

IT SHOULDN'T BE JUST ANOTHER MEETING: USING SCAFFOLDING TOOLS TO  
FOSTER PURPOSEFUL COLLABORATIVE INQUIRY IN URBAN, LOW-PERFORMING  
ELEMENTARY PROFESSIONAL LEARNING COMMUNITY MEETINGS

by

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## ABSTRACT

SHAMEKA JONES. *It Shouldn't be Just Another Meeting: Using Scaffolding Tools to Foster Purposeful Collaborative Inquiry in Urban, Low-Performing Elementary Professional Learning Community Meetings (Under the direction of DR. TRACY ROCK)*

Collaborative inquiry is essential to effective Professional Learning Communities (PLCs). However, limited research explores how to scaffold these practices in urban, low-performing elementary schools. This single case study examined how third-grade teachers in an urban, low-performing school experienced the implementation and impact of research-based scaffolding tools such as the Roles, Responsibilities, and Norms Protocol, the Deep Discussion Protocol, and the Common Assessment Protocol during PLC meetings. Data collection methods included interviews, observations, documents, and check-in meetings. Findings revealed that specific scaffolding tools promoted shared responsibility, enhanced instructional planning, and helped teachers address students' learning needs. The study emphasized the importance of flexibility in implementation, with adaptations tailored to team culture, timing, and the facilitator's judgment. Limitations included the single-case design and focus on one grade level, which may limit generalizability. Implications suggest that tailored scaffolding tools can build professional capacity, confidence, and collaborative culture, contributing to the effectiveness of PLC meetings. A practical framework is provided for educators and leaders seeking to launch or refine collaborative inquiry in PLCs. Recommendations include researching the sustainability of these tools, their impact on student outcomes, and their application in varied school contexts and roles.

*Keywords:* collaborative inquiry, inquiry cycles, scaffolding, professional learning communities, professional learning community meetings, low-performing, urban elementary Schools

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## DEDICATION

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## CHAPTER I: INTRODUCTION

Education reform has long been a topic of discussion in efforts to enhance student achievement. In the 1990s, school reform efforts reached new heights after the Department of Education sounded the alarm regarding school improvement and educational practices (Archer, 2012; Robert, 2023). This warning detailing the failing rate among America's schools led to stricter and more intentional changes in the educational field. Research shows that legislation such as No Child Left Behind (NCLB), Race to the Top (RTTT), and Every Student Succeeds Act have all been created to boost student success and achievement. In the pursuit of better student learning outcomes, professional development has been identified as a key strategy for achieving this primary goal (Wei et al., 2009). Professional development has been shown to enhance the way teachers teach and equip them to lead instruction for students, preparing them for the complex skills they will need to function in the 21st century (Donohoo & Velesco, 2014; Milner, 2018). With a deeper quest for educational reform, Professional Learning Communities (PLCs) have become a significant focus and have since proven to be a promising practice for generating professional growth and change (Archer, 2021; Wigwam, 2022).

PLCs have become a widely used form of professional development in K-12 schools in the United States and all over the world with an intent to improve student achievement through teacher development, collaboration, innovation, and reflection (Archer, 2012; Brown et al., 2017; McLaughlin & Talbert, 2010; Nelson et al., 2008; Nelson et al., 2010). Although once considered part of the business sector, these critical meetings have become a part of the educational arena, focusing on producing higher levels of student achievement while building internal capacity (Archer, 2012; Darling-Hammond, 2014). Professional learning communities are defined as a small team of educators who work collaboratively in an ongoing process to

achieve results in increased student achievement (Brown et al., 2018; Hoaglund et al., 2014). DuFour (2016), a scholar who has done substantial work regarding the integration of PLCs in K-12 schools, more specifically defined PLCs as an ongoing process in which educators engage in collaborative recurring cycles of collective inquiry to achieve favorable results for the students they serve. Despite the development of essential characteristics and processes of PLCs, there is a lack of research concerning the implementation of collaborative inquiry and effective scaffolds for collaborative engagement in low-performing elementary settings.

PLCs were first introduced in 1960 as a means of ending isolative practices amongst teachers (Hayden, 2022). While the term was introduced in 1960, the roots of PLCs did not fully develop into what they are today until the 1980s (DuFour, 2002). In the 1980s, the National Commission on Excellence in Education (NCEE) released a report that revealed the United States was falling behind other countries in education (Hayden, 2022). This reality threatened the United States' position as a leader among other countries, as it risked losing its position as the world's top economy (Hayden, 2022). The United States began to change the way it approaches accountability measures for student learning and the utilization of research-based professional development within the U.S. educational system. Through this quest, however, many began to find a positive connection between school improvement and relationship building among teachers (Berends, 2004; Hayden, 2022).

History informs us why and how PLCs came to be known as they are today. According to Hargraves (2000), the four historical phases of PLCs are known as the pre-professional age, the age of autonomous profession, the age of the collegial professional, and the post-professional or postmodern age. In the pre-professional era, which spanned from 1900 to the 1960s, teachers worked and planned for their students in isolation. This is because education operated under the

factory model of mass education, where teachers worked in their own classrooms without any desired or required interaction with their colleagues (Atta, 2015; Curry, 2010; Hargreaves, 2000). As history progressed, the era of the autonomous professional emerged (Hargreaves, 2000). During the era of the autonomous professional, conversations about curriculum planning and decision-making among teachers began to emerge (Atta, 2015; Hargreaves, 2000). It was also during this time that teachers began to recognize the benefits of collaborating, building trust, and engaging in meaningful discussions and planning regarding curriculum (Hargreaves, 2000). It also came with the realization that sharing pedagogical knowledge and expertise could be useful for teachers. Beyond sharing pedagogical knowledge, practitioners realized that professional development would be useful to build teacher knowledge and capacity. Sadly, teachers began taking these courses as individuals and implementing them in their own classrooms, which led to isolated practices similar to those seen in the pre-professional era (Curry, 2010; Hargreaves, 2000). This caused a lack of confidence, short-term academic improvement, and the inability of teachers to collaborate with their colleagues (Atta, 2015).

Practitioners realized the ineffectiveness of isolated practice. This realization, along with the determination to take action, marked the beginning of the collegiate professional era in the late 1980s. By this point, there was a quest to enrich and develop teachers as professionals and increase student achievement (Hargreaves, 2000). This led to what is known as the post-professional era or postmodern professional age. This is also considered the current era in education (Atta, 2015). Today, there is a greater focus on schools as learning communities and in-school professional development. In this regard, many schools are actively creating spaces where teachers can work collaboratively to develop and discuss ideas, enhance their teaching practices, and examine the results of those practices (Curry, 2010). This new initiative offers

teachers the opportunity to utilize collaboration and collective inquiry to enhance student achievement and growth (Atta, 2015). It offers hope for meaningful change in education and teacher development.

PLCs create opportunities for job-embedded learning and development. It follows the reform guidelines for teachers that require them to rethink their teaching practices continuously, reexamine expectations about student learning outcomes, and teach in ways that propel students toward success (Darling-Hammond, 2014). With this new turn in education, educators must keep in mind that the fundamental purpose of school is to ensure that all students learn (DuFour et. al., 2016). An important purpose of PLCs, a form of action research, is to provide spaces where educators share and reflect on personal education actions, practices, and student data in a critical and collaborative fashion (Harris & Jones, 2017; Puttman & Rock, 2017; Olmo-Extremera et al., 2024) Puttman & Rock (2017) further indicated that these collaborative meetings are filled with critical interrogation of teaching practices. All of this is done to ensure students learn at high levels.

PLCs are often found in various levels of education; however, one of their most important applications is at the elementary school level. This is because elementary school is an important time in a child's education. It is considered a vital stage in preparing children for learning and life. Moreover, it is considered the foundation from which learning, growth, and development occur (Kupper, 2014). In the United States, the elementary years are often referred to as the middle childhood years. It is during these years that children acquire basic competencies in reading, writing, computation, and problem solving (Epps & Smith, 1984). These skills are necessary and important to 21st-century success and functionality. Still, despite an understanding of the need for basic skills, current data continue to show low achievement in reading and math,

revealing that students are not attaining the critical knowledge needed for educational advancement (National Report Card, 2022). While PLCs do not guarantee a magic switch to these dreadful realities, they do offer hope in terms of effective collaboration with a deliberate focus on examining what students should be learning while crafting effective strategies through ongoing processes to enhance student achievement. Furthermore, PLCs, an effective form of professional development, can support the complex skills students need to acquire for future education and the 21st century (Clark et al., 2002; Darling-Hammond et al., 2017). Miville (2021) echoed these beliefs, stating that to promote academic achievement, student engagement, and inclusive education, elementary school teachers must plan rigorous and authentic learning experiences across various subjects to prepare students for future studies.

PLCs in elementary settings have proven beneficial for both building internal capacity and increasing student achievement. In a study conducted by Genenbacher (2020), a cohort of elementary teachers was examined over the course of three years using the PLC model. Findings from that study revealed that teachers felt PLCs had a positive impact on student achievement and their collective efficacy. In another study, De Never & Devos (2017) found that PLCs helped beginning elementary teachers develop high-quality, differentiated instruction for students. In a different study, it was found that teachers in an elementary school engaged in reflective dialogue during PLCs focused on pedagogy and content knowledge, which aided in the academic growth of students (Rosado, 2018). In fact, one study found that PLCs accounted for 85% of student growth and achievement (Vescio, 2008). In another study, it was found that teachers felt more prepared after planning collectively (Milville et al., 2021). All these studies support the favorability of PLCs and their usefulness in enhancing student learning and achievement while building internal capacity. However, it is important to note that none of these studies were

conducted in low-performing urban elementary schools. The research studies in this specific context strengthen the need for this particular case study. To offer the best chances of success in PLC in terms of achievement and internal capacity, certain key characteristics must be in place. The following must be true: There must be a shared mission, vision, and values. Secondly, there must be a collective inquiry. Thirdly, PLCs must be inclusive of collaborative teams. Fourthly, there must be evidence of action orientation and experimentation. Fifth, there must be a focus on continuous improvement (DuFour & Eaker, 1998; Schaap & Bruijn, 2016). DuFour (2004) echoed some of these same sentiments as he stated that the work of PLCs should include a focus on “learning, a culture of collaboration, and a focus on results”. For these characteristics to be present, teachers must first see themselves as learners rather than experts (Hart, 2022). In all, there is a common theme surrounding PLCs, which is that focused collaboration on learning and results can enhance internal capacity and student achievement.

Collaboration is considered a hallmark of student achievement and overall school improvement (Leithwood & Jantzi, 1990; Rosenholtz, 1989). Research indicates that elementary schools tend to engage in collaboration at a higher rate than any other school level (Patrick, 2022). Despite these claims of collaboration within elementary and other levels in education, the profession as a whole continues to be considered an isolated field. Nevertheless, PLCs seek to distort those views and dispositions (DuFour & Reeves, 2016). PLCs help teachers transition from working in isolation to taking initiative as a group to improve student learning (Brown et al., 2018; DuFour et al., 2016). Thus, increasing collaboration has become a priority in education. Through collaboration, teachers can work together to plan ways to meet the needs of all learners by creating step-by-step plans, developing assessments, analyzing data, and rethinking their practice as a whole (DuFour & Reeves, 2016). Further, other studies support

collaboration in PLCs as a means to assist teachers in changing their beliefs and classroom practices (DuFour, 2008; Veisco & Adams, 2008). In her study, Patrick (2022) found that many teachers who regularly engaged in collaborative learning opportunities found them helpful for making instructional decisions, which resulted in higher student achievement.

When referencing both collaboration and the PLC model, teachers were found to have a greater chance of increasing teachers' individual and collective capacity to impact student learning (Olmo-Extremera et al., 2024). Collective capacity is increased through collaborative learning. According to Laal (2011), collaborative learning is an approach to teaching and learning that involves learners working together to meet a goal such as solving a problem, completing a task, or creating a product. When teachers work collaboratively, they are able to produce high achievement and greater productivity. Through these practices, educators can grow in their field.

### **Statement of the Problem**

Collaboration does not just happen; it must be developed. In that same light, PLCs do not just form; they must be meaningfully crafted. To meaningfully craft and engage in effective and productive PLC meetings, key structures must be in place. Still, powerful PLCs are more than just a structure. Beyond its structural entity, it should be a place of intentionality, where meaningful activities take place (Schaap, 2018). PLCs should incorporate high levels of collaboration and reflection, where teachers examine their teaching practices. One way this goal can be achieved is through the implementation of collaborative inquiry cycles. These cycles are repetitive and intentional. Through the use of collaborative inquiry cycles, teachers have the opportunity to engage in deep and meaningful conversations, reflect on their teaching and

learning practices, and analyze specific data to make informed decisions (Nelson et al., 2008; Nelson et al., 2010).

A significant part of collaborative inquiry relies on the ability of PLC members to engage in in-depth, reflective conversations as they continually reflect on and rethink their teaching practices. Intentional discussions should focus on framing a problem, collecting evidence, examining the evidence, sharing the findings, and identifying next steps in the inquiry cycle. While these discussions are vital to student improvement and educator development, the reality is that deep dialogue regarding these factors is nonexistent in many places. In fact, research shows that engaging in substantive and distinctive dialogue regarding teaching practices is uncommon (Little & Horn, 2010). Furthermore, research has noted that asking or responding to questions that interrogate practices and delve into the intricacies of teaching and learning has often been avoided (Schaap, 2018).

Research confirms that there are practices that prohibit staff from engaging in collaborative inquiry-based PLCs. First, many schools do not have clear structures for PLCs and what takes place within them, which often limits authentic dialogical exchange (Hayden, 2022). Secondly, since engaging in specific dialogue is often uncommon and uncomfortable for many educators, it rarely, if ever, happens. As a result, true conversations, inclusive of teaching practices, learning outcomes, and critical questions concerning next steps, often go undiscussed and are ignored, leading to ineffective decisions made without specialized intent. Without such critical conversations and a model to engage in data analysis, collaborative inquiry cycles cannot be effectively launched or sustained.

Identifying these current realities poses challenges for launching a successful collaborative inquiry-based PLC. Further, these challenges become barriers to capacity building.

Capacity building is a process of strengthening skills, knowledge, and abilities needed to perform one's job competently (Kumari, 2022; Werimba, 2024). With this idea in mind, effective scaffolds must be identified to assist educators in launching collaborative inquiry cycles within PLCs that can be sustained.

### **Purpose of the Study**

This study aims to investigate the development, perceptions, and impact of research-based scaffolds for engaging in collaborative inquiry cycles within PLC meetings. The findings from this study are expected to contribute to the field of professional development in low-performing elementary settings. Several studies argue for the importance of the PLC model and the value of engaging in collaborative inquiry (All Things PLC, 2012; Carpenter, 2017; Huffman & Kalnin, 2003; Lysberg, 2023; Nelson et al., 2010). Furthermore, research also highlights the positive effects of collaborative inquiry on student achievement and educator development (Nelson et al., 2010; Peppers, 2014). Still, there is a lack of research regarding effective scaffolds to help educators navigate the work that is needed to effectively engage in high-functioning collaborative inquiry PLC meetings within low-performing education settings. While research shows that there are scaffolds that have been presented for launching and engaging in collaborative inquiry (e.g., establishing clear meeting agendas and setting norms and expectations), there is still more information needed regarding the successful launching and sustainability of collaborative inquiry cycles in PLC meetings. More specifically, further research is needed on scaffolds for creating a culture of collaboration, developing roles for PLC meeting facilitators and participants, and engaging in deep conversations within low-performing elementary school settings (Brown et al., 2017; Lazor, 2019; Nelson et al., 2008). Additionally, there is a lack of research regarding the scaffolds that PLC meeting facilitators may need to

understand the time required for inquiry cycles and approaches that will ensure that the process is intentional (e.g., data discussions) and structured to foster deep reflection on teaching practices. It is expected that this study will contribute to existing research by exploring how instructional facilitators can scaffold collaborative inquiry in PLCs to foster more effective teacher collaboration. Further, this study will explore scaffolds for building and sustaining collaborative inquiry cycles within PLC meetings in low-performing elementary school settings.

### **Research Questions**

The following questions were created to evaluate the development of collaborative inquiry cycles and scaffolds to help educators engage in high-functioning collaborative inquiry cycles. Additionally, these questions aim to understand the perceptions of the identified scaffolds. The questions identified in the study are:

1. How do elementary teachers in a low-performing elementary school setting perceive collaborative inquiry-based scaffolds?
2. How does a PLC meeting facilitator at a low-performing elementary school experience leading PLC members through collaborative inquiry scaffolding tools?
3. How do PLC meeting members at a low-performing elementary school describe their overall experiences of PLC meetings following the implementation of inquiry-based scaffolds?
4. In what ways do collaborative inquiry-based scaffolds impact teachers' professional dispositions?

These questions were created because they yield the greatest opportunity to discover the usefulness of research-based scaffolds for PLC meetings in low-performing elementary settings. Moreover, these questions help to understand the impact of research-based scaffolds on PLC

meetings. These research questions directly connect with the social constructivist theoretical framework. Thus, the questions directly connect to the social nature of learning through social interaction as well as the scaffolding or guidance that is needed when one is within the ZPD zone of learning. Lastly, these questions seek to build our collective understanding of the utilization and usefulness of the utilization and usefulness of collaborative inquiry scaffolds in PLC meetings within low-performing elementary school settings.

### **Theoretical Framework**

PLCs are often referred to as inquiry teams or learning teams (Puttman & Rock, 2017). This study draws upon Vygotsky's (1978) sociocultural theory to address the research questions. In this study, the sociocultural theory framework serves as the guiding lens through which collaborative inquiry PLCs will be examined. More specifically, the sociocultural theory framework will be used to frame how social interaction and mediated learning tools support teacher learning and guide the selection and application of scaffolding tools that foster collaboration and reflection. In this way, this study will be situated within sociocultural theory by investigating how collaborative inquiry-based scaffolding tools support teachers' learning processes within the Zone of Proximal Development (ZPD), and how tools such as the More Knowledgeable Other (MKO) and prescribed scaffolds will facilitate the internalization of new practices during PLC meetings. More specifically, in this study, scaffolding tools such as the Roles, Responsibilities, and Norms protocol, the Deep Discussion protocol, and the Common Assessment protocol will function as temporary supports that guide teachers' collaborative learning, gradually transferring responsibility to the learners as they develop mastery. The MKO will function both as a person and as a tool, providing mediation through structured support, scaffolds, and guidance, enabling learners to engage confidently in inquiry-based practices.

Thus, sociocultural theory not only grounds the study theoretically but also informs the methodological choices and the interpretation of the findings.

The sociocultural theoretical framework, which was developed in the early 20th century, evolved from Lev Vygotsky's (1978) research related to the impact of social interaction, culture, and language. In Vygotsky's (1978) view, these were not just contexts for learning but also functioned as psychological tools that mediate thinking and development. According to Vygotsky (1978), these tools, which relate to social interaction, culture, and language, are essential elements of learning. Vygotsky (1978) emphasized that a wide range of tools, including language and collaborative protocols, can mediate human activity and cognitive development. The sociocultural theoretical framework is grounded in seven core tenets which include: social interaction initiates development; learning leads development; the Zone of Proximal Development (ZPD); the presence of a More Knowledgeable Other (MKO); mediation through cultural tools and signs; language as a tool for thought, and the influence of cultural and historical context on cognition (Vygotsky, 1978). While all seven tenets are foundational to this study, special emphasis is placed on the ways tools mediate thinking and learning, which aligns most closely with the study's focus on scaffolding, structured collaboration, and language.

Vygotsky's (1978) sociocultural theory serves as a foundation for professional learning and development practices. Sociocultural Theory offers both a lens for understanding these practices and guidance for structuring them effectively. Professional learning, specifically in the field of education, largely rests on learning from other educators. In fact, it has been widely argued that professional learning is most effective when it takes place in social contexts (Darling-Hammond, 1995; Darling-Hammond, 2017; Wenger, 1998). These ideas align with Vygotsky's findings, which are that individuals learn best in social contexts. This reflects

Vygotsky's findings that learning and development are rooted in social interaction, which shows that learning is shaped through shared experiences and dialogue. However, social interaction alone may not be sufficient. It is the strategic use of cultural tools that mediate meaning that makes learning possible. Furthermore, Vygotsky believed that learning originates from social interactions, which are mediated by cultural tools such as language, scaffolding tools, and school structures (Jeong et al., 2022; Vygotsky, 1978).

Cultural tools, which are also known as mediated learning tools, include structured protocols that support thinking, learning, and communication (Wertsch, 1991). These tools are essential scaffolds in professional learning spaces. In this study, the mediated learning tools and structured protocols, such as defined roles and responsibilities, norms protocols, discussion protocols, common assessment protocols, and reflective practices, will serve as forms of scaffolding that lead teachers to engage in deep and meaningful reflection and discussions, which can create opportunities for higher-order thinking and purposeful learning (Horn & Little, 2010).

Mediated learning tools allow individuals to internalize new knowledge (Eun, 2019; Jeong et al., 2022). Coupled with social interaction, mediated learning tools can enhance one's cognitive development (Smagorinsky, 1995). According to Lantolf et al. (2015), when individuals go through a continuous process of social interaction within cultural contexts, such as PLCs, learning can take place. This is because PLCs increase opportunities for educators to engage in dialogue, share knowledge and best practices, and engage in collaborative practices (Hord & Hirsh, 2008; Jeong et al., 2022). Mediated learning tools, such as language and protocols, can also guide individuals as they navigate their ZPD, which is the space between what one can do independently and what one can accomplish with guidance (Vygotsky, 1978; Hoppe et al., 2021). Within this zone, meaningful learning is most likely to occur, supported by

interaction, scaffolding, and guided participation. In collaborative settings such as PLCs, these processes can be facilitated by more MKOs, including prescribed scaffolding tools, which can enable participants to internalize the skills needed to deepen their engagement in collaborative and reflective practices (Hirtle, 1996). In this study, the MKO will be represented by the facilitator, who will guide the team through the ZPD by modeling practices, posing questions, and supporting reflective dialogue. Engaging in socially mediated experiences within PLCs, such as collaborative lesson planning, reflective conversations about student work or assessment data, and problem-solving with colleagues, is critical for cognitive development within the ZPD (Hirtle, 1996; Woolfolk, 2012).

Vygotsky's (1978) sociocultural theory directly sets the foundation for this study. To organize this framework, I grouped the core principles into three overarching categories: Foundations of Learning, the Tools that Support Thinking, and Supported Learning Processes. As illustrated in *Figure 1*, this organizational structure of three categories shows how the theory's tenets work together while also highlighting the study's specific focus on mediated learning tools and language as a tool, which can play key roles in supporting the development of collaborative inquiry in PLC meetings during the designated timeframe of the study. Additionally, the framework helps to clarify the relationship between each of the theoretical components and how they connect to the scaffolding tools used to support teacher learning and collaboration within this study.

The core principles of sociocultural theory, including social interaction and mediated learning, further demonstrate how sociocultural theory directly aligns with this research study. When educators are situated in collaborative environments, such as PLC meetings, they are presented with opportunities to engage in socially mediated processes. Further, when teachers are

intentionally guided through collaborative inquiry practices, PLCs can evolve into spaces where meaningful professional growth and knowledge construction occur (Peppers, 2014). In all, the use of collaborative inquiry-based scaffolding tools, focused on enhancing collaborative practices, discussions, and reflection, directly aligns with sociocultural theoretical principles.

While all seven tenets of sociocultural theory are foundational to this study and vital to the learning process, there is a special emphasis placed on the "Tools that Support Thinking" category. This emphasis is due to the study's focus on implementing scaffolding tools that facilitate collaborative inquiry and reflective dialogue among teachers. More specifically, the tenets of social interaction, mediated learning, and language as a tool serve as central links between the study's design and the core principles of sociocultural theory. As such, when educators are guided toward meaningful collaborative inquiry, PLC meetings can become places where authentic professional learning and development take place (Peppers, 2014). Furthermore, collaborative inquiry practices within PLC meetings help to dismantle the culture of professional isolation, replacing it with structures that promote shared knowledge development and collective learning opportunities (Hirtle, 1996; Peppers, 2014). These meaningful shifts align with sociocultural theory, which emphasizes learning through social interaction and dialogue. When individuals engage in dialogue, it can facilitate cognitive development through discussion, planning, and shared reflection. This connects directly to the sociocultural tenet of "language as a tool for thought" (Vygotsky, 1978).

Vygotsky's (1978) concept of the ZPD also aligns intricately with the goals of this study. Scaffolding, a key component of the ZPD, helps individuals gradually develop mastery of new skills and knowledge within collaborative professional learning contexts (Hoppe et al., 2021). This research study seeks to understand how collaborative inquiry-based scaffolding tools, such

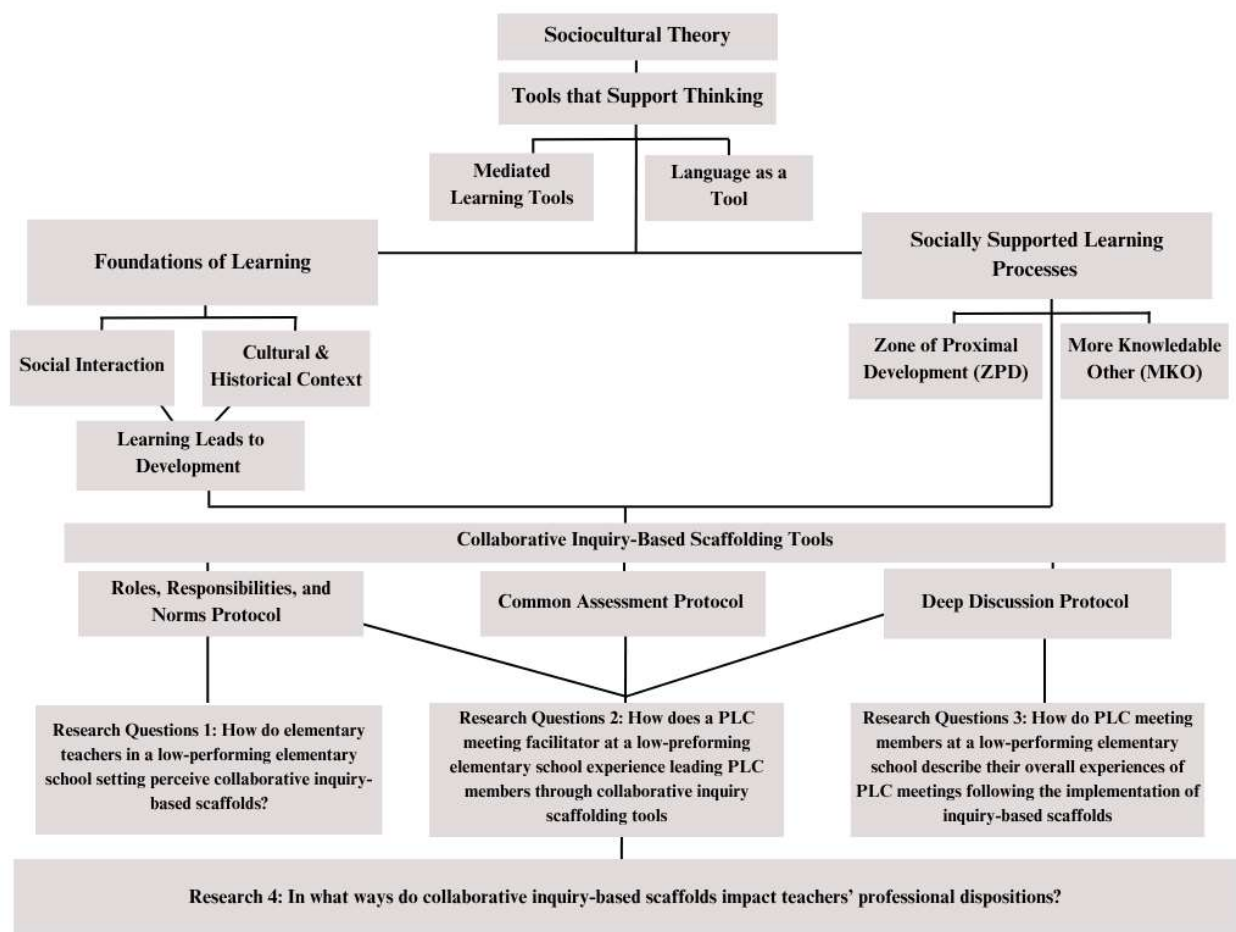
as defined roles, responsibilities, and norms, deep discussion frameworks, data analysis, and common assessment protocols, can support educators to launch and more intently engage in collaborative inquiry cycles within PLC meetings at urban low-performing elementary schools. These tools, which were dynamic and adapted to individual and team needs, functioned both as mediators of learning and as MKOs themselves, guiding teachers through their ZPDs. In this way, scaffolding promotes professional learning within the ZPD, ultimately leading to more effective and sustainable collaborative practices. These collaborative inquiry practices ultimately impact PLC culture by shaping how teachers interact, reflect, and share knowledge, which aligns with Vygotsky's (1978) idea that cultural and historical contexts influence cognition. In addition to the ZPD, the tenets of Social Interaction and Cultural and Historical Context also directly support the Foundations of Learning, aligning with Vygotsky's (1978) belief that learning is socially constructed. Together, these tenets help explain how learning leads to development.

In all, the seven tenets directly connect to collaborative inquiry-based scaffolding tools. The scaffolding tools used for this study are informed by the tenets of Sociocultural Theory (Vygotsky, 1978). For example, the Roles, Responsibilities, and Norms tools were designed to enhance social interactions among team members. The Deep Discussion Protocol and Common Assessment Protocol support the use of language as a tool for learning, thinking, and planning. The two tools not only support language as a learning tool but also assist with mediated learning tools, enabling teachers to work within their ZPD with guidance from an MKO, in this case, the PLC facilitator, and the prescribed research-based scaffolding tools. These scaffolding tools help to promote intentional collaboration, shared responsibilities, guided reflection, and shared learning, which directly align with Sociocultural Theory. The Sociocultural Theory not only anchors the study in Vygotsky's principles, but it also shows how the scaffolding tools are

connected across all three categories. Additionally, the diagram below illustrates the connection between the scaffolding tools and the research questions that guided this study. As such, I am utilizing the theoretical framework in conjunction with collaborative inquiry-based scaffolding tools to inform my approach to addressing and answering the study's research questions.

**Figure 1.1**

*Theoretical Framework Diagram*



### Significance of Study

This study is significant because, although PLC meetings and collaborative inquiry are widely recognized as effective strategies for improving teaching and learning, there is a limited research base on how to scaffold these practices for educators effectively. More specifically,

there is minimal research regarding the use of collaborative inquiry-based scaffolding tools in urban elementary school PLC meetings. Studying the implementation of collaborative scaffolding tools in urban schools is especially valuable because it exposes educators to collaborative practices that can lead to meaningful changes in their teaching, planning, and classroom interactions, particularly in contexts with complex and diverse student needs.

This study holds significance for multiple stakeholders within the field of education, particularly those working in urban, low-performing school settings. Despite the growing emphasis on PLC meetings as a tool for school improvement and teacher collaboration, existing research reveals a gap in the practical tools and supports needed to foster effective and sustained engagement in collaborative inquiry cycles, particularly in underperforming schools (Craven & Hunter, 2021; DuFour, 2013). Accordingly, this study explores how educators perceive and interact with structured, research-based scaffolding tools during PLC meetings to enhance collaboration and inquiry, which helps address a critical gap in support and guidance for educators engaging in inquiry.

More specifically, this study is significant for instructional leaders, PLC facilitators and leaders, teachers, and school administrators who are seeking to strengthen collaborative practices and professional learning within their schools. It also provides insight into when scaffolding tools can be used during PLC meetings and who might benefit from them. These findings can inform professional learning and collaborative inquiry within schools. By closely examining the perceptions and experiences of educators utilizing prescribed scaffolding tools, this study helps bridge the gap between theory and practice. Ultimately, it contributes to a broader understanding of how targeted scaffolds can support shared learning, deeper reflection, and sustainable instructional growth in school communities working to meet the needs of all learners.

### **Assumptions, Limitations, and Delimitations**

This study is grounded in multiple assumptions. The first assumption is that participants will provide honest responses, reflections, and actions based on their true experiences with PLC meetings and scaffolding tools across all areas of data collection, including interviews, observations, and check-in meetings. It is also assumed that PLC meetings will reflect the authentic implementation of the scaffolding tools and will not be significantly altered due to the researcher's presence. Furthermore, it is assumed that the scaffolding tools were implemented with fidelity and not only during observed sessions. Lastly, the study assumes that collaborative inquiry and research-based scaffolding tools have the potential to promote teacher reflection, collaboration, and instructional planning.

This study also presents several limitations that may affect the generalizability of the findings. First, the research was conducted in a single urban, low-performing elementary school, which limits the degree to which the findings may be transferred to other settings. In addition, the small participant group, comprised solely of third-grade team members, further limits the applicability of findings to other grade levels, even within the same school. As such, the experiences captured in this study may not fully reflect those of educators working in different contexts. The timing of the study also presents a limitation. Conducted over twelve weeks beginning in February, the research occurred mid-year, when participants had already been engaging in collaborative planning, which may have influenced their familiarity with or openness to scaffolding tools.

A key delimitation of this study is the deliberate focus on one urban, low-performing school. This narrowed scope allowed for an in-depth exploration of collaborative inquiry-based scaffolding tools within a specific, high-need context. The study also focused exclusively on a

set of prescribed tools and their use during PLC meetings, rather than other professional learning models. Lastly, as a qualitative study, the research did not seek to measure direct impacts on student achievement, but rather examined educators' perceptions, experiences, and collaborative practices related to the use of scaffolding tools.

### **Definition of Terms**

Key terms relevant to this study are briefly defined below. Terms will be defined in the manner in which they are used throughout the study.

**Table 1**

*Definitions of Key Terms*

Term:	Definition:
Collaborative Inquiry	Collaborative inquiry is when a team of people comes together to ask critical questions, engage in deep and meaningful conversations, and seek solutions to shared goals (Feldman, 1999; Donohoo, 2013). Nelson (2011) noted that collaborative inquiry is a reflective process that emphasizes the need to create a shared vision and focus for work, set and clarify learning goals, plan targeted instruction, assess and analyze student data, and reflect on the effectiveness of instruction.
Collaborative Inquiry Cycle	A professional learning model where educators collaborate to analyze and improve their teaching practices. It involves launching an inquiry cycle, collecting data, interpreting the data, testing ideas, analyzing the data, and creating new plans as needed (Carpenter, 2017; REL, 2019).
Collaborative Learning	Collaborative learning is an educational approach to teaching and learning that involves groups of learners working together to solve a problem, complete a task, or create a product (Laal & Ghodsi, 2012).
Inquiry-Based Learning	Inquiry-based learning (IBL) is a form of constructivist pedagogy that actively engages students in the learning process, increasing the likelihood of them constructing knowledge (Golam, 2019). IBL is described as a pedagogy

**Table 1***Definitions of Key Terms (continued)*

	where students question, draw conclusions, and construct knowledge related to a specific inquiry through investigative activities (Keselman, 2003; Hoppe et al., 2021).
Professional Learning Community	A small group of committed educators focuses on shared goals aimed at improving student achievement (Brookhart, 2009; Brown et al., 2017; Schaap, 2018). Others define PLCs as a place where practitioners engage in sharing ideas and ongoing critical reflection collaboratively (Harris & Jones, 2017; Olmo-Extremera et al., 2024). Veisco (2007) echoed the same sentiments, indicating that PLCs involve a small group with a collective focus on refining student learning.
Professional Learning Community Meetings	A meeting inclusive of a small group of educators who meet regularly to collaborate, analyze student learning and achievement, and plan meaningful activities or lessons to enhance student achievement (Prytula, 2012; Lazor, 2019).
Professional Learning Inquiry Cycle (PLC):	a PLC inquiry cycle inclusive of three stages. The stages consisted of 1) Focus, 2) Implementation, and 3) Evaluation. PLC inquiry cycles aim to generate high levels of collaborative inquiry, to enhance critical reflection, and foster meaningful dialogue.
Scaffolding:	An instructional practice where support is gradually removed as individuals learn a specific skill. Scaffolding enables an individual to solve a problem or achieve a goal beyond steady assistance (Pol et al., 2019).
Sociocultural Theory	A theoretical framework developed by Lev Vygotsky (1978). This framework is grounded in the belief that social and cultural processes primarily shape learning and development. Furthermore, the theory emphasizes that human behavior is shaped by culturally constructed tools and artifacts, including language, symbols, and routines. As such, internalizing such tools leads to higher levels of thinking and learning (Vygotsky, 1978; Wertsch, 1985; Moll, 1990).

