THE IMPLICATIONS OF INSTRUCTIONAL COACHES'

PARTICIPATION IN PROFESSIONAL LEARNING COMMUNITY

COLLABORATIVE TEAM MEETINGS

by

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ABSTRACT

This study used a parallel mixed-methods design to explore how instructional coaching impacts the effectiveness of Professional Learning Community (PLC) collaborative team meetings focused on reading instruction in grades 3, 4 and 5 in a suburban Michigan school. The research question of interest was: *What are the implications of an instructional coach's participation in Professional Learning Community (PLC) grade level/content area collaborative team meetings focused on elementary reading instruction in grades 3 to 5 in a suburban Michigan classroom?* Qualitative and quantitative data were collected through PLC collaborative team meeting observations, analysis of team artifacts, and results of a survey comprised of open and closed ended questions. The data were analyzed using the constant comparative method through descriptive statistics, coding, and the identification of patterns, emerging themes and theories. The study concluded that coaches' participation in PLC collaborative team meetings led to an increase in elements of highly effective PLCs, especially when coaches intentionally utilized specific coaching stances. These results add to the limited body of research on instructional coaching in a group setting and provide the participating school and district with feedback about their PLC collaborative teams.   Furthermore, the study provides data educators can use when making decisions about high quality professional development.

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CHAPTER ONE: INTRODUCTION

This dissertation uses a parallel mixed-methods study designed to determine how coaching impacts the effectiveness of Professional Learning Community (PLC) collaborative teams. This chapter includes sections that identify the purpose and rationale for the study and describes the study's significance. It also provides key definitions to assist the reader in obtaining a full understanding of the study.

Purpose and Rationale for the Study

With state and federal accountability measures in place, Michigan educators need effective methods for improving instructional practices and increasing student achievement as quickly as possible. The recent implementation of *Michigan's Third Grade Reading Law* (2016), which requires teachers to identify and provide individual reading plans for struggling readers, has exacerbated the need for teacher support, specifically in reading instruction within the elementary school grades. Although there are myriad professional learning opportunities in reading instruction available for teachers, many of those options are far from high quality.

Much research has been conducted on the elements required for professional development (PD) to be considered "high quality" (Borko, Jacobs, & Koellner, 2010; ESSA, 2015; Guskey, 2003; Newmann, King, & Youngs, 2000; "The State of Teacher Professional Learning," 2017). To paraphrase the research, high quality professional development must be ongoing, job-embedded, collaborative, and directly related to teachers' classrooms (Borko, Jacobs, & Koellner, 2010; ESSA, 2015; Guskey, 2003; Newmann, King, & Youngs, 2000; "The State of Teacher Professional Learning," 2017). The current study focused on two specific

methods for delivering high quality professional development: (a) Professional Learning Communities and (b) Instructional Coaching.

Research shows that effective Professional Learning Communities (PLCs) can positively impact student achievement when collaborative teams reflect upon and improve instructional practices as a result of analyzing student work and assessment data (Bolam et al., 2005; Louis & Marks, 1998; Supovitz, 2002; Supovitz & Christman, 2003; Vescio, Ross & Adams, 2008; Hipp & Huffman, 2019). In fact, it has been argued by researchers such as Hord (1997, 2004), DuFour (1998, 2006, 2010) and Schmoker (2006, 2011), that authentic Professional Learning Communities are one of the most powerful forms of professional development that exist for educators. The problem, however, is that many organizations identified as Professional Learning Communities are PLCs in name only. These schools may provide time for PLC collaborative teams to meet, but that time spent is often focused on topics contrary to the foundational characteristics described by PLC authors like Shirley Hord (1997, 2004) and Richard DuFour (1998, 2004, 2006, 2008). When these self-proclaimed PLCs do not result in improved student achievement, many either abandon the PLC concept or continue moving forward in an ineffective manner. Recently, however, several Michigan schools have begun the process of coaching teams to improve their effectiveness (Many, Maffoni, Sparks & Thomas, 2018).

Along with coaching teams, an increasingly popular method used to increase instructional capacity in schools is coaching individual teachers (Galey, 2016). This method has been found to be effective in improving teaching practices, particularly when instructional coaching is connected to formal, high quality professional learning sessions (Joyce & Showers, 1982; Killion & Harrison, 2006; Knight, 2007, 2009; Neuman & Cunningham, 2008; Putnam & Borko, 2000).

The volume of research on coaching teachers is increasing as the practice becomes more widespread. Even so, limited research exists related to combining instructional coaching and professional learning communities (Brasel, Garner, Kane & Horn, 2015; Neufeld & Roper, 2003).

