondents to describe the actions their PLCs take to make sure all students move forward in their learning. This question generated the following themes: reflective practices and differentiated instruction. Focus Group Questions 3 and 4 were aligned to Research Question 3 and focused on what respondents would change about their current PLC to ensure that it is more effective. Focus Group Question 5 was aligned to Research Question 4 which focused on what we would do as a system to make PLCs more effective.

### **Research Question 1: How Do High School Teachers Define Effective PLCs?**

When respondents were asked to “Describe what an ideal PLC team looks like. What do they do? How is their time spent,” most respondents shared the importance of a collaborative environment, creating and using a common curriculum and CFAs, and using data to drive instruction. The theme of collaboration was mentioned 11 times. HS1b shared,

When I think of PLCs, I think of teaching and learning teams. It’s not just for the students, but it’s for us as well, and how can I learn from other teachers to improve my own practices to better, you know, serve and benefit my kids. So having enough time for collaboration and asking, hey, what are you doing that’s working?

Along the lines of collaboration, teachers echoed the importance of working together and

building on the strengths of each other. HS1d shared, “I would say ideally, I guess it would be focused on collaboration, where the different participants are contributing meaningful information, content, ideas, and so forth.” HS1a added, “Ideally, we would have models of success where if we have one teacher that’s willing to share their instruction, that person would share their instructional strategy with the group.”

In regard to describing the ideal PLC, HS2c shared, “Actually analyzing student data, and sharing the successes and instructional methods; letting the data drive our instruction, and learning new things from one another.” Along those same lines, HS2f stated,

If it was a perfect world, we would come in and we would just immediately share the experiences we’ve had for the week, just teaching; what we enjoyed, what we didn’t enjoy, just experiences. Never mention data, or testing, just teaching. And then we would look at some of those issues and talk about how we could make it better. And maybe once a month look at the data, but not believe that at every single point the only thing that matters is the [state’s] end of course data.

Another one of the common themes that arose from this focus group question was centered around data-driven curricular decision-making. HS2a shared, “One of the things we do is we choose skills or standards that go from the lowest level math class, and we give our common formative assessments to all those students.” HS1e added,

Ideally, you are all motivated teachers and you have the same goals. Which does not happen very often. And you just collaborate on the common curriculum. You work together to write assessments together. After you give the assessments, you compare your results and you see your strengths and your weaknesses. You take

away from that, what you can do better to learn from others and drive your instruction.

HS2d added,

Using a preassessment, taking the strengths, the weaknesses, and using that data to then ask what do we do next, so you know, developing a CFA, and seeing where kids fall, using that data to drive what we do next, as far as, you know, how can we help those who struggled? What can we do for those who are proficient? And how do we extend the learning for those who already understand? In an ideal situation, doing that on a weekly basis is something that would be phenomenal...but ideally, it's all about common formative assessments, using that data to drive instruction.

Tying those together, HS1a described the ideal PLC as, "Working collaboratively to bounce ideas, instruction, and best practices off each other that we can have a better high impact on student learning."

### **Research Question 2: How Do High School PLCs Contribute to Increased Student Achievement?**

Within this research question, teachers were asked the following question: "As a PLC, what are some actions that you take to ensure that all students move forward in their learning?" Two common themes emerged from the responses: reflective practices and differentiated instruction. Under reflective practices, teachers mentioned words and phrases that refer to analyzing, reevaluating, and teacher clarity. Regarding reevaluating instructional practices, HS2d shared,

So, we need to go back and reevaluate ourselves and ask what did we do wrong?



How can we change this? What other steps can we take? Because sometimes it takes us reevaluating how we taught the skill, and what we asked students to do. And sometimes we can look back at some of our assessments and say, okay wait a minute, maybe we weren't as clear in writing this part of the assessment, or maybe it's how we worded it. Or, maybe we skipped a step and we need to go back. So, I think a lot of the steps you take to ensure students are learning and move forward is sometimes to reevaluate how we did, not just how the students did.

HS1b mentioned reflective practice when they shared,

When we're reflecting on ourselves in our practices, we also tend to hold each other accountable. We are able to take our CFAs and adapt them to make them more rigorous for our students. And then we look at the student piece, really only focusing on what is within our control.

When teachers spoke of individualizing instruction, grouping students according to ability levels, and challenging all levels of students, these were coded under differentiated instruction. With respect to individualizing instruction, HS2e shared,

We assess where students are in their learning and construct teaching methods to meet them where they are at and then collectively devise common assessments and strategies to help the students meet the learning goals we have set for them. If there are students that are having issues with the material or if there are common misconceptions or problem areas for kids, teachers discuss ways to help facilitate their learning in different ways so that all students have a chance for success.

Regarding grouping students and individualizing instruction, HS2d said,

I might have just five students who were not proficient in this skill. So, I'm going to take those five students, and I'm going to put them in a group, and I am going to sit down with them and I am going to give them a mini lesson and walk them through the steps. Give them more examples, that type of thing. And, for those that are proficient, I would give them a little more practice and meet with them. So the action steps vary based on the skill level of the students. Sometimes, we find that we just need to go back and reteach something altogether.

HS2c also shared,

We individualize the assessments or the assignments. So once we have that data, we will take that data and individualize it. So some kids may have done just fine. This week, all students take the same CFA, where next week we will level their next steps.

### **Research Question 3: What Are the Barriers to Effective High School PLCs?**

Teachers were asked two interview questions that pertained to Research Question 3: "What would you change about PLCs?" and "What are some struggles that your team faces in being effective?" Responses to these two questions included scheduling issues and structural conditions.

Responses that mentioned time or accountability were coded under the theme of structural conditions. With regard to time, responses ranged from asking for more time within the school day to using PLC time strictly for PLCs (not getting pulled for meetings or being asked to do other tasks during PLC time).

With regard to the current allotted time to work in PLCs, HS1b shared,

Well, I think one thing that holds us back is the time constraints. I mean, it's great

that we have, you know, the early release to have that time to meet. But, like our PLCs always have a set time for, you know, lesson planning and collaborating with each other on lesson plans and whatnot, but we never get to it. Because there's just so many other things that need to be done.

Continuing that same thought process, HS1c shared,

One of the things I think of is time. If we had the time to not only develop the assessment but then do something with the data, take action on the data, it would be effective. We don't always have the time to look at the data and determine what we are going to do about it when they [the students] don't understand...even though we meet every week, every other week we're asked to do something outside of like what was originally planned for PLC.

Furthermore, HS2d said,

The time factor is a huge barrier. You know, we would love to be able to come in and say hey, I had this great strategy. It worked really well in my classroom. The kids did really well with it and be able to share and get ideas from each other. But, like you said, there are some checkboxes, some things we have to do.

Along those same lines, HS1a shared, "Sometimes we don't always have, you know, the time or the willingness for others to share their instructional strategies that are working in their classrooms." HS2c shared,

Sometimes you'll get pulled in for a meeting....so, there are times when our job gets in the way. And if you don't have everybody in there, then it's not good for the department.