**Table 1**

*Definitions of Key Terms (continued)*

Teacher collaboration:	A systematic process whereby teachers frequently meet to share ideas, defend their positions, achieve consensus, apply knowledge to common goals, give and accept feedback, and learn to improve student learning (Morel, 2014). The act of two or more educators intentionally working together for professional development and instructional improvement (Armwood, 2023). It can be defined as a skill that encourages learning (Child & Shaw, 2016).
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**Conclusion**

Research reveals that there are ample studies that have been conducted to reveal the perceptions of collaborative inquiry in PLCs (Genenbacher, 2020; Owen, 2014; Patrick, 2022). While this study is based on the understanding of the effectiveness of collaborative inquiry and its impact on educator development and student achievement, the current research still advocates for more information regarding the training and development of collaborative inquiry in PLCs (Brown et al., 2018; Lazor, 2019; Nelson et al., 2008). This proposed study aims to fill the research gap by examining effective ways to engage participants productively in collaborative inquiry cycles using scaffolds designed to enhance higher capacity and student achievement. Qualitative questions were intentionally selected for this proposed study because they will help the researcher understand the merit of research-based scaffolds within low-performing education settings. More importantly, these questions will help the researcher make sense of the behaviors, perceptions, and attitudes that affect collaborative inquiry.

## CHAPTER TWO: LITERATURE REVIEW

The purpose of this study is to investigate the implementation, perceptions, and impact of scaffolds for engaging in collaborative inquiry cycles within PLCs in elementary school settings. Research continues to prove the effectiveness of PLCs and their potential to build internal capacity—a factor that is critical for school success and more specifically, student achievement (Puttman & Rock, 2017; Reeves, 2006). Still, the research gaps serve as a reminder that PLCs and collaboration do not just develop overnight. Further, it shines light on the reality that many educators do not engage in effective PLCs, collaborative inquiry, or critical dialogue needed to rethink instructional practices (Brooks & Adams, 2015; Zech et al., 2010). So far, this proposal has discussed education reform, helping to ground the work in the larger context of changes and initiatives in educational policy that emphasize collaboration and continuous professional development. From this, PLCs were introduced as an essential strategy for fostering teacher collaboration and improving student outcomes. With these essential factors now explained, this literature will narrow the focus of the proposal to inquiry-based learning within PLCs, with an emphasis on the importance of collaborative inquiry cycles, which is a central mechanism for professional growth, causing educators to reflect on their practices and make data-driven improvements. Afterwards, collaborative inquiry will be discussed, as it helps to lay the expectations for effective PLC meetings. The literature review will then discuss specific challenges in PLC implementation, particularly in sustaining meaningful, collaborative cycles among teachers. While existing research highlights the importance of collaboration and inquiry in PLC meetings, there is limited evidence on the specific scaffolding strategies that support this work, especially within urban low-performing elementary school settings. This study aims to

address this gap by contextualizing the types of support educators need to engage in meaningful PLC meetings.

### **Inquiry-based Learning**

Learning occurs when participants are actively engaged in their learning process. Inquiry-based learning (IBL) is a form of constructivist pedagogy that actively engages students in the learning process, increasing the likelihood of them constructing knowledge (Golam, 2019). IBL is described as a pedagogy where students question, conclude, and construct knowledge related to a specific inquiry through investigative activities (Hoppe et al., 2021; Keselman, 2003). Furthermore, IBL is an approach that enables students to engage in a variety of problem-solving methods. Inquiry derives from John Dewey's concept of inquiry. According to Dewey (1938), "inquiry is the controlled or directed transformation of an indeterminate situation into one that is so determinate in its constituent distinctions and relations as to convert the elements of the original situation into a unified whole" (p. 108). Thus, inquiry is the basis for inquiry-based learning.

IBL is an effective strategy for actively engaging all participants in active learning. It is often associated with active learning due to its pedagogical approaches, where inquiry guides learning experiences and knowledge construction (Hoppe et al., 2021; Lee, 2012). Research highlights that IBL is known as a learner-centered pedagogy. Thus, its characteristics include learning being initiated by a question or problem, teaching that is learner-centered and teacher-facilitated, experiences where students learn through hands-on activities, and specific active learning activities, as well as students' ability to actively construct new knowledge. In all, it requires that instructors change their focus or view on learning. This shift requires teachers to become facilitators of student learning rather than just disseminators of information (Albion,

2015; Hoppe et al., 2021). In all, the shift takes students from the “sit and get” approach of education and moves them towards being empowered to ask questions and be curious about concepts or the world around them.

IBL can enhance learning outcomes and generate critical thinking. In their study, Herman and Knobloch (2004) found that IBL increases effective and cognitive outcomes. More specifically, it was reported that students were able to collaborate and build connections while expanding their knowledge. In another study, Witt & Ulmer (2010) found that IBL was vital to increasing student achievement of middle school students. While these studies emphasize the favorable impacts of IBL and its ability to expand learning outcomes, the reality is that the method also has drawbacks. Some studies show that IBL is not effective for student learning because it does not produce high student achievement as indicated on standardized assessments (Burriss & Garton, 2007). Other research indicates that IBL often requires a substantial amount of time (Dumont, 2010; Gholam, 2019; Scholar, 2020). Still, Dumont (2010) notes that spending time practicing problem-solving and extending knowledge, despite the time it takes, is a crucial factor in achieving greater learning outcomes. Another drawback of IBL is the likelihood that students will find incorrect solutions or employ ineffective strategies (Santrock, 2001; Witt & Ulmer, 2010). However, research recommends that facilitators guide students through the IBL process by asking key questions to frame their investigation (Witt & Ulmer, 2010). In all, students can be motivated by inquiry learning, as seeking a solution often motivates them to genuinely search for meaningful answers (Golam, 2019; Johnson & Cuevas, 2016; Sari et al., 2022; Witt & Ulmer, 2010). Although IBL is often geared towards learning in K-12 schools, research supports that IBL can also be helpful for educators and educational leaders. It is considered a highly successful practice in the teaching profession and is heavily endorsed in

terms of teacher development (Darling-Hammond, 2021; Pike et al., 2023; Wallace & Kang, 2004). This is because IBL encourages teachers, specifically, to intentionally reflect on their own professional practice (Cochran-Smith & Lytle, 2009; Pike et al., 2023). IBL for teachers can be used explicitly in PLC meetings (Hoppe et al., 2021). This is because inquiry is enhanced through social interaction and engagement with a community of learners (Lotter et al., 2014; Pike et al., 2023). When questions and curiosity are combined with collaboration, authentic inquiry can be expanded, even for adults (Casey, 2014).

### **Collaboration**

Collaboration is essential to learning within a PLC and is a scaffold for launching a PLC. It can be defined as a skill that encourages learning (Child & Shaw, 2016). As indicated in Vygotsky's (1978) social constructivist approach, learning often takes place through social interaction. While collaboration for the construction of knowledge can be promising, there must be structures in place to ensure true collaboration takes place – especially within a school setting. Although its structure may vary from place to place, true collaboration can yield advantageous results in terms of student improvement and teacher development (Cowan et al., 2004; Griffiths et al., 2021). Furthermore, it enhances effective communication, fosters more sustainable relationships, and reduces stress while working towards achieving a set of goals (Griffiths et al., 2021). Quintessentially, collaboration serves as a beacon for building inquiry, exchanging ideas and strategies, and creating cohesive plans to reach a set of goals (Fiere et al., 2017). Still, for such a promising practice to take place in schools, key structures must be in place to support partnerships' flourishing (Jones-Good, 2018).

Collaboration in schools must first begin with its leaders, such as administration and school leadership teams (Jones-Good, 2018; Hart, 2022). Further, leaders must understand the

potential impact that collaboration can make on student learning outcomes and teacher development. In light of these realities, leaders must consider collaboration as an essential superpower for increasing school improvement in its totality (Carpenter, 2015; High, 2020). To achieve school improvement, leaders must first understand that effective collaboration is essential for its cultivation (Jones-Goods, 2018). Cultivation of such a skill and cultural change requires that leaders be purposeful in all of their decisions, from bell schedules to teacher collaboration standards (Hart, 2002). In becoming more purposeful about bell schedules, school leaders must consider time built into school schedules to allow for such meaningful work to take place (High, 2020). More specifically, leaders must establish structures that require teachers to work together not only to foster student achievement but also to create or strengthen internal capacity (Jones-Goods, 2018; Williams, 2010). All of these can be achieved through the use of PLCs.

Collaboration takes time to develop and must be adequately prepared for with intentionality (Carpenter, 2017; Jones-Goods, 2018; Pregner et al., 2021). Thus, it does not happen overnight and requires time to develop. This is because collaboration requires trust and vulnerability (Brown et al., 2017; Hart, 2022; Nelson et al., 2008, 2010). In a study conducted by Pregner et al. (2021), it was revealed that collaboration takes time to foster because it requires teachers to build relationships with one another and, in turn, develop the level of trust necessary for effective collaboration. Another researcher found that teachers were reluctant to engage in deep conversations due to a lack of trust and relational history (Nelson, 2008). Schleifer et al. (2017) confirmed these findings by revealing that a barrier to collaboration is the reality that many teachers are reluctant to share their experiences due to a lack of trust. They found that these practices were rooted in what has been coined the “egg crate” model, a model in which

teachers are compartmentalized and often closed off from one another, despite being in the same building. Often, people are unwilling to trust or collaborate with others when they lack confidence in benevolence, honesty, openness, reliability, and competence (Halam et al., 2017). This type of thinking contributes to the barriers to promoting collaboration in schools; however, scaffolds for deep discussion protocols, suggested by Nelson et al. (2010) and Donohoo (2017), can be useful in helping PLC teams overcome such adversity.

Shared trust is a pillar for meaningful and effective collaboration as it creates a pathway for teachers to open up about practices taking place in their classrooms (Brenneman, 2019). Research indicates that teachers are often reluctant to share authentic struggles unless a culture of trust has been established among group members (Brenneman, 2019; Hart, 2022). Further, Mehta & Peterson (2019) note that trust is the foundation of effective learning communities and collaboration. After trust has been established, it is at that moment that the tide turns, and meaningful collaboration can take place, benefiting student success. In her study, Jones-Goods (2018) found that teachers and school leaders within a North Carolina high school benefited from collaboration, as their instructional practices were enhanced by it. Schleifer et al. (2017) found that schools with more collaborative approaches have stronger student academic outcomes than schools with less collaborative approaches. In all, research continues to demonstrate that isolation is detrimental to enhancing internal capacity and improving student achievement. This is why educators need to engage in collaborative PLC meetings, which are most focused on enhancing their teaching practices. Furthermore, this is why PLC facilitators must be adequately trained and supported to lead teachers through collaborative initiatives that foster deep reflection and lead to in-depth discussions (Donohoo; 2014; Dufour et al., 2013).

## Professional Learning Communities

Collaboration and accountability are the keys to successful PLCs (Hoaglund et al., 2014). PLCs are defined as a small group of committed educators who focus on shared goals aimed at improving student achievement (Brookhart, 2009; Brown et al., 2017; Schaap, 2018). Others define PLCs as a place where practitioners engage in sharing ideas and ongoing critical reflection collaboratively (Harris & Jones, 2017; Olmo-Extremera et al., 2024). Vescio (2007) echoed the same sentiments, indicating that PLCs involve a small group with a collective focus on refining student learning. While PLCs have been around since the late 1990s (Sims & Penney, 2015; Olmo-Extrema et al., 2024), the concept originally developed from the business sector with the intent of creating an organizational structure with an emphasis on collaborative learning amongst its participants (Archer, 2012; Bolam et al., 2006; Hord 1997). PLCs were later modified and utilized in the educational field as a means of generating collaborative experiences for educators (Thompson et al., 2004; Vescio et al., 2007).

When reflecting on the definitions of PLCs, the model was invented to be purposeful for collectively meeting a goal; however, the term does not match what is taking place in many PLC meetings around the country (Archer, 2012). This is because many claim to have PLCs within their schools, only to find that what is actually taking place is no PLC at all (Vescio, 2017). Thus, it lacks collaboration, structure, and clear learning levels. Fullan (2006) supports this argument by stating that while PLCs have grown, the term has traveled a lot faster than the actual concept itself. Research indicates that this is because most schools either meet with no purpose or use the time for staff meetings (Nelson et al., 2010). There are also restraints prohibiting its existence. In a qualitative case study led by Sims & Penny (2015), it was found that PLCs were ineffective due to insufficient time to engage in rich discussions and work towards overarching

goals. Additionally, the study revealed that team members who were unsupportive of the PLC process exhibited high levels of disengagement. In another case study, Hudson (2015) found that there was not enough time for collaboration and teacher learning in the existing PLCs. This is why Veisco's (2017) claims about active engagement in PLCs and sufficient time for engagement being foundational for effective PLCs are valid and still being explored.

Literature overwhelmingly supports the implementation of PLCs in the educational field (Nelson et al., 2008; Schaap & Brujin, 2016; Veisco et al., 2007). The primary purpose of PLCs is mounted on the idea of improving teaching practice, which in turn positively improves student learning (Veisco, 2017). PLCs must be designed with the sole purpose of ensuring that students learn (DuFour et al., 2016). DuFour (2004) insists that there are three big ideas that define the work of PLCs. The big ideas can be addressed through research-based scaffolds (Donohoo, 2013; Nelson et al., 2010). PLC participants must make these big ideas non-negotiable in order to reap the benefits of PLCs and strengthen teacher development and student achievement. To achieve this, the primary goal must be teacher collaboration and the generation of a shared goal or focal point (DuFour et al., 2010; Puttman & Rock, 2017). Nelson et al. (2011) support these ideas by stating that PLCs' work should be intentional, collegial, and dialogue-based to improve student learning. Hart (2022) notes that, in addition to collaborating and identifying shared goals, PLC members must view themselves as learners rather than experts. To engage in such practices within PLC meetings, authors such as DuFour et al. (2013), Donohoo (2017) Nelson et al. (2010), and have developed scaffolding tools.

To learn and grow in PLCs, literature insists that there are essential characteristics that must be considered. Characteristics of effective PLCs include a shared mission, vision, and values; collective inquiry; collaborative teams; action orientation and experimentation;

continuous improvement; and result orientation (DuFour & Eaker, 1998; Schaap & Brujin, 2016). These characteristics are echoed by Nelson et al., (2011) as they indicated that time, resources and support for teachers to come together as learners and engage in the collaborative inquiry process; collaborative environments conducive for trust building and risk-taking; conversations based on reflections, inquiry, action orientation, and shared goals; data and evidence analysis; and opportunities for new understandings or discoveries about teaching and learning were essential for PLC meeting success. Aligned with these conditions, literature also supports the establishment of clear roles, responsibilities, and norms as a cornerstone of productive collaboration, as they help establish structures of shared accountability and meaningful dialogue that enhance inquiry in PLC teams (Donohoo, 2013; Horn & Little, 2010; McDonald et al., 2013).

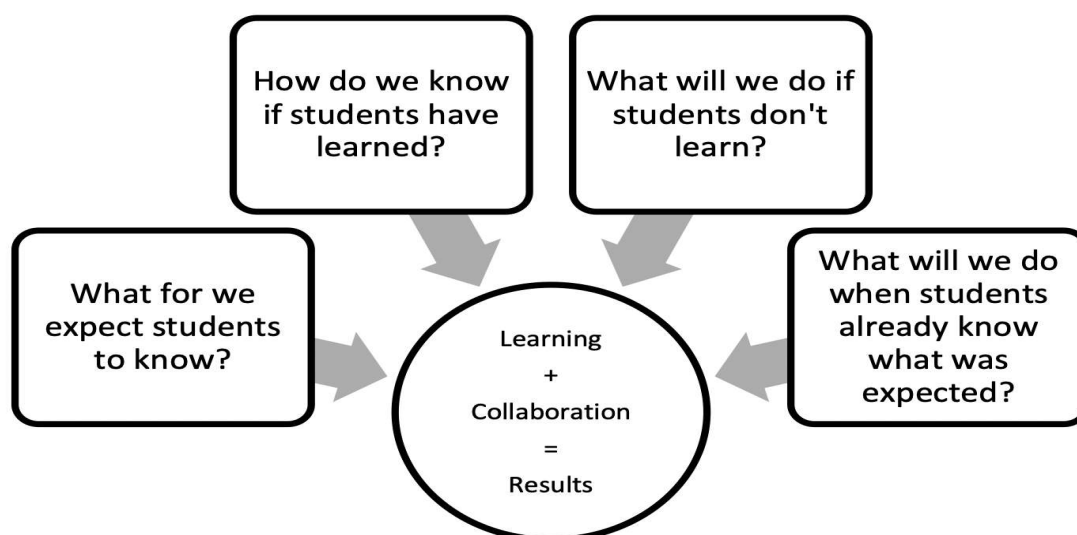
Although other authors discuss PLC characteristics, Meeuwen et al. (2020) indicated in their study that characteristics should not be the primary focus; rather, a system should be developed to drive PLC effectiveness. This is because PLCs can be inclusive of a complex entity of multiple interactions, which can change overtime (p. 406). Still, despite various viewpoints concerning PLC characteristics, literature resoundingly emphasizes the importance of collaboration as a fundamental component of PLCs (Brown et al., 2018; Little & Horn, 2010; Nelson et al., 2010; Schapp & Bruijn, 2016). When teams work collaboratively and interdependently, key goals can be achieved (DuFour et al., 2010). Fostering an atmosphere that is inclusive of collaboration and teamwork can positively impact student achievement and success (Brown et al. 2018, p. 54). Nelson et al. (2010) emphasize that, in addition to characteristics and/or systems created, the use of a collaborative inquiry cycle to guide work,

learning how to engage in deep conversations, and adopting an approach to examining student work are vital.

To engage in deep conversations and inquiry, DuFour et al. (2010) recommend four questions that should be included in every PLC. The questions are: What do we want students to learn?, How will we know if they have learned it?, What will we do if they don't learn it?, What will we do if they already know it? The four questions were generated from DuFour's (2004) three big ideas for PLC sustainment, which emphasize that there should be a focus on ensuring students learn, a culture of collaboration, and a focus on results. These big ideas and questions showed success as indicated in a study conducted by Rentfro (2007). In his study, it was found that when these questions were used at a PLC at an elementary school, student achievement increased in the area of reading achievement. Through the utilization of the four guiding questions, DuFour's (2004) big ideas were put into action, as indicated in Figure 2.2.

**Figure 2.1**

*DuFour's Four Guiding Questions*



Still, although the big ideas and four-question model will be useful in launching teachers into the PLC inquiry process, research confirms that gaps exist not only regarding how collaborative PLCs are created, but around the sustainability of such practices even after they have been created (Lazor, 2019). Lopez (2015) agreed, stating that future research was needed on how to guide, train, and support educators in implementing PLCs with an intent for sustainability. Still, an important aim should not only be on the structural development of PLCs, but also ways to engage in inquiry (Schnellert & Butler, 2014).

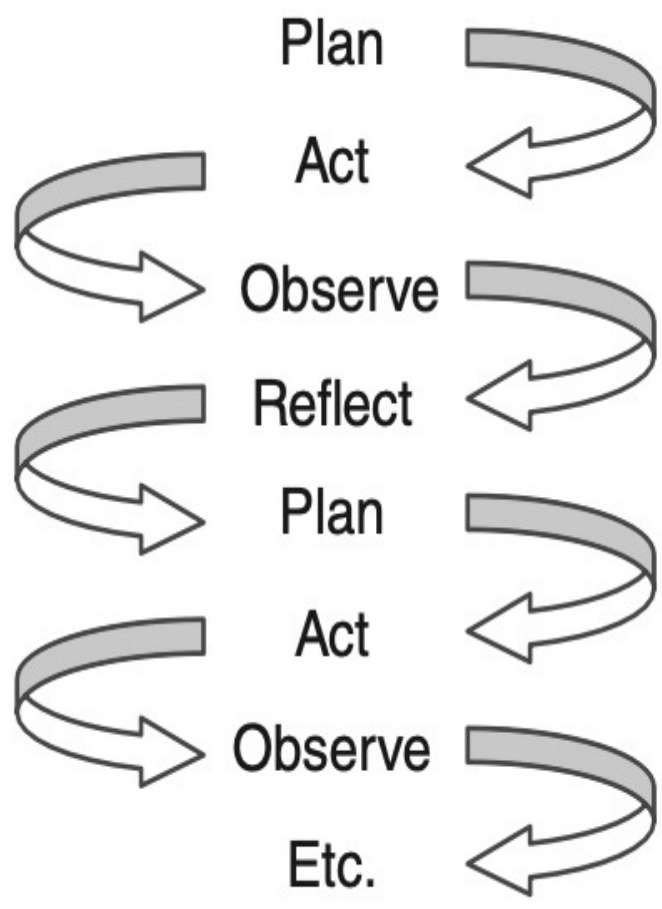
### **Professional Learning Community Inquiry Cycle**

Inquiry can be conceptualized as a complex pattern of stages, referred to as the inquiry pattern (Hoppe et al., 2021). Dewey (1997) identifies this pattern as 1) a felt difficulty; 2) its location and definition; 3) suggestions of possible solutions; 4) development by reasoning of the bearings of the suggestion; 5) further observation and experiment leading to its acceptance or rejection. This was further explained in Hoppe et al. (2021), which stated that in the first stage, the learner questions a situation that informs the problem. In the second stage, the learner must formulate a clear and concise problem statement. In the third stage, the learner proposes ideas for solving problems, and in the fourth stage, hypotheses are refined and positioned according to relevant theories and facts. In the last stage, the learner tests hypotheses and determines the effectiveness of the proposed solution.

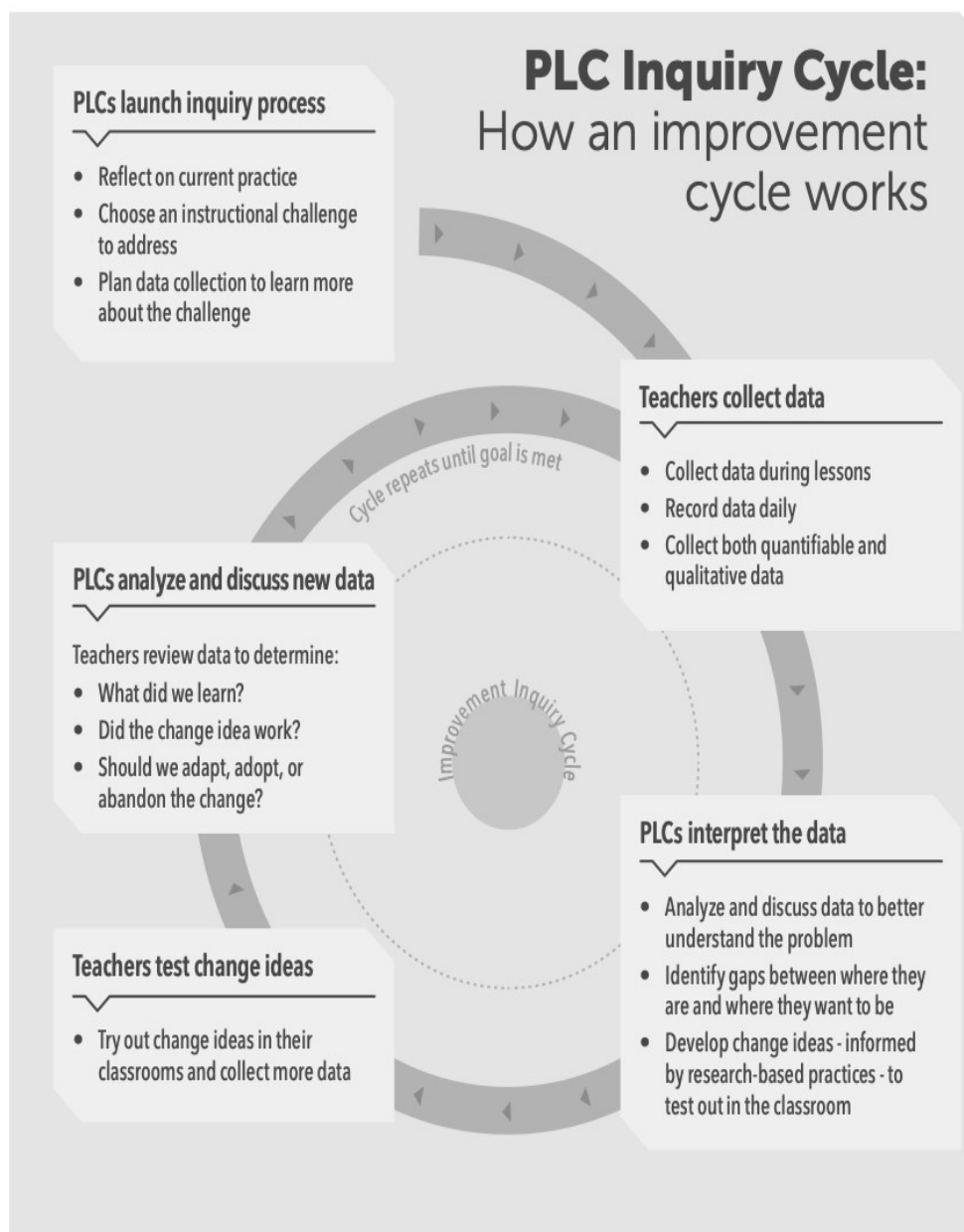
PLCs invoke a level of action research through the inquiry process (Puttman & Rock, 2017). Action research is a form of inquiry into one's own practice (Johnson, 2008; Mertler, 2016). It creates a cycle of planning, acting, observing, and reflecting as indicated in Figure 2.3 (Puttman & Rock, 2017). This cycle leads educators to question and reflect on their practice, improve educational practices, foster overall internal capacity and school improvement, and

engage in rich dialogue (Mertler, 2016). Thus, action research is closely related to inquiry cycles used within PLCs. REL (2017) asserts that there are five stages to the inquiry cycle, which help create an effective PLC (see figure 2.4). Each stage is critical for reflection in PLCs.

**Figure 2.2**  
*Action Research Inquiry Cycle*



**Figure 2.3**  
*PLC Inquiry Cycle*

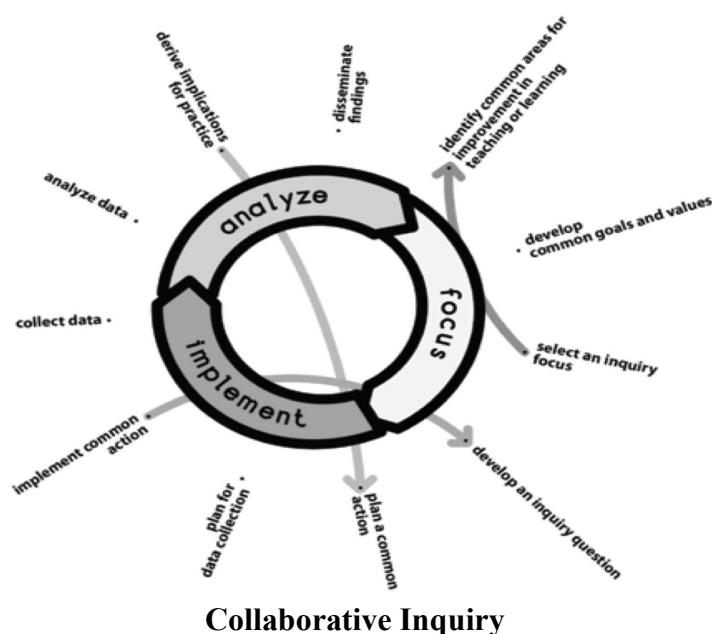


Nelson et al. (2008) also presented a PLC inquiry cycle comprising three stages. The stages consisted of 1) Focus, 2) Implementation, and 3) Evaluation. While the stages are presented using different words from the other PLC inquiry cycles, the ideas remain the same. In all, PLC cycles typically begin with identifying the primary focus, generating a plan, implementing it, and finally using data to inform decisions, as illustrated in Figure 2.5 (Brown et al., 2017; Nelson et

al., 2008; Nelson et al., 2010). Furthermore, Nelson (2011) argues that PLCs must involve a cycle of identifying a common inquiry focus, examining student work and identifying their needs, creating and implementing lessons or instructional strategies, and continually examining learning goals. Although the inquiry cycle traditionally follows a specific order, research suggests that it may not always be carried out sequentially, and some stages may need to be repeated (Donohoo, 2013; Nelson, 2010). In all, PLC inquiry cycles intend to generate high levels of collaborative inquiry for the purpose of enhancing critical reflection and meaningful dialogue.

### Figure 2.4

*Nelson's (2008) PLC Inquiry Cycle*



Collaborative inquiry is an essential factor of PLCs' success (Carpenter, 2017). It is mounted in the foundation of collaboration. Collaborative inquiry is when a team of people comes together to ask critical questions, engage in deep and meaningful conversations, and seek solutions to shared goals (Feldman, 1999). Nelson et al. (2011) more specifically note that the

interactive inquiry cycle, also known as a reflective process, emphasizes the need to create a common vision and focus for work, set and clarify learning goals, plan targeted instruction, assess and analyze student data, and reflect on the effectiveness of instruction. Through this process, educators are challenged to reflect on their practice and apply what they have learned to enhance teaching and learning (Donohoo, 2013, p. 5). While often a lengthy process, collaborative inquiry is considered a promising strategy for strengthening teacher development and student learning (Carpenter, 2017; Brown, 2021; Donohoo, 2013; Hamilton, 2007). This is because, as educators share and exchange teaching and learning innovations, internal capacity is increased, thus leading to greater student achievement (Carpenter, 2017; Leonard & Leonard, 2001;). Research confirms that when collaborative inquiry is utilized, professional capacity can be generated and grow over time (Donohoo & Velesco, 2016; Hargreaves & Fullan, 2012). Before a collaborative inquiry can be effectively launched, research indicates that educators will need to be aware of the purpose, meeting times for the team, and communication methods, as they all greatly increase the likelihood of a successful PLC launch (Many, 2015).

Research suggests that collaborative inquiry can only be successful when there is a willingness to connect with others. In this regard, Carpenter (2017) asserts that collaboration must be voluntary and inclusive, encompassing shared goals, shared responsibility, and shared accountability (Carpenter, 2017; Puttman & Rock, 2017). This is because collaborative inquiry not only involves connecting with others but also negotiating knowledge (Carpenter, 2017). By engaging in knowledge negotiation, educators can challenge their existing knowledge, expand their understanding, and acquire new information while also discovering new findings (Donohoo, 2013; Feldman, 2020; Hart, 2022; Shula, 2014). Additionally, collective efficacy, a positive consequence of collaborative inquiry, can be established as teachers overcome learning

challenges by relying on others' expertise and knowledge (Donohoo, 2016; Goff, 2016). Lysberg (2022) confirmed these ideas in her study, which revealed that a shared focus on student learning positively impacted the internal capacity of the fourteen teachers involved in the analysis.

Further, the study confirmed that teachers increased their knowledge regarding student learning, which led to the development of more meaningful activities and learning opportunities for students. Donohoo and Veiesco (2016) echoed these findings, stating that in their studies, many teachers reported that engaging in collaborative inquiry had a positive impact on their teaching practices.

Collaborative inquiry follows the basic PLC inquiry model, with an emphasis on collaboration. Thus, it involves following the steps of launching an inquiry cycle, collecting data, interpreting the data, testing ideas, analyzing data, and creating new plans as needed (REL, 2019). It is expected that while maneuvering through the inquiry cycle, meaningful interaction between educators, at least two or more, will generate new knowledge to drive better student learning outcomes (Carpenter, 2017; Donohoo, 2013; Thomson & Perry, 2006). Furthermore, engaging in collaborative inquiry cycles not only impacts student learning outcomes and teaching knowledge in the moment but also increases leadership experience, further adding to internal capacity. These ideas are echoed in Carpenter's (2017) study, which contained 60 teachers across five schools. The study focused on the effectiveness of collaborative PLCs in a shared workspace. The findings highlighted positive impacts of PLCs on school culture. Additionally, Carpenter (2017) found that positive functioning PLCs could be seen as transformative due to teacher leadership and the ability to collaborate to have meaningful discussions regarding student achievement. In his study, he also discussed negative functioning PLCs, which lack a shared leadership structure and a community of trust. Aside from the study

performed by Carpenter (2017), other literature also confirms the benefits of collaborative inquiry (Armwood, 2023; Brown, 2017; Nelson, 2009). Research helps to establish confidence that when teachers engage in collaborative inquiry within PLCs, they can identify challenges of practice, gain a deeper understanding of challenges, and become unified in thought, develop a more sophisticated and effective practice, and develop a sense of common purpose (Donohoo, 2013; Hart, 2022). Still, more studies are needed to show that collaborative inquiry is practical and valuable for PLC meetings in urban low-performing elementary settings.

As research highlights the benefits of collaborative inquiry, it also warns that its effectiveness rests on key factors such as time and space to work collaboratively and educators' ability to engage in critical discourse (Donohoo, 2013; Nelson et al., 2008; Nelson et al., 2010). Research highlights the hindrances to engaging in critical dialogue. The hindrances include maintaining a school culture of congeniality, where teachers prioritize friendliness and avoid challenging ideas, and teachers' lack of experience engaging in conversations beyond congeniality (Alan et al., 2021; Nelson et al., 2017). When considering how to move from this state of ineffectiveness, the first step is to ensure teachers understand the difference between superficial conversations and collaborative conversations (Spencer-Johnson, 2018). Nelson et al. (2010) echoed this argument, stating that conversations must shift from congenial to collegial. Thus, they must go beyond being polite and sharing stories without any genuine intent to examine teaching and learning at a deeper level. Congenial conversations ultimately limit productivity and capacity expansion because ideas and practices are rarely questioned, and therefore, are not reflected in this realm of conversation (Lind, 2016; Nelson et al., 2010). Collegial conversations are those that are voluntary, characterized by collaborative dialogue, and grounded in worthwhile content (Selkrig, 2014).

Teachers must be willing to engage in conversations while deprivatizing their practice (DuFour et al., 2006; Hord, 1997). Research indicates that having honest conversations fosters reflection and facilitates effective decision-making in teaching and learning, although they may be uncomfortable (Feldman, 1999; Nelson, 2008). Having critical conversations grounded in shared experiences and a shared focus helps group members question ideas, actions, and artifacts, making the necessary changes (Nelson, Perkins, & Hathorn, 2008). While critical and deep conversations are important, as noted by Nelson et al. (2008), teachers in the United States have little time to engage in professional dialogue because of the number of PLCs being used as staff meetings and hurried meeting times. Similarly, there is often a narrow focus on inquiry, which causes teachers to become lost in the inquiry cycle or not engage in it at all (Nelson et al., 2010, p. 175). For collaborative inquiry to be effective, teachers must be willing to engage in the inquiry cycle and be willing to raise and pursue questions regarding learning goals, instructional practices, and students' attainment of these goals (Nelson et al., 2010).

Like collaboration and PLCs do not just form, educators do not automatically know how to engage in rich conversations to drive student academic achievement. To lead in these endeavors, research suggests that a PLC facilitator is needed to help educators navigate the collaborative process, particularly in facilitating critical conversations (Hairon, 2018). Furthermore, Hairon et al. (2015) indicate that communication has been well-established in research regarding PLCs; however, there has been very little research on leadership's role in helping to launch and sustain critical conversations within PLCs. Wells (2008) also noted that additional training was needed to develop a culture of sharing ideas and discussing student achievement and instructional practices openly. Herein lies the need for effective scaffolds to support the launch of PLCs.

### **Scaffolds for Launching and Sustaining Collaborative Inquiry PLCs**

Literature overwhelmingly confirms that many teachers are unaware or inexperienced in leading and/or participating in collaborative inquiry PLCs (Donohoo, 2013; Owen, 2015). To lead collaborative inquiry PLCs, there are scaffolds needed to ensure effectiveness and drive true change (Donohoo, 2013). Scaffolding is an instructional process that supports learners in reaching the next level of learning (Powell & Cody, 2009). Before scaffolds can occur, several key elements must be put in place by school leaders. Some of these elements include instituting PLCs and establishing a schedule to meet regularly (Brown et al., 2021). As the primary leader of the school, principals must prioritize improvement work, which includes PLCs, and create opportunities for such work to take place (REL, 2019). This would require a schoolwide schedule and expectations regarding meeting days and times. These expectations should also be communicated to PLC facilitators and teacher leaders (Carpenter, 2017, p. 1071).

All PLC leaders and facilitators should be aware of the plan to implement PLCs and a desire to move towards a collaborative culture. After expectations are communicated to teacher leaders, a clear plan must be devised to guide other educators through collaborative inquiry cycles (Carpenter, 2017; Donohoo, 2013; Nelson et al., 2008). The plan must include possible norms and expectations (aligned with the principal's norms and expectations), training methods for other teachers, and data collection tools and methods (Nelson et al., 2010; REL, 2019;). In creating a plan and thinking about the long-term goals of collaborative inquiry PLCs, teacher leaders must understand distributive leadership. Donohoo (2013) and Veisco (2014) assert that all leaders of the PLC meetings should also consider roles for members in the collaborative inquiry process. These roles include a facilitator, presenter, recorder, and participants. In this, facilitators should ensure that all members are actively contributing to the inquiry process. In

addition to planning the launching of collaborative inquiry cycles, intentional work should be done to identify, develop, and train teacher leaders in the collaborative inquiry cycle process (Donohoo, 2013). Through this learning process, teacher leaders should familiarize themselves with the inquiry cycle and its importance in PLCs (Carpenter, 2017). Moreover, research suggests that there is a need for an understanding of the importance of time. According to Nelson et al. (2008), teachers should be aware of the time required for an inquiry cycle. Equally, the leader must be understanding that the length of inquiry cycles depends on the team. Their newness to inquiry cycles may impact the amount of time it takes the team to go through each phase of the cycle (Donohoo, 2013). Throughout this process, PLC members, such as teachers and facilitators, should remind teachers of the commitment, time, and energy required during the process (Brown et al., 2021; Donohoo, 2013).