In the school district where this study took place, efforts have been made to use instructional coaching as part of the PLC collaborative team process. The goal of this research was to identify how instructional coaching impacts the effectiveness of PLC teams, specifically when those collaborative team meetings are focused on reading instruction in grades 3, 4 and 5. The results of this study contribute new data to the field of education and professional learning and also provide the school district valuable feedback about their processes of using PLC collaborative teams across specific grade levels. This is information that educators can use when determining the most appropriate professional development for their teachers.

Significance of the Study

The school where the participating PLC teams reside was identified by the Michigan Department of Education as a "Priority School," meaning it was in the bottom 5% of all schools in the state. Recently, the school was released from this status due to improved achievement. However, the school and its district continue to be in danger of falling below the 5% mark. The district implemented PLCs as a strategy for improving student achievement and has two coaches who work with individual teachers on improving instructional practices. These instructional coaches have begun participating in PLC meetings as a means of supporting the teams and helping them grow the effectiveness of their meetings. The results of this study provide important information as to how instructional coaches impact the effectiveness of PLC

collaborative team meetings and assist education leaders as they make decisions on whether to continue the practice, abandon it, or make revisions to improve it. This adds to a nationwide conversation about Professional Learning Communities (PLCs) and instructional coaching. The results of this study could also lead to further research related to the impact of combining coaches with the PLC process.

Key Definitions

It is necessary to offer several key definitions to inform readers' understanding of the researcher's conceptualization of the terminology used in this study.

Professional Learning Communities (PLCs) have been defined as "an ongoing process in which educators work collaboratively in recurring cycles of collective inquiry and action research to achieve better results for the students they serve" (DuFour, DuFour, Eaker & Many, 2010, p. 111). A review of the literature has shown that effective professional learning community collaborative team meetings are most often conducted when teams engage in three practices: 1) analysis of student data; 2) analysis of student work; and 3) reflection upon instructional practices (Bolam et al., 2005; Hipp & Huffman, 2019; Louis & Marks, 1998; Supovitz, 2002; Supovitz & Christman, 2003; Vescio, Ross & Adams, 2008). For the purpose of this study, effectiveness of PLC collaborative team meetings is defined by collaborative teams' engagement levels in these three activities.

Teacher reflection upon instructional practice is one of the central tenets of professional learning communities (DuFour, 1998, 2004, 2006, 2008). In this study, reflection on instructional practice can be described as the practice of teachers considering their choice of instructional strategies and how they impact student results.

Analysis of assessment data is the process where teachers review common formative and summative assessment scores, looking for patterns and trends that reveal student misconceptions and weaknesses. During this process, teams use a pre-determined protocol to assist them in identifying the specific strengths and weaknesses in the student results. When analyzing student work, teachers engage in the same practice as data analysis, but with samples of student writing such as constructed responses or essays. The goal of both assessment data analysis and the analysis of student work is to identify misconceptions and determine the type of instruction students need next (Bolam et al., 2005; Hipp & Huffman, 2019; Louis & Marks, 1998; Supovitz, 2002; Supovitz & Christman, 2003; Vescio, Ross & Adams, 2008).

This study was designed to reveal how coaching impacts the practices of PLC collaborative teams, but there are many different types of coaching. In this study, coaching is defined as the support an assigned, individual coach provides to PLC collaborative teams in an effort to improve their effectiveness (collectively and individually) in improving student learning outcomes as classroom teachers. The coaches' levels of participation in PLC collaborative team meetings were also considered in this study. Levels of participation include participation of an experienced instructional coach, participation of a beginning instructional coach, or no instructional coach at all. A new coach is defined as having been assigned a coaching position for 3 years or fewer. An experienced coach has been assigned a coaching position for 10 years or more.

As coaches engage with PLC collaborative teams, they may choose to respond in a specific way or take on a particular "stance" (Killion et al., 2012; Killion, 2015; Knight, 2009; Lipton & Wellman, 2018; Lipton, Wellman & Humbard, 2003). For the purposes of the study, it

has been noted when coaches take on a consultant stance, which is directive and task oriented; a collaborator stance, where coaches work alongside the team; or a promoter of reflective thinking, where the coach encourages teachers to think deeply about their decisions and practices (Killion et al., 2012; Killion, 2015; Knight, 2009; Lipton & Wellman, 2018; Lipton, Wellman & Humbard, 2003) The main objective of the coach during collaborative team meetings is to help the team maintain their focus on reflection upon instructional strategies and the analysis of assessment data and student work.

Summary

This chapter provided an overview of a study in a Michigan school combining coaching with PLC collaborative teams. A summary of the study's purpose and rationale and an explanation of the study's significance have been provided. Finally, key definitions have been explained in an effort to clarify the terms being used within the study. Next, a review of relevant literature is necessary to contextualize the study and its research questions of interest.