Along those same lines, HS2e shared,

Sometimes we have goals set out by administration, for example, "unpack such and such a standard" or "read this chapter in such and such a book"... while these things are great to do when there is extra time, or great to do when we have PD, I feel that doing this in PLCs keeps us from addressing what is currently the most important thing for us; helping students learn most effectively. We need to be able to share with each other what we are doing in our classrooms that works.

HS2f shared, "Sometimes other school-related topics take precedence in PLCs. And we're not always able to focus on our team and what we're doing as a content area."

Several different teachers mentioned accountability. Some shared that they felt that because they teach a state-tested course, they are held to a higher standard, while others who taught elective courses shared that they did not know what to do with their time and would like to have more accountability and direction.

HS1e shared, "We don't have anybody coming in from the outside that knows what we are doing, as we all teach World Languages." HS2i added,

They're [PLCs are] completely unstructured. And we meet and we have opportunity, I guess to do that. But then every week is the same thing. So, I feel like having that structure in place would be great. Like, or at least a topic or something that we're supposed to be doing every week on my end.

On the other end of the spectrum, HS2f shared, "The biggest thing that will make a difference in PLCs would be sharing with each other. While some are saying there's no structure, we could say there's too much."

Continuing along the same lines of accountability, HS1e shared,

I think it's you know, you don't have anyone from the outside coming in. That's a

benefit. But, um, I think the disadvantage is that there's just sometimes a lack of respect because they [teachers] feel like, you're the PLC leader, but you're just a teacher like me. So you shouldn't be telling me what to do, you know?

HS2f added,

I'm saying we have a leader that keeps it on track. Yeah, so there's always one that takes over and then you're like okay, well that's it. So, you know, you need someone that's good at leading people and who has useful information and keeps us on track when it's necessary.

HS1c shared,

I would say I would get rid of the extra paperwork that goes along with the PLC process, like that's required for school. Filling in the minutes takes time out of our PLCs. I would much rather it be, maybe, recorded. Like, record our PLCs and you can watch the process instead of having to take the time and fill out all of those forms just for them to have those saved. Because, the process is wonderful and we're going through it, but then we have to stop and make sure we are filling in the minutes the right way.

#### **Research Question 4: What Components Are Needed to Encourage Effective PLCs?**

When teachers were asked to share "What can we do to make high school PLCs more effective," three common themes emerged: teacher voice and choice, structural conditions, and common vision. Regarding teacher voice and choice, HS2f shared,

If everyone knew what they were supposed to be doing. But not you know, like, we had some ownership. And number one, give us some choice in what is going to happen and so then we structured around that so much time on test, whatever,

so much time on vertical alignment, or whatever. Somehow there was structure and we knew what was coming.

In response to having PLC groups that have teachers who teach different subjects, HS1a shared,

Looking at, when you're having a group that has different content, or different levels of that content, you can look more at the vertical alignment, and being able to understand where students are successful and coming in from the course before. We could look at the areas that we recognize as weaknesses and work on those as a team across grade levels. I feel like that is missing. When in a PLC, a lot of times, we're looking at all the other things we have to do. And I think that would be a beneficial PLC. If you're in a group that's all the different content areas, you're able to actually look at, this is what our students are able to do here. What are they not able to do going forward? Or what are they able to do going forward, so you use less time of review, and other times more time to focus on the skills that are most important.

Along those same lines, HS2f shared,

If we were actually talking about what we are really doing versus making sure everything is the same, and that all common formative assessments are the same.

If we spent more time on the individuality, what we do and those parts of what we do that make ours better, and maybe some would incorporate and some would not.

Under structural conditions, responses that mentioned time or accountability were grouped together. Some responses echoed that of Focus Group Question 3 regarding what

holds PLC teams back from being efficient. When asked what would they change to make PLCs more effective, HS2c shared,

I hate to say time, but that could make things more effective. We as teachers never feel like we have enough time to do everything we would like to get done. But I feel like that also plays into effect into our lives that we live today. So, I definitely would say more time. Of course, I would prefer that time be at two o'clock. Not at four o'clock. But you know, when you ask for more time they might give it to you after school.

HS1b went on to say,

Either being given some PLC time either once a month, twice a quarter, some like that to have extended PLC you know, between the two high schools, especially in our district, you know where the English people from the other high school meet with the English people from our school and really thinking about across the district, well what are we all doing, you know, to help all of our kids, or even if we're looking at like a vertical alignment.

HS2e shared, "To make [PLCs] more effective I would have an agenda for each week based on the previous week and anything that comes up during the [PLC] week so everyone can plan and have a productive meeting." Continuing along the same lines, HS1a also shared, "There's a purpose for the meeting and there's an agenda laid out in some way, whether it's a formal agenda or we're just talking about what worked in our classrooms, it is important to come in with a plan."

Responses that centered around having common goals across the board, scheduling, and ideas of how PLC time could be enhanced all fell under the theme:

common vision. Regarding having a common vision, HS1a shared, “Every team member needs to have a role in the meeting. So that there’s not that one or two team members that are just kind of sitting in the back with nothing to say or contribute.” HS2c also shared,

I know personally because we’ve got English 1, 2, 3, and 4 and I think some teachers don’t see it as applicable to them. Because we focus so much on the EOC you know, and so you got a teacher who just teaches English 3 and 4, when they’re sitting there for an hour. And that is hard. So I get it.

HS2d echoed,

This year, our PLC is centered around the EOC because it’s such a big test. And there are two of us in our department, myself included, and another English teacher who have no classes that are affiliated with the EOC. And it’s kind of like when we center our PLCs around the EOC, I feel like I’ve been excluded. There’s nothing relevant to my class because the three and four standards aren’t extension. But where the EOC classes are, my classes have already been there and they need to be over here. Not back here with the EOC stuff. And sometimes, I feel like if I could just meet with my fellow person who teaches English 3 and 4 with me, she and I could collaborate and come up with our own CFAs.

Regarding having common goals to work toward, HS1d shared the most valuable time within the PLC:

I think our group worked the best in PLCs in the fall of this year because we were focused on creating performance assessments that we do every week, you know. We were working on them a week or two in advance, you know, from what had to be done. And everybody was participating. It was very good.



## Summary

Analysis of data collected through this research study offered insight into teacher perceptions of effective high school PLCs. Through both Likert survey data and open-response interview questions, I have the following main takeaways:

1. Teachers collectively agree that the proper structural conditions must be in place in order for PLCs to be effective. This includes accountability, time, and scheduling.
  - a. Teachers want a healthy balance of accountability, while still feeling that they have a choice in some of what they are asked to do.
  - b. Teachers want more time to accomplish what they need to do. They want the time they have to be protected, and they want to be able to use it to benefit each other and ultimately their students.
2. Teachers understand the importance of collaborative practices and using data to drive instructional practices so all students can learn and be challenged.
  - a. Teachers want to be a part of a safe environment. They want to collaborate; to share their ideas and learn from each other.
  - b. Teachers want to use data to drive and individualize instruction and to challenge all levels of students.
3. Teachers want to have a voice and a choice in what they say and do. They want to have a common purpose.
  - a. Teachers want to have small common goals that they work toward together.
  - b. They want to be able to choose to learn something new together, but to do

this, there must be time allotted.