In a study led by Nelson et al. (2008), a model known as PRiSSM (Partnerships for Reform in Secondary Science and Mathematics) was discussed. PRiSSM is a three-year professional development project that was implemented across 22 schools in the areas of mathematics and science. Through this study, ideas of structures and processes to support collaboration in PLCs were presented. While some of the supports were effective in generating collaboration, there were still instances where teachers lacked sufficient support in engaging in collaborative and inquiry-based learning. Some of the study's implications included the lack of risk-taking, the ability to understand data, and various shared interests. Donohoo (2013) and Veisco (2016) worked to mitigate some of these concerns by offering resources, as indicated in Figures 2.3 and 2.4, to help navigate the data analysis and reflection processes, which can be helpful in leading educators in the conversations needed to rethink teaching practices.

Deep conversations are a crucial factor in collaborative inquiry, and facilitators must understand how to lead colleagues in them (Donohoo, 2013; Nelson et al., 2008, Nelson, 2010; Slavit &). Before leading teachers in deep conversations, facilitators must set a focus and know how to foster academic discourse. (Donohoo, 2013). According to Nelson (2010), facilitators must work to transition teachers from congenial conversations to more evidence-based discussions. They can begin the first collaborative inquiry PLC meeting by asking, “Why” instead of “How.” Posing the question of “why” helps to lead teachers into the inquiry cycle (Donohoo, 2013). According to Nelson et al. (2010), the facilitator must also be prepared to shatter the norms of privacy. When norms of privacy are disregarded, teachers tend to avoid asking questions and probing others’ ideas, beliefs, and values. (Donohoo, 2013) contributes to this discussion by stating that teacher leaders must know how to foster academic discourse that shifts from the “culture of nice” so that effective practices and results can be achieved. Facilitators must also clearly distinguish between dialogue and discussion and inform team members when each is occurring (Nelson, 2010). Moreover, teacher leaders must work to provide opportunities for teams to engage in respectful dialogue and discussion, ensuring that members offer descriptions rather than interpretations (Donohoo, 2013). Collaborative inquiry discussions must be based on evidence rather than opinions (Donohoo, 2013, p. 8). Discussions can also be grounded in shared experiences where ideas, actions, and artifacts are questioned (Nelson et al., 2008). In this, facilitators must model strategies for productive conversations and determine ways to help the group reflect on practices and results (Nelson, 2010). Teacher leaders or facilitators must have a template or awareness of how to lead teachers in these critical conversations (Nelson et al. 2008). In *Leading Deep Conversations in*

*Collaborative Inquiry Groups*, Nelson (2010) presented leaders with engaging sets for framing deeper conversations in teacher inquiry groups. The questions include:

#### Examining Instructional Practices

- Why are these meaningful learning goals?
- If we all teach this concept differently, what implications are there for student understanding (related vocabulary, processes, subsequent concept building)?
- How do these lessons address students' misconceptions?

#### Learning Exceptions Represented in Student Work

- When students understand this, what will it sound or look like?
- What are our expectations for struggling students? For advanced students?
- What are misconceptions we might expect to see in students' work?
- What other ways might students represent their understanding?

#### Identifying Patterns in Student Work

- What do you see or hear that suggests students understand/almost understand/do not understand?
- Which students are understanding/almost understanding/ not understanding? What does this tell us?
- What do you see or hear that you did not expect to find?

#### Connecting Student Work to Practice

- How do students' responses relate to the lesson taught?
- Why did I/you teach in this way? Are there other options? Why consider another option?

- What patterns in students' work suggest I/we should continue teaching this way, make some modifications, or try to use a different approach?

#### Examining Assessment Practice

- What does this form of assessment show us?
- What information about students' understandings does this assessment not provide?
- What are alternative forms of assessments that might reveal more/other/all students' understandings?

#### Reflection on Group Processes

- What does this conversation lead us to do next?
- Do I/we understand students' thinking in a new way? How?
- Do we need outside help with anything? If so, what?
- How did our conversation challenge me? Make me uncomfortable? What did I like?

What don't I want to repeat?

- Do we need a tool to guide the way we talk about assessment/student learning/teaching next time?

Nelson et al. (2010) noted that these questions require trust and true leadership to gain meaningful results. In a study they conducted, some of these questions were used, leading to deep levels of inquiry. However, it was carefully noted that statements were framed as questions rather than assumptions to launch meaningful investigations and conversations. Donohoo and Velsco (2014) also offered a protocol for data collection and reflection. The questions are:

- Do team members share a common understanding of the student learning need that has been identified?

- What would the student-learning evidence look like if students were performing at the highest level? Lowest level? Somewhere in between?
- Does the evidence measure student learning or is it measuring something else?
- What are different ways to collect evidence that could reflect potential changes in student learning over time?
- How and when will team members collect student-learning data?
- Is evidence formative or summative in nature? Does this matter? If so, why?

After collecting the data, Donohoo and Veisco (2014) recommend organizing, reading, describing, classifying, and interpreting the data. Research confirms that after data is analyzed and discussed, collaborative teams must decide on next steps based on the results. As previously stated, collaborative inquiry involves deep conversations, data analysis, and critical reflection—practices that are not very common within PLCs (Owen, 2014) . Questioning was found to be an effective scaffolding tool when leading teachers into collaborative inquiry (Nelson, 2008). Moreover, implementing a discussion protocol (Appendix I) with a goal statement, clear rules, agendas, and embedded opportunities for data analysis would be helpful when leading collaborative inquiry PLCs and deep conversations. Quintessentially, creating and implementing scaffolds can be helpful for instructional facilitators working with teachers in PLC meetings (Nelson et al., 2010). Still, beyond its argument of practical scaffolding tools for teachers, none of the studies discussed the positive effects of using such scaffolds in urban, low-performing elementary school settings.

### **Conclusion**

Engaging in collaborative inquiry cycles within PLCs is crucial for student learning. It is purposefully designed to determine what students will learn, but most importantly, how teachers

will respond when students are not learning or growing at the rate they should (Hoaglund et al., 2014). In this light, the collaborative inquiry process focuses on both student and teacher outcomes as well (Ning, Lee, & Lee, 2015). While research has made a valid argument for the importance of PLCs, collaborative inquiry, and their effects on teacher learning and capacity, gaps still exist regarding the training and support of teachers as it relates to the launching of inquiry cycles and effective scaffolds for successful implementation. Moreover, there is a lack of research on effective scaffolds for initiating collaborative inquiry cycles in low-performing elementary school settings situated within small urban contexts. In this same vein, little is known about the utilization of research-based scaffolds for implementing collaborative inquiry in urban elementary school settings. For these reasons, this study will situate itself in the realm of collaborative inquiry within PLC meetings in an urban elementary school setting.

## CHAPTER THREE: METHODOLOGY

Chapter 1 emphasized the rationale and purpose of this study. Chapter 2 sought to highlight literature relevant to professional learning communities, inquiry-based learning, collaboration, and collaborative inquiry. This chapter outlines the proposed research design for this qualitative study. More specifically, there will be a justification made for case study research as a methodology to examine data on scaffolds used for launching and facilitating collaborative inquiry PLCs in an urban, low-performing elementary school setting. This section will also present a proposal for the research setting, participants, and sampling procedures. Following that discussion, data collection and analysis methods, limitations, strategies for quality, positionalities, and recommendations for further research will be discussed. Finally, an overview of the study design will be presented.

### **Research Questions**

The purpose of this study is to determine the experiences, perceptions, and professional dispositions of PLC members regarding the impact of implementing research-based collaborative inquiry-based scaffolds within collaborative PLC meetings in a low-performing elementary school. This study will also explore the experiences of a PLC facilitator in leading the implementation of research-based scaffolds. Four research questions will guide this study:

1. How do elementary teachers in a low-performing elementary school setting perceive collaborative inquiry-based scaffolds?
2. How does a PLC meeting facilitator at a low-performing elementary school experience leading PLC members through collaborative inquiry scaffolding tools?

3. How do PLC meeting members at a low-performing elementary school describe their overall experiences of PLC meetings following the implementation of inquiry-based scaffolds?
4. In what ways do collaborative inquiry-based scaffolds impact teachers' professional dispositions?

### **Positionality Statement**

As a former elementary ELA teacher, instructional coach, former assistant principal of ELA curriculum and instruction, and current literacy coordinator, I was interested in this topic because I have always sought ways to help teachers engage in critical discussions that drive student achievement and growth. Similarly, I was focused on helping teachers understand the advantages and importance of collaboration in education through inquiry. I believed that inquiry should not only be tied to student learning but should also be highly integrated into teacher learning and planning. As a previous PLC facilitator and current liaison of ELA curriculum and instruction, I was most focused on helping PLC facilitators and teachers identify support for successfully engaging in collaborative inquiry during PLC meetings. My research was informed by a commitment to improve student achievement through collaboration and inquiry.

The purpose of this study was threefold. First, it sought to identify research-based scaffolds that support the launch and sustainability of collaborative inquiry in PLC meetings within urban, low-performing elementary settings. Second, it aimed to examine the impact of those scaffolds on the function of PLC meetings and the professional dispositions of PLC members. Lastly, it explored teachers' perceptions of the scaffolds after they were implemented in practice. I hoped that the findings from this research would contribute to practical strategies to

overcome common barriers to collaborative inquiry and provide guidance for educators aiming to launch and sustain collaborative inquiry cycles in PLCs.

I held the primary role in data collection for this study. More specifically, I was responsible for selecting the research methodology, defining the focus of inquiry, identifying participants, and serving as the key instrument for data collection and analysis (Davis, 2020; Merriam & Tisdell, 2016; Ravitch & Carl, 2016). I suggested specific research-based scaffolds to PLC facilitators, which included the Roles, Responsibilities, and Norms Protocol (Appendix M), the Common Assessment Protocol (Appendix N), and the Deep Discussion Protocol (Appendix O). I recommended the implementation of the Roles and Responsibilities Protocol as a way to generate collaboration, equity, and shared responsibility across the PLC. I also suggested the Common Assessment Protocol to help participants align their learning goals, foster focused collaboration, and ensure consistency across classrooms. Lastly, the Deep Discussions Protocol was employed as an intervention to facilitate in-depth discussions in PLC meetings and was adapted to suit the context of the research location.

These scaffolding protocols were selected in response to the literature, which overwhelmingly supports the need for tools that promote collaboration and deeper discussions within PLC meetings (Hart, 2022; Little & Horn, 2010; Nelson et al., 2008; Nelson et al., 2010; Schleifer et al., 2017). Each protocol was grounded in prior research and selected based on its potential to support professional dialogue, collective inquiry, and data-driven instructional planning. This research stems from my long-standing interest in teacher collaboration and student achievement. Through the implementation of the suggested scaffolds, this exploratory case study helped identify strategies that were most effective in developing teachers through collaboration, ultimately enhancing student learning experiences. To this end, I was diligent

about staying focused on the topic, purposefully selecting scaffolding tools based on participants' stated needs, and thoroughly analyzing data to produce meaningful results.

A level of critical reflexivity was maintained throughout the study before, during, and after the study. According to Merriweather (2015), reflexivity involves critically reflecting on oneself. To support this process, I maintained a reflexivity journal (Appendix P), where I recorded my thoughts, feelings, and reflections. The journal included reflections related to the development of my research plan, including the formation of research questions, selection of scaffolds, determination of data collection methods, and the steps for data analysis. During the study, I used the journal to reflect on what was said before and after check-in meetings with the PLC facilitator regarding the scaffolding tools and their usefulness in PLC meetings. I also wrote reflections after observing PLC meetings and conducting interviews. During data analysis, I frequently returned to my reflections to check for potential bias and ensure that my interpretations remained grounded in the data. Overall, the journal helped me engage in critical self-reflection and monitor any potential influence of my favorable expectations throughout the research process. For example, at the beginning of the study, I noted feeling hopeful that teachers would be highly collaborative. However, I also questioned whether my optimism might cause me to overlook signs of resistance. Further, in my reflexivity journal (Appendix P), I consistently asked myself questions to acknowledge potential biases and to remain aware of them during data analysis in order to avoid allowing them to shape my interpretations. This ongoing reflection helped me remain open to the study's findings.

### **Research Design**

Case study research is a commonly used qualitative research methodology (Yazan, 2015). Some of its most appreciated features include the ability to encompass and tailor questions to a

specific inquiry or case (Merriam, 1998; Stake, 1995), its capacity to offer “thick” descriptions, and its potential to thoroughly explore a case within a specific context (Yin, 2000). With these benefits in mind, the case study utilized a qualitative case study design. Case study methodology was the most appropriate qualitative design for this study because it sought to examine a team of third-grade teachers as a clear case and bounded system that specifically focused on examining the phenomena of utilizing collaborative inquiry-based scaffolding tools in PLC meetings within the specific context of an urban, low-performing elementary setting. More specifically, this case study had boundaries, as it only examined third-grade PLC meeting members in a specific, low-performing elementary school within a single school district over a 12-week period.

Case study methodology helps to answer “why” and “how” questions (Yin, 2000). Furthermore, the single-case study design methodology emphasizes the in-depth exploration of a program, event, activity, process, or individual (Creswell, 2014). The case study was exploratory (Yin, 2003) in nature as it extensively explored how research-based scaffolds were implemented within collaborative inquiry in PLC meetings, while it also sought to understand how participants perceived the implementation of the suggested scaffolds and their impact on PLC meetings in its entirety. Thick descriptions, through the interpretation of how individuals viewed, approached, and made meaning of their experiences with implementing or utilizing scaffolds, helped answer the “why” and “how” questions that were compatible with the research questions in this study (Ravitch & Carl, 2019).

## **Research Site and Participants**

### **Research Setting**

This research study took place at Sunrise Elementary School, which is a pseudonym used to protect the identity of a school located within an urban school district situated in central North

Carolina. The school serves students in grades pre-K through third grade. According to the staff handbook and documentation provided by the school's principal, the school has approximately 740 students. Of the 740 students, 41% are Black or African American, 33% are Hispanic, 15% are Caucasian or White, 9% are two or more races, 0.60% are Native Hawaiian or Other Pacific Islander, 0.70% are Asian, and 0.70% are American Indian/Alaskan Native. According to the school's School Improvement Plan (SIP), 75% of students are on Free/Reduced Lunch, indicating that a large portion of the school's population comes from economically disadvantaged backgrounds. Additionally, 15% of students are limited-English proficient, and 10% of students have an Individualized Education Plan (IEP) and require special education services. Table 1 provides an overview of Sunrise Elementary School's demographics, staffing, and organizational structures.

**Table 3.1***Contextual Overview of Sunrise Elementary School*

<b>Characteristic</b>	<b>Details</b>
Location	Urban district, Central North Carolina
Grade Levels Served	Pre-K- 3 <sup>rd</sup> Grade
Total Enrollment	~740 students
Race/Ethnicity	Black/African American (41%); Hispanic (33%); White (15%); Two or more races (9%); Asian (0.7%); Native Hawaiian/Other Pacific Islander (0.6%); American Indian/Alaska Native (0.7%)
Economically Disadvantaged	75% Free/Reduced Lunch
English Learners	15%
Students with IEP	10%
Staffing	1 Principal; 2 Assistant Principals; 40 Teachers (8 beginning teachers); 9 Teacher Assistants; 2 Interventionists; 1 MCL/Coach; 1 Counselor; 1 Social Worker; 1 Student Success Coach; 1 Nurse; 4 Office Staff
Current State Accountability Designation	Designated low-performing (State Board of Education; based on 3rd-grade EOG scores)
School Vision/Mission	Student-centered, equity-driven, whole-child focus; emphasis on rigor, relationships, and culturally responsive practice
Professional Learning Structures	Weekly PLCs (grade-level planning 2x/week; schoolwide PLC Wednesdays with MTSS, staff, leadership, and PD rotation)

To accommodate a large student population and remain committed to educating the whole child, the school has strategically staffed positions to foster continuous improvement among all students. The staff includes one principal, two assistant principals, forty teachers, nine

teacher assistants, two interventionists, one full-release MCL/instructional coach, one full-time school counselor, one social worker, one student success coach, one school nurse, and four administrative office staff members. Eight of the teachers at Sunrise Elementary are considered beginning teachers, having three years or less of experience. Students participate in English-Language Arts (ELA), Mathematics, Social Studies, and Science each day. Weekly, students attend encore classes such as Art, Music, Physical Education, and Media at least a week. Sunrise Elementary also contains one adaptive skills class. Recent staffing changes include the onboarding of a new assistant principal, a new school counselor, and a new social worker.

Sunrise Elementary School is currently classified as a low-performing elementary school, as determined by the North Carolina State Board of Education. This status is primarily based on third-grade End-of-Grade (EOG) assessments, which represent the only grade level within the school that participates in statewide testing. Therefore, the school's accountability grade, which is currently a "D", is derived from a single grade level or data point. Still, this calculation does not fully reflect the strengths, limitations, or potential across the Pre-K to second-grade continuum.

Despite being designated as low-performing by the state, Sunrise Elementary demonstrates several strengths that support the path to academic growth. It is evident that the school's leadership team has created a clear vision, which is one that is student-centered and grounded in equity, cultural responsiveness, and family-community partnerships. The vision of Sunrise Elementary School is that it will be a place where students, teachers, administrators, and families come together to foster innovation, cultivate leadership opportunities, embrace culturally responsive practices, and move the possibilities of what a school can be into new directions. The mission statement indicates that Sunrise Elementary School will partner with

parents, community, and staff to nurture and prepare students for success in the 21st Century. It explicitly states: “Educating the whole child and providing them with the tools needed for success in life is paramount. Expectations for a positive learning environment, along with rigor, relevance, and relationship building, will ensure success for all students”. The school’s listed values are that staff members will be committed and intentional about establishing meaningful relationships that promote excellence and personal greatness. These values are represented through intentional scheduling of weekly PLC meetings, strategic planning around the multi-tiered system of support (MTSS), and professional development sessions.

Additionally, the SIP indicates that Sunrise Elementary School prioritizes literacy growth of K-2 students, as measured by mClass assessments. The school’s goal is to increase literacy proficiency by 10% in the current year and by an additional 5% in subsequent years. As listed in the SIP and Staff Handbook, these goals are supported by school-wide collaboration and shared commitment to professional learning. The SIP indicates that the school has implemented a school-wide professional learning community model, focusing on collaboration and instructional planning to build teacher capacity and improve instructional quality. To make this a priority, Sunrise Elementary School requires that each PLC subgroup, which consists of smaller teams within each grade level, plan twice a week. The master calendar indicates that all teachers will plan for ELA on one day and math on another day. The school also holds schoolwide PLC meetings each Wednesday, with a designated schedule as follows: the first Wednesday is reserved for Multi-Tiered Systems of Support (MTSS) meetings, the second is for staff meetings, the third is for school leadership meetings, and the fourth is a school-wide professional development day.

## **Participant Pool and Recruitment**

Qualitative case studies should be small to gain an in-depth understanding of real-life phenomena (Miles et al., 2015). The size of this study is significant because it will allow the group of teachers to meaningfully engage in critical dialogue and data analysis. A purposeful sampling technique will be used for participant selection. According to Moser and Korstjens (2018), purposeful sampling involves selecting participants based on the researchers' judgment of which individuals will be most informative. Participants selected for this study were strategically sought after based on their distinct contributions to the study and their consistency of holding PLC meetings.

Participants for this proposed study were recruited through in-person recruitment. After receiving written and verbal permission from the school's principal and district personnel to conduct the study at the research site, the researcher physically visited the site to recruit participants. Participants were recruited after school hours to eliminate the disruption of daily school activities. On the day of recruitment, the researcher visited each participant's individual classroom to recruit and read the appropriate script, either the PLC Member In-Person Recruitment Script (Appendix A) or the PLC Facilitator Recruitment Script (Appendix D), depending on their role in the study. The researcher informed each participant that participation in the study was strictly voluntary. Participants were given time to consider their involvement, and all agreed to participate. Following their decision, each participant was provided with a consent form to sign, indicating their willingness to participate in the study. All participants were present and agreed to participate in the study on the in-person recruitment day; therefore, no follow-up recruitment emails were sent. Following the signing of the written consent forms, the researcher stored them in a folder secured in a locked file cabinet inside the researcher's home. It

is essential to note that the school's administrative team had already formed PLC teams; therefore, if one participant decided not to participate in the research study, the researcher would have had to obtain permission to recruit participants from another third-grade PLC team or a different grade level team.

Participation in this study required that participants serve as full-time educators (Teachers and Instructional Coaches) at the Third-Grade level during the 2024-2025 school year. In addition to meeting the study's criteria for participation, professional and demographic information was also collected to provide context for participants' roles within PLC meetings. In this study, pseudonyms were used to protect the confidentiality and privacy of participants. The PLC facilitator, Allie, was a white female in her mid-thirties, a veteran teacher with 14 years of teaching experience. Before becoming an instructional coach at the grade level, she served as an instructional coach in a neighboring district, and prior to that, she was a classroom teacher. She has taught first, second, and third grade. Calaena was a young white female teacher in her fourth year of teaching. She began her career as a fully licensed teacher. During her years of teaching experience, she taught fourth-grade ELA and all subjects as a third-grade teacher. Lavender was a black female teacher. She had ten years of teaching experience. Due to licensure requirements in the state of North Carolina, Lavender was considered a beginning teacher, despite having taught for seven years prior to relocating from Florida. Shelly was a middle-aged black female teacher. She was considered a veteran teacher with thirteen years of teaching experience. Before relocating to North Carolina to teach, Shelly had taught for ten years in Jamaica. She taught first, second, and third grades during her teaching tenure. These descriptions of participants indicate that the grade-level PLC team included both novice and experienced educators. To supplement

these narrative descriptions, Table 2 provides an overview of the participants' demographic and professional backgrounds.

**Table 3.2**

*Participant Demographic and Professional Overview*

<b>Pseudonym</b>	<b>Role</b>	<b>Years of Experience</b>	<b>Grade Levels Taught</b>	<b>Additional background</b>
Allie	PLC Facilitator / Instructional Coach	14 years	1 <sup>st</sup> , 2 <sup>nd</sup> , 3 <sup>rd</sup>	Veteran teacher; prior instructional coach in a neighboring district.
Calaena	Classroom Teacher	4 years	3 <sup>rd</sup> , 4 <sup>th</sup> (ELA)	Began as a fully licensed teacher after graduating from an educator preparation program.
Lavender	Classroom Teacher	10 years	3 <sup>rd</sup>	Relocated from Florida; classified as Beginning Teacher in NC due to licensure requirements, Taught in private charter school previously
Shelly	Classroom Teacher	13 years (23 total, including Jamaica)	1 <sup>st</sup> , 2 <sup>nd</sup> , 3 <sup>rd</sup>	Veteran teacher; previously taught 10 years in Jamaica. New to school, team, and grade level.

Participants for this proposed study were recruited through in-person recruitment. After receiving written and verbal permission from the school's principal and district personnel to conduct the study at the research site, the researcher physically visited the site to recruit participants. Participants were recruited after school hours to eliminate the disruption of daily school activities. On the day of recruitment, the researcher visited each participant's individual classroom to recruit and read the appropriate script, either the PLC Member In-Person Recruitment Script (Appendix A) or the PLC Facilitator In-Person Recruitment Script (Appendix D), depending on their role in the study. Participants were given time to consider their involvement, and all agreed to participate. Following their decision, each participant was provided with a consent form to sign, indicating their willingness to participate in the study. All

participants were present and agreed to participate in the study on the in-person recruitment day; therefore, no follow-up recruitment emails were sent. Following the signing of the written consent forms, the researcher stored them in a folder secured in a locked file cabinet inside the researcher's home.

### **Data Collection**

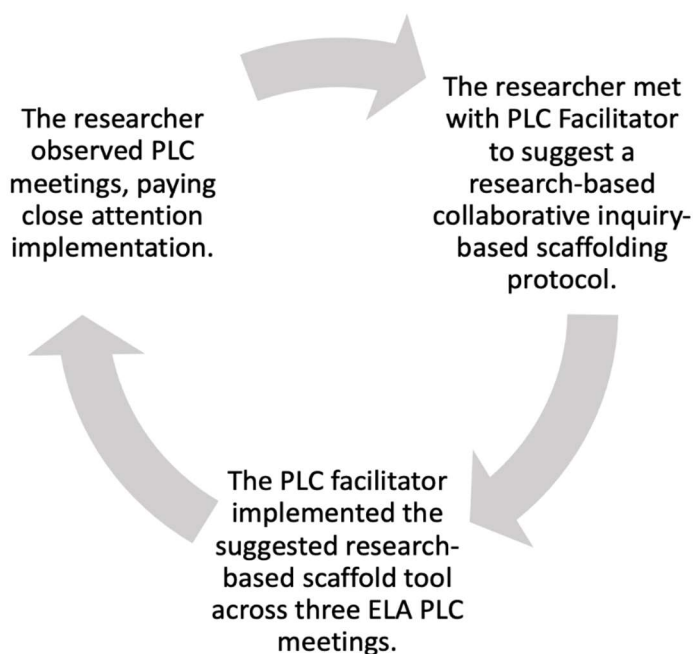
In accordance with case study methodology, this research study employed multiple data collection methods to ensure validity and reliability. Yin (2011), suggests that validity can be achieved through the triangulation of multiple sources of evidence. To answer all four questions in the research study, the researcher employed data collection methods such as semi-structured interviews, observations, and document analysis, which included administrative records such as school/grade level data, overall percentage of assessment scores (not to include any individual students), and contextual data, including PLC expectations and requirements for Sunrise Elementary School. It is important to note that the contextual and administrative data collected were non-identifiable as they related to particular students, but ultimately offered an overview of the grade level/school as a whole. These collection methods helped to emphasize the contextual features and descriptive information required of case study research. Data collection took place over a period of twelve weeks. The district's school calendar was considered, and specific holidays and breaks were excluded from the 12-week study. The researcher suggested collaborative inquiry-based scaffolding tools and later examined the implementation and participants' perceptions of the recommended tools.

The researcher followed a scaffolding implementation cycle, as seen in Figure 3.1. As such, the researcher followed the process of suggesting a collaborative inquiry-based scaffolding tool with the PLC facilitator. Following the suggestion of a specific scaffold implementation, the

facilitator implemented the scaffolding practice within PLC meetings. After two weeks of implementation, the researcher observed PLC meetings, paying close attention to the implementation of the scaffolding tool and gathering evidence of its usefulness through participant engagement, discourse, and outcomes. After observing the implementation of the suggested scaffolds, the researcher met with the PLC facilitator to debrief on the specific scaffolding implementation process and discuss its strengths and challenges. After debriefing with the PLC facilitator, the researcher restarted the scaffolding cycling plan by introducing the next scaffolding tool.

**Figure 3.1**

*Scaffolding Cycle Plan*



### **Semi-Structured Interviews**

To better understand the perceptions of launching collaborative inquiry cycles and utilizing scaffolds for collaborative inquiry engagement, participants engaged in two semi-

structured interviews. In alignment with semi-structured interview characteristics, each semi-structured interview consisted of a set of questions; however, interviewees were probed to find out additional information pertaining to their experiences and perceptions of implementing or utilizing research-based collaborative inquiry-based scaffolding tools within PLC meetings. Semi-structured interviews were conducted twice during the study, once at the start in week one and again at the conclusion in week twelve. All interviews were conducted on Zoom and audio-recorded. The researcher utilized Zoom's transcription feature to transcribe the interviews, rather than relying on manual transcription.

### **Initial Interview:**

Initial interviews took place during the first week of the study and lasted between 30 and 40 minutes. My purpose for these interviews was to explore participants' backgrounds, including their experience in education, the grades they have taught, and what brought them into the field, as well as their early perceptions of collaborative practices within their PLC team. Two interview protocols (Appendices G and H) were designed to guide these conversations. The Initial Interview in Appendix G was developed for PLC members, while the second protocol (Appendix H) was created specifically for the PLC facilitator. The protocols differed slightly in focus: Appendix G emphasized the backgrounds of PLC members as teachers, their perceptions of collaboration, and their current participation in PLC meetings. In contrast, Appendix H was tailored to the PLC facilitator and focused more on their background as an educator and coach, their perceptions of PLC meetings and what occurs during them, and the current support strategies implemented within those meetings. I used the information collected from these semi-structured interviews as a baseline to suggest research-based collaborative inquiry scaffolding

tools, as shown in Appendices M through O. These included a Roles, Responsibilities, and Norms protocol, a Common Assessment protocol, and a Deep Discussion protocol.

### **Final Interview**

The final interviews took place during week 12 of the study and lasted between 45 and 60 minutes each. These interviews aimed to explore the facilitator's and teachers' overall experiences with the research-based collaborative inquiry scaffolding tools, including their perceptions of the tools' impact and usefulness in PLC meetings, as well as the perceived influence on the professional dispositions of PLC members. I developed interview protocols (Appendices I and J) to guide these conversations. Appendix I was used with PLC members, while Appendix J was used with the PLC facilitator. Although both protocols focused on participants' perceptions of the implemented scaffolds and their impact on PLC meetings, the facilitator's protocol (Appendix J) also included questions specific to their experience leading and implementing the scaffolding tools.

### **Observations**

This study consisted of three observations, conducted during weeks 5, 8, and 11, each lasting 90 minutes. The observations took place in the facilitator's classroom during designated PLC meeting days and times when no students were present. I typed field notes during each observation, using the Observation Field Notes Protocol (Appendix K), and adhered to Merriam's (1998) checklist of what to look for and include in observation notes.

The purpose of the observations was to gain a deeper understanding of how the suggested collaborative inquiry-based scaffolding tools were implemented and how they supported the development of collaborative inquiry within PLC meetings. I observed the participants' interactions, collaborative practices, and the nature of the critical discussions that took place.

More specifically, I closely noted nonverbal expressions of feelings, patterns of interaction among participants, communication styles, and the amount of time spent on various activities (Schmuck, 1997; Zikmund, 2000; Jessop, 2014; Merriam, 2018; Hurst, 2023). These observations also helped me determine the perceived usefulness and effectiveness of the scaffolding tools for this particular team. In addition, they served to triangulate findings from other data sources collected throughout the study.

### **PLC Facilitator Check-in Meetings**

This study included three check-in meetings between the PLC facilitator and me. These check-ins took place during Weeks 2, 5, and 8 of the study. The primary purpose of the check-in meetings was to introduce new collaborative inquiry-based scaffolding tools to the PLC facilitator and to provide support or clarification as needed. The meetings also served as a space for the facilitator to reflect on the implementation process and share celebrations, challenges, and complexities related to the scaffolding tools and their use. I documented these meetings using the *PLC Facilitator Check-in Meeting Field Notes Protocol* (Appendix L), which helped capture outcomes and insights regarding the implementation of tools in PLC meetings. Each meeting lasted between 15 and 45 minutes, depending on the depth of the conversation and the facilitator's needs. To preserve confidentiality and encourage open, transparent communication, check-in meetings were not audio- or video-recorded.

### **Document Collection**

During Week 1 of the study, the school's principal created an electronic folder of administrative and contextual documents, which included the staff handbook and the School Improvement Plan (SIP). The SIP contained information related to the school's vision and mission statements, enrollment data, staffing matrices, dates and purposes of staff meetings, and

instructional and PLC expectations. Additionally, I was provided with a copy of the SIP, the school-wide and third-grade schedules, the district calendar, the master calendar, and access to the required curriculum resources used for third-grade ELA. In addition to the documents shared by the principal, I also retrieved the School Report Card from the North Carolina Department of Public Instruction website. The purpose of collecting these administrative and contextual documents was to frame the case study, gain insight into the setting and context, and support the triangulation of findings. A document collection table is provided below (see Table 3.1).

**Table 3.3**

*Data Collection Timeline*

<b>Data Collection</b>	<b>Timeline for Collection</b>
Semi-Structured Interviews	Initial Interview- Week 1 Final Interview- Week 12
Check-in Meetings	Week 2 Week 5 Week 8
Observations	Week 5 Week 8 Week 11
Document Collection	Week 1

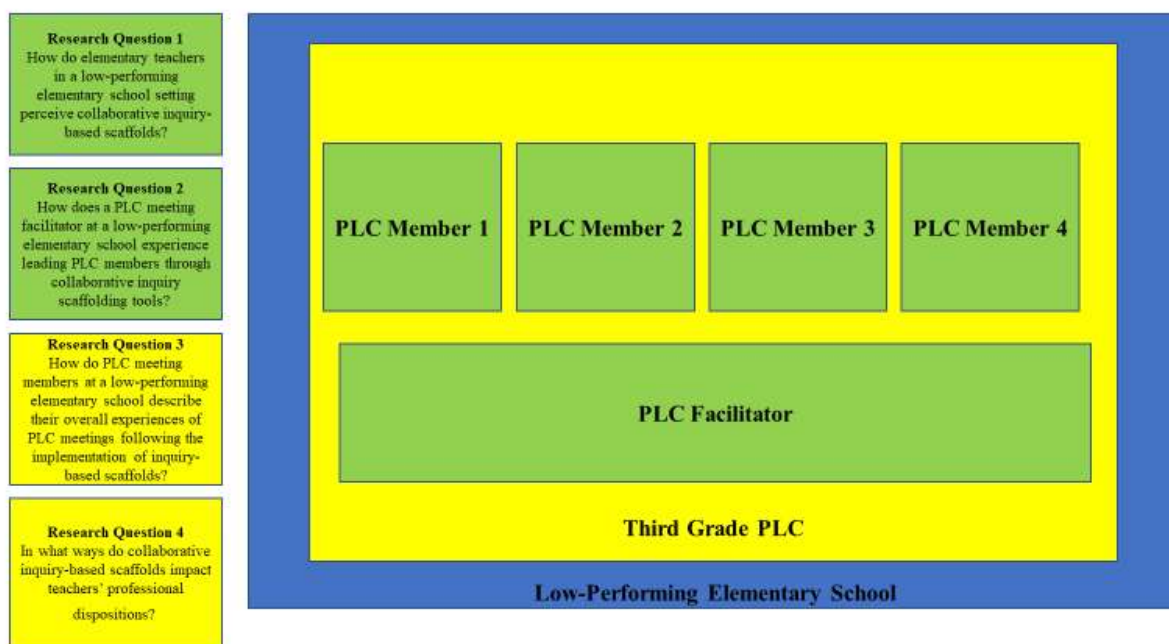
### **Data Analysis**

A process of inductive coding, within-case analysis, and whole-case analysis was employed to analyze and interpret data from semi-structured interviews, observations, check-in meetings, and document collections. More specifically, I reviewed raw data to develop emergent themes. Data analysis was conducted concurrently with data collection to monitor and test developing themes throughout the study (Merriam & Clark, 2006). Still, a complete analysis was

not conducted until all data sources had been collected and analyzed individually. This within-case approach allowed me to identify themes specific to each participant and data type before synthesizing findings across sources to determine overall patterns within the case. Figure 3.2 provides a visual representation of the bounded case and illustrates how the research questions were connected to the data analysis process.

**Figure 3.2**

*Bounded Case and Research Question Connection*



### Semi-Structured Interviews

I began the semi-structured interview analysis process shortly after collecting the data, as suggested by Merriam (2009). After each interview, I downloaded the transcript generated by Zoom. I then listened to the full audio recording of the interview at least three times. During the first round, I compared the audio to the transcript to verify its accuracy. When I identified errors or discrepancies, I manually corrected the transcript. The second round of

listening focused on understanding each participant's tone, emotional expression, word emphasis, and any other cues that might carry meaning beyond the spoken words. After this, I followed up with each participant to verify the accuracy of the wording recorded and transcribed in their transcript.

After participant verification, I uploaded the transcripts to the NVivo software system, ensuring that each file was saved using the participant's pseudonym. Next, I read each transcript in its entirety to familiarize myself with the content and gain a holistic understanding of what each participant shared (Braun & Clarke, 2006; Creswell, 2007; Merriam & Tisdell, 2016). During the second reading, I began coding each transcript using a line-by-line approach within NVivo. In this process, I identified salient words and phrases, assigned colors to codes for organization, and later grouped the codes into categories based on similarities (Ravitch & Carl, 2016). These categories were bracketed and color-coded to support deeper analysis. Following this, I reread the transcripts multiple times and reviewed the codes and categories to ensure they were accurate and meaningful (Lazor, 2019; Lodico et al., 2010). I also listened to the audio recordings again alongside the transcripts to capture any additional details that could enhance interpretation and understanding.