CHAPTER TWO: REVIEW OF LITERATURE

Introduction

This chapter will highlight the existing literature related to the research question: *What are the implications of an instructional coach's participation in Professional Learning Community (PLC) grade level/content area collaborative team meetings focused on elementary reading instruction in grades 3 to 5 in a suburban Michigan classroom?* Because this study was focused on teaching reading, we begin with a review of the literature on effective literacy instruction in elementary classrooms. We also delve into the literature that defines effective professional development for teachers, including literature that explores Professional Learning Communities and instructional coaching as effective professional development practices. Finally, the chapter concludes with a discussion on the combination of coaching and PLC collaborative teams that results in more effective collaborative teams in PLC settings.

Effective Literacy Instruction in Elementary Classrooms

The number of Michigan students proficient in reading is startlingly low. The 2016 M-STEP (Michigan Student Test of Educational Progress) language arts assessment results showed that only 46% of third graders scored proficient or above, while only 48% of eighth graders scored proficient or above ("MDE Student Assessment M-STEP Summative Test Results", 2016). As a result, Michigan House Bill 4822, also known as the Third-Grade Reading Law, went into effect in October of 2016. This Bill was designed to "help ensure that more pupils will achieve a score of at least proficient in English language arts on the grade 3 state assessment" by outlining specific teacher actions such as ongoing assessment, communication with parents, and

development of individual reading plans for all students reading below expectations (*Michigan's Third Grade Reading Law*, 2016, p. 180). The most controversial component of the bill is that beginning in the 2019-20 school year, any third graders who do not score as proficient on the state English language arts assessment will be retained in the third grade the following school year. However, there are several exemptions to bypass retention, including having "a parent who requests an exemption 'in the best interests of the student' to be approved by the district superintendent" ("Learn What's New," 2017, p. 2).

The drastic nature of this bill demonstrates the importance of literacy education for all students. It also emphasizes the need for a comprehensive literacy instructional program and highly effective literacy teachers at every single school, in every single district. In fact, the bill spells out the fact that each school must have a literacy program that includes evidence-based instructional strategies. Therefore, all schools must develop effective professional development programs that not only train teachers on effective literacy instructional strategies, but also coach teachers on how to effectively implement evidence-based best practices.

Marinak, et al. (2015) operationalize "evidence-based best practice [as referring] to an instructional practice that has a record of success in improving reading achievement and is both trustworthy and valid" (p. 5). A U.S. Department of Education report by Bell and Dolainski (2012) identifies evidence-based instruction as practices that focus on "the five core elements of reading: phonemic awareness, phonics, fluency, vocabulary, and comprehension" (p. 4). To be evidence-based, the instruction must also be relevant to students, sequential and systematic, engaging, and include an element of ongoing formative assessment so teachers can effectively respond to students' needs (Bell & Dolainski, 2012). Strategies that meet the criteria of

evidence-based instruction are more likely to positively impact student reading achievement levels than non-evidence-based practices.

In order to increase the number of Michigan students proficient in reading, as the *Third Grade Reading Law* is designed to do, all Michigan schools and districts must take responsibility to not only provide resources that meet evidence-based criteria, but also train teachers to effectively utilize these evidence-based practices. Finally, if we expect teachers to make evidence-based practices a regular part of their daily routine, we must provide ongoing coaching and support for teachers. To truly understand the task that has been set before literacy teachers, a closer look at comprehensive literacy instruction is required.

Comprehensive Literacy Instruction. Comprehensive literacy instruction includes much more than teaching students to read and write. It has been defined as "instruction that supports and prepares students to independently use listening and speaking, reading and writing, and viewing and representing as a means to effectively comprehend and communicate for authentic and personal reasons" (Marinak, et al., 2015, p. 8). For a child to truly become literate, he or she must be able to comprehend the ideas of others, be it through reading, viewing or listening. He or she must also be able to effectively communicate his or her own ideas through multiple modalities such as writing, speaking, or creating representations. To accomplish this enormous undertaking, teachers need a deep understanding of which instructional strategies work best and for which purposes.

From 1997-1999, the National Reading Panel was convened to study the "effectiveness of various approaches of teaching children to read" (Report of the National Reading Panel, 2000, p. 1). The study focused on instruction of phonemic awareness, phonics, fluency,

comprehension (including vocabulary, text comprehension and teacher preparation and comprehension strategies instruction) along with teacher education and reading instruction and computer technology and reading instruction. Most pertinent to this proposed research are the panel's findings on phonemic awareness, phonics, fluency, and text comprehension instructional strategies.

First, the panel found that "teaching children to manipulate phonemes in words was highly effective under a variety of teaching conditions with a variety of learners across a range of grade and age levels…" (Report of the National Reading Panel, 2000, p. 5). The research clearly indicated that teaching phonemic awareness significantly improved students' ability to read. However, it is important that phonemic awareness instruction be engaging for students through oral language games, rather than simply delivering rote, skill-oriented programs (Marinak et al., 2015, p. 38).