- c. Teachers want to understand the basic structure and expectation but want to be able to have some choice in what they do.

## Chapter 5: Discussion

### Introduction

Much research has been conducted around the effectiveness of PLCs; however, most of this research is conducted at the elementary level. Several differences exist between high school and elementary school PLCs. This could be attributed to the fact that high schools face certain barriers that elementary schools do not, such as a lack of time built into the school day or insufficient use of that time (Hairon et al., 2014). In addition to time, space, and a place to work together, teachers also need to share common values and be working toward a common goal (Cockerell, 2008). Fisher et al. (2020) stated that establishing goals for the PLC publicly determines the direction the group is taking.

### Time

While finding a common time in the master schedule is relatively easy at the elementary and even the middle school level, this poses an issue at the high school level. Elementary school teachers typically have a common planning time each day. Thus, PLCs can be structured to fit into that period of time each week. At the high school level, master schedules are not typically built for high school teachers to have common planning. In order for PLCs to be effective at the high school level, structured time should be provided within the school day where teachers can discuss, plan, and implement instructional strategies (DuFour et al., 2016). While it is important to provide a structured time within the school day for teachers to collaborate toward a common goal, it is equally as important for that time to be protected, meaning PLC time should be set aside for PLCs. Bloomberg and Pitchford (2016) shared that nearly 90% of all teachers are a part of a collaborative team; however, the majority spend less than 1 hour per week

collaborating with their colleagues. If 1 hour of structured time is set aside for teams to meet with their PLC, it is that much more important that the time spent together is worthwhile and protected.

### **Content Mastery**

High school teachers typically majored in their content area and therefore feel that they are masters of their content, which can lead to push back from teachers when they are asked to analyze data based on how and what they are teaching. This can also become a barrier to overcome. At the high school level, teachers often teach more than one subject within the school day. This is especially true at smaller high schools. Sometimes, there is only one teacher who teaches a particular subject. Fisher et al. (2020) called this teacher a singleton. In general, secondary teachers tend to focus more on teaching the content and the standards rather than on students learning progressions.

### **Collaboration**

The PLC model requires a common time for teachers to unpack standards, develop success criteria and learning intentions, create common assessments, analyze data, and make decisions based on that data (DuFour et al., 2016). Effective PLCs are based on a culture of collaboration, where teachers support each other in identifying common goals, share different teaching and assessment strategies, and analyze student learning to determine their effectiveness (Hutchinson & Robinson, 2018). This poses another problem for high school PLCs: how to collaborate with others in the same department with no common subject assignments. Having teachers with planning times concurrent with others who teach the same subject can be problematic (Fisher et al., 2020). Pair this with the content-driven nature of secondary teachers, and this creates an

environment that is not conducive to learning from one another (Hutchinson & Robinson, 2018). In order to collaborate, teams must possess common values and goals. They must be working toward something together. This typically involves giving assessments and analyzing data to make informed decisions; however, if teachers do not find value in giving an assessment, they tend to dismiss the importance of analyzing the data (Peery, 2011). Analyzing data and participating in reflective practice are two integral aspects of effective PLCs (DuFour et al., 2016).

### **Effective PLCs**

Research shows that when PLCs are effective, there are numerous benefits for teachers and students. Three years into PLC implementation, DuFour personally witnessed increased student achievement as the percentage of students making Ds or Fs significantly decreased, while the percentage of students making As and Bs significantly increased in 1985 at Stevenson High School in Lincolnshire, Illinois (McLester, 2012). Of course, if effective PLCs have a positive correlation with increased student achievement, we would be crazy not to attempt to achieve this same structure at the high school level.

Effective PLCs are not focused on what the teachers are teaching, but rather on what the students are learning and what the group as a whole can do about it (Hansen, 2015). Therefore, if we want to understand how to overcome the barriers high school PLCs present, it is important to understand the perspectives of teachers who are currently a part of high school PLCs as well as what research says about how adults learn. In this study, high school teachers shared their experiences and perceptions regarding PLCs through both quantitative and qualitative data. Participants filled out a 15-item Likert

description survey that measured three elements of PLCs: critical elements, human resources, and structural conditions. The last question of the survey included a link to a Google Form for participants to volunteer in a focus group interview. Volunteers from focus groups were compiled and randomly selected to ensure that at least one teacher from all four core subjects and one elective teacher were represented at each focus group interview. Furthermore, to ensure the comfort of participants, at least two participants for each focus group interview were from each high school.

The overarching goal of this research was to understand the perceptions of high school teachers who are currently involved in PLCs. DuFour et al. (2016) defined PLCs as a recursive process of collective inquiry and action research to increase student achievement. In the school district of study, elementary schools that have bought into the PLC process are seeing great achievement gains in their tested subjects. It only makes sense then, that if at all possible, the high schools would replicate this process at the high school level. There are several barriers high schools face in replicating the PLC process at the high school level. By understanding teacher perceptions of effective PLCs as well as their perceptions of their current state, research could be used to strengthen PLCs within the district of study.

### **Connections to the Literature**

Literature reviewed in Chapter 2 contributes to the theories developed in this mixed methods study in overcoming the barriers of high school PLCs. The following theories are connected to scholarly reviewed literature and are in line with significant findings in previous research. Table 10 details the research questions and the connections to the literature previously reviewed in Chapter 2.

**Table 10***Connections Between Research Questions and the Literature*

Research question	Connection to the literature
1. How do high school teachers define effective PLCs?	The role of the educator’s experience (Knowles & Holton, 2005; Muñoz et al., 2018).  Teaming (Drago-Severson et al., 2013).
2. How do high school PLCs contribute to increased student achievement?	Orientation to learning (Knowles & Holton, 2005).
3. What are the barriers to effective high school PLCs?	Structural conditions – protected time within the school day (DuFour et al., 2016).
4. What components are needed to encourage effective PLCs?	Collegial inquiry (Drago-Severson, 2021).  Adults learn best when they are presented with an immediate problem to solve (Merriam & Bierema, 2013).  Common challenge (Fisher et al., 2020).  Adults want to have autonomy (Muñoz et al., 2018).  Choice increases intrinsic motivation (Knowles & Holton, 2005).  Learner’s need to know (Knowles & Holton, 2005).