After the initial coding and categorization process, I developed categories into overarching themes. Each interview was analyzed individually, with data stored in NVivo using a separate tab for each participant. Once themes were identified for each interview, I conducted cross-case coding and pattern matching to compare findings across participants. This process allowed me to group similar codes, identify shared patterns, and recognize unique perspectives. Following this within-case analysis, I synthesized the codes and themes across all participants to conduct a whole case analysis. This synthesis provided a comprehensive understanding of

participants' professional experiences, including their perspectives on collaborative inquiry-based scaffolding tools and PLC meetings. Throughout the analysis, I continuously refined codes and themes to ensure alignment with the data (Gibbs, 2007). To enhance the credibility of the findings and foster collaboration, I shared the identified themes with participants for verification (Leech & Onwuebuzie, 2007).

### **Initial Interview**

Initial interviews utilized various forms of coding to better understand participants as individuals and as a PLC entity. Analysis began with inductive coding using individual PLC member data. After inductively coding interview data, the researcher engaged in a thematic analysis, identifying common patterns and themes to uncover meaning. The researcher then engaged in a synthesis of themes to create a more complete understanding of participants' educational backgrounds, experiences, and perceptions of collaborative inquiry engagement. Finally, the researcher conducted a within-case analysis across the five participants to identify and understand the current state of collaborative inquiry within their PLC meetings and the implementation of suggested collaborative inquiry-based scaffolding tools.

### **Final Interview**

The final interviews also employed various forms of coding to gain a deeper understanding of participants and how their experiences, perceptions, and habits had evolved since the study began. Analysis began with inductive coding using the final interview transcripts of individual PLC members. Following this, the researcher conducted a thematic analysis to identify common patterns and themes across participants in the case. Next, the researcher integrated themes from the final interviews with other data sources, including observations, document collections, and check-in meetings. Finally, the researcher conducted a whole case

analysis of the PLC, combining data from all sources to identify shifts in collaboration and the perceived impacts of the collaborative inquiry-based scaffolding tools.

### **Observations**

A thematic analysis was used to analyze observations for this case study. I began the analysis process by uploading the field notes from each observation into the NVivo software system. Each of the three sets of field notes was analyzed individually at first. I read each set of field notes at least three times. The first reading helped me familiarize myself with the data and gain a holistic understanding of what was written and what occurred during the observations. During the second reading, I reviewed each line and highlighted key words and phrases using specific colors based on their likeness. The third reading involved reviewing the highlighted codes to check for any missing codes, words, or phrases.

After identifying codes, I created categories based on commonalities (Ravitch & Carl, 2016). Categories were then bracketed and assigned specific colors. I reread the field notes again to ensure that the identified codes and categories were useful and accurate. Once all three observations had been individually analyzed and categorized, I then conducted a cross-observation synthesis to identify common patterns and themes across the three meetings. These patterns were continuously reviewed to ensure validity and consistency with the data collected (Gibbs, 2007). Finally, I engaged in a whole-case analysis to gain a deeper understanding of how collaborative inquiry-based scaffolds were implemented and experienced during PLC meetings in a low-performing elementary school setting.

### **Document Analysis**

A thematic analysis was employed to examine various documents, including the staff handbook, school improvement plan, school schedule, district calendar, and other relevant

materials. According to Creswell (2012), documents can provide important data in qualitative studies. I intentionally selected these documents because they provided insight into the school's policies, values, and strategic priorities. Before analyzing the documents, I reviewed each one for relevance (Bowen, 2009).

After collecting the documents, I organized them in NVivo and labeled each file according to its document title. I read each document at least three times. During the first reading, I gained a holistic understanding of the document's content and the school's overall structures and expectations. During the second reading, I highlighted key phrases and references related to collaboration, instructional focus, and PLC structures. Rather than coding line by line, I employed an inductive approach to identify meaningful content, which helped me gain a better understanding of the school's overall context. After reviewing each document individually, I compared them to identify similarities and differences. While these documents were primarily used to provide contextual understanding of the school, they also supported triangulation by helping to verify and deepen my interpretations of data collected through interviews, observations, and check-in meetings.

### **Check-in Meetings**

The analysis process for check-in meetings began shortly after the field notes were written. First, the field notes were uploaded into NVivo and read twice. The first reading was conducted to gain a comprehensive understanding of what the participant sought to convey during the meeting. During this stage, I also wrote anecdotal notes to capture initial impressions and personal reflections. The second reading initiated the process of inductive coding. In this phase, I identified salient words and phrases, which were coded and assigned specific colors to

symbolize their uniqueness. After initial coding, I reviewed the field notes once more to ensure that no keywords or phrases were overlooked.

Once the codes were finalized, they were organized into categories, and themes were generated. These themes were reviewed to ensure consistency with the data and to accurately represent the content of the meetings. Following the analysis of each individual check-in meeting, I conducted a cross-document comparison to identify recurring themes across all three meetings. Finally, I engaged in a within-case analysis, comparing findings and patterns from the check-in meetings with themes that emerged from other data sources.

### **Strategies for Quality**

Measures were taken during this case study to enhance trustworthiness and credibility. First, all participants were selected based on the information richness criterion (Morrow, 2005). Additionally, participants were given the opportunity to refuse participation in the study. After agreeing and signing the consent, they participated in two semi-structured interviews with open-ended qualitative questions. Questions used in the semi-structured interviews were formulated to attract in-depth data (Morrow, 2005). The facilitator also participated in check-in meetings, during which I took detailed field notes to capture key ideas, reflections, and emerging insights to support in-depth and high-quality data collection. Field notes from observations were also reviewed and analyzed. Member checking was used to enhance credibility and accuracy (Guba & Lincoln, 1989). Specifically, I conducted member checking to confirm the accuracy of interview transcripts and to verify the major themes and findings that emerged from the study.

Triangulation was also used to ensure trustworthiness. Triangulation is a method often employed to enhance the credibility and validity of research findings (Shenton, 2004) and to establish a detailed chain of evidence (Merriam, 2009). With this in mind, I used multiple data

collection methods to support and verify the study's findings (Shenton, 2004; Spaulding & Voegtler, 2010; Merriam, 2009). As the researcher, I played a central role in both data collection and analysis (Creswell, 2013). For this reason, I created strategies to examine and reflect on my own assumptions and biases. These strategies were regularly reviewed to ensure they did not interfere with the interpretation of data. Throughout the study, I remained reflexive about my positionality and its potential influence on the analysis and interpretation process.

### **Risks, Benefits, and Ethical Considerations**

#### **Risks and Benefits**

The benefit of this study was that it allowed me to gain a deeper understanding of the usefulness of collaborative inquiry-based scaffolds, as well as participants' experiences and perspectives related to collaboration, PLC meetings, and collaborative planning. There is limited research on collaborative inquiry-based PLC meetings and scaffolding tools for effectively launching and sustaining inquiry in urban, low-performing elementary schools. Understanding this data will help expand knowledge in the field, particularly in relation to professional development in these school settings.

In addition to the academic contributions, this case study offered several benefits for participants. Through interviews and check-in meetings, participants were given an opportunity to reflect on their professional practices more intentionally. As a result, teachers and the PLC facilitator were able to engage in focused reflection, which may have supported personal and professional growth. The structured use of collaborative inquiry-based scaffolds may also have contributed to more organized and productive PLC meetings supported by intentional collaboration. Furthermore, participants gained new strategies and insights related to collaboration and inquiry that could extend beyond the study itself.

Still, due to the small-scale nature of this case study, certain risks were associated with participating. While it is highly unlikely that external individuals will be able to identify the specific participants or the school site, there is still a risk that individuals internal to the school may be able to deduce who participated in the study. To this end, I could not guarantee anonymity. With this in mind, I took all precautions to protect participants' privacy, including the use of pseudonyms and careful attention to confidentiality when writing and sharing data findings. Additionally, all collected data was stored in a secure Google Drive folder accessible only through my UNC Charlotte account.

### **Ethical Considerations**

Engagement in the research process must be both informed and voluntary (Ravitch & Carl, 2016, p. 360). With this in mind, participants were provided with a detailed explanation of the study's purpose, goals, data collection methods, and analysis procedures. Participants were also informed that their participation was completely voluntary. All participants signed an informed consent form, which was securely stored in a locked cabinet.

Confidentiality and data privacy were also carefully maintained. As such, each participant was assigned a pseudonym, which was used throughout the study. All meetings and interviews took place via a secure Zoom platform. Interview transcripts, check-in meeting field notes, and observation notes were free of real names and instead labeled using participants' pseudonyms. All data was stored electronically in a secure, password-protected location to ensure privacy and confidentiality.

### **Conclusion**

This qualitative single-case study examined how collaborative PLCs develop, how collaborative inquiry-based scaffolds support teachers during the inquiry cycle, and participants'

perceptions of the usefulness and impact of those scaffolds. Data was collected from PLC meeting observations, semi-structured interviews, check-in meetings, and document review to gather meaningful insights aligned with the study's research questions. All forms of data were thematically analyzed, and findings were developed through both within-case and whole-case analysis. To enhance credibility and reduce the potential for personal bias, I used strategies such as data triangulation, member checking, and ongoing reflection on my positionality throughout the research process. Following the approval of my dissertation proposal, I submitted the study to the Institutional Review Board (IRB) and received approval. Participant recruitment and informed consent procedures began in early February.

## CHAPTER IV: FINDINGS

The purpose of this exploratory case study was to investigate the experiences, perceptions, and professional dispositions of PLC members regarding the implementation of research-based, collaborative inquiry-based scaffolds within PLC meetings in a low-performing elementary school. Additionally, the experiences of a PLC facilitator who led the implementation of suggested research-based collaborative inquiry scaffolding tools were also explored. This study was guided by four research questions:

1. How do elementary teachers in a low-performing elementary school setting perceive collaborative inquiry-based scaffolds?
2. How does a PLC meeting facilitator at a low-performing elementary school experience leading PLC members through collaborative inquiry scaffolding tools?
3. How do PLC meeting members at a low-performing elementary school describe their overall experiences of PLC meetings following the implementation of inquiry-based scaffolds?
4. In what ways do collaborative inquiry-based scaffolds impact teachers' professional dispositions?

This chapter presents the findings of each research question within the single case. These findings will be outlined by discussing the data collected over the course of twelve weeks, including semi-structured initial and final interviews, observations of PLC meetings, PLC facilitator check-in meetings, and document collection. I begin this chapter by presenting an overview of the contextual background, inclusive of participant, school, PLC, and scaffolding tool backgrounds. The background, which was gathered through initial interviews and document sources, including the school's School Improvement Plan (SIP) and Staff Handbook, provided by

the school's principal, helped create a clear depiction of the context and interpretation of the study's findings.

### **Introduction of Contextual Background**

The purpose of this section is to explain the overall context of Sunrise Elementary School. More specifically, this section will begin by introducing pertinent contextual information about the school and the nature of the PLCs studied. Afterwards, the researcher will describe the participant context by highlighting essential facts about participants and their demographics. Finally, I will provide details about the scaffolding tools involved in PLC meetings. All of this information was pivotal to the interpretation of the findings and seeks to provide an explicit understanding of the research environment. Dry heave

#### **School context:**

The context of this study provides a foundation for understanding the presentation and interpretation of the findings presented in this chapter. A more detailed description of the school and its broader context can be found in Chapter 3. Sunrise Elementary School is a public school serving students from Pre-K through third grade, located in an urban district in central North Carolina. The school serves approximately 740 students from diverse racial, cultural, and linguistic backgrounds. Additionally, there are also over 70 staff members, which also includes the school's principal and two assistant principals.

Sunrise Elementary School is considered a low-performing school by the North Carolina State Board of Education. However, such results are based solely on third-grade End-of-Grade (EOG) assessments, which are identified as the only state-tested grade level at Sunrise Elementary School. Still, despite this designation, the school has established a strong foundation for improvement. The leadership team is focused on raising literacy achievement, with a goal of

increasing proficiency by 10% this year and at least 5% in the years that follow (School Improvement Plan).

To support this aim, the school's leadership team has developed a clear and student-centered vision for success. One way this vision is carried out is through PLC meetings. PLC meetings occur twice weekly, with one day focused on literacy and the other on mathematics, each lasting an hour and ten minutes. There is also a schoolwide commitment to build teacher capacity through instructional coaching, data-driven planning, and professional learning (School Improvement Plan, Staff Handbook). In all, the contextual information presented about the school provides a foundation for interpreting the findings discussed in this chapter. The perspectives and backgrounds of the study's participants further contributed to the interpretation of the study's findings.

### **Participant Background**

There was a total of four participants in this study, including one PLC facilitator and three PLC members. The backgrounds of each of the participants will be explained thoroughly, beginning with Allie, the PLC facilitator, then Lavender, Calaena, and Shelly, the PLC members. There will be terms used, such as Multi-Classroom Leaders (MCL) and EIT (Extended Impact Teachers), that correlate with the Opportunity Culture model developed by Public Impact (Barth et al., 2013). Opportunity Culture is a research-based initiative intended to improve student learning outcomes by widening the instructional impact of highly effective teachers. MCLs are considered to be high-performing teachers who lead and support a small team of teachers while still directly contributing to student learning and success. EITs are Extended Impact Teachers who are also highly effective educators who maintain responsibility for student learning by

possibly teaching 25-50% more students than their counterparts (Barth et al, 2013). Two teachers hold or have held MCL or EIT positions currently or in the past.

Allie is a White female in her mid-thirties. She has been in education for 14 years. During her tenure, she has held positions as a teacher, curriculum facilitator, partial-release Multi-Classroom Leader (MCL), and currently as a full-release MCL for third-grade teachers at Sunrise Elementary School. She was designated as the PLC facilitator by the school's principal at the beginning of the school year. Allie taught for nine years and has coached or supported teachers for five years. In each of the positions, Allie has participated in and led PLC meetings, as indicated in the initial interview (February 10, 2025). For example, Allie stated, when I was a teacher, we met for PLC meetings, and eventually I led them. Now, as a coach, I lead PLC meetings all the time. Sometimes, not just for third-grade teachers but for some of the other staff members, too. This helps me with my current team because I have experience being a participant as a teacher and a leader. These sentiments suggest that this study was not the first time Allie had participated in or led PLC meetings. She holds a Bachelor's Degree in Elementary Education and a Master's Degree in Special Education, which she earned through "a cohort program for students who had moderate to severe disabilities". All of her experiences are in the elementary school setting. Allie has been surrounded by education and teachers her entire life. In her interview, she noted:

I always grew up around education because my mom was in education for many years. She was a special education teacher and then she was an assistant principal, and then principal of a school. I spent a lot of hours at school with my mom (initial interview, Week 1).

Also included in her initial interview was her profession of her love for education and teaching. She stated that she has always “felt led to education” and that she loved teaching even when she was just a regular classroom teacher. Now a coach, Allie stated that she had been pushed into instructional coaching by some of her colleagues who continued to ask her, “What’s your next step? What are you going to do next? You help so many of us. When are you going to kind of move up to help other teachers?”(February, Week 1).

Lavender is a Black female in her late thirties. She has been in education for 10 years. She has taught several grades spanning from kindergarten to seventh grade. She is currently a third grade teacher and a school leadership team member at Sunrise Elementary School. Lavender began her teaching career in Florida, where she taught 7 years before relocating to North Carolina. In Florida, she taught at a private school. Lavender began her teaching journey in a specialized educational setting, which she described as a center divided into distinct sections. She stated, “The school had three divisions including an elementary, middle, and high school division. There were only about eight to ten students in a class, but there was specific work prescribed for them based on their individualized needs (February 10, 2025). In her initial interview, Lavender stated:

In Florida, I didn’t have to participate in PLC meetings because I was on a team of my own. I just needed to have my plans ready and teach. I didn’t collaborate with other teachers, so coming here has been a good experience for me (Week 1).

Lavender loves her job as a teacher. In her initial interview she shared, “I have always loved working with children and played school a lot as a child”. She then went on to say that she enjoys witnessing students’ reactions when they finally understand a skill. This thought is defended by her statement:

I enjoy seeing students when they have the light bulb moments or at the end of the year when I can see that I have added to what they know over the year. It makes me feel good when I can see them start the year off one level and grow leaps and bounds to the next level” (Initial Interview, Week 1).

It is these experiences that keeps Lavender in the field of education.

Calaena is a White female teacher in her late twenties. She has been in education for five years as an elementary classroom teacher and has only taught in one school district. Calaena has taught fifth grade for two years and third grade for three years. She has a bachelor’s degree in Elementary Education from a nearby university. Calaena was drawn to education as a young child. She was impacted by one of her elementary teachers. In her initial interview (February, 2025), she explained that she has always loved school and “wanted to give that experience to other students and have them fall in love with education and love learning too”. She stated that her purpose in education is to ensure students are ready for the real world. Calaena shared that PLCs were not new to her as she has participated in PLCs during each of the five years she had been in education. Still, Calaena admitted that although she had been a participant in PLCs for numerous years, each year was a different experience with different guidelines. She stated, “Really, the main goal of PLCs has been to get our lesson plans done for the week. Only how we go about the process has changed from year to year” (Initial Interview, Week 1). Still, it is worth noting that this study does not constitute the first time Calaena participated in PLC meetings.

Shelly is a Black female teacher in her late thirties. She is from Jamaica, which is where she began her teaching career. In her initial interview, Shelly stated that her experiences are a combination of what she has learned in Jamaica and what she has learned while teaching in the United States. Shelly has been teaching for more than thirteen years; ten of those years were in

Jamaica before moving to the United States five years ago. She taught primarily kindergarten through second grade before coming to Sunrise Elementary, where she now teaches third grade. This is her first year both teaching at Sunrise Elementary and teaching third grade. She has held positions as a regular classroom teacher and an Extended Impact Teacher (EIT) for second grade students. In her initial interview (Week 1), Shelly explained that she was inspired by her fourth grade teacher to become a teacher herself. She more specifically explained that she remembers when a certain teacher took particular interest in her while attending school in Jamaica. She always remembered the teacher and was later inspired to become a teacher. Shelly stated that her purpose for being a teacher lies in the moments of seeing students later and “realizing that they have become something of value to society”. Shelly has participated in and even led PLC meetings as a teacher. In her initial interview (Week 1), Shelly stated, “ In Jamaica, we planned together. We did not always have the same introduction or opening, um, but we planned together”. As an Extended Impact Teacher (EIT), Shelly shared that she co-led a few PLC meetings with the Curriculum Facilitator at her previous school. Within those meetings, Shelly stated that the team “did lesson plans” (Initial interview, Week 1).

### **Scaffolding Protocols Context**

Drawing from Vygotsky’s (1978) construct of sociocultural learning and mediated learning tools, this study utilized scaffolding protocols in pursuit of assisting participants with fostering collaboration and enhancing the inquiry process within third grade PLC meetings. In the initial interviews with all of the PLC members and through check-in meetings with the PLC facilitator specifically, I determined that the scaffolding tools needed for this specific PLC team were the Roles, Responsibilities, and Norms Protocol (Appendix M), the Common Assessment Protocol (Appendix N), and Deep Discussion Protocol (Appendix O). Scaffolding tools were

selected based on participants' responses in the initial interview data, which emphasized Allie's primary role in leading PLC meetings. For example, participants noted, "the facilitator leads all of the meetings" (Calaena), "I go to my facilitator when I have ideas" (Lavender & Shelly), "the district creates our formative assessments" (Allie) (Week 1). Each of the protocols was intended to assist teachers with engaging in collaborative inquiry in an attempt to create and deliver meaningful and quality instruction for students in the area of ELA. Scaffolding tools were launched and implemented within PLC meetings.

I met with the PLC facilitator in "Check-In meetings," following the collection and analysis of the initial interviews, to introduce the research-based collaborative inquiry scaffolding tools to support collaborative inquiry within PLC meetings. After explaining each scaffold, one per check-in meeting, the PLC facilitator introduced the scaffolding tools to the remainder of the PLC team and began implementing the protocols within PLC meetings. Each research-based collaborative inquiry scaffolding tool was designed to guide PLC members in true and meaningful collaboration, aid in purposeful and rich discussions regarding student learning and data, and create common assessments or assignments. These tools were inclusive of specific roles with responsibilities and an opportunity to create norms, reflection prompts and questions related to various categories such as instructional practices, identifying patterns in student work, reflection on group processes, and guiding questions for creating common assessments. A different scaffolding tool was introduced every three weeks and implemented over the 12-week study period, beginning in early February. These included the Roles, Responsibilities, and Norms Protocol (see Appendix M; Weeks 3–5), the Common Assessment Protocol (Appendix N; Weeks 6–8), and the Deep Discussion Protocol (Appendix O; Weeks 9–

11). Each protocol was introduced to the PLC Facilitator prior to its three-week implementation window, and the facilitator then presented it to the PLC team.

### **Research Question 1**

#### **How do elementary teachers in a low-performing elementary school setting perceive collaborative inquiry-based scaffolds?**

Case study participants generally perceived the suggested inquiry-based scaffolding tools to be useful and helpful as they launched and sustained levels of collaborative inquiry within PLC meetings (Observation 2, Observation 3, Check-In meeting 1, Check-in Meeting 2, Check-in Meeting 3, Final Interviews). All four of the participants specifically expressed that the tools were helpful in establishing shared responsibility, structuring meaningful discussions, and impacting their overall thinking and teacher practices (Final Interview, April; Observation 2, Observation 3, & Check-In meeting 2, Check-in Meeting 3). Further, three out of four participants heavily discussed how impactful the common assessment and deep discussions tools were in helping them to design and analyze assignments and student performance (Check-in Meeting 2, Check-in Meeting 3, Observation 2, Observation 3, and Final Interview). Findings highlight that while all of the participants understood the purpose of the Roles, Responsibilities, and Norms protocol, three out of four members did not feel that the roles and responsibilities section of the tool was useful for their particular PLC team due to its nature to limit collaboration and overall teacher input (Final Interview, 2025; Check-in Meeting 2; Observation 1). Still, all members commended the success that the tool offered in establishing norms and were helpful in advancing the PLC over the course of the study (Check-in Meeting 2, Week 5, Check-In meeting 3, Week 5; Observation 2, Week 8; Observation 3, Week 11; Final interview; Week 12).

### **Perceived benefits of mediated collaborative inquiry-based scaffolds**

Participants in this study felt that the Common Assessment (Appendix N) scaffolding tool was useful for their PLC team. At least three of the participants stated in both initial and final interviews that the district's academics team took full responsibility for creating the common assessments for all grade levels in the school district. For example, in her initial interview, Calaena stated, "The district staff creates our common assessments. Sometimes our coach will join them in creating the assessments, but as a grade level, we do not create the common assessments ourselves (Initial Interview). After all other participants echoed similar sentiments, the researcher determined that it may be a useful protocol for the PLC team. When meeting with the PLC facilitator to introduce the Common Assessment Protocol (Appendix N) as the second scaffold of the study, Allie agreed that it would be beneficial for teachers to learn how to create common assessments or common assignments. She shared, "It will help my team have a better understanding of creating assignments and the process of what it takes to create good common assessments and assignments" (Check-in Meeting 2). Aside from the benefits of the Common Assessment (Appendix N) scaffolding tool being mounted on the idea of shared responsibility, input, and knowledge building for those who had never engaged in its processes, some discussed how effective the tool was for them personally (Check-In Meeting 1, Observation 2, Final Interview). For example, Calaena stated:

"I thought it was helpful to those of us who are not used to making common assessments. As I told you before, our MCL and district did a lot of this for us so we did not really have to worry about it much. I feel like a better teacher and more a part of PLCs by knowing what to ask and think about as we are creating the assessments together. And I do view the questioning guide positively. We are thinking about what students need to

know but also we are thinking about what our curriculum is asking of students while also trying to get them prepared for what they're going to see on the state testing so I think it's helpful and important in my opinion (Final Interview, Week 12)".

Shelly also echoed similar sentiments stating:

I refer to the question guide often. We use it when we are creating assessments or just basic assignments like exit tickets or normal classwork assignments. The guide makes me aware of what I am doing and what I need to be thinking about as I work to grow my students" (Final Interview, 2025).

Even Allie, the PLC facilitator, agreed that it was a useful tool for her PLC team. In her final interview, Allie stated:

"I think it has been useful for my team and I, you know. I think it has really helped them to think about what should be asked of students and do so collaboratively. I think it is a good tool for the teachers to use as they are thinking about how to create a common assessment or assignments, you know. They may not need it forever, but it has been a good tool to start them off. Like even for my team, they are already beginning to just naturally think about the questions because we have used the tool multiple times and it has just become part of our planning and a part of the culture of what we do, you know (Week 12).

Additionally, in the third one-on-one check-in meeting, Allie stated that the Common Assessment Tool (Appendix N), "really helped us get on our way with more intentional planning. I think it was good for the teachers to see the types of questions we all should be thinking about when completing a common assessment". Overall, all four of the participants'

perceptions of the common assessment protocol were positive and showed potential use and benefits even after the conclusion of the study. As such, Lavender stated:

The questions helped us, well let me talk about me specifically. It really helped me figure out what I needed to be thinking about when getting together with my team to create assessments. It helped me to the point where I can see myself using it a lot as a reminder whenever we have to create team assignments and tests (Final Interview).

Calaena echoed similar thoughts by sharing:

I really liked the Common Assessment question guide. I think it is something we will go back to often. Especially when school starts in the fall. It just lets us walk through the creation process step-by-step while capturing all of the important factors that we need. It is just a good guide to create our own tasks and have everyone on the same page.

Observation data supports this claim as members worked through the common assessment protocol tool to create a common assignment. In the second observation all four PLC members shared previous data or observations they noticed about where students were as it relates to a reading standard or skill. After participants discussed the data, which was inclusive of multiple ELA standards, Allie asked the team, “So what standard or standards do we want to prioritize for our next common assignment?”. Afterwards, all four members of the team went on to discuss the focal learning goals, number of assessments needed to assess students on the standards, and when the assignment will be given to students. Each member also shared their ideas for questions related to focal standards. After questions were created, the team went through and answered each question together to ensure quality. At the end of the process, Lavender stated, “I like when we do this together”. Shelly agreed as she stated, “ I like this questioning procedure too because the kids get the questions from each of us. It adds more value to the assignment that we want our

students to complete” (Observation 2; Final Interview). In a later check-in meeting, Allie discussed how meaningful the creation of the common assessments were as well as how creating such assignments helped teachers to remain committed to the learning targets and consistency across classrooms. She also explicitly stated,

“This is not a one and done protocol that we are using. We are going to use this protocol every time we need to create a common assignment or assessment because it’s just good discussion that leads to better assignments for the kids. And we need to stay connected to what our students need so we can get out of the low-performing status. It's urgent that we get them what they need to thrive and grow.” (Check-in Meeting 3, Week 8).

These reflections not only proved that the tool was used in PLC meetings, but also that there were benefits to using the scaffolding tool within the PLC meeting setting and within classrooms (Observation 2, Check-in Meeting 3, Final Interview)

Participants repeatedly described the Deep Discussion Protocol (Nelson et al., 2010) as one that was effective for their personal growth as teachers and for the collaborative success of the entire PLC team (Observation 3, Week 11; Final Interviews, Week 12). The Deep Discussion Protocol (Appendix O) was presented to Allie in the third check-in meeting, following the implementation of the common assessment protocol. All four of the participants noted that the Deep Discussions Protocol (Appendix O) framework provides clear and concise questions to help them engage in rich discussions with their teammates. It also gave them a clear guide for what to ask as they are led into discussions regarding student learning, student growth, and next steps that should be taken as individual teachers and as a team (Observation 3, Week 11; Final Interview 12). In her final interview (Week 12), Lavender noted: “The questioning guide allows me to see questions and ideas that I did not originally think about for myself and ask questions to

help me think about what is really important”. She more specifically noted that her favorite questions from the list included:

“Why are these meaningful learning goals; when students understand this, what will it sound or look like, what are our expectations for struggling students; Why did you teach it this way; what does this conversation lead us to do next; and If we all teach this concept differently, what implications are there for student understanding”.

Calaena echoed those ideas by stating:

The deep discussion questions were great for helping us dig deeper into student growth as a team, especially when we discussed data. It challenged me to see what level students were on and ask questions like "why are they still performing here or what can I do to help them get there (Final Interview, Week 1).

Shelly shared that the tool helped her to “feel comfortable when engaging with my teammates”. She also discussed how the Deep Discussion protocol provided her additional time to, “Look over the questions and think about what I want to say and what my data is telling me before I am required to share with my team. She shared that since she was new to the team, the tool, “gave her some confidence going into the discussions with the team (Initial Interview, February, 2025; Final Interview, 2025; Observation 3).

Allie voiced similar sentiments to the other participants by stating that the protocol tool,:

“helped to jumpstart much needed discussions around student growth. It challenged us to figure out why students are not understanding certain skills or what to do when they do understand. It makes us think about which students are not moving in the way that they should be moving.

Aside from using the protocol in PLC meetings, Allie stated that she has shared it with other teachers on the grade level and even in school-wide and grade level professional development sessions (Check-in Meeting 3, Final Interview). She stated:

“I have used it outside of the PLC to create school-wide professional learning meetings because for one it sparks some good discussion. But really we need to be having these discussions because we have to make sure the kids are ready when they come to third grade, but there’s some work that needs to be done in the lower grades to make sure that happens. I think the questions force teachers to think about their teaching. Most of all, I just think these are just good questions to think about when discussing data and looking to make a plan after you have analyzed the data” (Final Interview; Week 12).

Aside from commentary in check-in meetings and final interviews, observation data revealed the benefits of the deep discussion protocols as the team used the step-by-step process of the protocol to engage in rich and meaningful discussion (Observation 3; Week 11). Further, it was noted that all four members utilized student data to ground their discussions and provided evidence for their ideas of next steps in the teaching and learning process (Observation 3, Week 11; Final Interview, Week 12). Overall, findings suggest that the Deep Discussion protocol (Appendix O) was beneficial to the team in positive ways during processes of student data analysis. Furthermore, it allowed all PLC members to think critically and collaboratively about ways to intricately understand and meet students’ instructional needs. In all, the Deep Discussion protocol (Appendix O) led members to more targeted, reflective, and practical dialogue within PLC Meetings (Observation 3, Week 11; Final Interview, Week 12).

### **Perceived Limitations of Collaborative Inquiry-Based Scaffolding Tools**

The findings reveal that the Roles, Responsibilities, and Norms protocol (Appendix M) was not especially useful in its entirety for this particular PLC team (Final Interview, Check-in Meeting 1; Observation 1). Three of the four participants specified that while the Roles, Responsibilities, and Norms may be useful for some groups; it was not practical for theirs. Allie stated:

“So I think roles and responsibilities are good. And it's always good to have structures in place. But I also think that when you have a good leader or when there is a common understanding of what needs to be done as a team, you don't necessarily need all of the roles and all of the responsibilities because those kind of become shared” (Final Interview, Week 12)

Lavender echoed similar concerns by stating:

“I don't think it was necessarily useful for us. Like we had a timekeeper at the beginning of the study and we had one person who was supposed to be like the resource person”. I just don't really think those roles are very effective because if my only job in a PLC is to keep time, I am not focused on the other things happening. I am just making sure that we get out on time or start on time. So my point is that you will have some people that will just do what they're told to do. Oh, well, it's only my responsibility to have the resources or it's only my responsibility to keep that time. Some people can be very literal with those types of roles but it's not just one person that may have the resources because, for example, I may have a lot of resources that I may use from previous times that may not be as effective and someone else may have a different resource that they can bring to the tables. So I don't think it should be one person's responsibility to do specific roles. I kind

of like it and think that it is more effective when each person is equally adding to the table. And I'm not saying that keeping time is not important. I do think keeping time is important. I do think resources are important. Keeping the agenda is important. I think those things are important. I just don't think it needs to be up to one individual to do each individual thing. I think everybody needs to bring everything to the table” (Final Interview, Week 12).

Findings from the other participants also suggest that the roles were too confined to individual roles rather than shared responsibilities. In fact, observation data showed limited collaboration and discussion among team members (Observation 1, Week 5). Shelly kept time with little input into lesson planning while Calaena spent a lot of time looking for resources to combine with the ideas that had been shared by Lavender and Allie (Observation 1, Week 5). Further supporting such difficulties with the protocol, all four participants shared that they only implemented the Roles and Responsibilities portion of the protocol for a limited amount of time before solely relying on the norms to enhance collaboration among all PLC members (Check-in meeting 2 Week 5; Observation 2; Week 5; Final Interview, Week 12). In all, three out of the four participants found the role aspect of the protocol to be unnecessary to establishing collaboration in the PLC and depth of their planning needs. Shelly, however, had a different perspective pertaining to the roles. She stated:

“I liked the roles. I liked that I could choose my own role especially since I was just getting to know the team and learning about 3rd grade. When we were doing roles for that short time, I chose to be the time keeper because I could listen to everyone and get more comfortable with the new curriculum and all of that.”

Shelly appreciated the use of the Roles, Responsibilities, and Norms protocol (Appendix M) as a way to support her engagement with the PLC team (Final Interview, Week 12). I realized her levels of comfortability and engagement at the beginning of the study when she explained that she was new to the grade level and team. She also shared that she felt more “comfortable with her MCL” rather than the remainder of her team. Still, regardless of the change in Role and Responsibilities, the Norms (Appendix M) Shelly built confidence and boosted her collaborative engagement with the team (Observation 2, Week 8; Observation 3, Week 11; Final Interview, Week 12). Thus, Shelly began to share her thoughts and ideas for lesson planning and resources with the team although specific roles were no longer assigned (Observation 1 Week 5, Observation 2, Week 8; Observation 3, Week 11; Final Interview, Week 12).

While the roles and responsibilities component of the Roles, Responsibilities, and Norms protocol (Appendix M) was not effective or well perceived by the team as a whole, they spoke very highly of the norms established as a result of testing the scaffold. In fact, all of the participants stated that they enjoyed the shared responsibilities and common expectations that it set for the team. Lavender argued that PLC norms are “the most important”. Similarly, Shelly directly argued:

“I think the norms are more important than roles. I think after we decided on the norms, the expectation was that we all be present and add our ideas”, which is indicative of the transformation in confidence that Shelly experienced throughout this study” (Initial Interview, Week 1; Observation 1, Week 5; Observation 2, Week 8, Observation 3, Week 11; Final Interview, Week 12).

The norms were collaboratively created by the entire PLC team and everyone stated that they were aware of what the norms were and the expectations of the team before coming into PLC meetings (Check-in meeting 2; Week 5; Final Interview, Week 12). Calaena explained:

“Some of our norms include coming in on time and ending on time because it's dismissal, but staying on task with planning the next week. Not like discussing outside concerns or discussing like, you know, we do have a portion at the beginning to do like housekeeping items, but not getting derailed talking about other things. We agree to staying on task and coming prepared” (Final Interview, Week 12).

To assist with planning and staying on task, multiple participants stated that they received the agenda from Allie several days before planning to allow for advanced preparation. Lavender supported this argument by stating:

“Usually, everyone has been given the information in advance on what we'll be studying or planning for. Then each team member is responsible to bring to the table resources that they may have pertaining to that skill and strategies that we use. We share them in a way to provide multiple strategies for the students to learn and we decide which texts we'll use, which problems or questions we'll ask. With everyone following the norms, we know that we cannot have sidebar conversations or be distracted and still get done what we need to get done” (Final Interview, Week 12; Observation 2, Week 8; Observation 3, Week 11).

Implementation of the norms were also realized throughout the study, which helped to foster responsibility. All members were observed sharing resources and contributing ideas, staying focused on the task at hand, and coming into PLC meetings on time and fostering deeper levels

of discussion, ultimately positively impacting PLC meetings overtime (Observation 2, Week 8; Observation 3, Week 11)

Overall, Research Question 1 was answered through two themes: *Perceived Benefits of Collaborative Inquiry-Based Scaffolding Tools* and *Perceived Limitations of Collaborative Inquiry-Based Scaffolding Tools*. The findings revealed that the participants in the study had positive perceptions of the Common Assessment Protocol Appendix N) and the Deep Discussion Protocol (Appendix O). Further, the section confirmed that their perceptions were also supported by their actions within observed PLC meetings. Additionally, participants viewed the Roles, Responsibilities and Norms Protocol (Appendix M) as partially beneficial. Findings show that only one out of four participants found the tool to be useful within PLC meetings, while all four members found the norms to be advantageous for the team. While the roles were largely recognized as limiting and not useful for establishing meaningful collaboration, norms were recognized as the tool that helped to hold all members accountable and foster impactful engagement and shared responsibility within the team. Findings suggest that while formal roles may not be useful or beneficial for every team, clearly defined norms can be impactful, helping to create the structure needed to support collaboration within PLC meetings. However, the successful implementation of such protocols is often influenced by how it is introduced and facilitated by the PLC leader.