The National Reading Panel's research also showed phonics as an important instructional component in teaching students to read. In fact, they found that phonics instruction had long term effects on students' reading abilities and that it is especially helpful for readers who struggle. "Systematic synthetic phonics instruction …had a positive and significant effect on disabled readers' reading skills" (Report of the National Reading Panel, 2000, p. 6). However, the Panel warned against solely utilizing packaged programs with sequenced lessons, emphasizing that teachers should use assessment results to individualize instruction for students (Report of the National Reading Panel, 2000, p. 7). Marinak, et al. (2015) agree with the need for phonics instruction, but only until students have a grasp on the concept. In other words, the teacher's goal is for students to attain automaticity so they can focus their thinking on

comprehension and higher order thinking instead of phonics (Marinak et al., 2015). Teachers who practice this concept can move their students further by encouraging them to think more deeply about the meaning of what they are reading rather than simply decoding the words on the page.

The next critical component in a comprehensive literacy instruction is fluency. According to the National Reading Panel (2000), if a child's reading is "laborious and inefficient," he or she will have difficulty understanding the information conveyed in the text (p. 4). In other words, a lack of fluency decreases comprehension. To increase fluency in reading, the Panel recommends that students regularly read both independently and orally with the guidance of a teacher.

Text comprehension can be defined as "intentional thinking during which meaning is constructed through interactions between text and reader" (Harris & Hodges, 1995, p. 207). If a reader does not make meaning of text, the exercise of reading is futile. In fact, comprehension is so important that the Common Core State Standards emphasize comprehension as central to literacy learning, and reading and writing as crucial to academic achievement (Marinak et al., 2015). In their study, the National Reading Panel (2000) surmised that vocabulary and text comprehension instruction were crucial to increasing students' ability to comprehend text. By relating ideas in print to their own background knowledge, readers can make connections and deepen their understanding. Utilizing this research, Marinak et al. (2015) concluded that "…strategy instruction, rich talk about text, and semantically rich conversations about word meanings" should be a regular part of literacy instruction for all students (p. 43). The Panel even went so far as to recommend seven categories of text comprehension instruction:

- Comprehension monitoring, where readers learn how to be aware of their understanding of the material;
- Cooperative learning, where students learn reading strategies together;
- Use of graphic and semantic organizers (including story maps), where readers make graphic representations of the material to assist comprehension;
- Question answering, where readers answer questions posed by the teacher and receive immediate feedback;
- Question generation, where readers ask themselves questions about various aspects of the story;
- Story structure, where students are taught to use the structure of the story as a means of helping them recall story content in order to answer questions about what they have read; and
- Summarization, where readers are taught to integrate ideas and generalize from the text information (Report of the National Reading Panel, 2000, p. 6).

It is important that teachers use a combination of these strategies to meet the needs of the many different types of learners in their classrooms. This point is emphasized in *Excellent Reading Teachers: A Position Statement of the International Literacy Association* (2000), which is the international professional association of literacy educators within P-12 settings. In the statement, the authors state that excellent teachers understand that students respond differently to instructional strategies and, and they "select the most efficient combination of instructional strategies to serve the children in their classrooms" (p. 2).

To be effective reading instructors, it is critical for teachers to differentiate according to the needs of individual students. Whole class and one-size-fits all teaching simply does not work. Griffo, Maddow, Pearson and Raphael (2015) refer to this as "Professional Prerogative" (p. 52). They describe literacy instruction as "the art of knowing how to assemble the tools in concert with each other to make worthwhile instruction that is particular to the students and purposes in a given classroom" (Griffo, et al., 2015, p. 53). This is a skill that not all teachers

have, and one that often takes many years to develop. By situating literacy instructors into grade level teams where they can share their experience with specific instructional strategies, we are increasing the odds that teachers will learn new strategies and make instructional improvements that include differentiation. Providing those grade level teams with knowledgeable coaches can increase the odds for improved literacy instruction even further.

Evidence-Based Best Practices in Comprehensive Literacy Instruction. While phonemic awareness, phonics, fluency, vocabulary and comprehension are the "what" of comprehensive literacy instruction, teachers must also know the "how." In their summarization of the research on evidence-based best practice literacy instruction, Marinak, Mazzoni, Manzel and Malloy (2015) present Ten Evidence-Based Best Practices for Comprehensive Literacy Instruction. These include 1) creating a culture that motivates and nurtures literacy, 2) scaffolding instruction based on individual needs, 3) including a wide range of text genres, 4) encouraging comprehension through close reading, 5) utilizing leveled texts with increasing complexity, 6) instructing literacy in all content areas, 7) purposely designing teacher- and student-led conversations, 8) utilizing both formative and summative assessments, 9) promoting student choice through self-selected reading and writing, and 10) integrating technology. Each of these ten practices requires intentionality and planning on the part of the classroom teacher. In order to significantly raise literacy achievement, teachers must be able to adjust their instruction using a variety of strategies and method to meet individual students' needs (Marinak, Mazzoni, Manzel & Malloy, 2015). Schools must provide teachers with effective professional development that helps move them closer to these goals.