**Research Question 1: How Do High School Teachers Define Effective PLCs?**

During focus group interviews, teachers were asked to “Describe what an ideal PLC team looks like. What do they do? How is their time spent?” The collective responses echoed the importance of having a safe and collaborative environment, creating and using a common curriculum and CFAs, and using data to drive instruction. According to survey results, 22 teachers (62.9%) indicated they “take risks in trying new techniques and ideas and make efforts to learn more about their profession.” This speaks

to the need for a safe environment for teachers to be willing to take risks in trying new strategies and share ideas with each other. This is in alignment with empirical research on adult learning theories. In order for adults to learn, they need opportunities to collaborate with like-minded colleagues where they can participate in group discussions as well as problem-solving situations; this is known as the role of the educator's experience (Knowles & Holton, 2005; Muñoz et al., 2018). With regard to learning more about their profession, this speaks to the willingness of teachers to obtain a growth mindset and to pursue new learning together. DuFour et al. (2016) named the need for educators to work together and take collective responsibility as one of the key elements in creating effective PLCs. Thus, it is important for PLCs to provide a safe environment for teachers to be able to be vulnerable and willing to share what is working and what is not working.

According to survey results, the majority of teachers (74.3%) feel that they “have autonomy to make decisions regarding their work guided by the norms and beliefs of the professional learning community” in what they do for the majority of the time spent in PLCs. While this is the majority, there were 13 teachers who did not feel this was the case. This speaks to the role of the educator's experience – adults need opportunities to work together and collaborate over group discussions, problem-solving skills, and to work with adults who think like them (Knowles & Holton, 2005; Muñoz et al., 2018).

According to the teacher survey, 67.5% of teachers would agree that PLCs are a place where teachers can create activities and develop strategies that will improve instruction and student assessment. Effective PLCs provide these opportunities where teachers unpack their standards, develop success criteria, create CFAs, share the data, and create action plans to ensure all students move forward in their learning. Focus group



interview responses indicated that in an ideal PLC, teachers work together using common curriculum, develop common assessments, and use data to drive instruction. DuFour et al. (2016) stated that effective PLCs develop CFAs to determine whether or not students have learned the material, and they use that data to make instructional decisions. Creating and implementing frequent CFAs is one of the most effective strategies a PLC can utilize (DuFour et al., 2016). Formative assessments provide a snapshot of information that allows teachers to know whether or not students understood the material and allows teachers to provide immediate feedback to guide their learning.

Drago-Severson et al. (2013) discussed the concept of teaming where teachers are allowed to question not only their own thinking but that of their colleagues regarding their teaching and learning philosophies. Research shows that PLCs can be effective when adults are able to learn and PLCs incorporate both reflective practices and collaborative activities with teaming (Drago-Severson et al., 2013). DuFour et al. (2016) shared that in effective PLCs, team members possess a mutual responsibility for working together toward a common goal. According to survey data, the majority of teachers (68.6%) were in support of their collective focus, and they affirm their common values through words and actions. DuFour et al. went on to state that the team develops and uses a common pacing guide to ensure that all students have equal access to the same curriculum, regardless of the teacher. When teachers were asked to describe an ideal PLC during focus group interviews, HS1e shared,

Ideally, you are all motivated teachers and you have the same goals. Which does not happen very often. And you just collaborate on the common curriculum. You work together to write assessments together. After you give the assessments, you

compare your results and you see your strengths and your weaknesses. You take away from that, what you can do better to learn from others and drive your instruction.

Therefore, in order for PLCs to be effective, teachers must have multiple opportunities to collaborate with their like-minded peers using data to help them problem solve and increase student achievement.

### **Research Question 2: How Do High School PLCs Contribute to Increased Student Achievement?**

During focus group interviews, teachers were asked “As a PLC, what are some actions that you take to ensure that all students move forward in their learning?” Two themes emerged from their collective responses: reflective practices and differentiated instruction. This is in alignment with the adult learning theory of orientation to learning; adults learn best when they are presented with an immediate problem to solve (Knowles & Holton, 2005). Typically, adults do not learn for the sake of learning (Merriam & Bierema, 2013). Adults learn best when they believe that learning will help them perform tasks or deal with problems they confront in their classrooms (Knowles & Holton, 2005). Basically, adults are motivated to learn when they have an immediate need and a problem to solve. This is exactly what Fisher et al. (2020) shared as a common challenge: a common issue the PLC group will focus on based on formative assessment data and uncovered learning gaps. DuFour et al. (2016) stated that action orientation and experimentation is one of the six vital characteristics of an effective PLC.

From survey responses, the majority of teachers (62.8%) believe that all students can learn at reasonably high levels. This speaks to collective teacher efficacy, which has

the greatest effect on student learning (Hattie, 2017). While this is the majority, there is certainly room for growth. In order for teachers to believe in each other, they must first believe in themselves – that all students can learn and that they can make a difference in the lives of students. Research shows that using data and owning data can be used to support student growth as well as professional growth, increase a sense of self-efficacy, and increase teacher agency (Lasater et al., 2019). Thus, one way to build teacher self-efficacy is to create CFAs and compare data in PLCs.

Teachers must first feel that the PLC environment is a safe space to share their results and strategies. This begins with agreeing on a collective focus – having common values (as previously stated). When teachers have a collective focus and common values, they feel comfortable collaborating with each other. Once teachers feel comfortable collaborating, they are able to share what worked and what did not with their colleagues. This speaks to one of the overarching themes that emerged from qualitative data: reflective practices. During focus group interviews, HS1b mentioned reflective practices, stating,

When we're reflecting on ourselves in our practices, we also tend to hold each other accountable. We are able to take our CFAs and adapt them to make them more rigorous for our students. And then we look at the student piece, really only focusing on what is within our control.

Discussing and analyzing data with like-minded colleagues to determine what worked and what did not is a reflective practice. This is exactly how teachers perfect their craft: by reflecting on how the lesson went and on how students performed on their formative assessments. Sharing these results, in turn, creates collective teacher efficacy.

Eighty percent of respondents on the survey indicated that they share specific challenges they face with one another. While this is a very high percentage, there are 20% of teachers currently involved in a PLC who are not on a level to share in specific challenges.

In order for adults to feel comfortable in sharing, trust must first be established and there must be a safe environment. This is in line with what Drago-Severson (2021) considered collegial inquiry: a practice and process that the more adults engage in collegial inquiry, the more awareness, beliefs, values, and assumptions grow (Drago-Severson, 2021). As collegial inquiry increases, teachers possess more self-efficacy, and collective teacher efficacy subsequently increases. Collective teacher efficacy is one of the four cross-cutting values Fisher et al. (2020) shared in *PLC+*. Fisher et al. (2020) stated that there is “an incredible amount of brain power we can capitalize on when we take our individual capacity and contribute it to a collective whole” (p. 10).