## **Research Question 2**

**How does a PLC meeting facilitator at a low-performing elementary school experience leading PLC members through collaborative inquiry scaffolding tools?**

The PLC facilitator played an essential role in the implementation of scaffolding tools in the collaborative inquiry-based scaffolding process. The scaffolding tools were used to support

structured collaboration and thoughtful discussion among PLC team members. Through multiple check-in meetings and her final interview, the facilitator reported transformational shifts as it relates to collaboration among the PLC team. She also discussed different adaptation and facilitation strategies used to enhance the collaborative inquiry-based scaffolding implementation process for her team. For example, Allie was observed providing extra time for teachers to review material, randomly, but strategically calling on other members to inquire about their personal thoughts and ideas, and chunking questions on the Common Assessment and Deep Discussion protocol to avoid overwhelming other PLC members (Observation 1, Week 5; Observation 2, Week 8; and Observation 3, Week 11). This process and experiences led to enhanced facilitator and instructional coaching capacity, which was noted through check-in meetings, observations, and final interviews.

### **Shifts in Collaborative Culture**

Allie served as the leader of PLC meetings throughout the duration of the data collection process. She also served as the PLC leader or facilitator for the entire school year. As previously noted above, Allie initially discussed desires of input and collaboration from the PLC team as it relates to planning, data analysis, and assignment creation process (Initial Interview, Week 1; Check-in Meeting 1, Week 2; Observation 1, Week 5; Observation 2, Week 8; Observation 3, Week 11; Final Interview, Week 12). In the first check-in meeting focused on introducing the Roles, Responsibilities, and Norms protocol (Appendix M), Allie stated, “I am happy to share the load with the teachers. Right now, I am doing a lot of the work and guidance to help them” (Week 2). After the implementation of the protocol, Allie noted some concerns with implementation and efficiency. She cited challenges with getting teachers to participate and talk within the meeting. In fact, she called it, “a long PLC meeting that did not feel organic”. She

particularly discussed a PLC teammate who solely focused on their task and nothing else. Allie stated, “She was only focusing on the role that was selected and it did not seem like anything was getting done, or at least not the work that needed to be done. She framed it as, “getting stuck in roles”(Observation 1, Week 5 Check-in Meeting 2, Week 5; Final Interview, Week 12). In the second check-in meeting, Allie shared a story of the first PLC when she rolled out the protocol. She shared:

“In the PLC when we first implemented them, right after our check-in meeting, it was a difficult PLC. A lot of the members were not talking because they were so focused on their role. So like Shelly was so focused on typing and Calaena was so focused on presenting. I had to keep stopping to ask them specific questions to get them talking. A few times, you know, I had to even stop and ask everyone to read because some had not prepared ahead of time. It just seemed so choppy and not really organic” (Week 5) .

Difficulty with collaborative discussion and input was a contributing factor in dismantling the roles and responsibilities system attached to the protocol (Observation 1, Week 5; Check-in meeting 2, Week 5; Final Interview, Week 12).

Norms proved to be useful for this particular PLC team (Observation 2, Week 5; Observation 3, Week 8; Check-in Meeting 2, Week 5, Final Interviews, Week 12). In fact, Lavender argued that the norms were considered a “game changer”. This metaphoric term proved to be true as findings revealed increased collaboration and communal input from PLC members. For example, Shelly began to share her observations about students and ideas for activities that should participate in for the designated week. More specifically, Shelly began coming to PLC meetings more prepared with possible curriculum-based questions to share with the team (Observation 1; Week 5; Observation 2, Week 8; Observation 3, Week 11).

Additionally, all members took on various roles with multiple responsibilities (Observation 2, Week 8; Observation 3, Week 11, Check-in Meeting 2; Week 5, Check-in Meeting 3, Week 8). Still, it is important to note that implementing norms within PLC meetings did not come without initial challenges. For example, Allie stated:

“When teachers come to meetings, I want them to be prepared to discuss the readings and their ideas about the questions provided or ideas they have for student assignments. When we agreed upon the norms, initially, no one said anything about reading the material ahead of time, but I know if we are going to have some meaningful discussion and build inquiry, we certainly have to come prepared to discuss the material”. (Check-in Meeting 2, Week 5).

Additionally, Allie stated that some of the PLC members still came unprepared a few times, even after establishing the norms, but she was committed to emphasizing the norms set. Such actions improved overtime as participants became more active and collaborative in PLC meetings. For example, three of the four members went from silently observing PLC meetings to being active contributors. Also, all four of the PLC team began sharing resources with the team (Observation 2, Week 8; Observation 3, Week 11; Check-in Meeting 3, Week 8; Final Interview, Week 12). In fact, Allie praised teachers for their growth and their ability to work collaboratively and intentionally to create meaningful learning experiences for all students after adhering to the norms, which supports the designated theme of shifts in collaboration (Final Interview, Week 12). This notable change not only highlights the impacts of collaborative inquiry scaffolding tools, it also emphasizes the facilitator’s role in guiding such transformation in PLC meetings.

### **Enhanced Facilitator Capacity**

Although Allie has been an instructional coach and teacher leader for several years,

findings indicated that she was providing so much support that it prevented teachers from taking ownership of planning and analyzing their own data (Initial Interview, Week 1, Check-in meeting 1, Week 2). She had a few instances at the beginning of the study where she realized her need to allow teachers to do some of this critical work and thinking. For example, Allie stated:

“I am realizing that they need to do some of the work. I know that I need to build their capacity. I think when they begin planning and taking an active role in planning, they will be more confident in their teaching” (Initial Interview, Week 1).

This realization aided in her acceptance of releasing some of the load to her teammates. Still, by emphasizing her desire to build teacher capacity and actually creating experiences for teachers to grow in the profession, she in turn was able to realize an increase in her capacity as an instructional leader and coach. Allie attributed some of her professional strengthening to the work she has had to do with teachers during the study that also helped her as a leader. In her final interview, she stated:

“I think that my capacity has been strengthened because I am learning along with the teachers. I have led in several other places and several other populations of students, but I have not led in a school where the student achievement was this low. And so really I'm building my capacity because as a leader I'm having to lead and having to lead and help my teachers to boost student achievement while also thinking and pulling out all of the things that I know, right? And so, you know, I really have to make sure that what we discuss in planning is going to work, that we're not asking too much or we're not asking too little and that it's our achievement and our student growth is moving in the right direction. I also think you know in my coaching conversations, I'm continuing to get better as a leader by having difficult conversations with teachers when they are not where

they need to be or when I need for them to grow. One thing that I'm really doing is helping them to see that gap, which is sometimes can be a difficult conversation because you don't want any teacher, like I said, you don't want to break the trust. You don't want them to feel like they're not doing a good job, but you also need to hold them to high expectations, and I think establishing common norms has helped lay the foundation for some of those discussions and to launch the inquiry that I know we need to thoroughly grow students the way we are expected to grow them” (Week 12).

Although Allie had been a coach for several years, she admitted to this being a different environment for her, but acknowledged the effectiveness and appreciation of the scaffolding tools. She stated:

“Leading them through developing common assessments and actually discussing our thinking around its development and the results of the test has also been good for me. So definitely my capacity is growing because we are having to think through and do whatever it takes to get the growth and see the success of our students...it’s urgent. So these tools have helped us to move in that direction. They have also helped me to become more comfortable when leading the team (Final Interview, Week 12).

Allie also discussed her role in not only leading the team in creating common assessments and engaging in deep discussion, but also in strengthening her own capacity as a facilitator. She reflected on her experience with the Roles, Responsibilities, and Norms Protocol by stating, “When you have a good leader or when there is a common understanding of what needs to be done as a team, you don't necessarily need all of the roles and all of the responsibilities because those kind of become shared” (Final Interview, Week 12). Not only did she reflect on the protocol itself, but she also recognized its importance in the context of PLC meetings. Once the

norms were implemented, Allie noted that the team was able to come together and function more effectively as a unified group. This experience not only reinforced the power of shared norms in fostering team collaboration, but also strengthened Allie's own capacity as a PLC facilitator by deepening her understanding of how to cultivate accountability and collective responsibility among team members. Overall, Allie explained that the process of changing how to lead PLC meetings and her perception of support has altered her thinking, explaining that she realizes, "I cannot do everything and that I need to share the load with the other teachers". She also noted that it has been a change for her.

Findings overall reveal that although Allie had a few challenges here and there with implementing the scaffolds, the process was not challenging (Check-In meeting 1; Check-In meeting 2, Observation 1; Final Interview). Allie stated that the process was not a difficult one because teachers had built their trust and confidence in her. She explained that her and the other team members had the same values. For example, Allie shared:

This team has a hunger for student growth and are willing to go above and beyond, but they were doing so in silos. Not as a team. For this group, we all have a common goal and that was established and discussed after norming the PLC meetings (Final Interview, Week 12).

She also claimed that her understanding of teachers needing to learn these processes aided in her release and trust of her teammates to pitch in, learn, and foster their own capacity building. For example, Allie stated:

"I usually create the common assignments or at least give the ideas for what we should do. I don't mind creating them for the team to make their headaches less; however, they should know how to do it as well. That could really help to improve their capacity related

to thinking about what students need to know and internalization of lessons” (Initial Interview, Week 1).

Allie stated that she initially experienced some challenges with everyone sharing their ideas when using the common assessment protocol tool, but “leaned into our norms to get everyone talking and make everyone feel like they are apart because their ideas matter”. After using the tool as a team, Allie later found that it was beneficial for their team (Check-in Meeting 2, Week 5; Observation 2, Week 5; Check-in meeting 3, Week 8; Final Interview, Week 12).

Similar sentiments were echoed about the deep discussion protocol, emphasizing that the tool helped teachers “be prepared for what they need to be thinking about in preparation for our data discussions”. Still Allie stated that there was more room for growth around deep discussions mentioning:

“I feel like that is the next step for us to dig deeper into the discussion questions and think about what we are asked to do here in North Carolina with our students. We need to dig deeper to see which types of questions kids are getting right and which types of questions we still need to work on. So that is definitely the next step to deepen those conversations and continue to get teachers feeling comfortable in having those discussions or leading them” (Final Interview, Week 12).

Observation data also confirmed deeper engagement as a result of the deep discussion protocol. In fact, PLC members were observed engaging in deep levels of discussion regarding student data on a team constructed common assessment, reflecting on teaching and learning practices, and creating a reteaching plan (Observation 2, Week 8; Observation 3, Week 11). For example, Lavender discussed a group of students by stating, “this group grew in the area of summary. For some reason they are still having a tough time with the main idea”. Shelly responded by stating:

“My kids are having trouble with the main idea, but now I guide them through reading the title and the paragraph. After they read the paragraph, I ask them about the topic and what it is that the author wants them to know (Observation 2, Week 8).

Calaena agreed with Shelly by reflecting on why she changed her method of teaching the main idea to students. Allie then asked the team members to reflect on what they shared regarding the main idea and share some reflections on how they could teach the skill more effectively for students (Observation 3; Week 11). Overall, findings suggest that Allie had a positive experience implementing the mediated learning tools, which helped to build the capacity of all members involved.

### **Adaptations and Facilitation Strategies**

Although Allie did not note significant challenges with resistance and implementation of the scaffolding tools, there were instances where she had to make some changes to the protocol or add in some of her own strategies in tandem with the suggested strategies. In Allie’s efforts to create a shared learning environment with common responsibilities, she emphasized the norms as the accountability measure (Observation 1, Week 5; Observation 2, Week 8; Observation 3, Week 11). When teachers did not live up to the expectations of some of the norms, she made some meaningful changes to ensure all teachers remained included. For example, when teachers came to the PLC meetings unprepared for planning, she had discussions with them immediately after the meeting . In one case, Allie explained that was coming to the planning unprepared (Observation 1, Week 5; Check-in meeting 1, Week 2; Check-in Meeting 2; Week 5). Allie stated that she had rectified the issue by making, “some special accommodations by sending out the agenda earlier and even meeting with her outside of PLCs so she understood what to focus

and think about before the next PLC” (Check-in meeting 2, Week 5). She also added that there are times when she can sense that several teachers are not prepared. Allie explicitly stated:

“If I see or sense that the majority of my teachers are not prepared, I will stop and give them time. I feel like it's better to give them time to prepare or read so we can have a richer discussion. This is better than me just doing the talking without them knowing where we are because they haven't been able to read the text. You know, I also understand that things come up and people are not always going to be able to be prepared 100% of the time” (Final Interview, Week 12).

This facilitator developed scaffold has been observed in PLC meetings and mentioned in two of the three check-in meetings. In observations, this was found to be effective for collaboration and deep discussions (Observation 2, Week 8; Observation 3, Week 11). Allie also stated, “Even for teachers who might have read or prepared beforehand, pausing to refresh their reading during PLC was a useful practice for them” (Final Interview, Week 12). In one PLC meeting observation Shelly mentioned to one of her colleagues, “I read beforehand but I did not think about it in the same way you did. That may change the way I present this story to my students”(Observation 2, Week 8). After the team stopped to read, they formed questions together using each of their ideas (Observation 2, Week 8). Habits such as this were observed in PLC meetings, but also mentioned in check-in meetings, and interviews. In her final interview, Allie stated that even when teachers have read, she thinks it is still a good practice. She supports this claim by explicitly stating:

“When I'm not getting the responses that direct us to our next steps, I will stop and I will say, hey, let's take just a minute and read this. If it's something that's new or if it's something that I have found, you know, when I'm thinking about the lessons myself and

internalizing them as a leader, sometimes there's things that I need to pull that I haven't given them already. So really giving them that time to read through the content, read through the text and do the work? What questions would you ask? How do you see yourself teaching that? So that's definitely the biggest norm” (Week 12).

Findings from interviews with the other participants reveal that these practices were useful for all members of the PLC. Allie also explained that members are not just expected to be prepared with reading, but also prepared with material. Allie stated:

“Be prepared with materials. So if we're talking about our curriculum, I need you to bring the manual. I mean, you can look at it online, but I really need you to bring the manual to the PLC meeting. That way, when I say turn to page, blah, blah, blah. You're there and you can do it quickly. A lot of times online, you're scrolling, you're here, it's hard to follow” (Final Interview, Week 12).

When teachers do not bring the materials requested, she provides them with a borrowed curriculum manual to provide them with a resource to engage with the team (Observation 1, Week 5; Observation 2, Week 8; Check-in meeting 2, Week 8; Final Interview, Week 12).

In addition to providing wait time and resources when a teacher did not have what was needed, Allie also implemented cold calling (Observation 1, Week 5; Observation 2, Week 8; Observation 3, Week 11; Check-in meeting 2, Week 5; Check-in meeting 3, Week 8; Final Interview, Week 12). Instances of cold calling were observed in PLC meetings. More specifically, the researcher observed Allie calling on members of the PLC to complete tasks, look for supplemental items, or to share their thoughts. In every observation, there was never only one person called out. She called on any one of them (Observation 1, Week 5; Observation

2, Week 8; Observation 3, Week 11). When asked what her method was behind calling on various members, she stated:

“We already had some form of collaboration and trust before this study. I have been able to know some of them and understand what they can be good at, you know. Like there is one teacher who is just really good with vocabulary and root words and things like that. But I have another teacher who finds the best videos and the other who has good writing ideas we can use while still using the standards. So sometimes I am calling without thought but a lot of times I am calling with intention. And sometimes, you know, I ask them their thoughts because I can see the thinking on their faces so I ask them to share. A lot of time that sparks inquiry and discussion for us. It has helped our collaboration grow, really “(Final Interview, Week 12).

Allie used this cold calling method with the Common Assessment and Deep Discussion protocol questions as well (Observation 2, Week 8; Observation 3, Week 11).

One last additional strategy that Allie included alongside the collaborative inquiry scaffolds was minimizing the questions that the team would focus on (Observation 2, Week 8; Check-in meeting 3; week 8). In the check-in meeting 3 (Week 8), Allie noted that too many questions were being introduced at once, which overwhelmed the team as they were just beginning to engage in deeper conversations. To address this concern, Allie stated that she “highlighted the ones that would be easier for teachers to understand and would help teachers engage at a higher level” (Final Interview, Week 12). The questions utilized from the Deep Discussion Protocol (APPENDIX O) were: Why are these meaningful learning goals?; How do these lessons address students' misconceptions?; When students understand this, what will it sound or look like?; Which students are understanding/almost understanding/not understanding?

What does that tell us?; Why did I/you teach it this way? Are there other options? Why consider another option?; What does this form of assessment show us?; and What does this conversation lead us to do next? The use of these questions were also observed in the third PLC meeting observation. In her final interview, Allie stated that she added on more questions as the meetings went on and even “used it in school-wide PD data sessions” (Final Interview, Week 12). Additional questions asked of teachers were about pacing for students, expectations of grade-level standards and success criteria, scaffolding opportunities for students, consistency and strengths across classrooms, foundational skills that may need to be retaught and how the data could inform small group planning and intervention (Final Interview, Week 12).

In summary, the findings reveal that the PLC facilitator’s experiences leading the PLC team through collaborative inquiry-based scaffolding tools supported the development of both her individual and collective capacity. Allie’s leadership with the tools highlights how she was able to lead with intentionality while adapting and strategically using the tools to foster a reflective, collaborative, and student-centered culture. While the implementation process presented initial challenges, the use of these protocols ultimately led to shifts in teacher engagement and instructional dialogue. Overall, findings suggest that Allie’s facilitation of the protocols led to higher levels of inquiry, collaborative engagement, and capacity building

### **Research Question 3:**

**How do PLC meeting members at a low-performing elementary school describe their overall experiences of PLC meetings following the implementation of inquiry-based scaffolds?**

Following the implementation of collaborative-inquiry-based scaffolding tools, participants reported enhanced collaboration and heightened levels of shared responsibility and

goals among the team (Observation 2, Week 8; Check-in Meeting 3, Week 8; Observation 3, Week 11; Final Interviews, Week 12). Many participants stated that the scaffolding tools served as a catalyst for fostering deep and structured discussions, intentional data analysis, instructional planning, and teacher execution in their individual classrooms (Observation 2, Week 8; Observation 3, Week 11; Check-in Meeting 3, Week 8; Final Interview, Week 12). Through this work, these improvements have ultimately led to the establishment of higher levels of trust, sharing of ideas, teaching practices and data, and new perspectives of collaborative inquiry. Overall, findings indicate that the scaffolding tools served as a launching pad in the advancement of collaboration and inquiry-based practices within PLC meetings ( Observation 2,Week 8; Check-in Meeting 3, Week 8; Observation 3, Week 11; Final Interviews, Week 12).

### **Enhanced Collaboration**

Findings across multiple data sources revealed the areas of enhanced collaboration for this PLC team. While three of four members initially described their work as collaborative, early data suggested that collaboration was actually limited (Initial Interview, Week 1; Check-in meeting 1, Week 2; Observation 1, Week 5). Still, participants' initial ideas of what collaboration entailed did not fully align with the actual extent of work and collaboration that took place in the PLC meetings. For example, Calaena stated, "I view collaboration as everybody working together with the end goal in mind"(Initial Interview, Week 1). Lavender stated:

"I think of a group of people that are working for one purpose; each person may have their individual strengths and when we put all of those strengths together. We're putting them together to fulfill one purpose, and that's collaboration" (Initial Interview, Week 1).

Shelly echoed the same sentiments by stating, "collaboration is working together, sharing ideas and deciding on what fits, what works best based on all the ideas that have been thrown out"

(Initial Interview, Week 1). Beyond their definitions and ideas about what collaboration is, members also shared examples of how the team collaborated before the launch of the study. For example one member stated, “Sometimes in PLCs, we share about what one another is teaching or a specific skill and learn from my colleagues.” Another stated that, “If we are teaching a skill, I may teach it one way and a colleague may teach it another way. Sometimes I share the idea and tell if the practice or strategy was effective for our students” (Initial Interview, Week 1).

Nonetheless, early data confirmed that collaboration was limited and inconsistent (Initial Interview; Check-in Meeting 1; Observation 1). For instance, Allie stated:

“I have been doing a lot of the heavy lifting for PLCs. I send out the agendas and I direct teachers towards what we will all do for the week or what the focus needs to be. Some teachers provide input, but it is mostly me doing the leading and talking”. (Initial Interview; Check-in Meeting 1).

While Allie expressed concerns about assuming the majority of the workload during PLC meetings, other data reinforced such acknowledgements from other team members, who also indicated a strong sense of reliance on her decision-making processes. For example, some mentioned that although they often met and discussed instruction with the team, they most often relied on the MCL to provide feedback, answer questions, and share ideas. For example, one member stated, “Our MCL will usually go through and tell us what we need to do”. Another stated, “I go to my coach to tell her the ideas that I may not want to share aloud”. These arguments were also supported by “Allie stating, “A lot of the teachers trust me so they feel comfortable coming to me for help”. Allie further explained that some form of collaboration was present, but needed to be enhanced (Initial Interview, Week 1). Observed actions confirmed this thought, as the facilitator led most of the PLC meeting with very little contribution from the

other three members concerning lesson planning, reflection, and ideas for student activities (Observation 1, Week 5). In all, the discrepancy between how collaboration was defined and described by members signaled the need for intentional scaffolding tools to support the expansion of collaborative inquiry amongst the team.

As the study progressed, the level of collaborative engagement improved (Observation 1, Week 5; Observation 2, Week 8; Observation 3, Week 11; Check-in 1, Week 2; Check-in 2, Week 5; Check-in 3, Week 8; Final Interview, Week 12). Thus, teachers began to openly share instructional concerns, reflect on student needs, and co-construct solutions during PLC meetings (Observation 2, Week 8; Observation 3, Week 11; Check-in meeting 3, Week 8; Final Interview, Week 12). The increase of collaborative conversations and practices were mentioned and praised by PLC members. For example, Calaena stated, “We put our heads together to try to solve goals or issues we have” (Final Interview, Week 12). Lavender shared:

“I like that we can bounce ideas off of each other. We can share our ideas and tell if the practice or strategy was effective for our students. If it isn't, we can seek ideas or strategies from our colleagues” (Final Interview, Week 12).

Participant descriptions of increased collaboration were supported by multiple data points throughout the duration of the study. These ideas were not just stated, but also witnessed in PLC observations where all PLC members shared ideas and challenges they were facing as it related to student learning (Observation 2, Week 8; Observation 3, Week 12). For instance, Lavender raised concerns regarding students' time management during assessments. She stated, “Hey. I am finding that my students are going significantly over time and will likely not finish the test if I don't do something to help them speed up the process” (Observation 2, Week 8). This observation prompted a collaborative discussion among the PLC team focused on identifying

effective pacing strategies to support students during assessments. Similarly, Shelly highlighted concerns related to students' summarization skills. She stated, "I think my students need more work on summarizing. Are you experiencing the same things?" (Observation 2, Week 8). These moments not only represent how PLC members began to open up and engage in reflective dialogue, sparking further discussion among the group, but also serve as evidence of the team's collaborative growth. As such, interactions like those previously described illustrate a change from passive attendance to shared inquiry, which indicates meaningful growth toward authentic collaboration. Further, transformation was also evident in Shelly, who, over the course of the study, became more comfortable and connected with her teammates. For example, she stated:

I was new to third grade and to the team. I used to be quiet in PLCs but as time went along, I began to see some similarities between their challenges and mine. And I noticed that some of their ideas are the same as mine. When we are able to share about what we are teaching or a specific skill, I learn from my colleagues. I like feeling like it's more of a joint effort versus isolation" (Final Interview, Week 12).

Still, beyond Shelly's individual growth, the team as a whole also began to demonstrate greater collective responsibility and engagement in the collaborative process (Observation 2, Week 8; Observation 3, Week 11; Check-in meeting, 3, Week 8; Final Interview, Week 12).

Aside from the team sharing their reflections of their students, the team also began creating and analyzing comprehension questions collaboratively. For example, as a team in a PLC meeting, members created questions such as "What is the meaning of 'tri' as used in tristate?" and "What inference can you make about the amount of grace that a tornado brings?". The creation of these questions and others were frequently followed by group discussions about potential student responses and how to incorporate them into specific lessons (Observation 2,

Week 8; Observation 3, Week 11). Collaborative creating and discussing such questions supports Allie's statement, "We can now talk about questions that we might want to ask students, determine where we want students to go, how we are going to get them there, and what assignments we're going to create" (Final Interview, Week 12). Similarly, Calaena stated, "Our conversations have deepened, I think we are all beginning to feel comfortable having deep discussions with one another and trying to solve our goals". This sentiment was echoed by other team members, who also described heightened levels of trust and collegiality, which helped to change the atmosphere of PLC meetings, as discussed by PLC members. For example, Lavender described the PLC environment as one where "everyone feels welcome to share ideas,". Shelly, who had joined the team as a new teacher, shared that she initially remained quiet but became more active over time as she recognized similarities between her own challenges and those of her colleagues. She stated, "I like feeling like planning is more of a joint effort versus isolated." Similar sentiments of growth were also discussed by other participants (Final Interview, Week 12).

Further, data suggests that the implementation of scaffolding tools enhanced both communication and collaboration within the group. Specifically thinking of the norms portion of the Roles, Responsibility, and Norms protocol (Appendix M), Calaena stated, "it is also a tool that keeps the team guided in the right direction and holds one another accountable for the work we need to do together". She went on to say that it was only after "accountability was strengthened" that they could rely on the other protocols to give them the "boost of collaboration" they needed (Final Interview, Week 12). The impact of these changes was evident in the improvement in the team's collaboration was not only reflected in the amount of shared dialogue, but also in the quality of such discussions. Findings suggest that with the help of the

Roles, Responsibilities, and Norms (Appendix M) Common Assessment (Appendix N) and Deep Discussion Protocols (Appendix O), conversations progressed from surface level updates to rich, student-centered discussions, which were grounded in data, strategy sharing, and instructional planning. Ultimately, growth in the area of such collaborative practices laid the foundation for the next phase of PLC development, which included heightened levels of shared responsibilities and goals.

### **Heightened Levels of Shared Responsibilities and Goals**

Aside from enhanced levels of collaboration, there were also heightened levels of shared responsibilities. Multiple findings highlighted an increase in how the PLC members shared responsibilities and agreed upon common goals related to teaching and student learning. In week one of the study, participants' engaged in an initial interview (Week 1) with the researcher. In that interview, most of the participants confessed that they relied heavily on Allie to lead PLC meetings, guide conversations, create and initiate ideas, and structure planning. In fact, one of the participants stated, "I mostly turn to my MCL to ask questions about what I should do". Another explained, "Our MCL sends us the plan for the upcoming PLC. She will tell us which standard we need to focus on and the topic for the lesson". Another participant stated, "Our coach kind of takes charge of the meeting and she tells us what to do". The same participant also stated: "I go to my coach to tell her the ideas that I don't want to share aloud" (Initial Interview, Week 1). Although a lot of these intentions seemed to be helpful to individual team members, it was not useful for holistic team collaboration; rather, it placed the weight of the instructional leadership in the hands of the facilitator without any input from the remaining members. It also conflicted with the goals and desires of the PLC facilitator who stated:

In PLCs, I do not think it should just be me leading and talking, teachers should too. They should really be opening up and feeling safe and feeling like they are a member of the community. They need to know that what they are saying is valid and the ideas that they are bringing to the table are useful (Initial Interview, Week 1).

In all, while the data reveals that Allie was leading and doing much of the heavy lifting regarding planning and PLC meetings, she made it clear that she wanted cooperation from other team members. More specifically, Allie shared that she wanted to share the load with teachers and have their input in lesson planning and assignment creation (Initial Interview, Week 1; Check-in Meeting 1; Week 2). To mitigate this concern, the researcher suggested the Roles, Responsibilities, and Norms protocol (Appendix M) in the first check-in meeting following the initial interviews. It was also an appropriate protocol to use before launching the others.

Despite the beginning of the study being primarily leader-based, data ultimately revealed that the leader-based decision-making approach shifted over the course of the study. This is supported by Allie, who stated, “There’s no more of just me telling them what to do or being the main leader of PLCs anymore” (Check-in Meeting 3, Week 8). She later stated that she was able to “put more of the heavy lifting on the teachers” (Final Interview, Week 12). These statements were also supported by observational data, where Calaena came to a PLC meeting with resources for all members and explained her idea for how to use it in the week’s lesson without being prompted by the facilitator. More specifically, during this particular observation, Calaena stated, “I know we are going to be coming up with a plan for the week, but I brought a vocabulary graphic organizer that was useful for my students” (Observation 2, Week 8). In one observation, Allie had to unexpectedly step out of a PLC meeting, and the team continued planning, discussion, and assessment creation for the upcoming week. In fact, Lavender was observed

moving to Allie's computer and leading the facilitation of the discussion. Lavender helped the team review a reading passage, discussed questions, and typed ideas into the shared planning document. These actions were done without prompting. Such data demonstrated shifts towards shared leadership and collective ownership of instructional planning (Observation 2, Week 8).

In addition to leadership being shared across the entire PLC team, there was also evidence of a shared understanding of instructional goals. As such, the findings detail how teachers began collaborating on common assessment creation, identifying key learning targets, and planning for student misconceptions and next steps based on student understanding (Observation 2, Week 8; Observation 3, Week 11). While the Roles, Responsibilities, and Norms protocol (Appendix M) was believed to not be useful for the team in its entirety (Observation 1, Week 5; Check-in Meeting 2, Week 5; Final Interview, Week 12), the implementation of the protocol with a heavy focus on PLC meeting norms sparked the understanding for the need of shared responsibility and member accountability for the contributions of all members. With that idea in mind, Calaena stated that the norm protocol, “keeps the team guided in the right direction and holds one another accountable for the work we need to do together” (Final Interview, Week 12). In all, the team’s use of the suggested protocols helped ground their collective work and discussions in purposeful ways aimed at improving student outcomes.

As a result of the increased sense of shared responsibility, PLC meetings included deeper discussions centered around instruction (Observation 2, Week 8; Observation 3, Week 11). These discussions went beyond lesson planning to focus on learning outcomes as well. As such, three of the four members reported feeling more comfortable reflecting on their personal teaching decisions and asking questions of their teammates. One participant explicitly stated, 'Now, I am comfortable asking questions about my teaching and my students.' (Final Interview,

Week 12). These sentiments were also supported by observational data, which showed PLC members sharing their data and asking one another how they were teaching certain skills to promote student growth (Observation 2, Week 8; Observation 3, Week 11). As a result, collaborative inquiry was initiated among the team. These findings suggest that vulnerability and trust among the team had increased, which supported their continued engagement in collaborative inquiry. It is likely that these practices will continue to support the team as one member stated, “The way we collaborate has gotten better and I think it will keep getting better,” (Final Interview, Week 12).

Overall, the PLC teams’ progress toward greater shared responsibility was propelled by the team’s understanding of accountability and collaboration, emphasized by norms and shared goals. This shift not only highlighted how Allie’s role changed from being the primary leader, but also revealed how the team was able to make useful contributions to instructional planning that can positively impact student outcomes. As members took greater responsibility over the planning process and student outcomes, the team transitioned to greater levels of collaborative inquiry and professional growth.

#### **Research Question 4**

##### **In what ways do collaborative inquiry-based scaffolds impact teachers’ professional dispositions?**

Collaborative inquiry-based scaffolding tools were found to have impacted the overall professional dispositions of participants. Further, the tools were found to have been an instrumental source in helping to strengthen teacher capacity with increased levels of confidence. More specifically, teachers noted the ability to plan more intentionally while developing quality common assessments and aligning data analysis to their next steps in teaching and lesson

planning. Additionally, participants discussed their ability to engage in deep discussion and inquiry-based learning as it relates to student instruction. As a result of the depth of collaboration, trust, and deep discussion, teachers were also found to be confident in their execution of lesson plans and instructional methods within the classroom. Thus, the researcher has identified *Strengthened Capacity and Confidence Through Collaborative Inquiry-based Scaffolding Tools* as major themes to answer this specific research question.

### **Strengthening Capacity and Confidence through Collaborative Inquiry-based Scaffolding Tools**

Insights gathered from multiple sources, including interviews, check-in meetings, and observations, reveal enhanced levels of skill and capabilities following their engagement in the collaborative inquiry-based scaffolding process. More specifically, multiple participants noted the growth they achieved as it relates to their professional capacity and confidence levels. For example, responding to her perceptions of the use of the protocols, Calaena stated:

“I know for me, it has made me pay more attention to how I teach. I really think it is making me a better teacher overall honestly”. It makes me really kind of dig deeper to the point where I'm always questioning the best moves for students. So I'm looking at the standard and how it goes along with certain questions. I am thinking about the groupings of my kids who are struggling with one standard and few kids that are struggling with another standard and thinking about who I need to pull or how to raise the rigor for students who need it. So I definitely think it has changed my teaching because it has made me dig deeper into data and use the data more intently. Now I am looking more at the trends between my class and students in my class. So I think it has opened my eyes

even more to what I need to focus on aside from just teaching” (Final Interview, Week 12).

Shelly also mentioned how the scaffolding process impacted her as a teacher by sharing, “I think I have become a better teacher by having thought partners with my colleagues” (Final Interview, Week 12). Even Allie, who has been an instructional coach for several years stated:

“My capacity is growing because we are having to think through and do whatever it takes to get the growth that we need and the proficiency, and we are doing it as a team. But then also with leading the team I have to sometimes have difficult conversations in order for them to grow in their practice. For me, talking through those difficult conversations helps me to grow. This process has helped me with helping my team grow and having the conversations to lead us to our goals” (Final Interview, Week 12).

While these comments were stated in the interviews, observations and check-in meetings also demonstrated growth of teachers. For example, findings indicate that in the first observation (Week 5), teachers were more reserved with Allie leading the group. In observation three (Week 11), which was after the implementation of all of the suggested scaffolding tools, teachers were observed asking questions, discussing achievement statuses of their students, developing high order thinking questions for assignments and common, and digging deeply into data. In the second observation, this conversation was captured:

Lavender: I think we should do a backwards design method.

Allie: Ok, talk to us about what that would look like or sound like?

Lavender: So we can tell students to look at the questions and take two minutes to read and choose important words in the questions. Then we can give them ten minutes to read and answer the questions. We should model this for students first. We can also give them

a guide for answering the questions.

Allie- I like that. If I am modeling asking and answering questions in the text, would I say ok, I am going give you two minutes to answer the questions.

Lavender- Yes. But I made an anchor chart today. It is like a think-sheet. So you would ask yourself these questions if it's fiction or these questions if you are reading nonfiction.

The team went to compare the questions offered, design or alter questions, as needed, and answer them as if they were students. Allie led this process by reading question by question and asking teachers their thoughts regarding the question. For an inference question, Shelly responded, “It is an inference question, which is a concern amongst several students”. Calaena agreed and began to look at data to discuss the data related to inference questions for her students. These types of conversations showed more depth and was inclusive or more member input than the initial PLC observation (Observation 3, Week 11). Additionally, Allie discussed rises in discussion, inquiry, and planning, which she states has “made positive impacts on students”.

In their final interviews (Week 12), each member discussed their perceptions of the scaffolds and how it has changed their mindset, teaching practices, and has ultimately increased their capacity. For example, when discussing the shared responsibilities in final interviews (Week 12), Calaena stated. “I have more responsibility and more of a role than before. Like I do more for the team when it comes to planning and that makes me feel good”. When discussing the common assessment protocols, the finding emphasized the development and growth of teachers. Lavender stated, “I really like it because it has helped me. Like I said before, seeing the questions and ideas that I did not originally think about for myself or thinking about asking has helped me to think about what is really important for my students and the team’s students.” Shelly stated that the tool helped her to become “more aware of what I am doing and what I need

to focus on to grow my students academically, especially as a novice third grade teacher”. Levels of teacher capacity were also revealed through findings related to the deep discussion protocol, which not only prompted deep discussion but stages of data analysis as well. For example, Allie stated, “The question guide helped my teachers to be prepared for what to think and discuss. The questions also made them think closely about their students and their next steps for teaching and student achievement” (Final Interview, Week 12). Lavender stated that the tool helped her to “think deeper about our next steps and reteaching plans”. Shelly more specifically stated that the creation of common assignments coupled with the discussion tool has helped to become more comfortable in the analysis process for third graders. She stated, “The tool has helped me to talk with my colleagues and think through the process. I think these types of discussions are making me a better teacher and helping my students a lot” (Final Interview, Week 12).

Alongside the enhancements in capacity, the findings also indicated a rise in confidence among participants. Some of the participants discussed their confidence for engaging in PLC meetings. For example, Lavender stated, “I am highly confident in engaging in PLCs. I am highly confident in expressing my skills as it relates to different ways of planning lessons” (Final Interview, Week 12). Shelly shared that she was more confident engaging with her teammates (Final Interview, Week 12). Beyond participating and interacting in PLC meetings, there were other participants who referenced their confidence growing in areas related to their practice. For example, Shelly stated:

I am more confident with analyzing the data and talking about it with my team. I am more confident in making valuable plans for students because we have done it a lot over the last few weeks as a team by focusing on all the kids and not just my own” (Final Interview, Week 12).