Elements of Effective Professional Development

For any successful professional, continual growth and updated education is a requirement. One would never accept the services of a doctor who does not use X-rays or CT scans, nor would a reasonable person allow their home to be built by a contractor who uses building techniques from the 1960's. The same is true for educators within the PK-12 school setting. To adequately educate children in the 21st century, it is imperative that districts provide their teachers with high quality professional development. In fact, the National Commission on Teaching and America's Future has determined the best use of education funding is through investing in teachers' understanding and abilities to implement best practices (Darling-Hammond, 1999). Although it is important to provide schools with funding for curriculum, textbooks, and other physical materials, providing teachers with consistent, effective professional development is an absolute must if we are going to increase student achievement. Borko, Jacobs and Koellner (2010) argue that for educational reform to take place, teachers in all grade levels and content areas must receive effective professional development that increases knowledge, promotes improved practices, and results in increased student achievement. However, not all professional development is considered equal.

Teachers are often provided professional development (PD) that consists of one-shot workshops that focus only on one aspect of their job and are often seen as ineffective (Editorial Projects in Education Research Center, 2011). Yet, philosophical changes have taken place regarding professional development design and delivery. "Most experts in the field advocate moving away from an in-service training model, … often delivered in one-shot workshops or courses taught away from the school premises" (Borko, Jacobs & Koellner, 2010, p. 548). In

fact, the federal No Child Left Behind Act specifically states that professional development should not be based on short-term workshops or conferences (No Child Left Behind [NCLB], 2002).

Multiple researchers and education support agencies like *Learning Forward*, a national association devoted to educator professional learning, have found that effective professional development for teachers is the most powerful method of improving teaching and meeting student needs ("The State of Teacher Professional Learning", 2017). Newmann, King, and Youngs (2000) found that:

> Researchers tend to agree that to promote the kind of teacher learning
> that leads to improvement in teaching, professional development should
> concentrate on instruction and student outcomes in teachers' specific schools;
> provide opportunities for collegial inquiry, help, and feedback; and connect
> teachers to external expertise while also respecting teachers' discretion and
> creativity. Finally, these experiences should be sustained and continuous, rather
> than short-term and episodic (p. 259-260).

With such large-scale changes being recommended, significant research has been conducted recently to identify what constitutes effective professional development for teachers. Guskey (2003) analyzed the results of 13 different studies identifying high quality PD elements and found that "helping teachers to understand more deeply the content they teach and the ways students learn that content" is a central component in effective professional development (Guskey, 2003, p. 749). Because of the breadth of this conclusion, more specificity in these elements of high-quality professional development experiences is needed if educators are going to make improvements within existing PD.

To provide more specificity in the definition of high-quality professional development, Borko, Jacobs, and Koellner (2010) identified content characteristics of high quality professional

development utilizing six reports that met their research criteria. They found that PD should engage "teachers in inquiry about the concrete tasks of teaching, assessment, observation, and reflection, and [provide] them with the opportunity to make connections between their learning and their classroom instruction" (p. 549). Furthermore, the authors surmised that professional development must include ongoing, sustainable activities that promote experimentation and reflection (Borko, Jacobs, & Koellner, 2010).

In their research Borko, Jacobs and Koellner (2010) referenced a chart created by Stein, Smith, and Silver (1999) that compares "traditional" in-service professional development with the "new model" of professional development. They created categories for comparison, which included strategies, knowledge and beliefs, context, and critical issues.

In their comparison they state that: 1) traditional professional development typically utilizes a workshop or seminar type of format with a focus on activities whereas a more modern approach utilizes various formats including job-embedded coaching and collaborative team meetings to build teachers' capacity to improve student achievement. While traditional professional development is often short term, the more recent models of professional development are designed to take place consistently over time; 2) Traditional PD is based on individual teachers who have the responsibility of identifying ways to use the new knowledge in their classrooms whereas modern PD is scaffolded to meet teachers' needs and be immediately applicable; 3) In traditional PD, the context of individual teachers' classrooms is not typically taken into consideration, while the more modern-day PD uses context as a major component in determining the content of the sessions.

Traditional PD is often delivered off-site, whereas today's PD is job-embedded, sometimes taking place right inside the classroom during the school day; and 4) while the focus of traditional professional development is geared toward the individual teacher, contemporary professional development is aimed at improving the entire system. In addition, leadership training is usually not considered in traditional PD, whereas leadership training is an integral piece of contemporary PD.