Analyzing CFA data as a PLC helps teachers to personalize learning for all students. Using reflective practices, teachers are able to differentiate instruction and materials based on students’ individual needs. During focus group interviews, HS2d shared the following about individualizing instruction and grouping students:

I might have just five students who were not proficient in this skill. So, I’m going to take those five students, and I’m going to put them in a group, and I am going to sit down with them and I am going to give them a mini lesson and walk them through the steps. Give them more examples, that type of thing. And, for those that are proficient, I would give them a little more practice and meet with them. So the action steps vary based on the skill level of the students. Sometimes, we

find that we just need to go back and reteach something altogether.

DuFour et al. (2016) stated that in an effective PLC, the team uses student learning to verify and advise the individual and collective practice of the PLC. Much like how students learn, adult learning should also be individualized and differentiated to meet the individual needs of each learner. Knowles and Holton (2005) shared that timing is key in linking learning experiences with developmental tasks in helping adults be ready to learn. Therefore, PLCs can become effective when adults have some autonomy and freedom in terms of how they can accomplish the tasks at hand (DuFour et al., 2016).

### **Research Question 3: What Are the Barriers to Effective High School PLCs?**

To answer this research question, participants were asked two questions during focus group interviews: “What would you change about PLCs” and “What are some struggles that your team faces in being effective?” Responses to these two questions included scheduling issues and structural concerns. Scheduling issues included responses that mentioned PLC time being used for other meetings or members of a PLC being pulled to attend other meetings such as IEPs. HS2c shared,

Sometimes you’ll get pulled in for a meeting. I had one IEP that I was pulled in to run two hours, and I missed most of PLC. So, there are times when our job gets in the way. And if you don’t have everybody in there, then it’s not good for the department.

Along those same lines, HS2f shared, “Sometimes other school-related topics take precedence in PLCs. And we’re not always able to focus on our team and what we’re doing as a content area.” Along those same lines, HS2e shared,

Sometimes we have goals set out by administration, for example, “unpack such

and such a standard” or “read this chapter in such and such a book”...while these things are great to do when there is extra time, or great to do when we have PD, I feel that doing this in TLTs keeps us from addressing what is currently the most important thing for us; helping students learn most effectively. We need to be able to share with each other what we are doing in our classrooms that works.

From survey responses, only 54% of teachers indicated that there is a formal process in their respective buildings that provides substantial and regularly scheduled blocks of time where teachers can conduct ongoing self-examination and self-renewal. This is a very surprising statistic, as there is built-in time within the school day each week for PLCs to meet. DuFour et al. (2016) stated that in order for PLCs to be effective, there should be protected, structured time within the school day for teachers to be able to discuss, plan, and implement instructional learning strategies. This is very similar to action orientation and experimentation: one of the six vital characteristics of effective PLCs (DuFour et al., 2016).

In focus group interviews, teachers expressed that time is a barrier that prevents high school PLCs from being effective. In focus group interviews, HS1b shared,

Well, I think one thing that holds us back is the time constraints. I mean, it's great that we have, you know, the early release to have that time to meet. But, like our PLCs always have a set time for, you know, lesson planning and collaborating with each other on lesson plans and whatnot, but we never get to it. Because there's just so many other things that need to be done.

Along those same lines, HS1c shared,

One of the things I think of is time. If we had the time to not only develop the

assessment but then do something with the data, take action on the data, it would be effective. We don't always have the time to look at the data and determine what we are going to do about it when they [the students] don't understand...even though we meet every week, every other week we're asked to do something outside of like what was originally planned for PLC.

DuFour et al. (2016) stated that the PLC model requires a common time for teachers to unpack standards, develop success criteria and learning intentions, create common assessments, analyze data, and make instructional decisions based on that data.

Several teachers mentioned accountability in focus group interviews. Some teachers shared that they felt that because they teach a state-tested course, they are held to a higher standard, while others who taught elective courses shared that they did not know what to do with their time and would like to have more accountability and direction. For instance, HS1e shared, "We don't have anybody coming in from the outside that knows what we are doing, as we all teach world languages." HS2i added,

They're [PLCs are] completely unstructured. And we meet and we have opportunity, I guess to do that. But then every week is the same thing. So, I feel like having that structure in place would be great. Like, or at least a topic or something that we're supposed to be doing every week on my end.

Continuing along the same lines of accountability, HS1e shared,

I think it's you know, you don't have anyone from the outside coming in. That's a benefit. But, um, I think the disadvantage is that there's just sometimes a lack of respect because they [teachers] feel like, you're the PLC leader, but you're just a teacher like me. So you shouldn't be telling me what to do, you know?

It is important to note here that these two participants were elective teachers. It was a common theme for elective teachers to feel like there was less structure than that of core teachers. This could be due to a lack of proper training for elective teachers as a whole, or this could be due to the lack of accountability for non-state-tested PLCs in general. On the other end of the spectrum, HS2f shared, “The biggest thing that will make a difference in PLCs would be sharing with each other. While some are saying there’s no structure, we could say there’s too much.”

#### **Research Question 4: What Components Are Needed to Encourage Effective PLCs?**

According to DuFour (2004), high school PLCs are considered effective when they center around three main concepts: making sure all students learn, a collaborative culture, and a focus on outcomes. During focus group interviews, teachers were asked to answer, “What can we do to make high school PLCs more effective?” This question was aimed at obtaining the perspectives of high school teachers on how PLCs can be effective. Three themes emerged from their responses: teacher voice and choice, structural conditions, and common vision. These three themes speak to the three main concepts DuFour (2004) mentioned are necessary for PLCs to be effective. From survey data, only 12 teachers (34.3%) shared that they felt honored for their expertise within the school and the district. Pairing the fact that teachers are feeling underappreciated with feelings that they are micromanaged to an extent would certainly make it difficult to have a productive PLC. It is important to note, however, that the past 3 years have been especially tough for teachers. Teaching through a pandemic and having to make daily adjustments on how to move students forward in their learning are taxing.

During focus group interviews, HS2f shared,



If everyone knew what they were supposed to be doing. But not you know, like, we had some ownership. And number one, give us some choice in what is going to happen and so then we structured around that so much time on test, whatever, so much time on vertical alignment, or whatever. Somehow there was structure and we knew what was coming.

Based on this statement, HS2f does not know what the agenda and expectations are on a week-to-week basis. Perhaps HS2f does not have a clear understanding of the PLC cycle and the choices the group has as a whole within the district high-impact team process.

Research shows that adults want to have autonomy over the decisions in their lives (Muñoz et al., 2018). In order for adults to learn, they need to feel like they have a voice and choice in what and how they learn. Knowles and Holton (2005) stated that giving adults choice in what and how they learn will positively impact intrinsic motivation.

With regard to structural conditions, focus group interview participant HS2e shared, “To make TLTs more effective I would have an agenda for each week based on the previous week and anything that comes up during the TLT week so everyone can plan and have a productive meeting.” Continuing along the same lines, HS1a shared, “There’s a purpose for the meeting and there’s an agenda laid out in some way, whether it’s a formal agenda or we’re just talking about what worked in our classrooms, it is important to come in with a plan.” While teachers need that choice as adult learners, they also want to know the what and why of the new learning. In order for adults to learn, they must understand the purpose for learning prior to learning it. This is what Knowles and Holton (2005) described as the learner’s need to know.