Calaena stated, “I feel pretty comfortable talking with my team and planning together as a grade level. I am confident in sharing the load of the PLC and what needs to be done for our students and school” (Final Interview, Week 12). Aside from the confidence that the other members discussed, Allie stated:

“They're internalizing the lessons and our planning discussions and so then they're able to execute more successfully in the classroom. They are really executing in their own classrooms because now they're really taking ownership of the plans and, you know, the objectives, the standards, the concepts that we need to teach. They are becoming a lot more confident in those areas. In turn it has created confidence in the classroom and confidence within their teaching” (Final Interview, Week 12).

While the researcher did not engage in classroom observation or get the opportunity to observe the PLC members teaching in their classrooms following PLC meetings, triangulation of multiple sources show evidence that teacher capacity and confidence were both built after participating in the collaborative inquiry-based scaffolding process (Observation 2; Week 8; Observation 3, Week 11; Check-in Meeting 3, Week 8; Final Interview, Week 12).

### **Shifting Beliefs about Student Learning**

Participants in this study revealed meaningful shifts in their professional dispositions that went beyond changes in instructional practices and collaboration. Changes in participants' perceptions of student learning in a low-performing school context were also captured through evidence. For example, in the beginning of the study, Allie discussed areas of concerns related to literacy and math and student achievement. In fact, she originally stated that the school functioned in a “state of emergency” when it comes to student learning and proficiency. She went on to describe the school by stating, “The school is really a triangle. It's an upside down

triangle. Our scores... we are just in a state of emergency.” (Initial Interview, Week 1). Other participants also described similar concerns by stating, “We just need to catch up with the rest of the state with reading” and “There’s a lot that our kids come in not knowing and we are doing the best we can. We are really pushing to see their growth” (Initial Interview, Week 1). These findings not only reveal a tone of urgency but also suggest that participants may be experiencing stress or strain related to the demands of teaching and achieving learning outcomes.

While early findings revealed a tone of urgency and concern about student performance among participants, later findings suggest that the implementation of collaborative inquiry-based scaffolding tools help to shift participants’ perspectives (Observation 2, Week 8; Observation 3, Week 11; Final Interview, Week 12). As such, scaffolding tools pushed participants to rethink their approaches to planning and insights about how students learn. For example, in the second observation (Week 8) as participants were creating common assessments, Calaena stated, “This makes so much sense for planning. I was so irritated with trying to figure out ways to help us all find the gaps and talk about what we can do next for our students “(Observation 2; Week 8). In her final interview (Week 12), Lavender also stated,

“Creating our own assessments and using the data to make the decisions needed in real time or as much as I need to has made me think about ways to reach all of my students regardless of their level. It has kind of given me better insight on how to reach and plan for the success of my students. I always knew I could learn but now I am more in tune with how a lot of my students need to learn the information. It’s really good to have a team I can discuss these things with though”.

In all, engaging in protocols centered on collaboration, data use, questioning, and instructional planning supported participants in adopting a more growth-focused approach. To this end, by the

end of the study, participants had shifted their thinking to what students needed to grow academically and how their instructional decisions could meet those goals (Observation 3, Week 11; Final Interview, Week 12).

Shifts in perspectives were also noticed in how participants planned for the instructional experiences of students (Observation 1, Week 5; Observation 2, Week 8; Observation 3, Week 11). During the study, findings showed that participants collectively created assignments using different question sets aligned to the NC question stems and planned for varying levels of student ability. Aside from creating such questions, there was also discussion regarding the role of questioning and assessment (Observation 2, Week 8; Observation 3, Week 11). Allie originally stated that many participants were “just reading the questions out of the book” without paying attention to how the prompts or questions in the text connected with their students. She went on to state that the curriculum was “not meant for North Carolina, or for our below-grade-level students” (Initial Interview, Week 1). As the PLC team began to use protocols such as the Common Assessment and Deep Discussion protocols, they realized the importance of aligning the language in assignments to student understanding and test expectations (Observation 2; Week 8). Findings suggest that once participants understood the purpose of aligning materials and questioning techniques, they became more intentional in how they supported different types of learners. For example, Allie shared, “We may ask ‘How did the character feel?’ to our lower-level students, but to our higher-level students, we’re asking, ‘What events contributed to the character feeling this way?’” (Final Interview, Week 12). Further, observational data captured an instance when Shelly explained to her team that a question in the curriculum confused her students. She wanted the team to rewrite a similar question for the week, focusing on using illustrations to explain a text, since she was unsure whether students didn’t understand the

question or truly needed additional support on the skill. She also suggested different texts for students at varying levels (Observation 3, Week 11). In all, participants' actions around more intentional practices reflected a shared belief in students' ability levels and the need for equitable access to rigorous instruction.

During the study, findings suggest that the collaborative process helped to foster a belief that teacher learning could improve overall student learning. As such, working together to identify instructional supports for students was discussed by all of the participants. More specifically, Calaena shared that the collaborative scaffolding process shifted her thinking. She stated, "We're thinking about what students need to know, but also what our curriculum is asking of students while also trying to get them prepared for what they're going to see on the state testing" (Final Interview, Week 12). Similarly, Lavender stated that the process, "has made me more attentive to what students need." (Final Interview, Week 12) Even Shelly stated, "Now I can go back to my students and give them what they need to flourish" (Final Interview, Week 12) This shows that participants recognized they could be more responsive to students' needs and influence learning by shifting their focus from teaching the curriculum with strict fidelity to teaching with integrity, which is a practice that assists with meeting students where they are. In this way, the scaffolding tools not only supported collaboration and planning, but also helped participants rethink how to support their students and consider the learning possibilities their students could achieve. In all, evidence supports that there is a shared belief that all students could progress with the right planning, questioning, and support (Observation 3, Week 11; Final Interview, Week 12).

## Summary

This chapter presented the findings from a comprehensive analysis exploring how collaborative inquiry-based tools were experienced and perceived by a PLC team at a low-performing elementary school. This study explored four key research questions focused on perceptions, implementation of scaffolding tools, outcomes, and impacts on professional dispositions. As a result, there were five major themes that emerged, which included: Perceived Usefulness of Collaborative Inquiry-based scaffolding tools, Perceived Limitations of Collaborative Inquiry-Based Scaffolding Tools, Shifts in Collaborative Culture, Enhanced Facilitator Capacity, Adaptations and Facilitation Strategies, Enhanced Collaboration, Heightened Levels of Shared Responsibilities and Goals, Strengthening Capacity and Confidence through Collaborative Inquiry-based Scaffolding Tools, and Shifting Beliefs about Student Learning.

Findings from participant interviews revealed the perceived usefulness of multiple scaffolding tools suggested throughout the study. Both teachers and the PLC facilitator described the tools as pillars for launching inquiry, framing structured discussion, clarifying shared responsibilities and goals, and intentional and meaningful planning. These tools were found effective in enhancing PLC discussions to ones that are most purposeful, data-driven and aligned, and student centered, thus addressing multiple research questions, such as questions one and three. While participants praised the usefulness and effectiveness of the majority of the scaffolding tools suggested, there were also perceived limitations for a portion of the Roles, Responsibilities, and Norms protocol, which detailed constraints, barriers to effective collaboration and launching of collaborative inquiry, and ineffectiveness of deep discussion. While a portion of the scaffolding tool was deemed inefficient for the PLC for three of four of

the PLC members, there was still heightened discussion centered around the latter part of the tool, which focused on Norms. Norms were ultimately found to be the driving force of collaboration, engagement, and sense of ownership. This information was useful for answering questions one and two.

Scaffolding tools were also useful for strengthening teacher capacity and confidence across all participants. The PLC facilitator reported growing in confidence as she shared the PLC responsibilities with her team and led them through the implementation of the inquiry-based scaffolding tools. While she stated that she was happy to implement the scaffolding tools as written, there were also modifications that she made to enhance the experience for her team and foster a greater sense of responsibility and collaboration. Together, these findings helped to answer the second research question. Findings also revealed a notable shift in collaborative culture in PLC meetings and amongst the team. Many participants noted that they felt more comfortable collaborating with the team and were highly engaged in PLC meetings. These findings help to answer research question 3. Finally, strengthened capacity and confidence were captured in the findings in response to collaborative inquiry-based learning scaffolding tools. A heightened sense of self-efficacy, collective responsibility, and better execution in the classroom, leading to increases in student achievement, was also found. This provides the answer to research question four. Overall, the scaffolding tools were found to be useful for the team and served as a catalyst for fostering a more meaningful PLC culture. The findings also provide insights into when, for whom, and to what extent the scaffolding tools were most effective for this particular PLC group. Additionally, the results highlight the importance of the facilitator's professional judgment and knowledge of both the participants and the curriculum for effective

implementation. Along with a detailed explanation of these findings, Chapter 5 will offer specific recommendations for the use of scaffolding tools based on the study's findings.

In conclusion, chapter four began by providing an in-depth overview of the context of the selected school, participants, and assigned collaborative inquiry-based scaffolding tools, which was collected through multiple sources including interviews, PLC facilitator check-in meetings, observations, and document sources. The chapter provided rich descriptions of the major themes based on an inductive analysis of a PLC team at a low-performing elementary school, using multiple sources. This approach aligns with Yin's (2014) emphasis on the significance of using multiple sources and triangulation to build a logical and cohesive understanding of the case. This chapter provided a detailed discussion of the findings to lay a foundation for Chapter Five, where the study's results will be explored more deeply. The subsequent chapter will explore how the conceptual framework and existing literature relates to the major findings, which will facilitate a more detailed interpretation of the findings.

## CHAPTER FIVE: DISCUSSION

The purpose of this exploratory case study was to explore PLC members' experiences, perceptions, and change in professional dispositions following the implementation of collaborative inquiry-based scaffolding tools within PLC meetings at a low-performing elementary school. This study was formed on the basis that collaboration does not just occur by chance, but rather it requires intentional development. Similarly, PLC meetings do not simply emerge on their own; they must be purposefully and thoughtfully crafted and rooted in a culture of inquiry, where questioning, structured dialogue, and reflection lead to collective growth. The cycle of inquiry, when collaborative, serves as a catalyst for deep and meaningful discussions, intentional reflection, and the development of shared goals (Nelson et al., 2010). Despite research serving as a constant reminder of the importance of collaboration and how beneficial it is to teachers, the reality is that many PLC meetings lack inquiry-based processes and a true collaborative culture (Erkens et al., 2024). To address this gap, the present study explored the use of collaborative inquiry-based scaffolding tools to assist in the development of inquiry among a team of third-grade educators in a low-performing elementary school. This study was guided by the following research questions:

1. How do elementary teachers in a low-performing elementary school setting perceive collaborative inquiry-based scaffolds?
2. How does a PLC meeting facilitator at a low-performing elementary school experience leading PLC members through collaborative inquiry scaffolding tools?
3. How do PLC meeting members at a low-performing elementary school describe their overall experiences of PLC meetings following the implementation of inquiry-based scaffolds?

4. In what ways do collaborative inquiry-based scaffolds impact teachers' professional dispositions?

This chapter presents an interpretation of the study's major findings and their relationship to existing literature and the study's research questions. It will begin by summarizing the key findings, emphasizing how these findings relate to the study's research questions, and establishing the connection to prior research conducted by other scholars. This chapter will also discuss the connection between the major findings and Vygotsky's (1978) theory of sociocultural theory and mediated Learning Tools. This chapter will then discuss the implications of the study's findings for other educators and school leaders, particularly those in low-performing elementary school settings. Recommendations for the implementation of collaborative-inquiry-based scaffolding tools in PLC settings will also be discussed. Limitations of the present study will also be presented in this chapter. The chapter will conclude with suggestions for further research and an examination of how this study contributes to educational practice and theory.

### **Summary of Findings**

There were key thematic findings that were identified through an inductive analysis of the exploration of participants' experiences, perceptions, and professional dispositions after implementing collaborative inquiry-based scaffolding tools in third-grade PLC meetings at a low-performing elementary school characterized by a sense of urgency to improve instructional outcomes and student achievement. This exploration was conducted through the analysis of interview transcripts, facilitator check-in meetings, observational data, and document collection, which yielded valuable information regarding the impacts of collaborative inquiry-based scaffolding tools on this bounded case of participants. Through a deep data analysis and interpretation process, the researcher was able to identify the transformative capabilities of

mediated scaffolding tools, which directly align with Vygotsky's theory of mediated learning and the Zone of Proximal Development (ZPD).

Major findings from the study suggested that the majority of the scaffolding tools used during the study, including the Roles, Responsibilities, and Norms Protocol (Appendix M), Common Assessment Development Protocol (Appendix N), and Deep Discussion Protocol (Appendix O), were largely perceived to be useful in launching and sustaining collaborative inquiry in PLC meetings, as indicated by study participants. While some studies have shown that these individual scaffolding tools are effective in other educational contexts, this study demonstrates the value of implementing all three tools collectively within a single low-performing school setting, where collaboration, consistency, and structure are crucial to driving improvement efforts. Still, although most were found to be useful, the findings also revealed some perceived limitations in using the Roles, Responsibilities, and Norms Protocol (Appendix M). Participants acknowledged that utilizing the protocol created a sense of disjointed participation among the team, leading PLC members to focus intensely on performing in their individual roles. Findings suggest that the roles and responsibilities were both too prescriptive and restrictive. This unintended effect directly impacted collaborative dialogue. Although this protocol, in particular, was found to have limitations for this specific bounded case of participants, findings suggest that participants were still understanding of the importance of roles and responsibilities and favored the Norms portion of the protocol due to its ability to create a sense of collective responsibility, collaboration, and shared goals. Findings suggest that the norms laid the groundwork for other protocols to function effectively in PLC meetings.

Participants noted significant shifts in collaboration within their PLC meetings following the implementation of the collaborative inquiry-based scaffolding tools. These findings were not

only noted in participants' interviews but were also revealed through various check-in meetings and observations. Evidence of heightened levels of collaboration was also demonstrated through participants' descriptions of their ability to engage in in-depth and structured discussions with colleagues regarding student learning, data, and teaching practices. Participants also demonstrated the ability to engage in reflective dialogue about how common assessments were developed collaboratively. Observational data captured a notable transformation from the first PLC meeting to the final one, with teachers actively sharing ideas, initiating inquiry, presenting student data, and co-constructing learning experiences and instructional plans. For example, in the first observation, three of four members offered very minimal input regarding lesson planning, sharing of student data, and ideas for learning experiences. However, by the third observation, all four members were contributing to lesson ideas, sharing resources, and discussing student data (Observation 1, Observation 3; Check-in Meeting 3). This growth in collaboration was reinforced during facilitator check-in meetings, where Allie reported increased engagement and compliance to the team's collaborative norms.

The low-performing context itself appeared to enhance teachers' willingness and desire to engage with the scaffolding process. In the initial interview, and even throughout the study, participants described a shared awareness of the school's performance status, which created a sense of urgency and commitment to improve instruction and student learning outcomes. Rather than resisting change, participants showed that they were open to new strategies and tools that could improve teaching, planning, and learning practices. Still, it is important to note that while Sunrise Elementary School is designated as a low-performing school, teacher turnover is minimal, which reflects a strong sense of professional commitment. This stability, along with the

shared commitment to improvement, fostered a setting where participants' engagement with the scaffolding tools led to increased collaboration and professional growth.

Collaborative inquiry-based scaffolding engagement provided an opportunity for participants to shift their professional dispositions by strengthening their capacity, enhancing their confidence, and reshaping their beliefs and practices regarding student learning in a low-performing school context. Participants reported a noticeable change in their instructional planning. Some participants felt that engaging in PLC meetings with a focus on launching inquiry helped to increase their instructional knowledge and their ability to use data to inform their teaching practices. Other participants stated that their ability to question strategies, make meaningful changes for their students, and differentiate instruction was increased during the scaffolding implementation process. Observational data also portrayed an increase in collective input and ideas as well as intentional planning for student needs across all skill levels. For example, observational data captured participants reviewing learning targets and standards that were assessed on an assessment and creating reteaching plans for students based on their area of need (Observation 3). Such data also revealed that teachers were more connected and engaged with standards and learning targets, which helped launch deep discussions on how to teach, assess, and support students, as well as reflect on their own practices as teachers. Participants reported that these practices were beneficial to their teaching in their own classrooms. Furthermore, additional findings from check-in meetings suggested that the facilitator also believed the team's capacity and intentional execution of lessons increased from the study's beginning to its end. Alongside enhanced capacity, a newfound level of confidence emerged among participants in the study, as revealed in the findings. Participants frequently discussed their increased confidence engaging during PLC meetings, launching inquiry, and leading

student learning. This growth was attributed to rich discussions and intentional planning within PLC meetings. The findings also indicate that the facilitator's capacity was strengthened as she guided her team through the collaborative, inquiry-based scaffolding process. Collectively, these findings suggest that the collaborative inquiry-based scaffolding process supported the continual development of participants' instructional capacity and confidence, while also reshaping their beliefs and instructional practices for students in a context of heightened urgency and collective determination to improve as professionals.

In addition to enhanced capacity, participants in the study exhibited a newfound level of confidence, as revealed in the findings. Participants heavily discussed their levels of confidence, not only engaging in PLC meetings but also in launching an inquiry. They also discussed becoming more confident in leading student learning as a result of engaging in rich discussions and intentional planning during PLC meetings. Findings also show that the facilitator's capacity was strengthened as she led her team through the collaborative inquiry-based scaffolding process. Overall, findings reinforce that PLCs, when supported by effective scaffolding tools and consistent leadership, can become meaningful spaces of professional learning and growth, even within a low-performing school.

### **Discussion of Major Themes**

This single-case research study was grounded in Vygotsky's sociocultural theory, which directly emphasizes social interaction, language, and tools in the learning process. For this study, scaffolding tools were used to guide participants through the process of launching collaborative inquiry within PLC meetings. Through the alignment of Vygotsky's sociocultural theory and the concept of mediated learning tools, this study utilized scaffolding tools as artifacts to structure and support teacher thinking, reflection, and dialogue, enabling teachers to ultimately operate

within the Zone of Proximal Development. These scaffolding or mediated learning tools facilitated opportunities for participants to collaborate effectively as they launched and managed cycles of collaborative inquiry within PLC meetings. Based on the findings presented in the preceding chapter, key themes have been emphasized in this chapter for extended analysis and discussion.

**Research Questions 1: How do elementary teachers in a low-performing elementary school setting perceive collaborative inquiry-based scaffolds?**

The first major theme that emerged in the findings was participants' perception of the scaffolding tools as useful resources for launching and sustaining collaborative inquiry within PLC meetings. Participants' engagement with these tools appeared to be heightened by the school's growth-focused context, which fostered a strong commitment to improving instruction and student outcomes. Throughout the study, participants consistently praised the usefulness of the scaffolding tools and marked them as agents that helped not only strengthen the collaboration of the team, but also provide guidance in launching inquiry, engaging in deep and structured discussion, and collectively creating plans for meaningful learning experiences for students. For example, Shelly stated, "The Discussion Protocol was really helpful. We reference it a lot in our PLC meetings now". Further, Allie stated, "We are beginning to have more conversations and not just any conversation, but conversations that really matters for the kids". When discussing the common assessment protocol, Lavender stated that the tool has helped her to feel like she is more aware of what is needed to "focus and grow her students". Calaena shared similar sentiments by sharing that the tool offers her on the "questions that need to be asked when creating assignments and assessments for students", which can be especially meaningful in a context with opportunities for growth, where intentional planning and alignment are key to

supporting student success. The norms portion of the Roles, Responsibilities, and Norms protocol (Appendix M) was also considered useful for the team. When analyzing the perceptions of participants as it relates to the Roles, Responsibilities, and Norms protocol, the interpretation of the researcher is that it was still a useful tool in helping the team move on to more meaningful collaboration. Overall, participants' perceptions of the scaffolding tools revealed that the protocols enhanced their ability to engage in collaborative inquiry during PLC meetings. Additionally, these tools fostered a greater sense of shared responsibility and encouraged deeper reflection among the team.

The advancement of collaborative inquiry and PLC collaboration as a result of utilizing the collaborative inquiry-based scaffolding tools closely align with Vygotsky's (1978) idea of sociocultural learning. This is because the scaffolding tools served as resources that helped to mediate thinking and learning for participants. As such, participants were strategically guided into more structured and intentional collaboration, which served as a catalyst for engaging in the subsequent scaffolding initiatives proposed by the researcher, which were also purposefully guided. This guidance was beyond what participants' had achieved independently before engaging in the study. Thus, the scaffolding tools served as mediational resources that guided participants through rich and structured pedagogical discussions that were not originally taking place. For example, as discussed in Chapter Four, it was stated that participants would often just look at the curriculum resources and teach lessons as they were written. However, after implementing the scaffolding tools, participants began creating learning opportunities that were better suited for their students. Further, findings indicated that there were more discussions centered around student data, instructional planning, student learning, and assessments, which

marked a shift from the beginning of the study. In all, following their use, participants largely perceived these protocols to be useful in PLC meetings and in their teaching practices overall.

When analyzing initial and final interviews as well as check-in meeting data, several participants noted that the MCL, who served as the PLC facilitator in this study, and district office instructional staff created common assessments for the grade level. Introducing the Common Assessment Protocol (Appendix N) to participants as a guided questioning guide to assist with developing and designing meaningful common assessments, served as a mediated learning tool. Additionally, it helped participants develop a shared understanding of goals. According to Moss & Brookhart (2019), when teachers collaboratively create assessments, it allows for shared expertise, critique, and assessment refinement, which can ultimately better measure student understanding and address their needs. Further, McDonald et al. (2013) argued that collaborative design can help to reduce inconsistencies across classrooms as teachers develop a shared understanding of learning goals. As mentioned in Chapter Four, Allie stated that teachers were beginning to “execute in their classrooms” and the “same level of questioning” was present in all classrooms due to the common planning (Check-in Meeting 3; Week 8; Final Interview, Week 12). In this context, participants found that using such protocols supported not only their individual teaching but also their collaborative learning and planning as a Professional Learning Community (PLC).

The Deep Discussion Protocol (Appendix O) served as another mediated learning and language tool, which offered designated questions by topic to assist teachers through thoughtful and targeted discussion. Participants perceived the protocol to be one that guided them towards reflective questions, further helping them to move from surface-level discussion to deeper level dialogue. As research continues to confirm in many cases, teacher engagement and interaction is

limited and lacks meaningful dialogue (Clark et al. 2023; Nelson et al., 2010; Pollock & Hamann 2019). Not only did the mediated learning and language tool serve as pillars of inquiry launching, it also served as building blocks of gained confidence and personal investment and responsibility regarding instructional decisions. Additionally, the protocol required participants to internalize the collaborative inquiry-based scaffolding tool, which aligns with Vygotsky's idea of internalization and sociocultural learning. After teachers internalized the protocol, understanding its significance for their own teaching and its impact on the team, the researcher identified positive feedback about the tools that likely contributed to participants' statements regarding their usefulness for the particular PLC team.

While participants largely discussed the usefulness of the suggested collaborative inquiry protocols, the majority of the participants stated that the Roles, Responsibilities, and Norms protocol was the least useful for the team. Allie specifically stated, "The protocol did not make the PLC feel organic. It felt forced". Calaena plainly stated, "I can see how they are useful for others, but they are not useful for us". While the team only utilized the Roles, Responsibility, and Norms protocol for a short amount of time, research suggests that having clear roles can support active participation among team members (Donohoo, 2010; Stoll et al, 2006). Although the participants did not see the usefulness of the roles and responsibilities, findings show that all participants understood the purpose of the roles and how they could be useful in establishing PLC meetings. Although the Roles, Responsibilities and Norms Protocol (Appendix M) was viewed unfavorably by three of the four members of the team. Shelly, however, found it useful due to her newness to both the team and grade level. In this context, it is important to consider that while the majority of this particular PLC team, who had been working together previously, did not perceive the tool as useful, the Roles, Responsibilities, and Norms Protocol (Appendix

M) may be more effective if implemented at the beginning of the school year with newly formed teams or those unfamiliar with PLC structures. In this case, the protocol was introduced midyear to a team that had already been working together for six months with a dedicated third-grade instructional coach. In this context, the protocol was used mostly as a reminder or flexible guide for increasing shared responsibilities. Still, despite the unfavorable perception of the roles and responsibilities component, the norms were found to be useful and well received by participants. This is because members noted that the norms created a sense of shared collaboration, productivity, and responsibility among the team, which Vescio et al, (2008) indicates is a recipe for flourishing collaborative inquiry models. In her final interview, Calaena stated, “I think the norms make it to where we are more focused and we get more done. It holds us accountable”. This heightened sense of personal and collective responsibility was instrumental for participants. The tool, while not used exactly as written, served as a mediated learning tool for participants as they were still guided towards shared and purposeful collaboration, which ultimately helped to increase dialogue and help to foster honest reflection, which have been proven to promote and deepen inquiry levels, as supported by literature (Donohoo, 2013; Horn & Little, 2010; McDonald et al., 2013). In all, participants indicated that the scaffolding tools, while used for the study, have become an embedded part of their PLC meetings, which suggests that participants have internalized the tools as part of their professional and instructional practices. This aligns with Vygotsky’s (1978) idea of mediated learning, as participants gradually embraced the learning tools or protocols, using them to reshape their thinking and foster independence in applying new skills and insights during PLC meetings.

**Research Questions 2: How does a PLC meeting facilitator at a low-performing elementary school experience leading PLC members through collaborative inquiry scaffolding tools?**

Findings indicate that the PLC meeting facilitator had an array of experiences while leading PLC members through the collaborative inquiry-based scaffolding process. Through a deep data analysis, findings were organized into three major themes to thoroughly answer this research question. The first major theme was *Shifts in Collaborative Culture*. Findings indicated that the PLC team and meetings shifted from being primarily facilitator-led to a more collaborative model. At the beginning of the study, Allie, the PLC facilitator, took on major roles of responsibility, including planning, leading discussions, and data analysis. This interpretation was based on statements from check-in meetings and interviews with Allie. Despite this solitary start, the culture of the PLC ultimately shifted to be one of shared ownership and leadership within PLC meetings.

Observations, interviews, and check-in meetings captured the collaborative transformation in PLC meetings. As such, participants began contributing at higher levels by engaging in planning, preparation, and data analysis, all of which indicated a transition towards collaborative ownership among the team. In a low-performing school context, where student outcomes are a priority, this shift in collaboration was particularly significant, as it allowed the team to collectively focus on areas where students were struggling most. During this process, Allie noted positive changes that were taking place among teachers within PLC meetings. Early in the study, Allie was excited about introducing the team to roles, responsibilities, and norms. This excitement stemmed from the idea of sharing the load of PLC and planning responsibilities with the team. To this end, the roles suggested for implementation were timekeeper, presenter, and recorder, which was originally intended to encourage shared responsibility. However,

findings suggest that the implementation process yielded unintended consequences. Unintended consequences included the facilitator feeling that meetings were stagnant, ultimately leading her to continue taking the primary leadership role in the PLC. In the check-in meeting following the implementation of the Roles, Responsibilities and Norms protocol, Allie specifically stated, “We stopped using the protocol and focused on the norms because too many people were only focused on their roles. It did not feel organic”. Thus, the level of discussion lacked depth, interaction was restricted, and engagement was limited. Still, despite the unnatural feeling of meaningful and holistic collaboration, norms were the breakthrough tool to move this PLC forward and shift the level of collaboration amongst the team. These collaborative shifts were especially crucial given the demands of a low-performing school, where teacher alignment and shared problem-solving can have an immediate and meaningful impact on student learning (Hallam et al., 2016; Hargreaves, 2000; Vescio, Ross, & Adams, 2008). This also aligns with DuFour and Eaker’s (1998) thought regarding the usefulness of norms and how the creation of norms helps to support collaborative cultures among PLC teams. Hord (2009) further supports these claims by arguing that norms are essential for establishing collective inquiry. Nonetheless, the interpretation of the findings reveals that Allie was pleased with the change in team members once they recognized the importance of collaboration and fully engaged with the deeper aspects of the work. When reflecting on Vygotsky’s idea of mediated learning tools, it became clear to me that while scaffolds may be essential for mediating the learning of others, it must first be adapted and appropriate for the specific members that it is used to help. In this case, the roles and responsibilities were too prescriptive, which hindered the development needed for the team to effectively launch collaborative inquiry. The facilitator’s implementation of the tool for a short time before discontinuing its use raises the question of whether the tool was ineffective due to its

limited implementation or because it was not well-suited for the team. Additionally, introducing the tool mid-year after the team had already been working together may have influenced both its potential impact on the PLC and the participants' perception of its value. Furthermore, it is important to note that, over time, the team developed their own roles and responsibilities based on norms they created together, rather than strictly following the protocol tool provided. The tool felt inauthentic and overly prescriptive for what needed to be accomplished in PLC meetings. While it served as a useful model to highlight the value of different roles, the team viewed it as a flexible guide that could be adapted as needed to support collaboration and address various tasks or challenges that arose.

Aside from the Roles, Responsibilities, and Norms, the other scaffolding tools were considered to be useful in driving the team towards a shift in collaboration. Findings suggest that the common assessment protocol and discussion protocols were helpful tools for the team, allowing Allie to experience an environment of shared leadership rather than sole leadership. Allie viewed this team shift as critical, given the opportunity to strengthen student outcomes, especially for the participants in this study, across the school and in all third-grade classrooms. Together with the agreed-upon norms, the team made considerable changes as it relates to sharing best practices for PLC meeting collaboration. These meaningful changes of sharing best practices, contributing to the creation of activities, initiation of conversations, analysis and discussion of student data, and sharing the overall load of PLC meetings were not only praised by Allie in check-in meetings and in her final interview, but also captured through observational data. As mentioned in Chapter Four, by the end of the study, members were observed sharing ideas for questions and assignments during the creation of common and formative assessments. More specifically, there was a time when Allie had to step out of a PLC meeting to handle an

emergency, and the team continued the planning process in her absence (Observation 2; Observation 3). This showed how the team took greater ownership and felt confident enough to keep building the common assessment and planning upcoming lessons without stopping. Overall, aside from struggling with the implementation of roles and responsibilities, the interpretation of findings led the researcher to conclude that Allie did not have a difficult time implementing the scaffolding tools. This is possibly due to the relationship and trust that other members shared with Allie, as discussed in each of their initial and final interviews. Prior research argues that trust is imperative and serves as a gateway to a safe environment, honest and reflective dialogue, and risk taking (Hallam et al., 2016; Hargreaves, 2000; Vescio, Ross, & Adams, 2008). Overall, the introduction and implementation of the scaffolding tools led Allie to reflect on her own role as a PLC facilitator and instructional coach as she stated, “This process made me think about how I support and coach my teachers. It kind of made me think about why they needed to do some of the same work that I was doing to grow as teachers”. In all this was a growing process for the entire PLC team.

The shift in collaboration due to the implementation of the suggested scaffolding tools is directly connected to Vygotsky's idea of mediated learning. In this single case study, PLC members were led with external tools, such as the suggested scaffolds. While this process was guided in a sense, with scaffolding tools being introduced strategically, members were led to internalize the work needed to function at a different level over time. For example, where members were once struggling to engage in deep and structured discussions regarding student learning, after utilizing the tools presented over a designated time, they were able to better participate in such experiences. Additionally, the scaffolding tools supported teachers in developing their collaborative skills for PLC meetings and helped the facilitator gain the

confidence to lead while also encouraging others to take charge during meetings. More specifically, the shift in collaboration demonstrates shifting within the ZPD. This is because members initially relied on external support such as the scaffolding tools, or even what they considered to have known from experience such as facilitator leadership, but later were able to operate in PLC without heavy reliance on such tools. For example, as discussed in Chapter Four, participants used the Common Assessment Protocol (Appendix N) to guide the creation of common assessments; however, two participants shared that through continuous use, they grew more confident and were able to plan assessments without relying on the tool (Observation 2, Week 8; Observation 3, Week 11; Check-in Meeting 3, Week 8; Final Interview, Week 12). Through social interaction and use of inquiry-based tools, all participants were able to grow in the levels of participation with a team. This change also supports Vygotsky's (1978) idea that learning is socially mediated and can take place through practices influenced by one's cultural context.

In addition to the shift of collaboration that took place in PLC meetings, there was also a shift from leading as a doer to leading as a capacity builder, which confirms the major theme *Enhanced Facilitator Capacity*. At the beginning of the study, Allie was the primary leader as it relates to instructional planning and making decisions. She maintained an approach of a hand-on and directive leadership, one who often took on major tasks to, “help take the load off of teachers”, as stated in her initial interview and check-in meetings. At the beginning of the introduction of suggested scaffolding tools, Allie was able to reflect on what she had been to her team and how her leadership, in many ways, crippled the growth of other members. Through this realization from Allie, she recognized the need to share PLC responsibilities with her teammates through distributive leadership, causing her to step back and allow others to engage closely with

the work of planning, data analysis, and assessment creation. This in turn helped to increase the capacity of the other PLC members. In the second check-in meeting, Allie stated, “I am seeing teachers do more of the talking and even a lot of the preparation”. She also stated, “There’s no more of me just telling them what to do or being the main leader of PLCs anymore”. Research highlights the importance and effectiveness of distributive leadership. According to Nguyen, Smith, & Patel (2023), distributive leadership can be transformational for enhancing teacher capacity, which can impact the entire school. Given Sunrise Elementary’s desire for improvement, these shifts in PLC capacity could play a critical role in supporting teacher effectiveness and student learning over time. While the impact on the entire school is not known from this study, findings suggest that it has positively influenced the capacity of the participating teachers.

Aside from aiding in the increase of others’ capacities, Allie also found her own capacity being increased. This growth was tied to her use and leadership using the collaborative inquiry scaffolding tools throughout the study. As she helped to build others’ capacity, Allie realized that her leadership capacity also grew. In fact, during the study, she discussed leading teachers through inquiry-based and reflective discussions as well as having difficult conversations with teachers (Check-in meeting 1; Final Interview). In all, while she aided in the growth of other teachers, she was able to also realize her own growth as a leader. For example, instead of leading teachers based on her experiences regarding what should be included in deep discussions about data, student learning, and instructional decisions, she was able to utilize the Deep Discussion Protocol to guide her teammates. Similarly, instead of creating common and other formative assessments for the team, Allie was able to guide other participants through the development process of creating such activities as a team (Check-in 2, Week 5; Observation 2, Week 8;

Observation 3, Week 11; Final Interview, Week 12). In all, findings indicate that Allie was reflective of the journey she encountered during the study. To this end, she was able to discuss the progress of her team, but also as a leader and facilitator of the PLC meetings due to the recommended scaffolding tools. Additionally, Allie was able to identify next steps for the team as it relates to digging into deeper discussions and maintaining an inquiry-based culture, even after the conclusion of the study (Final Interview, Week 12). Findings suggest that Allie is working to uphold the improved levels of inquiry that the scaffolding tools have created for PLC meetings by maintaining a space for reflective practice, inquiry, and collaborative problem solving, which is supported by research that shows such practices can be beneficial to instructional leaders and teachers (Donohoo, 2013).

The final theme to answer this research question was *Adaptations and Facilitation Strategies*. Findings suggest that Allie was aware of the members on her team and their areas of need. This became relevant when scaffolding tools were introduced to Allie for implementation within PLC meetings. For example, when using the Deep Discussion Protocol (Appendix O), Allie highlighted questions that teachers should focus on rather than introducing the entire tool at one time. She revealed that it was done to, “meet teachers where they are and add on more as teachers evolve”. In other instances, while not a suggested scaffolding tool, when members were not prepared or needed time to take a deeper look at the material for planning meetings, Allie paused the PLC meetings to ask members to read so that they would be able to engage in planning and purposeful discussions. This was an additional tool used to prevent members from being excused from actively participating in PLC meetings. Additionally, findings from all participants reveal that Allie was a stickler for sending meeting agendas ahead of meetings to prepare members for what to expect so that they would be able to engage in the collaborative

work needed to launch or sustain inquiry and plan learning experiences. These practices, which were mentioned in interviews and check-in meetings while also captured in PLC observations, show these additional strategies were helpful when implemented alongside the suggested tools. In their work, DuFour et. al,( 2010) discussed the importance of using common assessment tools, agendas, and reflection opportunities to support and maintain the focus of inquiry cycles. In this case, Allie kept these tools at the forefront, which was useful in launching inquiry within PLC meetings.

Allie's growth in leadership capacity, marked by her shift from being the primary problem solver to coaching teachers through intricate instructional practices, directly reflects Vygotsky's (1978) sociocultural theory. This shift directly relates to the idea that knowledge is constructed through guided participation and social interaction within a community, and in this case, a learning community. Additionally, when Allie distributed leadership to her teammates, she connected with their ZPD. She guided them through new ways of thinking, instead of doing the work for them. For example, Calaena mentioned how discussing data and what should be expected of different students, based on their instructional levels, helped her know "how to better meet the needs of my students". Further, Shelly explained that she thought the common assessment tool was "a great tool" that she could use to "think about where students are and what they need to be successful in what I am asking them to do" (Final Interview, Week 12) In this light, this method offered teachers the ability to internalize new practices and build their instructional capacity through social and collaborative engagement. These practices align with Vygotsky's (1978) belief related to higher-order thinking being developed through meaningful and collaborative engagement. This was also echoed by DuFour and Eaker (1998), who argued

that when teachers work collaboratively to examine student learning and their teaching practices, their work as professional educators can improve over time.