To further clarify the meaning of effective professional development, *Learning Forward* joined forces with 40 educational associations and organizations in 2011 to develop Standards for Professional Learning that "describe the essential attributes of professional learning that lead to effective teaching practices, supportive leadership, and improved student results" ("The State of Teacher Professional Learning", 2017, p. 4-5). The *Learning Forward Standards* include the need for:

> …learning communities …committed to continuous improvement, collective responsibility, and goal alignment; …skillful leaders who develop capacity, advocate and create support systems for professional learning; …prioritizing, monitoring, and coordinating resources for educator learning; …[using] a variety of sources and types of student, educator, and system data to plan, assess, and evaluate professional learning; …[integrating] theories, research, and models of human learning to achieve its intended outcomes; …[applying] research on change and [sustaining] support for implementation of professional learning for long-term change; and …[aligning] outcomes with educator performance and student curriculum standards (*Standards for Professional Learning Quick Reference Guide*, N.D., p. 2).

Schools and districts who plan their professional development programming according to these standards are more likely to net results leading to improved teaching and learning. In fact, the definition of professional development found in the 2015 reauthorization of the federal public-

school law, Elementary and Secondary Schools Act (ESSA, or the Every Student Succeeds Act)

aligns directly with the *Learning Forward Standards.*

The law reads, in part:

> PROFESSIONAL DEVELOPMENT — The term 'professional development' means activities that—
> (A) are an integral part of school and local educational agency strategies for providing educators … with the knowledge and skills necessary to enable students to succeed in a well-rounded education and to meet the challenging State academic standards; and
> (B) are sustained (not stand-alone, 1-day, or short term workshops), intensive, collaborative, job-embedded, data-driven, and classroom-focused… (ESSA, 2015).

This reauthorization of federal school law presents new opportunities and challenges to public

schools in their efforts to provide effective professional development. To meet this definition,

many schools must improve or drastically change their current professional development

programs. One such method of providing professional development that meets this definition is

that of Professional Learning Communities (or PLCs).

Professional Development for Literacy Teachers. Professional development for

literacy teachers should include the same general elements as that for all other subjects:

sustained, intensive, collaborative, job-embedded, data-driven, and classroom-focused.

Unfortunately, in the past some have mistakenly concluded that giving teachers the "right"

curriculum was more important than increasing teachers' capacity for delivering effective

instruction. For example, a district in Chula Vista, California purchased a new basal reading

program in hopes of increasing standardized test scores in reading. Teachers were given vendor-

provided professional development and observed by coaches to ensure implementation with

fidelity. However, the gains that resulted from the implementation were modest at best. They

then decided to implement a professional development program that was based on the development of a district-wide curriculum framework, which was studied by Fisher, Frey and Nelson (2012). "…The leaders of this school system had neglected the importance of an instructional framework and the professional development needed to ensure that teachers, coaches, and administrators had a common vocabulary to discuss and implement their literacy practices" (Fisher, Frey, & Nelson, 2012, p. 552). When the district realized their mistake, and implemented a professional development plan that was sustained, intensive, collaborative, job-embedded, data-driven, and classroom-focused, student achievement soared. They concluded that, "sustained focus, with quality professional development, clear expectations for implementation, and support for change, are important" (Fisher, Frey, & Nelson, 2012, p. 561-562).

In specific connection to literacy instruction, they were reminded of the Bond & Dykstra (1997) study wherein it was stated, "to improve reading instruction, it is necessary to train better teachers of reading rather than to expect a panacea in the form of methods and materials" (Bond & Dykstra, 1967, p. 416). In other words, we must provide teachers with direction and support not only in what to teach, but also in the most effective methods for teaching it. "The missing piece for schools …seems to be the procedural knowledge about how to translate this research into school and classroom practices that lead to improved reading performance for their students" (Taylor, Pearson & Peterson, et al., 2005, p. 40-43). Professional Learning Communities, when implemented with fidelity, are designed to bridge that gap.

Professional Learning Communities as Professional Development

The research has clearly shown a need for more job-embedded and collaborative

professional development (Borko, Jacobs & Koellner, 2010; ESSA, 2015; Guskey, 2003;

Newmann, King, & Youngs, 2000; *Standards for Professional Learning Quick Reference Guide*,

N.D.; "The State of Teacher Professional Learning," 2017). Many districts have heeded this call

and pursued approaches to professional development that are "more closely aligned with

constructivist and situative theories and reform efforts; specifically, they are grounded in

classroom practice and involve the formation of professional learning communities" (Borko,

Jacobs & Koellner, 2010, p. 548). The concept of utilizing Professional Learning Communities

as effective professional development has gained support over the past several years.