During focus group interviews, HS1d shared the most valuable time within the

PLC:

I think our group worked the best in PLCs in the fall of this year because we were focused on creating performance assessments that we do every week, you know.

We were working on them a week or two in advance, you know, from what had to be done. And everybody was participating. It was very good.

This speaks to the need for teachers to have a common purpose – a common vision to work toward as a group. Bloomberg and Pitchford (2016) described this phenomenon as the first step toward effective teaming, which is to identify the team’s purpose and then identify the shared beliefs of team members.

### **Summary of Findings**

Table 11 outlines the significant findings of this research and the connections to the literature previously reviewed in Chapter 2.

**Table 11***Findings and Connections to the Literature*

Findings	Connections to literature
<p>1. Teachers collectively agree that the proper structural conditions must be in place in order for PLCs to be effective. This includes accountability, time, and scheduling.</p> <ul style="list-style-type: none"> <li>a. Teachers want a healthy balance of accountability, while still feeling that they have a choice in some of what they are asked to do.</li> <li>b. Teachers want more time to accomplish what they need to do. They want the time they have to be protected and they want to be able to use it to benefit each other and ultimately their students.</li> </ul>	<p>Mentoring (Drago-Severson, 2021).</p> <p>Role of educator's experience (Knowles &amp; Holton, 2005).</p> <p>Need for collaboration with like-minded colleagues (Knowles &amp; Holton, 2005; Muñoz et al., 2018).</p>
<p>2. Teachers understand the importance of collaborative practices and using data to drive instructional practices so that all students can learn and be challenged. Teachers want to be a part of a safe environment. They want to collaborate; to share their ideas and learn from each other.</p> <ul style="list-style-type: none"> <li>a. Teachers want to use data to drive and individualize instruction and to challenge all levels of students.</li> </ul>	<p>Orientation to learning (Knowles &amp; Holton, 2005).</p> <p>Collegial Inquiry (Drago-Severson, 2021)</p> <p>Adults learn best when they are presented with an immediate problem to solve (Merriam &amp; Bierema, 2013).</p> <p>Common challenge (Fisher et al., 2020).</p> <p>Teaming (Drago-Severson, 2021).</p>
<p>3. Teachers want to have a voice and a choice in what they say and do. They want to have a common purpose. Teachers want to have small common goals that they work toward together.</p> <ul style="list-style-type: none"> <li>a. They want to be able to choose to learn something new together. But to do this, there must be time allotted.</li> <li>b. Teachers want to understand the basic structure and expectation, but want to be able to have some choice in what they do.</li> </ul>	<p>Teaming (Drago-Severson, 2021); characteristics of effective PLCs share the same ideas of teaming with respect to collaboration and reflection. Adults wish to be self-sufficient and have autonomy over the decisions in their lives (Muñoz et al., 2018).</p> <p>Giving adults choice will increase intrinsic motivation (Knowles &amp; Holton, 2005); collegial inquiry (Drago-Severson, 2021)</p>

## Implications for Practice

Based on collected data and literature, the following are recommendations for high school PLCs to be effective:

- **Continue to provide structured time within the school day. Protect PLC time so PLCs can be effective.** DuFour et al. (2016) stated that in order for PLCs to be effective, there should be protected, structured time within the school day for teachers to work together to discuss, plan, and implement instructional practices. Continue to build time into the school day for PLCs to formally meet on a weekly basis. While time was built into the school day for PLCs to meet, participants indicated that PLC time was not always protected. From survey responses, only 54% of teachers indicated that there is a formal process in their respective buildings that provides substantial and regularly scheduled blocks of time where teachers can reflect. While there is a built-in scheduled time for teachers to meet with their PLC groups, teachers shared that they were sometimes pulled for other meetings or they were asked to complete something during PLC time. In focus group interviews, teachers shared that they were pulled for various meetings during PLC time. HS2c shared,

Sometimes you'll get pulled in for a meeting. I had one IEP that I was pulled in to run for 2 hours, and I missed most of the PLC. So, there are times when our job gets in the way. And if you don't have everybody in there, then it's not good for the department.

According to Huguet et al. (2017), protecting PLC time is a critical

component in data analysis and collective inquiry. Consider setting guidelines and effectively communicate those guidelines to building-level administrators and all stakeholders to ensure that PLC time is used for PLCs only.

- **All teachers need to be properly trained to ensure that they understand the process and the power they have to make choices within the PLC.**

Continue to provide training for new teachers and provide ongoing training for teachers, coaches, and administrators to understand the process. From survey responses, 26 teachers (74.3%) shared that they feel they have a voice and choice in what they do for the majority of the time spent in PLCs.

However, from focus group responses, there were several teachers who shared they do not feel they have autonomy. HS2f shared, “And number one, give us some choice in what is going to happen and so then we structured around that so much time on test, whatever, so much time on vertical alignment.” HS2e shared,

Sometimes we have goals set out by administration, for example, “unpack such and such a standard” or “read this chapter in such and such a book”...while these things are great to do when there is extra time, or great to do when we have PD, I feel that doing this in TLTs keeps us from addressing what is currently the most important thing for us; helping students learn most effectively. We need to be able to share with each other what we are doing in our classrooms that works.

This could come from the fact that not all teachers, coaches, or administrators understand the process. It also could be that some schools use PLC time to

accomplish school business. Consider providing scaffolded professional development for teachers to understand and interpret the PLC process within the district. Teachers expressed their desire to be able to make choices to be able to drive their own learning. This is in line with learner's self-concept; adults have the need to be independent in their own learning (Knowles & Holton, 2005). Muñoz et al. (2018) stated that adults, much like students, have a desire for choice and control in what and how they want to learn.

Furthermore, allowing adults to drive their own learning within the PLC will also intrinsically motivate them (Knowles & Holton, 2005). Merriam and Bierema (2013) stated that if adults can understand why new learning is important for them, they are more likely to be intrinsically motivated to engage in the learning. Therefore, it is important for teachers to understand their power and ability to make choices within the PLC process. Teachers do not see the choice they have.

- **All PLCs should be held to the same standard.** Strategic accountability must come from within the PLC and be tied to the mission and vision of the district; it distinguishes effective PLCs from ineffective PLCs (Easton, 2016). Some teachers indicated they did not feel they were held to the same standard as those who are a part of tested PLCs. HS1e shared,

I think it's you know, you don't have anyone from the outside coming in. That's a benefit. But, um, I think the disadvantage is that there's just sometimes a lack of respect because they [teachers] feel like, you're the PLC leader, but you're just a teacher like me. So you

shouldn't be telling me what to do, you know?