**Research Question 3: How do PLC meeting members at a low-performing elementary school describe their overall experiences of PLC meetings following the implementation of inquiry-based scaffolds?**

There were several shifts and enhancements captured through the findings. These experiences were described by participants in interviews and check-in meetings, as well as captured through the PLC meeting observations. In totality, findings indicate that participants experienced enhancements in teacher collaboration and a greater sense of ownership and shared responsibilities. Additionally, there was evidence of higher levels of trust amongst the team, which helped to not only expand the depth of collaboration within the team, but also promote deeper levels of professional learning.

At the beginning of the study, participants expressed mutual respect for one another and shared their current levels of collaboration. In this, some of the PLC members indicated that they had engaged in collaborative activities such as common and joint planning and informal sharing of classroom strategies; however, it was obvious from initial interviews, check-in meetings, and observation that the depth of collaboration from the collective team was surface level. Some participants shared that when they had questions or ideas, they went to the MCL, who also served as the PLC facilitator in this study, instead of sharing it with the whole team. During PLC meetings, much of the communication was driven by the facilitator, Allie, who often initiated team participation by asking direct questions to her team members. This was also realized in the first PLC observation meeting. Still, teachers were respectful of one another, contributed when they felt it was necessary, and consistently implemented lesson plans that were written in the PLC meetings.

Participants were able to articulate their personal definitions of collaboration. For example, Lavender stated, “Collaboration is when you work together to meet a common goal”. When asked about her idea of collaboration. Shelly stated it is, “working together, sharing ideas and deciding on what fits, what works best based on all the ideas that have been thrown out. Nevertheless, the ideas of collaboration did not completely align with their collaborative practices at the time. The findings led me to conclude that while there was some form of collaboration already taking place within the grade level team, it needed to be enhanced particularly through the use of the suggested inquiry-based learning tools, which were designed not only increase the depth of inquiry on the team, but also to support deeper engagement and shared ownership.

After implementing the collaborative inquiry-based scaffolding tools, participants expressed that their levels of collaboration had increased. One participant even deepened her meaning of collaboration based on the new sense of teamwork that took place by the end of the study. She even stated that, “Collaboration is powerful when it happens. It is about sharing ideas and doing the work for students together”. Afterwards, she went on to explain that she believed that her team worked well together because they relied on each other to “find the best solutions for student learning based on their needs”. Not only did the depth of articulated understanding of collaboration change, but the actions of members changed too. The team became more collaborative. Findings show that there were also higher levels of shared responsibilities through the drafting of lesson plans, creation of common and formative assessments, and sharing of more ideas. For example, as discussed in Chapter Four, observational data shows that participants gathered to plan lessons for the week focused around the text *Gettysburg Address*. Each day, there were specific ELA standards that served as the focus for each day of the week. Following

the planning for the weekly lessons, the co-constructed a common assessment with all four members contributing to ideas of what should be included on the assessment. During this particular PLC meeting, all members were actively engaged in planning for student learning and assessment. Beyond this particular observation, participants were also observed engaging in higher level discussions, which included discussing their personal data, differentiation for multiple levels of students, and potential next steps to meet their students where they are. For example, observation 3 (Week 11), participants used the deep discussion protocol to discuss student data from a common assessment the students had taken previously. During the meeting, Lavender shared student concerns related to summarizing based on the student data. After sharing, Calaena discussed similar concerns while Shelly offered input about how she was working to overcome similar concerns in her classroom. Additional observation data shows participants referred to assessment data to create small groups across classes to better address students' needs based on identified standards (Observation 2, Week 8; Observation 3, Week 11). Through these processes, participants were able to learn more about how to serve their students in a more efficient manner.

Vygotsky's sociocultural theory can be connected to the themes of *Enhanced Collaboration* and *Heightened Levels of Shared Responsibility*. This is because through collaboration and interaction in a supportive environment, participants were able to collectively advance their knowledge, solve problems, build understanding, and shift one another's thinking, as discussed by Scardamalia and Bereiter (2016) and Nelson et al. (2010). Further, Allie's shift to distributed leadership, which together with the scaffolding tools, served as a catalyst for enhanced collaboration. This supports research, which urges that distributed leadership is especially impactful when it is connected to PLCs that highlight inquiry and reflection

(Donohoo, 2013; Harris, 2014). The distributed leadership that took place during the study also generated deep learning experiences that prompted the participants to become more skilled at adjusting their teaching practices to fit the needs of students, as also discussed by Darling-Hammond et al. (2017). Collaboration was increased due to a change in collaborative culture. Research conveys this positive enhancement of collaboration when distributed leadership is utilized. Leighwood et al. (2006) argued that distributed leadership helps to support collaboration as it minimizes dependence on a single person and enhances a culture of reflection and collaborative dialogue, which are both essential for inquiry-based learning cycles. In fact, Donohoo (2019) emphasizes that PLC meetings that are grounded in query can help to increase and enhance teacher efficacy, which is what was supported by findings in this study.

**Research Question 4: In what ways do collaborative inquiry-based scaffolds impact teachers' professional dispositions?**

Findings from the study helped to highlight a major theme, *Strengthening Capacity and Confidence*, as one that helped to answer the research question pertaining to the impact of collaborative inquiry-based learning tools on participants' professional dispositions. The major findings of this study capture notable growth in professional capacity, which has led to increases in confidence relating to collaboration, instructional decision making, and planning in the classroom and within PLC meetings. These changes were influenced by the implementation of scaffolding tools and opportunities for shared leadership and collaboration. These shifts are particularly significant given Sunrise Elementary's potential for growth and the strong commitment to improving student outcomes.

Key findings from observation, check-in meetings, and interviews reveal the growth in teachers' instructional skills. Participants were found to better understand the importance of data

and how to better utilize and connect it to their teaching. They were also able to move beyond plans provided or heavily guided by the PLC facilitator. Instead, collectively, they grew to be able to lead lesson planning sessions, breakdown standards, revise questions or tasks, share best practices or things that worked well in their classrooms, and plan for student misconceptions. In the second observation, all participants were found discussing celebrations and challenges related to teaching and learning. In the same observation, Allie had to step away to deal with an emergency. The PLC team did not stop planning because she left the room, rather a member of the team went to the front of the room and picked up where Allie had left off. She asked questions of her teammates pertaining to their thoughts about certain questions and about the focal text for the lesson. Another team member began typing in the lesson planning document once the team had agreed on activities and styles of questioning. The other participant looked for resources that would help students better connect to the text and activities that were asked of them. These examples reflect both shared ownership and a strengthening of participants' capacity. These practices directly align prior research which discusses how shared responsibility and ownership helps to build collective efficacy, which can directly relate to building teaching capacity.

In addition to being able to lead PLC meetings with and without the PLC facilitator, the level of PLC discussions also evolved. Thus, teachers asked more questions, engaged in deepened levels of data analysis and created rigorous tasks that prompted higher order thinking, which are all tenants of collaborative inquiry (Hoppe et al., 2021; Keselman, 2003). The structured and suggested collaborative inquiry-scaffolding tools, such as the Deep Discussion Protocol and Common Assessment Protocol, helped to support discourse and higher PLC engagement, which participants noted was significant for them. The tools served as guides for

participants, which were instrumental for leading them into deep learning and reflection. This directly aligns with Vygotsky's (1978) idea of mediated learning, as participants were engaged in guided through current practices and desired outcomes. Thus, when teachers used the tools, they became more independent with the work of student data analysis and planning, which shows some levels of internalization of inquiry-based learning practices in PLC meetings.

In addition to the increase of professional capacity, participants also discussed their heightened levels of confidence as a result of the collaborative inquiry-based scaffolding tools. For example, Calaena stated, "I feel pretty comfortable talking with each other and planning together, as a grade level, and sharing plans and sharing ideas". When discussing the deep discussion protocol, Shelly stated, "I am confident with analyzing the data and making a plan for students because we have done it a lot over the few weeks and no one had explained it to me before so it has made me better". Lavender shared the same similar sentiments by stating, "I now understand a little bit more about how to create assignments and questions related to the standards. But also understanding how to read what to do with the information versus just looking at, oh, they got these questions right or they have these questions wrong. I now know how to think through these things with my team to be able to make better assessments." Overall, Allie expressed changes that she realized in her teachers as it relates to confidence in collaboration, assessment creation, and deep discussions. These mentioned examples of heightened capacity possibly led to higher levels of teacher confidence, as discussed by Clarke et al. (2017). Additionally, due to higher levels of confidence, findings show that participants began to see better outcomes of students in their classrooms. This is likely due to an increase in clarity, intentionality, and collaborative preparation, which were supported using collaborative inquiry-based scaffolding tools. Although student outcomes were not directly measured in this study,

these teacher shifts demonstrate promising capacity for positively impacting student learning, particularly in a school context where growth opportunities are high. While the findings connected increase student learning and experiences are only perceived through the eyes of the participants and were not studied in depth by the researcher, participants were more confident in their teaching abilities, which can have a positive impact on student achievement (Darling-Hammond, 2016). Furthermore, the enhancement of capacity and confidence among participants aligns directly with Vygotsky's (1978) concept of the Zone of Proximal Development (ZPD). This is because through the guidance provided by the collaborative inquiry-based scaffolding tools, participants engaged in social interactions that assisted with cognitive development. This process allowed teachers to internalize new inquiry-based practices, implement them effectively, and observe their impact on teaching, leadership, and planning.

### **Connection to Theoretical Framework**

This research study was deeply grounded in Vygotsky's Sociocultural Theory (1934/1978). Vygotsky's theory focuses on the social and cultural aspects of learning (Cole & Smagorinsky, 1995; Vygotsky, 1934; Vygotsky, 1978;). A key component of this framework is the Zone of Proximal Development (ZPD), which represents the space between what one can do independently and what one can do with guidance. In this study, participants operated within the ZPD, with support from More Knowledgeable Others (MKO). The MKO was both the PLC facilitator, who guided participants through practices that promoted more intentional planning and instructional strategies, and the scaffolding tools, such as the roles, responsibilities, and norms, the deep discussion protocol, and the common assessment protocol, that provided structured guidance to support learning. This approach reflects Vygotsky's (1934/1978) idea that

learning is enhanced when individuals are guided by more skilled peers or mediated tools, which together form the MKO.

Collaborative PLC meetings are intended to be spaces for deep dialogue, intentional data analysis, and inquiry-based reflection, all grounded in a focus on collective responsibility (Donohoo, 2013; DuFour et al., 2004; Hord, 1997; Nelson et al., 2010). However, research confirms that teachers often do not enter PLCs with these skills fully developed. Although participants in this study demonstrated some surface-level collaboration, they required additional guidance to fully engage in collaborative inquiry cycles (Donohoo, 2017; DuFour, 2010; Nelson, 2018). As such, participants, while having some evidence of surface-level collaboration, needed additional guidance to be able to truly launch collaborative inquiry-based cycles. For this reason, collaborative inquiry-based learning tools served as mediated learning opportunities, helping teachers increase collaboration and understanding of instructional practices within PLC meetings. According to Cole (1996), learning processes are intrinsically cultural and are influenced by tools, including physical, symbolic, and social tools that mediate thinking and learning within a cultural context. In this study, collaborative inquiry-based scaffolding tools, such as discussion protocols, defined roles, and assessment frameworks, functioned as cultural learning tools, providing structure that mediated higher levels of collaboration and inquiry within PLC meetings. Thus, the tenet of mediated learning through cultural tools was evident in this study.

One of the scaffolding tools were the Roles, Responsibilities, and Norms Protocol. While it had some limitations, it helped establish clear norms and fostered shared responsibility among participants. These norms contributed to building a collaborative culture by creating structured opportunities for dialogue, reflection, and joint problem-solving, which supported participants in

internalizing new ideas and deepening their instructional thinking. These processes reflect Vygotsky's idea of cognitive development through socially mediated experiences. This aligned closely with Vygotsky's idea of sociocultural theory of learning (Smagorinsky, 2007; Wertsch, 1996). This is because these scaffolding tools provided structured opportunities for collaboration, reflection, and dialogue among participants. By engaging in these socially mediated interactions, teachers were able to share knowledge, discuss instructional strategies, and jointly solve problems. These interactions supported participants in internalizing new ideas and developing higher order thinking skills, creating a clear pathway for cognitive development. In addition to the Roles, Responsibilities, and Norms protocol, the Common Assessment and Deep Discussion protocols served as structured frameworks that intentionally guided participants through reflective and collaborative practices. The Common Assessment and Deep Discussion protocols specifically helped to foster opportunities for meaningful and intentional dialogue. In this context, the structured use of language within these protocols served as a learning tool, supporting participants' thinking, reflection, and collaborative problem solving, which aligns with Vygotsky's (1978) emphasis on language as a learning tool.

Through social interaction, higher mental functions are developed (Vygotsky, 1934). Thus, the findings suggest that deep levels of discussion and shared practices enhanced teachers' cognitive and instructional capacities. Close analysis of the data revealed that participants needed growth in their ability to engage in deep, intentional collaboration, design Common Assessments, and participate in structured discussions. However, with guided support within their Zone of Proximal Development (ZPD), these skills were strengthened over time. As a result, participants were not only able to extend their thinking but also refine their teaching practices. Each of the protocols provided participants with opportunities to connect with others'

thinking, extend their thinking and refine their engagement practices within PLC meetings. According to Moll (2014), the ZPD, which serves as a bridge between what one can do independently and what one can achieve with support, was evident throughout this study. This transition was demonstrated in the study because findings indicate that at the conclusion of the study, participants had progressed in the level of support needed to independently engage in deep collaboration, common assessment creation, data analysis, and structured discussions.

Vygotsky's theory of sociocultural learning was also present in this study as it relates to internalization. Findings indicate that participants were able to internalize new strategies from the inquiry-based scaffolding tools to enhance their instructional planning, discussion, and student learning experiences. Though participants navigated such tools collectively, they also were able to learn the processes independently, which also led to high levels of engagement and planning among PLC members. As a result, findings support that through the deep internalization of the suggested protocols, participants needed to rely on the mediated learning tools less frequently, which also shows movement through the ZPD. The process of internalization played a central role in this study as participants' collaborative experiences altered their thinking, planning, and how they processed information discussed in PLC meetings on their own.

In all, this study was closely connected and grounded in Vygotsky's Sociocultural Theory. Through scaffolding tools leading participants through layers of the ZPD, levels of professional capacity and confidence were strengthened. By fostering collaborative scaffolding tools within PLC meetings, educators were able to enhance their current learning practices to higher levels, which ultimately has the potential to improve student outcomes, which was also a perceived outcome from participants. Ultimately, participants' professional learning was greatly

enhanced through social interaction and culturally situated collaboration. As such, this research study reveals that the tenets of Vygotsky's Sociocultural Theory were evident in participants' experiences using the recommended scaffolding tools.

### **Implications for Professional Practice**

The aim of this study was to address a gap in the existing literature concerning scaffolding tools for launching collaborative inquiry within low-performing elementary school settings. The findings from this single case study have significant implications for professional practice, particularly for school leaders, instructional coaches, and facilitators who support PLCs in urban, low-performing elementary schools. As such, this PLC team embodied a sense of urgency over time, due to their low-performing status, which possibly influenced how scaffolding tools were implemented and adapted. Through this, the important role of contextual pressures was also realized in shaping the collaborative inquiry processes. The findings indicate that when collaborative inquiry is supported by scaffolding tools, educators and leaders can focus more on instructional problems of practice, interact more intently with student data, and sustain purposeful, focused discussions. More specifically, the study reveals that the use of scaffolding tools, such as protocols, discussion question stems, and reflection guides, can help promote teacher engagement and support inquiry-based professional learning. In addition to expanding educators' participation in such practices, the tools can also be useful for building or shifting collaborative cultures within PLC meetings, as study findings highlight. The aim of this study was to address a gap in the existing literature concerning scaffolding tools for launching collaborative inquiry within low-performing elementary school settings. The findings from this single case study have significant implications for professional practice, particularly for school leaders, instructional coaches, and facilitators who support PLCs in urban, low-performing

elementary schools. As such, the important role of contextual pressures was also realized in shaping the collaborative inquiry processes. The findings indicate that when collaborative inquiry is supported by scaffolding tools, educators and leaders can focus more on instructional problems of practice, interact more intently with student data, and sustain purposeful, focused discussions. More specifically, the study reveals that the use of scaffolding tools, such as protocols, discussion question stems, and reflection guides, can help promote teacher engagement and support inquiry-based professional learning. In addition to expanding educators' participation in such practices, the tools can also be useful for building or shifting collaborative cultures within PLC meetings, as study findings highlight. Although this study primarily focused on classroom teachers and one instructional coach, there is evidence that the scaffolding tools explored also have potential for other practitioners, such as interventionists, school administrators, and MTSS teams. These stakeholders often participate in similar data-driven conversations and reflective practices, which suggests that the protocols supporting structured dialogue, clear roles, and reflection could be adapted to meet their collaborative needs as well. With this in mind, this research contributes to the literature by outlining when, how, and why to utilize collaborative inquiry-based scaffolding tools to enhance collaboration, depth of discussion, and reflection. As such, the chart in Table 4 can be used by individuals leading or participating in PLC meetings. Based on these findings, this research contributes to the literature by outlining when, how, and why to use collaborative inquiry-based scaffolding tools to enhance collaboration, depth of discussion, and reflection. As such, the chart in Figure 5.1 can be used by individuals leading or participating in PLC meetings.

Table 5.1

*Intended Uses of Scaffolding Tools for PLC Meetings*

Scaffolding Tool	Purpose/ Function	Intended Users	When to Use	Intended Outcomes
Roles, Responsibilities, & Norms	The purpose of the Roles, Responsibilities, and Norms protocol is to establish clear expectations for PLC member engagement. It promotes structured collaboration and accountability among team members within PLC meetings.	-Newly formed, emerging, or existing PLC teams.  <b>Note:</b> Norms are useful for all PLC teams.	-At the beginning of the school year or the launch of a new PLC cycle.  - Throughout the year, as needed, to reset expectations or adjust roles and responsibilities.  - When conflict or misalignment arises related to shared goals or team norms.  - When existing PLC teams need reminders of norms and responsibilities.	- Increased levels of collaboration.  - Clear and shared expectations for PLC meetings.  - Strengthened shared responsibility and accountability.  - Greater consistency and productivity in PLC discussions.  - Enhanced overall PLC culture.
Common Assessment Protocol	The purpose of the Common Assessment Protocol is to guide teams in designing and analyzing common assessments. The protocol allows teams to identify students' learning needs, assess student mastery, and inform instruction.	Grade-level or content-area PLC teams.  Practitioners who work collaboratively to design aligned assessments and make instructional decisions based on shared outcomes.	- Beginning of unit  - Mid-unit checkpoints  - End of unit  - End of instructional quarters or semesters	- Alignment of instructional goals across teams  - Collaborative data analysis and decision-making  - Shared responsibility for student success  - Consistent expectations and practices across classrooms.
Deep Discussion Protocol	The purpose of the Deep Discussion Protocol is to guide intentional, focused, and reflective dialogue that promotes deeper understanding of teaching practices, student data, and student learning outcomes.	All PLC teams  Instructional coaches and teacher leaders  School administrators  MTSS teams  Interventionists	- During PLC meetings focused on improving instruction  - When reflecting on student outcomes  - After assessments  - During data review cycles  - Following instructional units  - During intervention planning meetings	- Intentional collaborative reflection and dialogue - Collective problem-solving - Improved instructional practices - Deeper understanding of students' learning needs

The findings previously discussed align with research by Donohoo (2013), which asserts that many teachers are unfamiliar with participating in collaborative inquiry cycles and, as a result, require scaffolding tools to support in-depth discussions, clarify roles and responsibilities,

and guide data protocols. Additionally, DuFour and Eaker's (1998) work aligns with Donohoo's, which argues that structured collaboration and collective inquiry can positively impact school improvement. To this end, this study supported teachers with limited prior experience in collaborative practices by introducing scaffolding tools that enhanced the quality of their discussions, promoted shared responsibility, and fostered data-driven decision-making. These tools also helped teachers identify where students were in their learning, differentiate instruction based on student needs, and use those insights to inform instructional adjustments, which has the potential to contribute to overall school improvement. While existing research provides the need for scaffolding tools to facilitate meaningful collaborative work among teachers, this study also supports the need for flexibility in order to be most effective for different PLC meetings (Donohoo, 2013; Nelson et al., 2010). In this case, flexibility surrounding the use of the Deep Discussion Protocol (APPENDIX O) was realized as Allie chunked the set of questions/prompts that participants focused on at a time to avoid overwhelming them. Additionally, the findings suggest that the Roles, Responsibilities, and Norms protocol (APPENDIX M) served as a flexible guide and model for generating collaboration and shared responsibilities due to its prescriptive nature and the time of year it was utilized. Aside from the flexibility of scaffolding tool implementation, the literature discussed the importance of structured norms (Horn & Little, 2010; McDonald et al., 2013). As such, findings suggest that the team engaged in more collaborative practices as a result of implementing shared norms and due to the existing team culture. This also confirms what is argued in the literature about tools being most effective when they can build on a team's evolving identity and culture (Donohoo, 2013; Meeuwesen et al., 2020).

Beyond the process of implementing collaborative inquiry-based scaffolding tools, this study poses implications for PLC facilitators who wish to lead PLC members through collaborative inquiry-based learning processes within PLC meetings. Findings from this study reveal ways that the PLC facilitator adjusted and customized scaffolding tools based on the culture and needs of the team she was leading. The facilitator's knowledge and understanding of the team's needs, personalities, and strengths were considered to be a useful strategy for other facilitators leading teams through collaborative inquiry in PLC meetings. These findings align directly with existing research, emphasizing the need for facilitators to lead by setting clear goals, encouraging and guiding in-depth conversations, and focusing on student data to inform decisions. Additionally, findings indicate that the facilitator adjusted the tools to fit the needs of her team (Donohoo, 2013; Nelson et al., 2010).

Another implication of this study is related to how collaborative inquiry affects professional capacity and confidence. In this study, all members reported an increase in their knowledge and ability to engage in deep discussions, reflect, and create meaningful learning experiences and tasks, as well as take part in shared responsibilities with greater confidence. While such opportunities can enhance educators' ability to improve instructional planning and decision-making, they also have a direct impact on students' academic performance, which can help reduce academic disparities compared to other high-performing schools. These findings support existing literature, which argues that PLCs should be grounded in collaborative inquiry to not only improve instructional practices but also to strengthen instructional capacity and student outcomes. As the findings indicate that the inquiry-based scaffolding tools helped teachers build confidence in a high-need setting, this study offers valuable insights into how to support other educators in developing similar capacities to improve student outcomes. Overall,

this study emphasizes the significance of utilizing collaborative inquiry-based scaffolding tools within an urban, low-performing school context. By supporting PLC members in engaging in in-depth discussions, analyzing student data, and creating assessments, these tools offer opportunities to enhance teacher capacity, confidence, and overall school improvement. In all, these findings offer valuable information to similar schools that are seeking to strengthen their PLC processes in efforts to improve student learning outcomes.

### **Limitations**

Several limitations to my study should be considered. First, my case study is not generalizable to all schools or PLC teams. While case studies extensively emphasize the exploration of a program, event, activity, process, or individuals (Creswell, 2014), they are limited in their generalizability (Merriam, 1998). Due to my study taking place at a single school and focusing on a single grade level, its results cannot be generalized to other contexts. However, my study does contribute to the existing research on collaborative inquiry cycles, PLCs, and collaboration by describing the use and impact of research-based scaffolds. Additionally, my study builds on existing literature by examining the usefulness of such scaffolds at the elementary level. Furthermore, my study adds to the literature by focusing specifically on English Language Arts PLC meetings in an urban, low-performing school.

Another limitation of my study is its timing. It began in early February and lasted twelve weeks, meaning it was implemented midyear. By this point in the academic year, participants had already developed some routines and working relationships. As such, certain scaffolding tools, such as the roles and responsibilities protocol, may have been more difficult to implement due to participants already established informal systems. In this way, some of the tools may have functioned more as reminders than foundational supports. Additionally, the findings indicated

that a level of collaboration had already been established among the participants in my study, which may have influenced how easily the team engaged in the inquiry cycle or adopted scaffolding support.

Social desirability bias was also a potential limitation. The third-grade PLC team, comprising both teachers and the facilitator, may have felt obligated to produce favorable outcomes due to my involvement. Although participation was voluntary, I had previously served as the assistant principal to the participants. While that role had ended before my study began, the prior relationship may have unintentionally influenced participants' behavior or responses during my study. This potential influence was monitored through my ongoing use of reflexivity practices throughout the research process. In addition, my study was limited by its focus on teacher learning and development, rather than student achievement or academic outcomes. While participant reflections indicated growth in professional capacity and collaborative engagement, the study did not directly measure the impact on student learning.

The methods of data collection present another set of limitations. Document analysis, for example, can sometimes lack depth or detail (Bowen, 2009; Yin, 1994). Some documents may not have offered sufficient insight into participants' thought processes. To mitigate this limitation, I used triangulation through multiple data sources, including observations, reflections, and interviews. Despite these strategies, there remains the possibility that some scaffolding tools identified as helpful in this grade-level PLC may not be effective in other contexts due to variations in participants' personalities, attitudes, and dispositions toward collaboration. Lastly, access to certain pieces of data may have been constrained. For example, some documents may not have been created or submitted, such as meeting minutes or lesson plans, which could have

provided additional insight. Nonetheless, I made every effort to collect and analyze the most relevant and available data for this case study.

### **Recommendations for Further Research**

While this study aims to investigate the usefulness of scaffolds engaging in collaborative inquiry cycles in PLCs, there is still more research needed regarding scaffolds that lead to the sustainability of collaborative inquiry cycles over time. Future research investigating additional scaffolding protocols could expand the chart in Figure 5.1. Thus, researchers can explore whether there is an optimal duration during which collaborative inquiry-based scaffolding tools are most effective within PLC meetings. Additionally, there are further opportunities to study additional scaffolding tools, beyond those implemented in this study, that may help educators sustain collaborative inquiry cycles after they are launched. Further research can also be conducted regarding the sustainability and long-term effects of collaborative inquiry-based scaffolding tools. Such research may provide a better understanding of the practicality and impact of scaffolding tools, as well as the steps needed to implement such tools within other PLC meetings.

During this study, all participants engaged in two interviews. During these interviews, they were asked about their perceptions of the scaffolding tools and how the tools may have impacted them as educators and collaborators. Still, this case study did not include interviews with all participants after the implementation of each scaffolding tool. To this extent, further research can investigate the internalization process during and after the implementation of scaffolding tools more closely. Additionally, more research can be conducted on implementing scaffolding tools in schools that are not urban and/or low-performing, and in PLC meetings composed of teams that do not already have some degree of collaboration present. Further,

additional research is needed, specifically on the role of interventionists and their impact on sustaining collaborative inquiry cycles.

While this study reveals some of the impacts of implementing collaborative inquiry-based scaffolding tools within PLC meetings, further research can be conducted regarding the impact on student learning outcomes. While the findings from this study may suggest improved teacher capacity and confidence levels, there is no proven data that indicates long-term student learning outcomes. Thus, a mixed-method approach can be used to link the effectiveness of scaffolds in collaborative PLCs to the academic achievement levels of students after teachers have engaged in collaborative inquiry within low-performing elementary school settings. These areas of research will help to contribute to the field of professional development and, more specifically, to the effectiveness of PLC meetings.

### **Summary**

This single case study explored the implementation of collaborative inquiry-based scaffolding tools within PLC meetings in an urban, low-performing elementary school. The purpose of this study was to investigate the development, perceptions, and impact of research-based scaffolds for engaging in collaborative inquiry cycles within PLC meetings. This chapter discussed the major findings and the connections to literature and Vygotsky's sociocultural theory. Findings revealed that the participants found the scaffolding tools to be largely effective, as they helped to enhance collaboration, structure deep and meaningful discussions, aid in reflection, and offer opportunities for collective problem-solving. Still, while some portions of the scaffolding tools offered some limitations, participants' capacity and confidence were still increased. This guided process was useful in helping teachers navigate their personal ZPD, which ultimately led to the internalization (Vygotsky, 1978). Additionally, this study

demonstrated the effectiveness of social interaction in promoting higher levels of learning among participants, thereby serving as a bridge between mediated learning and professional development. I began this study by stating that collaboration does not just happen; it must be meaningfully crafted. With this in mind, these tools, which were crafted to help educators launch and engage in collaborative inquiry, were helpful in enhancing collaborative practices and inquiry.

This section also discusses areas for further research. Further research is needed to understand how these tools support the long-term sustainability of inquiry cycles within PLC meetings. Additionally, it may be useful to investigate how long scaffolding tools should be used, what else will help the team in their collaborative work, and how teachers continue to use what they have learned over time to impact student learning. There is also a need to examine the use of collaborative inquiry scaffolding tools in non-urban or higher-performing schools and in PLCs with emerging levels of collaboration. Lastly, future research should also explore potential links between collaborative inquiry-based scaffolding tools and student learning outcomes using a mixed-method approach. In all, these opportunities for further research can expand the knowledge around effective PLC practices and professional development.

In addition to discussing the major findings and their connections to prior literature and Vygotsky's sociocultural theory, this chapter also addresses limitations and provides recommendations for further research. It is intended that this research will add to prior research and lessen the gap related to collaborative inquiry cycles and ways to guide educators through the collaborative inquiry, launching collaborative inquiry within PLCs in urban low-performing elementary schools. In all, there is more work to be done as the quest for continuous teacher guidance and professional development remains a critical concern in the field of education.

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## APPENDIX A: PLC MEMBER IN-PERSON RECRUITMENT SCRIPT

**It Shouldn't be Just Another Meeting: Using Scaffolding Tools to Foster Purposeful Collaborative Inquiry in Urban, Low-Performing Elementary Professional Learning Community Meetings****PLC Member**

Shameka Jones, a Ph.D candidate in the Curriculum and Instruction program is actively seeking participants for her dissertation study. She is interested in understanding how to use collaborative inquiry-based scaffolds to launch collaborative inquiry cycles in urban low-performing elementary settings. She is also interested in understanding members' perceptions of collaborative inquiry scaffolds once implemented. You are invited to participate in this qualitative case study. Participants will meet with Shameka Jones over the course of twelve (12) weeks to participate in two one-on-one interviews and three PLC meeting observations.

Throughout this study, participants will be asked to:

- Engage in an initial one-on-one interview during the first week of the study, which will be held virtually on Zoom. The initial interview will last between 30-40 minutes and will be scheduled at your convenience. This interview will be recorded and stored in a safe and secure location for transcription purposes. After the successful dissertation defense of the researcher, all identifiable recordings and transcriptions will be destroyed.
- Allow the researcher to observe three of the PLC meetings over the course of three months. During this observation, Shameka Jones will be observing the use of collaborative-inquiry scaffolds within the PLC meeting and participants' responses to those scaffolds.
- Engage in a final one-on-one interview during the final week of the study. This interview will also be held virtually using Zoom and will be recorded. The final interview will last between 45-60 minutes and will be scheduled at your convenience. The final interview will be recorded and stored in a safe and secure location for transcription purposes. After the successful dissertation defense of the researcher, all identifiable recordings and transcriptions will be destroyed.
- Share PLC minutes with the researcher. The meeting minutes will be used as also assess the use of collaborative inquiry scaffolds in PLC meetings
- Engage in member-checking activities, which includes verifying wording from interviews and reviewing overall study findings.

Your decision to participate in this study is strictly voluntary. The findings from this study will have no direct consequences to your job as an educator. Additionally, the findings from this study will help to better understand useful scaffolds for engaging in collaborative inquiry PLC meetings. Your participation will be helpful for completing this dissertation work. The researcher will not report a participant's name in her writing of the findings. Still, it is important to note that due to the small number of participants in this study and regular occurrence of PLC meetings within this school, your participation

can be deduced if a participant from the school reads the final report of the findings. To protect the privacy of participants, pseudonyms will be used to protect your identity and your real identity will not be disclosed at any time during the study. Additionally, the researcher will be mindful to write the findings in a way that protects your privacy as a participant.

To participate in this study, you must:

- Be 18 years of age or older.
- Must be a third grade teacher at the proposed elementary school.
- Must be a third grade teacher in the proposed PLC

If you meet the criteria for participation as indicated above and are interested in participating in the research study, please let me know within 48 hours. Following your request to participate, I will physically give you a research consent form for your review. Once received, please sign and complete the information indicated on the form. If you do not wish to participate, please let me know. Please remember that participation in this study is voluntary.

If you have questions or concerns, please contact Shameka Jones at [sjone284@charlotte.edu](mailto:sjone284@charlotte.edu).

## APPENDIX B: PLC MEMBER IN-PERSON RECRUITMENT SCRIPT

### **It Shouldn't be Just Another Meeting: Using Scaffolding Tools to Foster Purposeful Collaborative Inquiry in Urban, Low-Performing Elementary Professional Learning Community Meetings**

#### **PLC Facilitator**

Shameka Jones, a Ph.D candidate in the Curriculum and Instruction program is actively seeking participants for her dissertation study. She is interested in understanding how to use collaborative inquiry-based scaffolds to launch collaborative inquiry cycles in urban low-performing elementary settings. She is also interested in understanding members' perceptions of collaborative inquiry scaffolds once implemented. You are invited to participate in this qualitative case study. Participants will meet with Shameka Jones over the course of 12 weeks to participate in two one-on-one interviews and three PLC meeting observations.

Throughout this study, participants will be asked to:

- Engage in an initial one-on-one interview during the first week of the study, which will be held virtually on Zoom. The initial interview will last no longer than 40 minutes and will be scheduled at your convenience. This interview will be recorded and stored in a safe and secure location for transcription purposes. After the recording is transcribed, it will be destroyed.
- Allow the researcher to observe three of the PLC meetings over the course of three months. During this observation, Shameka Jones will be observing the use of collaborative-inquiry scaffolds within the PLC meeting and participants' responses to those scaffolds.
- Engage in a final one-on-one interview during the final week of the study. This interview will also be held virtually using Zoom and will be audio-recorded. The final interview will last no more than 60 minutes and will be scheduled at your convenience. The final interview will be recorded and stored in a safe and secure location for transcription purposes. After the successful dissertation defense of the researcher, all identifiable recordings and transcriptions will be destroyed.
- Engage in three facilitator check-in meetings with the researcher. The check-in meetings will last between no more than 45 minutes and will take place on Zoom. Check-in meetings will be recorded and stored in a safe and secure location for transcription purposes. After the successful dissertation defense of the researcher, all identifiable recordings and transcriptions will be destroyed.
- Share PLC minutes with the researcher. The meeting minutes will be used as also assess the use of collaborative inquiry scaffolds in PLC meetings
- Engage in member-checking activities, which includes verifying wording from interviews and check-in meetings and reviewing overall study findings.

Your decision to participate in this study is strictly voluntary. The findings from this study will have no direct consequences to your job as an educator. Additionally, the

findings from this study will help to better understand useful scaffolds for engaging in collaborative inquiry PLC meetings. Your participation will be helpful for completing this dissertation work. The researcher will not report a participant's name in her writing of the findings. Still, it is important to note that due to the small number of participants in this study and regular occurrence of PLC meetings within this school, your participation can be deduced if a participant from the school reads the final report of the findings. To protect the privacy of participants, pseudonyms will be used to protect your identity and your real identity will not be disclosed at any time during the study. Additionally, the researcher will be mindful to write the findings in a way that protects your privacy as a participant.

To participate in this study, you must:

- Be 18 years of age or older.
- Must be a third grade teacher at the proposed elementary school.
- Must be a facilitator in the proposed third grade PLC meetings.

If you meet the criteria for participation as indicated above and are interested in participating in the research study, please let me know within 48 hours. Following your request to participate, I will physically give you a research consent form for your review. Once received, please sign and complete the information indicated on the form. If you do not wish to participate, please let me know. Please remember that participation in this study is voluntary.

If you have questions or concerns, please contact Shameka Jones at [sjone284@charlotte.edu](mailto:sjone284@charlotte.edu).

APPENDIX C: PLC FACILITATOR EMAIL RECRUITMENT SCRIPT

**It Shouldn't be Just Another Meeting: Using Scaffolding Tools to Foster Purposeful Collaborative Inquiry in Urban, Low-Performing Elementary Professional Learning Community Meetings**  
**PLC Facilitator**

Dear (participant's name),

My name is Shameka Jones. I am a Ph.D candidate in the Curriculum and Instruction program at the University of North Carolina at Charlotte. I am actively seeking participants for my dissertation study pertaining to collaborative inquiry in PLC meetings. More specifically, I am interested in understanding how to use collaborative inquiry-based scaffolds to launch collaborative inquiry cycles in urban low-performing elementary settings. I am also interested in understanding members' perceptions of collaborative inquiry scaffolds once implemented. I am cordially inviting you to participate in this qualitative case study. During this study, I will meet with you over the course of 12 weeks to participate in two one-on-one interviews, three PLC meeting observations, and three check-in meetings.