Professional Learning Communities (or PLCs) have often been touted as the most direct

route toward improving student achievement (DuFour, 1998, 2004, 2006, 2008; Hord, 1997,

2004; Schmoker, 1996, 2006). As a tool for school reform, Huffman and Hipp (2003) asserted a

PLC is "the most powerful professional development and change strategy available" (p.4). In

recent years, the popularity of PLCs has soared with extensive writings, trainings, and

presentations in the United States, most notably by DuFour and his colleagues at Solution Tree.

As a result, schools across the globe have educated themselves on the practices of Professional

Learning Communities and have implemented those practices, at least to some degree, to

improve student achievement.

When reviewing the research about effective school and the common characteristics

among them, "collaboration and professional learning [are] two characteristics that consistently

appear" ("The State of Teacher Professional Learning", 2017, p. 5). Professional Learning

Communities, when implemented with fidelity, provide teachers with both characteristics.
Therefore, it can be argued that authentic Professional Learning Communities are an effective
form of professional development.

If we take the definitions provided by *ESSA* and *Learning Forward Standards*, and
compare them to the premises of authentic Professional Learning Communities, we can surmise
the following about the design of PLCs:

1. **Sustained** (not stand-alone, 1-day, or short-term workshops) – PLC meetings are
   designed to be scheduled at regular intervals throughout the course of the school year;

2. **Intensive** – PLC teams engage in collaborative inquiry that will directly impact the
   students they teach. The team uses student data to choose the topics of study and can
   spend the amount of time and effort needed to master it;

3. **Collaborative** – One of the main goals of a PLC is to build a community of educators
   who work together for the benefit of their students;

4. **Job-embedded** – The topics discussed during authentic PLC collaborative meetings are
   based on the students that teachers engage with every single day. Meeting discussions
   relate directly to current teaching and learning;

5. **Data-driven** – PLCs are intended to be results-oriented. Common assessment results are
   an integral part of PLC discussions and are the impetus to improved instruction for
   teachers and intervention for struggling students; and

6. **Classroom-focused** – Current students, their data, and how teachers can best instruct
   them are the main points of conversation during authentic PLC meetings (*ESSA*, 2015;

"The State of Teacher Professional Learning", 2017; DuFour, DuFour, Eaker & Many,

2010).

Many schools have abandoned the traditional PD half-days off for students and have included

regularly scheduled Professional Learning Community collaborative team time instead to

increase the effectiveness of their professional development opportunities. This is a commitment

to improving classroom instruction and student learning, provided that PLC collaborative team

meetings contain the elements of authentic Professional Learning Communities.

Elements of Authentic Professional Learning Communities. According to Huffman

and Hipp (2003), Professional Learning Communities exist when staff members collaborate

through inquiry as a means of improving student achievement.   Similarly, Bolam, McMahon,

Stoll, Thomas and Wallace (2005) and Hord (1997) describe a PLC as a community wherein

staff members collaborate continuously for the purpose of increasing student learning. The

teachers within these types of Professional Learning Communities operate as a team to improve

their own instructional practices as a means of improving student achievement (Bolam et al.,

2005; Hord, 1997; Vescio, Ross & Adams, 2008). These and other researchers emphasize that

the goal of authentic Professional Learning Communities is to improve student achievement

(Bolam et al., 2005; Hord, 1997, 2004; Hord & Sommers, 2008; Huffman & Hipp, 2003).

Improved student achievement, however, is far less likely to result from PLCs that contain only

isolated elements of authentic PLCs. All components of authentic PLCs must be in place for

student achievement to improve dramatically.

Several researchers have identified components of Professional Learning Communities as

they studied what made teams effective. The elements that best capture this synthesized research

are: 1) supportive and shared leadership; 2) shared values and vision; 3) collective learning and application; 4) shared personal practice; and 5) supportive conditions (Hipp & Huffman, 2010).

Supportive and shared leadership. A review of the literature reveals that principal leadership plays a large role in the success of professional learning communities (Eaker & Gonzales, 2006; Hipp, Huffman, Pankake, & Olivier, 2008; Hord, 2004; Ibrahim, Ghavifekr, Ling, Siraj & Azeez, 2013; Thornton & Cherrington, 2014). Principals must guide their staff by providing clear expectations, but must also support teachers so they are able to meet those expectations. In addition, principals must be willing to share leadership responsibilities so that staff members feel ownership of the process (Gray et al., 2014; Hipp & Huffman, 2010; Stoll et al., 2006; Teague & Anfara, 2012).

Shared values and vision. A school-wide sense of purpose and direction can only be found when the building leader has made those elements explicitly clear, which is crucial for a successful PLC. Principals of successful PLCs lead their staff toward the creation of a common vision that is centered solely on student learning (Pankake & Moller, 2003). Once that vision is identified, principals must help their staff identify the values, commitments, and behaviors that will help them achieve that vision of improved student learning. By working together to create common goals, teams can focus on the things that really matter and begin to move forward.