Other teachers shared that they felt that they were held to a higher standard because they shared a state-tested subject. HS2f shared, "While some are saying there's no structure, we could say there's too much." It is easy to hyper focus on the content areas, but if elective courses are expected to participate in the PLC process, they need to be held to the same standard, and administrators and/or coaches should be a support for them as well.

- **PLCs should be led by teachers, and each PLC should have a lead teacher.** Teachers want to feel like they are driving the process of PLCs. While this is the goal of the district, most teachers do not yet feel that they have this control. This could be attributed to the fact that they misunderstand directives. During focus group interviews, HS2f shared,

If everyone knew what they were supposed to be doing. But not you know, like, we had some ownership. And number one, give us some choice in what is going to happen and so then we structured around that so much time on test, whatever, so much time on vertical alignment, or whatever. Somehow there was structure and we knew what was coming.

Consider providing explicit instructions to administrators to provide autonomy to PLC groups to be teacher-led. For a PLC to be truly teacher-led, a teacher leader should be properly trained to help bolster the PLC process. During focus group interviews, HS2f shared,

I'm saying we have a leader that keeps it on track. Yeah, so there's

always one that takes over and then you're like okay, well that's it. So, you know, you need someone that's good at leading people and who has useful information and keeps us on track when it's necessary.

Consider ensuring that all PLCs have a trained teacher leader and that those teachers have some common time with instructional coaches and/or administrators on a regular basis. This will ensure fidelity of the process and will help to identify any additional training or professional development that might be needed on a case-by-case basis.

- **Effective PLCs should have a predetermined agenda.** Teachers want to know the expectations. Continue using an agenda that provides next steps for teachers to prepare for the next PLC meeting. During focus group interviews, HS2f shared, “If everyone knew what they were supposed to be doing. But...like we had some ownership. And...give us some choice in what is going to happen...there was structure and we knew what was coming.” In a study conducted by Carpenter (2017), educators were able to collaborate more effectively when they had developed their own agenda rather than being handed one from administrators. Furthermore, teachers who were told what to do by administration felt that they had little-to-no say and became resentful. Those teachers reported that the PLCs felt like a check box rather than an opportunity to collaborate with their colleagues (Carpenter, 2017).
- **Effective PLCs should create and use CFAs to create action plans so all students can move forward in their learning.** One of the six vital characteristics of effective PLCs is action orientation and experimentation.



This describes the ongoing process of Evidence, Analysis, Action where teachers give CFAs, analyze the data, and make actionable decisions to inform student instruction. Teachers create, administer, and analyze data from CFAs to personalize the learning for all students. DuFour and Reeves (2016) suggested that effective PLCs implement an assessment process that includes continual, co-created CFAs. Furthermore, it is imperative for effective PLCs to use the outcomes of CFAs to make instructional decisions (DuFour & Reeves, 2016). This includes identifying students who do and do not understand as well as identifying what teaching strategies are working; continuing to emphasize the importance of creating and interpreting CFAs during PLCs; and then taking action on the results of formative assessments to catch students before they fail.

- **PLCs should focus on reaching all levels of students through personalized instruction.** DuFour et al. (2016) stated that in an effective PLC, the team uses student learning (data) as evidence to drive both the individual and collective practice of the PLC. Through focus group interviews, it is evident that teachers use data to determine whether or not students understand the skill at hand. HS1e shared the following:

Ideally, you are all motivated teachers and you have the same goals.

Which does not happen very often. And you just collaborate on the common curriculum. You work together to write assessments together.

After you give the assessments, you compare your results and you see your strengths and your weaknesses. You take away from that, what

you can do better to learn from others and drive your instruction.

Along those same lines, HS2d shared,

Using a preassessment, taking the strengths, the weaknesses, and using that data to then ask what do we do next, so you know, developing a CFA, and seeing where kids fall, using that data to drive what we do next, as far as, you know, how can we help those who struggled? What can we do for those who are proficient? And how do we extend the learning for those who already understand? In an ideal situation, doing that on a weekly basis is something that would be phenomenal...But ideally, it's all about common formative assessments, using that data to drive instruction.

High schools should continue to emphasize the importance of using CFA data to meet the individual needs of students through grouping students and providing differentiated learning experiences.

In order to maximize the effectiveness of PLCs within the school district of study, teachers should continue to emphasize what is working in PLCs as well as incorporate suggested aspects of effective PLCs from teachers in this study. These recommendations are in line with empirical research regarding effective PLCs and adult learning theories.

### **Recommendations for Further Study**

One recommendation for further study is for this study to be replicated in different size high schools around the state and nation. PLCs are conducted differently based on the size of the school. At the larger high school, PLCs tended to be more subject

specific, whereas at the smaller high school, teachers tended to teach more than one subject and there were some teachers who were singletons. While both schools shared some barriers, each school had its own specific barriers based on issues that come with larger schools versus smaller schools.

Another recommendation for further study would be to investigate the different perceptions of high school teachers who teach core courses compared to those who teach elective courses. While this study did not compare those teachers, there were notable differences between those two teacher groups, and a study on this could provide valuable insight into how to implement and sustain effective PLCs within both groups of teachers.

In this particular study, I did not ask how many years of experience or the level of proper PLC training teachers had at the time of the study. It would be interesting to note the similarities and differences that might arise in their perspectives due to their varying levels of expertise and training. Thus, another recommendation is to compare the perspectives of veteran teachers to those of new teachers as well as varying levels of expertise among teachers.

Another potential study would be to compare the perspectives of administrators to teachers regarding the perceptions of effective PLCs at the high school level. During focus group interviews, several teachers mentioned the importance of having administrators in their PLCs. The role of the administrator in a PLC would be an interesting aspect to study, as this role differs entirely from that of a teacher. Thus, it would be impactful to study the perspectives of administrators with regard to their role in the PLC.

As a final recommendation for further study, it would be insightful to compare the

perspectives of school-based instructional coaches to both administrators and teachers on the perceptions of implementing and sustaining effective high school PLCs. Fisher et al. (2020) suggested that PLC activators (leaders) should not be instructional coaches or administrators, but teacher leaders. Teacher leaders, instructional coaches, and administrators must work together in implementing and sustaining PLCs. Thus, it would be interesting to study their various roles and perspectives of what that process looks like through their eyes.

### **Limitations and Delimitations**

This study was limited to approximately 122 high school teachers from two high schools who currently participate in PLCs within one school district in the upstate of South Carolina. The two high schools of study were very different in size. With a difference in size comes a potential difference in barriers. Both high schools within the school district of study were included in order to maximize the diversity of the sample population within one geographical location.

As an instructional coach within the district of study, many participants know me personally. While I made all attempts to minimize influence by ensuring anonymity among participants, I realize this could have impacted responses, especially during focus group interviews.

This study was limited to a population of high school teachers who currently attend PLCs on a regular basis and are employed by one of two high schools in a school district located in the upstate of South Carolina. The study of teacher perceptions of effective high school PLCs was limited to teachers within the school district of study. I noticed that the barriers differed based on school and whether or not the teachers were

considered a core (math, science, English, or social studies) teacher or an elective teacher. There were also differences between those who teach a state-tested course and those who do not.