Throughout this study,, you will be asked to:

- Engage in an initial one-on-one interview during the first week of the study, which will be held virtually on Zoom. The initial interview will last no more than 40 minutes and will be scheduled at your convenience. This interview will be recorded and stored in a safe and secure location for transcription purposes. After the successful defense of my dissertation, this recording and transcriptions will be destroyed.
- Allow me as the researcher to observe three of the PLC meetings over the course of three months. During this observation, I will observe the use of collaborative-inquiry scaffolds within the PLC meeting and participants' responses to those scaffolds.
- Engage in a final one-on-one interview during the final week of the study. This interview will also be held virtually using Zoom and will be recorded. The final interview will last no more than 60 minutes and will be scheduled at your convenience. The final interview will be recorded and stored in a safe and secure location for transcription purposes. After the successful dissertation defense of the researcher, all identifiable recordings and transcriptions will be destroyed.
- Engage in three facilitator check-in meetings with the researcher. The check-in meetings will last no more than 45 minutes and will take place on Zoom. Check-in meetings will be recorded and stored in a safe and secure location for transcription purposes. After the successful dissertation defense of the researcher, all identifiable recordings and transcriptions will be destroyed.
- Share PLC minutes with me. The meeting minutes will be used as also assess the use of collaborative inquiry scaffolds in PLC meetings
- Engage in member-checking activities, which includes verifying wording from interviews and check-in meetings and reviewing overall study findings.

Your decision to participate in this study is strictly voluntary. The findings from this study will have no direct consequences to your job as an educator. Additionally, the findings from this study will help to better understand useful scaffolds for engaging in collaborative inquiry PLC meetings. Your participation will be helpful for completing this dissertation work. As the researcher, I will not report a participant's name in her writing of the findings. Still, it is important to note that due to the small number of participants in this study and regular occurrence of PLC meetings within this school, your participation can be deduced if a participant from the school reads the final report of the findings. To protect the privacy of participants, pseudonyms will be used to protect your identity and your real identity will not be disclosed at any time during the study. Additionally, I will be mindful to write the findings in a way that protects your privacy as a participant.

To participate in this study, you must:

- Be 18 years of age or older.
- Must be a third grade teacher at the proposed elementary school.
- Must be a facilitator in the proposed third grade PLC meetings.

If you meet the criteria for participation as indicated above and are interested in participating in the research study, please let me know via email. Following your request to participate, I will send you a copy of the consent form through docusign. If you do not wish to participate, please also let me know by replying to this email. Please remember that participation in this study is voluntary.

Please let me know if you have any questions or concerns.

Best,  
Shameka Jones

## APPENDIX D: PLC MEMBER EMAIL RECRUITMENT SCRIPT

**It Shouldn't be Just Another Meeting: Using Scaffolding Tools to Foster Purposeful Collaborative Inquiry in Urban, Low-Performing Elementary Professional Learning Community Meetings**  
**PLC Member**

Dear (participant's name),

My name is Shameka Jones. I am a Ph.D candidate in the Curriculum and Instruction program at the University of North Carolina at Charlotte. I am actively seeking participants for my dissertation study pertaining to collaborative inquiry in PLC meetings. More specifically, I am interested in understanding how to use collaborative inquiry-based scaffolds to launch collaborative inquiry cycles in urban low-performing elementary settings. I am also interested in understanding members' perceptions of collaborative inquiry scaffolds once implemented. I am cordially inviting you to participate in this qualitative case study. During this study, I will meet with you over the course of 12 weeks to participate in two one-on-one interviews and three PLC meeting observations.

Throughout this study,, you will be asked to:

- Engage in an initial one-on-one interview during the first week of the study, which will be held virtually on Zoom. The initial interview will last no more than 40 minutes and will be scheduled at your convenience. This interview will be recorded and stored in a safe and secure location for transcription purposes. After the successful dissertation defense of the researcher, all identifiable recordings and transcriptions will be destroyed.
- Allow me as the researcher to observe three of the PLC meetings over the course of three months. During this observation, I will observe the use of collaborative-inquiry scaffolds within the PLC meeting and participants' responses to those scaffolds.
- Engage in a final one-on-one interview during the final week of the study. This interview will also be held virtually using Zoom and will be recorded. The final interview will last no more than 60 minutes and will be scheduled at your convenience. The final interview will be recorded and stored in a safe and secure location for transcription purposes. After the successful dissertation defense of the researcher, all identifiable recordings and transcriptions will be destroyed.
- Share PLC minutes with me. The meeting minutes will be used to assess the use of collaborative inquiry scaffolds in PLC meetings.
- Engage in member-checking activities, which includes verifying wording from interviews and check-in meetings and reviewing overall study findings.

Your decision to participate in this study is strictly voluntary. The findings from this study will have no direct consequences to your job as an educator. Additionally, the findings from this study will help to better understand useful scaffolds for engaging in collaborative inquiry PLC meetings. Your participation will be helpful for completing this dissertation work. As the researcher, I will not report a participant's name in her

writing of the findings. Still, it is important to note that due to the small number of participants in this study and regular occurrence of PLC meetings within this school, your participation can be deduced if a participant from the school reads the final report of the findings. To protect the privacy of participants, pseudonyms will be used to protect your identity and your real identity will not be disclosed at any time during the study.

Additionally, I will be mindful to write the findings in a way that protects your privacy as a participant.

To participate in this study, you must:

- Be 18 years of age or older.
- Must be a third grade teacher at the proposed elementary school.

If you meet the criteria for participation as indicated above and are interested in participating in the research study, please let me know via email. Following your request to participate, I will send you a copy of the consent form through docusign. If you do not wish to participate, please also let me know by replying to this email. Please remember that participation in this study is voluntary.

Please let me know if you have any questions or concerns.

Best,

Shameka Jones

## APPENDIX E: IN-PERSON RECRUITMENT FOLLOW-UP EMAIL SCRIPT

Dear \_\_\_\_\_,

It was great meeting with you on (date of original recruitment conversation). While you are still making your decision regarding your participation in my research study on collaborative inquiry PLC meetings, I wanted to check back in with you to see if you had any further questions or concerns. Is there anything that I can clarify for you that will aid in your decision regarding your participation in my study. Again, your participation is voluntary and I am happy to answer any questions you may have. Have a great day!

Sincerely,  
Shameka Jones

## APPENDIX F: EMAIL RECRUITMENT FOLLOW-UP EMAIL SCRIPT

Dear \_\_\_\_\_,

I am emailing to follow up on an email sent pertaining to your participation in my research study. While you are still making your decision regarding your participation in my research study on collaborative inquiry PLC meetings, I wanted to check back in with you to see if you had any further questions or concerns. Is there anything that I can clarify for you that will aid in your decision regarding your participation in my study. Again, your participation is voluntary and I am happy to answer any questions you may have. Have a great day!

Sincerely,  
Shameka Jones

## APPENDIX G: PLC MEMBER INITIAL INTERVIEW PROTOCOL

### **Initial Interview Protocol for PLC Members**

Thank you for taking the time out to participate in my research study. Our discussion will be no more than 40 minutes long. The purpose of our discussion today is to understand who you are as an educator and how you perceive collaboration and the current work of your grade level professional learning community.

I would like to record our discussion on Zoom as it will be very useful for my study. I will also be utilizing the Zoom transcription feature to create a verbatim written document of our discussion. I will check and confirm the accuracy of words stated in this interview by first listening to the recording and ensuring the accuracy of recorded words and then by confirming what has been transcribed with you, the participant. Following the recording of this interview, I will store it in a safe location on my UNC-Charlotte google drive. I will be the only person to listen to this recorded interview. The recording and transcriptions will be destroyed after the successful defense of my dissertation.

This is a semi-structured qualitative interview, which includes open-ended questions. At any time in the interview, the interviewer may ask probing or clarifying questions in efforts to understand responses, gain a deeper understanding, or confirm responses from the interviewee. Please know that the discussion today is confidential in nature. When I write the report, you will be assigned a pseudonym, which will be used throughout the study. Pseudonyms will help to add a layer of confidentiality to your identification. At any time during the interview, you may stop me and/or decline participation in the interview. Do you have any questions before beginning the interview?

#### **Warm-up questions**

- Tell me a little about yourself and your professional background?
- How long have you been in education?
- What led you to education?
- What do you like most about being a teacher?
- Tell me about the context of your school.

#### **Collaboration**

- How do you view collaboration?
- Tell me about collaboration in your school or grade level?
- How does collaboration help you in your instructional planning?
- How do you view collaborative planning?

#### **Professional Learning Communities**

- Tell me about your understanding of professional learning community meetings.
- What does a typical day in a PLC meeting look or sound like?

**Collaborative Inquiry**

- How would you define collaborative inquiry?
- What does collaborative inquiry look like in your PLC?
- How often does your PLC team discuss student data?
- Tell me about what you do when you find that some of your students did not understand a task?
- How does working in an urban low-performing school impact the work of collaborative inquiry engagement?
- How does working in a low-performing school determine the work you prioritize in PLC meetings?

**Wrapping up**

- On a scale of 1-5 with 1 being no confidence and 5 being high confidence, Tell what is your confidence level leading and engaging in collaborative inquiry PLC meetings.
- Is there anything you like to share about collaboration or Professional Learning Communities?

## APPENDIX H: PLC FACILITATOR INITIAL INTERVIEW PROTOCOL

### **Initial Interview Protocol for PLC Facilitator**

Thank you for taking the time out to participate in my research study. Our discussion should take no longer than 45 minutes. The purpose of our discussion today is to understand who you are as an educator and how you perceive collaboration and the current work of the third-grade level professional learning community.

I would like to record our discussion on Zoom as it will be very useful for my study. I will also be utilizing the Zoom transcription feature to create a verbatim written document of our discussion. I will check and confirm the accuracy of words stated in this interview by first listening to the recording and ensuring the accuracy of recorded words and then by confirming what has been transcribed with you, the participant. Following the recording of this interview, I will store it in a safe location on my UNC-Charlotte google drive. I will be the only person to listen to this recorded interview. The recording and transcriptions will be destroyed after the successful defense of my dissertation.

This is a semi-structured qualitative interview, which includes open-ended questions. At any time in the interview, the interviewer may ask probing or clarifying questions in efforts to understand responses, gain a deeper understanding, or confirm responses from the interviewee. Please know that the discussion today is confidential in nature. When I write the report, you will be assigned a pseudonym, which will be used throughout the study. Pseudonyms will help to add a layer of confidentiality to your identification. At any time during the interview, you may stop me and/or decline participation in the interview. Do you have any questions before beginning the interview?

### **Warm-up questions**

- Tell me a little about yourself and your professional background?
- How long have you been in education?
- What led you to education?
- What do you like most about being an instructional coach?

### **Collaboration**

- How do you view collaboration?
- How do you view collaborative planning?
- How would you define collaborative inquiry?
- Tell me about collaboration within third-grade PLC meetings?
- Would you say there are any challenges with collaboration on the grade level team?
- What is your understanding of inquiry?

- Do you think the grade level needs support to effectively engage in collaborative inquiry PLCs?

### **Professional Learning Communities**

- Tell me about your understanding of professional learning community meetings.
- How does a typical day in a third-grade PLC meeting look or sound?

### **Common Assessments & Data Analysis**

- Does the team create or use common assessments?
- How often does the grade-level PLC team discuss assessment data?
- How confident do you think the grade level is analyzing data?
- How comfortable do you feel PLC members are discussing their ideas, data, and students?

### **Wrapping up**

- What reservations, if any, do you have about leading PLC members through collaborative inquiry scaffolds?
- On a scale of 1-5 with 1 being no confidence and 5 being high confidence, what is your confidence level leading and engaging in collaborative inquiry PLC meetings.
- Is there anything you like to share about your experiences being a PLC facilitator for third grade PLC meetings

## APPENDIX I: PLC MEMBER FINAL INTERVIEW PROTOCOL

### **Final Interview Protocol for PLC Members**

Thank you for taking the time out to participate in my research study. Our discussion should take no longer than 60 minutes. The purpose of our discussion today is to understand how collaborative inquiry scaffolds have affected your PLC meetings and to discover the perception of the research-based scaffolds utilized.

I would like to record our discussion on Zoom as it will be very useful for my study. I will also be utilizing the Zoom transcription feature to create a verbatim written document of our discussion. I will check and confirm the accuracy of words stated in this interview by first listening to the recording and ensuring the accuracy of recorded words and then by confirming what has been transcribed with you, the participant. Following the recording of this interview, I will store it in a safe location on my UNC-Charlotte google drive. I will be the only person to listen to this recorded interview. The recording and transcriptions will be destroyed after the successful defense of my dissertation.

This is a semi-structured qualitative interview, which includes open-ended questions. At any time in the interview, I may ask probing or clarifying questions in efforts to understand responses, gain a deeper understanding, or confirm responses from the interviewee. Please know that the discussion today is confidential in nature. When I write the report, you will use the previously assigned pseudonym, which has been used throughout the study. Pseudonyms were used to add a layer of confidentiality to your identification. At any time during the interview, you may stop me and/or decline participation in the interview. Do you have any questions before beginning the interview?

#### **Warm-up questions**

- One a scale of 1-5 with 1 being no confidence and 5 being high confidence, what is your confidence level now engaging in collaborative inquiry PLC meetings.

#### **Collaboration**

- How has your perception of collaboration changed since the beginning of the study?
- In what ways do you and your colleagues collaborate in PLC meetings to enhance student learning?
- How does your grade level PLC engage in collaborative inquiry?
- How has collaborative inquiry changed the way you plan or teach your students?

#### **Roles, Responsibilities, and Norms**

- Tell me about your role and responsibilities in PLC meetings?
- What is your perception of roles and responsibilities for PLC members?
- Tell me about the PLC's meeting norms?

- Has the PLC meeting norms changed the nature of your PLC meetings?
- What is your perception of norms for PLC meetings?

### **Common Assessment and Data Analysis**

- Tell me about your experiences discussing student data with your team since the beginning of the study?
- Tell me about the discussions with your grade-level PLC team when planning common assessments?
- Tell me about the usefulness of the common assessment development protocol?
- Tell me about your team's process of data analysis?
- How has designing common assessments and analyzing data changed your planning and teaching practices?

### **Deep Conversations & Trust**

- Tell me about your level of trust with your PLC colleagues
- How, if any, has the trust you have with your grade level PLC team impacted how you communicate within PLC meetings?
- How have conversations concerning student learning and teaching practices changed since the beginning of the study? What do you think caused this change?
- What are your perceptions of the deep conversations protocol?
- Before receiving the deep conversations protocol, how meaningful would you say the conversations about student learning were?
- How did the deep conversations protocol impact the conversations your team engaged in related to student learning?

### **Wrapping up**

- Is there anything else you would like to share?

## APPENDIX J: PLC FACILITATOR FINAL INTERVIEW PROTOCOL

### **Final Interview Protocol for PLC Facilitator**

Thank you for taking the time out to participate in my research study. Our discussion should take no more than 60 minutes. The purpose of our discussion today is to understand how collaborative inquiry scaffolds have affected your PLC meetings and to discover the perception of the research-based scaffolds utilized.

I would like to record our discussion on Zoom as it will be very useful for my study. I will also be utilizing the Zoom transcription feature to create a verbatim written document of our discussion. I will check and confirm the accuracy of words stated in this interview by first listening to the recording and ensuring the accuracy of recorded words and then by confirming what has been transcribed with you, the participant. Following the recording of this interview, I will store it in a safe location on my UNC-Charlotte google drive. I will be the only person to listen to this recorded interview. The recording and transcriptions will be destroyed after the successful defense of my dissertation.

This is a semi-structured qualitative interview, which includes open-ended questions. At any time in the interview, I may ask probing or clarifying questions in efforts to understand responses, gain a deeper understanding, or confirm responses from the interviewee. Please know that the discussion today is confidential in nature. When I write the report, you used the previously assigned pseudonym, which has been used throughout the study. Pseudonyms were used to add a layer of confidentiality to your identification. At any time during the interview, you may stop me and/or decline participation in the interview. Do you have any questions before beginning the interview?

#### **Warm-up questions**

- Tell me about your experiences leading third-grade PLC meetings?
- One a scale of 1-5 with 1 being no confidence and 5 being high confidence, what is your confidence level now leading and engaging in collaborative inquiry PLC meetings.

#### **Collaboration**

- How has your perception of collaboration changed since the beginning of the study?
- In what ways do you and your colleagues collaborate in PLC meetings to enhance student learning?
- How does the grade-level PLC engage in collaborative inquiry?
- How has collaborative inquiry changed the way teachers plan or teach their students?

#### **Roles, Responsibilities, and Norms**

- Tell me about the PLC's meeting norms?
- Has the PLC meeting norms changed the nature of the PLC meetings?
- What is your perception of implementing roles and responsibilities for PLC members? What worked well? What didn't?
- Tell me about your experience leading PLC members through roles, responsibilities, and norms protocols.

### **Common Assessment and Data Analysis**

- Tell me about your experiences discussing student data with the grade-level team since the beginning of the study?
- Tell me about the discussions with the grade-level PLC team when planning common assessments?
- Tell me about the usefulness of the common assessment development protocol?

### **Deep Conversations & Trust**

- Tell me about your level of trust with your PLC colleagues?
- What was most effective in helping to establish and build trust?
- How, if any, has the trust you have with the grade level PLC team impacted how you communicate within PLC meetings?
- What are your perceptions of the deep conversations protocol?
- How have conversations concerning student learning and teaching practices changed since the beginning of the study?
- Before receiving the deep conversations protocol, how meaningful would you say the conversations about student learning were? Why do you think this happened?
- What was effective about the protocol to deepen the conversations? What worked? What didn't?
- What are your experiences leading grade level PLC members in deep conversations since the beginning of the study?

### **Wrapping up**

- Is there anything else you would like to share about participating or facilitating collaborative inquiry-based PLC meetings?

## APPENDIX K: PLC OBSERVATION FIELD NOTETAKING GUIDE

Observation:	Members Present:
Date:	Time:
What I Observed:	My Reflections

## Note-taking guide:

- Capture which collaborative inquiry scaffolds are being utilized in the meeting
- Capture how PLC members are interacting with one another during the observation
- Capture notable verbal and non-verbal communication from members within the PLC meeting.
- Capture how the PLC facilitator leads other PLC members through inquiry-scaffolds.
- Following the observation, review field notes and add anything missed that was not documented in the moment.

## APPENDIX L: PLC FACILITATOR CHECK-IN MEETING NOTETAKING GUIDE

Date:	Time:
What was discussed:	Reflection:

## Note-taking guide:

- What are areas of concerns for PLC members as it relates to collaboration, roles, responsibilities, norms, designing common assessments, and engaging in deep conversations.
- Is the suggested collaborative inquiry scaffold working?
- If the scaffold is not working, what are the next steps?
- If the scaffold is effective, what new scaffold will be implemented
- What support does the PLC facilitator need?
- Immediately following the check-in meeting, the researcher will review field notes and add anything missed that was not documented in the moment.

## APPENDIX M: ROLES, RESPONSIBILITIES, AND NORMS PROTOCOL

Team Role	Responsibilities	Person(s) Assigned	Length of Service
<b>Facilitator</b>	<ul style="list-style-type: none"> <li>● Develop the agenda and distribute it to all team members at <b><u>least 3 days in advance.</u></b></li> <li>● Review norms at the start of the meeting</li> <li>● Facilitate the meeting</li> <li>● Keep team focused on the set goals and planning</li> <li>● Make sure all voices are heard</li> </ul>		<ul style="list-style-type: none"> <li>● Yearly</li> </ul>
<b>Recorder</b>	<ul style="list-style-type: none"> <li>● Record plans/minutes</li> <li>● Post plans/minutes in PLC Shared Folder (i.e. Google Drive)</li> <li>● Maintain PLC team Shared Data folder that contains team information and resources</li> </ul>		<ul style="list-style-type: none"> <li>● Quarterly</li> </ul>
<b>Resource Manager</b>	<ul style="list-style-type: none"> <li>● Review upcoming standards for planning meetings</li> <li>● Bring resources aligned to standard/district approved curriculum</li> <li>● Ensure each PLC member has a copy of suggested resource</li> <li>● Upload a copy of resources into the shared PLC folder.</li> </ul>		<ul style="list-style-type: none"> <li>● Quarterly</li> </ul>
<b>Reporter</b>	<ul style="list-style-type: none"> <li>● Review minutes from previous meeting</li> <li>● Act as a liaison to school personnel outside of the team</li> <li>● Summarizes plans/discussions from the PLC meeting.</li> </ul>		<ul style="list-style-type: none"> <li>● Quarterly</li> </ul>
<b>Team Norms:</b>			

*Adapted from REL, 2019*

## APPENDIX N: PROTOCOL FOR CREATING COMMON ASSESSMENTS

- What does previous learning data show?
- What standards need to be prioritized?
- What learning goals need to be set?
- How many assessments will be given to assess students on the standards?
- When will assessments be given?
- What questions will be asked to ensure students are assessed appropriately?

*Adapted from Erkens, 2016*

## APPENDIX O: DEEP DISCUSSION SEMI-STRUCTURED PROTOCOL

### Deep Discussions Protocol

#### Examining Instructional Practices

- Why are these meaningful learning goals?
- If we all teach this concept differently, what implications are there for student understanding of (related vocabulary, processes, subsequent concept building)?
- How do these lessons address students' misconceptions?

#### Learning Expectations Represented in Student Work

- When students understand this, what will it sound or look like?
- What are our expectations for struggling students? For advanced students?
- What are misconceptions we might expect to see in students' work?
- What other ways might students represent their understanding?

#### Identifying Patterns in Student Work

- What do you see or hear that suggests students understand /almost understand/do not understand?
- Which students are understanding/almost understanding/not understanding? What does that tell us?
- What do you see or hear that you did not expect to find?

#### Connecting Student Work to Practice

- How do students' responses relate to the lesson taught?
- Why did I/you teach it this way? Are there other options? Why consider another option?
- What patterns in students' work suggest I/we should continue teaching this way, make some modifications, or try to use a different approach?

#### Examining Assessment Practice

- What does this form of assessment show us?
- What information about students' understandings does this assessment not provide?
- What are alternative forms of assessments that might reveal more/other/all students' understandings?

#### Reflection on Group Processes

- What does this conversation lead us to do next?
- Do I/we understand students' thinking in a new way? How?
- How did our conversation challenge me? Make me uncomfortable? What did I like? What don't I want to repeat?
- Do we need a tool to guide the way we talk about assessment/student learning/teaching next time?

*Adapted from Nelson et. al, 2010*

## APPENDIX P: REFLEXIVITY JOURNAL

**Topic:** Returning with a New Purpose

Today, I officially received IRB approval to begin my dissertation research. While I navigated through the proper channels of obtaining IRB approval and can now begin the data collection process, I realize that I must be very reflective. I must also be careful to consistently remind myself that I am no longer their assistant principal and especially not their evaluator. I must be careful to remain close to the data collection and analysis process, ensuring that I remove any biases and prior experiences with any of the teachers. While I am unsure who will agree to participate in the study, I must still acknowledge that I know and have led many of the teachers at this designated school. Still, I must admit that stepping back into the school's environment will not feel foreign, but will feel different. This is because I am returning to the space as a researcher and co-learner and not as a leader of the school. Still, I can't ignore the influence of our shared history. While I don't believe my presence will inhibit honesty, I do recognize that some dynamics may still slightly shape how teachers respond or engage in the study, if any even agree to participate. For these reasons, I will take responsibility for the following things happening:

- Ensure participants feel safe and free to speak candidly, especially about their realities of PLCs and the scaffolding tools they will engage in.
- Not to allow our former roles cloud my interpretation of their experiences.
- To remain open and aware of how my lens as a former leader may shape my outlook.

To ensure these things happen. I will ask myself the following questions:

- Am I listening as a researcher or as a former AP or instructional coach?
- Am I amplifying their voices and sticking true to what they say and how they respond?
- 

I am excited about this work and excited that I was finally about to make it through the IRB process! Here we go!

**Topic:** Before the recruiting begins...

I am planning to recruit third grade teachers today. I would like to recruit at least 3 third grade teachers and the instructional coach that they have specifically for that grade level. Having an instructional coach already assigned to the grade level could be helpful for rolling out whatever the suggested scaffolding tools are. It will also help me to not get too involved with the implementation of the tools. Thus, it will allow me to just stay in the place as the researcher and observe and analyze the findings. Also, I really want the team to be small because I think it would contribute to some authentic insights. Still, I wonder. Even if I create a safe space for them to speak and share their opinions and experiences, will they be totally transparent? Still, whoever decides to participate, I will remind them that I am not their evaluator. Also, I acknowledge that because of my past relationship with teachers in the school and at this grade level, I will only go into their specific classrooms for no longer than 15 minutes. Rather than catching up and opening the door for conversation outside of this research study, I will remain

closely connected to the recruitment script and only answer questions they may have. I will purposely remind potential participants that I am showing up, recruiting, and will conduct this research only as a researcher and not prior leadership. Let's get started!

**Topic:** Recruiting Participants

Today, I went into the school to recruit the participants. I went to the team that had been planning together even before the beginning of the study. I went into each of their classrooms, after school hours to minimize the disruption of school day activities. I wanted to be sure that I kept my promise to myself regarding the time I spent in each room. I recruited each participant individually in their own classroom space. Although it was hard not to "catch up" due to not seeing them in several months, I remained committed to presenting myself solely as the researcher with a professional tone. I was able to recruit the three teachers who had already been meeting for PLC planning. I was also able to recruit the grade level's MCL or instructional coach. I plan to begin initial interviews very soon.

**Topic:** Initial Interviews

Today I completed my initial round of teacher interviews. I was amazed by how the participants spoke about their backgrounds in education. It was awesome to hear some of their background experiences that led them to this particular school. But I was also stunned by their heavy reliance on the instructional coach. Several teachers spoke confidently about understanding what collaboration is and some even shared that they had some level of collaboration within the PLC. Yet, as I revisited the transcripts and audio recordings, I noticed that what they described didn't fully reflect the kind of collaborative inquiry I envisioned, even as a prior leader in the school. This was a moment of cognitive dissonance for me. As someone who helped to build the master schedule to create the protected time for collaboration and PLCs, I found myself asking:

- Where did the breakdown happen?
- If the time and support were there, why didn't stronger collaborative practices take hold?
- Did we overestimate the readiness for deep, inquiry-based collaboration?

Even still, I wonder if it seemed easier for the coach to drive the work, as the veteran educator instead of coaching the other teachers and building their capacity to also engage in the same level of work. Also, I wonder if the pace and demands of the district to improve students outcomes created this tight rope of "come on, come on, we have to get it done". And in this, if that made it easier for the coach to take over a lot of the heavier tasks.

Still, I had to remain the researcher and not remind participants that what they were describing was only surface level collaboration, if that. To this point, I asked myself the following questions:

- Am I truly listening to what teachers are saying, or mentally filtering their responses through my own experiences and intentions as a former AP?
- What assumptions am I making about their capacity or willingness to collaborate, and where are those assumptions coming from?

With those questions, I will continue analyzing the initial interviews.

**Topic:** Selecting Scaffolding tools

After I have gone back through the data for the initial interview, I have found that there is not only a lot of leadership and weight on the MCL, but that the team may need additional support with engaging in deep discussions and even creating their own assessments. In the initial interview, the majority of the participants stated that the district created their common assessments. With this information, I plan to suggest the following scaffolding tools: Roles, Responsibilities, and Norms protocol, Deep Discussion protocol, and Common Assessment Protocol.

**Topic:** First Check-In Meeting: Presenting the first Scaffold

Today, I held the first Check-in Meeting with the MCL, who will operate as the PLC Facilitator for this study. I introduced the first scaffolding protocol, which was the Roles, Responsibilities, and Norms (RRN) protocol. She was a bit apprehensive about implementing the scaffolding tool, but promised that she would give it a try. She stated in her initial interview and in this meeting that she wanted to share the load with the other participants. In this moment I had to ask myself, “If the other participants are going to become more engaged, couldn’t the roles, responsibilities, and norms protocol assist with that goal?”

Aside from this question I was wondering, I knew in that meeting that I needed to share the flexibility of the RRN protocol, ensuring that I let the facilitator know that it could be tweaked to fit the needs of the team.

Very transparently, I am hoping that this protocol is useful for this team.

**Topic:** Observing the First Implementation: Roles, Responsibilities & Norms in Action

Today I conducted my first observation of a PLC meeting two weeks after the team began implementing the Roles, Responsibilities, and Norms scaffold. Walking into the meeting felt familiar, as it was not the first time I had visited a PLC meeting. But today, I was not leading or coming in to make a grade level or team announcement. I was not even evaluating, I was just there listening, watching, reflecting, and of course, taking notes. I’ll admit, from the beginning, I assumed that offering clearly defined roles and responsibilities would help distribute participation more effectively and equitably, but what I observed was something different. The PLC seemed so dull...with very segmented roles and steep attention to the tasks they were assigned as it relates to the scaffolding tool. The facilitator, in this space, was still largely leading and ultimately carrying the weight of the meeting. I asked myself the following questions while I was in the room observing, but also when I read over the observation notes:

1. Why did I expect this particular scaffold to work well with this team? What previous experiences or beliefs shaped that expectation?
2. Was I projecting an ideal version of collaboration based on what I had hoped for as a former leader, rather than what the teachers needed at this moment?
3. How did I feel while watching the meeting? Disappointed? Frustrated? Protective of the scaffold I designed?

4. Am I holding onto the scaffold because it worked in other contexts—or because I created it and wanted it to succeed here?

**Topic:** Introducing the Common Assessment Protocol

Today's check-in meeting was interesting. I joined the meeting without much expectations of the scaffolding tools either way. In other words, I did not get hung up on, "oh I really want this to work" or "What if it doesn't work". I really situated myself in my role as the researcher and to just see if the tool is useful for the team or not. After seeing the limited impact of the Roles and Responsibilities scaffold, I was rushed into this reality and more importantly this reminder. This is a reminder that research has a gap pertaining to the usefulness of such scaffoldings in urban elementary schools anyway, which is why I was conducting the study. Nonetheless, I had to trust the PLC facilitator to carry this tool into the PLC meeting space to introduce it to her teammates. I must admit that I was happy to learn that while the roles and responsibilities portion of the RRN protocol was seemingly not useful to the entire team, the norms were what began the change for the growth, as explained by the facilitator. As such, the facilitator stated that the team had created norms and revisited them after deciding to throw out the prescriptive roles. She said with this, everyone was beginning to come to planning more prepared and ready to share. She mentioned that there were still opportunities for growth, but that the team was headed in the right direction. Here are some overall questions I asked myself:

1. What shifted in me between the first scaffold and this one that allowed me to detach emotionally and observe more objectively?
2. How do I feel about the abandonment of the roles and responsibilities?
3. Is the roles, responsibilities, and norms protocol too structured? Could the tool, as written, be useful for other groups?

**Topic:** Common Assessment Protocol Observation

Today I observed the PLC using the Common Assessment Protocol. It was not the first time the team had used this protocol, according to my knowledge. They had been using the protocol in the two weeks leading up to my observation. During this observation, I recognized a change in the PLC team. I wonder if it was the norms that impacted the team in this way. All members were contributing and although Allie was still leading the group, it was less of her voice and more of theirs. Technically speaking, this team had been engaging in collaborative practice scaffolding for at least 7 weeks now. I wonder if it is the norms that led to such a change. I remember Allie stating that they would prioritize the norms and that it was helping their team. In this observation, I really noticed a change in Lavender as well. She spoke up and shared her ideas about questions and why certain questions should be asked. Even Calaena brought examples of resources that could be used before assigning the common assessment to students. Shelly contributed as well and shared some discussion about skills her students were struggling with and made some justification as to why students should be assessed on certain skills, such as summarizing. She did not necessarily contribute to the extent that the other group members did, but she agreed with several statements and nodded her head at other suggestions. I wonder if this

was how she was processing. I also wonder if Shelly needs a different kind of invitation or support to engage more meaningfully? These are questions to consider:

1. Is it the Common Assessment Protocol that's driving this change or is it the ongoing influence of shared norms over time?
2. Can I really attribute this shift to one tool, or is it more likely the interaction of multiple supports + the team's own learning over 7 weeks?
3. Am I interpreting this moment through an optimistic lens because I want to see improvement?
4. Am I letting the improvement of the group overshadow individual silence? Is Shelly's quieter presence still worth examining?
5. How do I celebrate improvements without letting them confirm a narrative I may unconsciously want to tell?
6. How am I ensuring I don't analyze data only through the lens of what's working, but also what remains unchanged or resistant?

**Topic:** Final Facilitator Check-In

Today, I met with the PLC facilitator, Allie, to discuss the final protocol for this study, which is the Deep Discussions protocol. I was excited to share the final scaffolding tool because it seems that the group was already moving into that space to discuss critical realizations related to common assessments and even interim data. Allie told me today that she was going to differentiate the roll out of the discussion tool because it seemed like it would be too overwhelming for the other participants. I was completely understanding of this, because they are making some growth collaboratively...or are they? Still, I remember letting her know that the tools would be flexible, according to the team's needs. Honestly, I still selfishly wanted to see the roll out of the entire protocol... at least to see what kind of conversations they have and how deep the team goes. I'll wait to see how the next observation goes. I understand my need to set aside my selfish desire to utilize the complete scaffolding tool. I need to be cautious of this when observing or even analyzing data.

**Topic:** Final Observation – Deep Discussion Protocol

Today I observed the PLC's final meeting using the Deep Discussion Protocol. I could see the overall growth as it relates to collaboration and shared responsibilities across the team. Allie did continue with her plan of only using specific questions, but it seemed purposeful. The team used the questions to engage in deep reflection about student learning, instructional practices, and even next steps for reteaching. Allie heavily guided the team in the presentation of questions, but seemingly did not need Allie to help them engage with one another or the questions.

- What made this protocol feel more effective? was it the timing, the tool itself, or the team's growth?
- Will the team wrap around to the other questions eventually, even after the study?
- Am I really seeing growth, or am I just overly optimistic?
- Shelly spoke more and more in each observation? Is this growth?

**Topic:** Final Interviews – Reflections on Growth and Collaboration

Interviews are underway. I am very lucky to have been able to do all four interviews across two days. In the final interviews, I was amazed at the growth across the participants. Even listening to them, they shared their growth across the 12 weeks and some even listed the additional work that needed to be done individually and as a team. Still, many of the participants, well all except for one, discussed their views pertaining to the Roles and Responsibilities protocol. Shelly, however, liked the entire protocol. She said that it gave her some time to think about her role on the team and also made her consider her newness to both the grade level and school as a whole. The others felt that norms were so much better for the group and really mentioned how it fostered that shared responsibility, which made collaboration better for the whole team. With this information in mind, I am wondering:

1. Am I being too optimistic?
2. Why would the norms be useful for the team but not the entire protocol?
3. How does Shelly find it useful, but not the others?
4. How do I take what I have observed, and even learned during this process, and closely analyze this data.
5. How do I keep myself on track to analyze this data through my researcher's eyes, and not a former administrator's eyes?

**Topic:** Analyzing Data

So far, the data is showing that the team has made some growth and progress. I am wondering, also, if the time of year sparked this growth. Also, I am wondering, what are some cases where some participants have stated or have done something that the others have not done? I will work to make sure that I include all voices, and not just some.

**Topic:** Analyzing Data

Shelly was overly excited and candid about her growth over time. I wonder if I would interpret the findings in the same way, had she not shared her background? Also, am I really seeing growth in Lavender and Calaena? Was this always there?

**Topic:** Analyzing Data

I have finally organized the findings into themes. I analyzed each participant's interviews separately before putting them together. I also analyzed check-in meetings and observations separately before analyzing them together. I will certainly need to continue to ask key questions to really understand what the data is saying.

**Topic:** Analyzing Data

So far, I have 7 themes. Is that too many? I am considering the following questions:

1. Is the data leading the questions or the other way around?
2. Are the themes redundant?
3. Do the categories and themes really reflect the data?
4. Am I ready to write the findings?

**Topic:** Writing the findings:

I thought about the member-checking process. When considering the process, I will continue to ask myself?

1. Did I get it right? The interpretation of their thoughts?
2. Am I saying or presenting something they did not say?

I am aware of my own history with the school as a former assistant principal and I am aware of my professional relationships with the participants. I am purposeful in stepping back from my role as an assistant principal who offered input to some of the school-based documents provided by the school's principal. I know that I need to step back from that role. I need to stay in the role of the researcher. Now, with all 7 themes, I am ready to begin writing chapter 4.

**Topic:** Writing the findings:

I have written chapter 4. I am awaiting feedback from my chair. Hopefully, she will identify some blind spots that may have gone missed and even question some of the things that may be missing. I am aware that even if she asks a question, if the data does not support or reveal what is being asked, I will not be able to answer the question.