Lastly, I did not provide questions on the survey to differentiate between teachers who had been formally trained in the PLC processes within the district of study. Thus, I did not know the amount of training each participant had at the time of the study. Therefore, I could not make inferences about the level of training with regard to teacher knowledge and understanding of effective PLCs.

### **Conclusion**

Being a part of the PLC process within the district of study for the last 5 years (first as a teacher and now as an instructional coach), I have witnessed the journey of PLCs within the school district of study. I have also witnessed the barriers high school teachers face in ensuring that time is well spent in PLCs. The purpose of this study was to understand the current perceptions of high school teachers surrounding effective PLCs within the school district of study as well as to discover ways to strengthen the PLC process.

This study used both quantitative and qualitative data to best answer the four research questions. Through both survey and focus group interview data, it was noted that teacher perceptions were in line with Knowles and Holton's (2005) and Drago-Severson's (2013) adult learning theories as well as DuFour et al.'s (2016) characteristics of effective PLCs. Teachers collectively agreed that proper structural conditions need to be in place in order for PLCs to be effective. This includes structured time and shared accountability. Teachers want PLC time to be protected. Furthermore, teachers

understand the importance of collaborative practices; they want to share ideas and learn from one another. Teachers understand the importance of analyzing data to make data-driven decisions that will move all learners forward. Teachers have the need to understand the expectations of the PLC process so they can have autonomy to make data-driven decisions within their PLC. Teachers want to have a voice and a choice in what they work toward together.

This study was prompted by a desire to understand the perceptions of teachers on the characteristics of effective PLCs at the high school level. Having been a part of the PLC process from start to finish as both a teacher and an instructional coach, I have experienced the barriers high school teachers face in implementing and sustaining effective PLCs. Through this study, teachers shared their viewpoints and stories regarding when PLCs work and when they do not.

While multiple barriers do exist for high schools in comparison to their elementary counterparts, it is possible to implement and sustain effective PLCs at the high school level. By understanding the important perspectives of teachers and applying both the components of effective PLCs and how adults learn best, school districts can maximize the effectiveness of PLCs at the high school level and overcome some of the barriers that exist.

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**Appendix**

**Professional Learning Communities Survey**



## Professional Learning Communities Survey

Based on the article: *Building Professional Community in Schools* by Sharon Kruse, Karen Seashore Louis and Anthony Bryk.

This survey will help you think about and assess the extent to which each of the major factors associated with professional learning community—critical elements, human resources, and structural conditions is currently present at your school.

### 1.0 CRITICAL ELEMENTS

#### 1.1 Reflective Dialogue

- a. Faculty/staff members talk with each other about their situations and the specific challenges they face.

Not at All	Somewhat	50%	To a large Degree	To a Great Extent
1	2	3	4	5

#### 1.2 De-Privatization of Practice

- b. Teachers share, observe, & discuss each others' teaching methods & philosophies.

Not at All	Somewhat	50%	To a large Degree	To a Great Extent
1	2	3	4	5

#### 1.3 Collective Focus on Student Learning

- c. Teachers assume that all students can learn at reasonably high levels & that teachers can help them.

Not at All	Somewhat	50%	To a large Degree	To a Great Extent
1	2	3	4	5

#### 1.4 Collaboration

- d. Teachers not only work together to develop shared understandings of students, curriculum & instructional policy, but also produce materials & activities that improve instruction, curriculum, & assessment.

Not at All	Somewhat	50%	To a large Degree	To a Great Extent
1	2	3	4	5

#### 1.5 Shared Norms and Values

- e. Through words & actions teachers affirm their common values concerning critical educational issues and in support of their collective focus on student learning.

Not at All	Somewhat	50%	To a large Degree	To a Great Extent
1	2	3	4	5

Protocols are most powerful and effective when used within an ongoing professional learning community such as a Critical Friends Group® and facilitated by a skilled coach. To learn more about professional learning communities and seminars for new or experienced coaches, please visit the National School Reform Faculty website at [www.nsrharmony.org](http://www.nsrharmony.org).

## 2.0 HUMAN RESOURCES

### 2.1 Openness to Improvement

- a. Teachers take risks in trying new techniques and ideas and make efforts to learn more about their profession.

Not at All	Somewhat	50%	To a large Degree	To a Great Extent
1	2	3	4	5

### 2.2 Trust and Respect

- b. Teachers feel honored for their expertise within the school as well as within the district, the parent community and other significant groups.

Not at All	Somewhat	50%	To a large Degree	To a Great Extent
1	2	3	4	5

### 2.3 Cognitive and Skill Base

- c. Within the school there are formal methods for sharing expertise among faculty members so that marginal and ineffective teachers can improve.

Not at All	Somewhat	50%	To a large Degree	To a Great Extent
1	2	3	4	5

### 2.4 Supportive Leadership

- d. The school leadership keeps the school focused on shared purpose, continuous improvement, and collaboration.

Not at All	Somewhat	50%	To a large Degree	To a Great Extent
1	2	3	4	5

### 2.5 Socialization

- e. The staff imparts a sense that new teachers are an important and productive part of a meaningful school community.

Not at All	Somewhat	50%	To a large Degree	To a Great Extent
1	2	3	4	5

## 3.0 STRUCTURAL CONDITIONS

### 3.1 Time to Meet and Talk

- a. There is a formal process that provides substantial & regularly scheduled blocks of time for educators to conduct on-going self-examination & self-renewal.

Not at All	Somewhat	50%	To a large Degree	To a Great Extent
1	2	3	4	5

### 3.2 Physical Proximity

- b. Teachers have common spaces, rooms, or areas for discussion of educational practices,

Not at All	Somewhat	50%	To a large Degree	To a Great Extent
1	2	3	4	5

Protocols are most powerful and effective when used within an ongoing professional learning community such as a Critical Friends Group® and facilitated by a skilled coach. To learn more about professional learning communities and seminars for new or experienced coaches, please visit the National School Reform Faculty website at [www.nsrharmony.org](http://www.nsrharmony.org).



3.3 Interdependent Teaching Roles

c. There are recurring formal situations in which teachers work together (team teaching, integrated lessons etc.)

Not at All	Somewhat	50%	To a large Degree	To a Great Extent
1	2	3	4	5

3.4 Communication Structures

d. There are structures & opportunities for an exchange of ideas, both within and across such organizational units as teams, grade levels, & subject departments.

Not at All	Somewhat	50%	To a large Degree	To a Great Extent
1	2	3	4	5

3.5 Teacher Empowerment & School Autonomy

e. Teachers have autonomy to make decisions regarding their work guided by the norms and beliefs of the professional community.

Not at All	Somewhat	50%	To a large Degree	To a Great Extent
1	2	3	4	5