Collective learning and application. Staff who engage in collective learning and application participate in an ongoing search for new information on best practice instructional strategies. Team members work together to solve problems arising within the classroom and school building (Hipp & Huffman, 2010; Huffman & Hipp, 2003). They are a true team involved in ongoing reflection and instructional improvement.

Shared personal practice. Team members participate in peer observation, share feedback with one another, and collaborate to implement instructional strategies (Hipp & Huffman, 2010; Huffman & Hipp, 2003). These teachers give up their planning time to observe their colleagues and provide them with feedback. They value and seek the counsel of one another.

Supportive conditions. Conditions for and expectations of trust and respect must be put into place in order for a PLC to thrive. In *SEDL Insights*, a publication of the Southwest Education Development Laboratories, Pirtle and Tobia (2014) write:

> …school leaders must model and maintain trusting relationships in
> all that they do and develop the conditions where teachers can be
> vulnerable with one another and open to engaging the kinds of
> professional conversations that get them to reflect deeply about
> their teaching – the cornerstone of an authentic PLC (Insight 4,
> para. 2).

The principal must build an element of trust between him-or herself and the staff, as well as amongst the staff members themselves (Teague & Anfara, 2012).

The five elements listed above must be solidly in place for Professional Learning Communities to be successful. However, even when these elements have been put into place, there is no guarantee that a PLC will be successful in raising student achievement, which should serve as the goal of all professional development for educators (Vescio, Ross, & Adams, 2008).

Professional Learning Communities and Student Achievement. Although the literature points mostly to changes in school culture because of Professional Learning Communities, teacher participation in Professional Learning Communities has a positive impact on student achievement (Bolam et al., 2005; Louis & Marks, 1998; Supovitz, 2002; Supovitz & Christman, 2003). Louis and Marks (1998) examined 24 schools that were restructuring

themselves using the PLC model. They conducted classroom observations and interviews with both teachers and students, and found that professional learning communities contributed to a supportive culture and authentic pedagogy, which can be defined as student-centered teaching that is intentionally designed to promote authentic, real-world learning, and is considered valuable by both the students and teachers (Newmann, Marks, & Gamoran, 1996). Newmann, Marks, and Gamoran (1996) purport that authentic pedagogy leads to increased student performance, which is the ultimate goal of Professional Learning Communities.

A study conducted by Bolam and colleagues found that PLC teams were most effective when student learning was the central focus (2005). Additionally, in two separate studies, Supovitz (2002) and Supovitz and Christman (2003) found higher student achievement levels when their teachers focused PLC time on the analysis of student work and instructional practices when compared to students' achievement levels with teachers who did not analyze work and instructional practices. However, it was noted that the strength of student achievement depended upon the extent to which the collaborative team focused on the analysis of student work, assessment data, and instructional practices (Vescio, Ross, & Adams, 2008). The stronger the PLC in analyzing student work, assessment data, and instructional practice, the more student achievement benefited with instructional outcomes in the school setting (Bolam et al., 2005; Hipp & Huffman, 2019; Louis & Marks, 1998; Supovitz, 2002; Supovitz & Christman, 2003; Vescio, Ross & Adams, 2008).

The answer to the question, "Does the implementation of authentic Professional Learning Communities result in increased student achievement?" seems to be a resounding yes. The literature has also answered the question, "What must members of a Professional Learning

Community do to obtain the result of increased student achievement?" (Bolam et al., 2005; Hipp & Huffman, 2010; Louis & Marks, 1998; Supovitz, 2002; Supovitz & Christman, 2003; Vescio, Ross & Adams, 2008). Clearly, if a PLC is going to make a marked, positive impact upon student achievement, that PLC must focus its time and efforts reflecting upon instructional practices and analyzing student work and assessment data. The unfortunate reality is many of the school sites that purport having Professional Learning Communities are not conducting such professional development opportunities (Hipp & Huffman, 2010; Supovitz & Christman, 2003). Supovitz and Christman (2003) found that "in few cases did communities move to more sophisticated levels of group instructional practice such as collective analysis of teaching or review of student work" (p. 5). Still others contend that, while many schools believe they meet the criteria of authentic professional learning communities, few schools do (Hipp & Huffman, 2010). This brings about the question: Does coaching professional learning community teams lead to improved team effectiveness?

Coaching Teachers as Professional Development

Although direct instruction for teachers through professional development is important in learning new skills, it has been shown that knowledge alone is not enough for teachers to change their practice. "The conditions of the classroom are different from training situations; one cannot simply walk from the training session into the classroom with the skill completely ready for use – it has to be changed to fit classroom conditions" (Joyce & Showers, 1982, p. 5). In cases like these, there is tremendous advantage in providing coaches who can support teachers as they struggle to implement new ideas and techniques to improve their own instruction. In their seminal, groundbreaking research on instructional coaching, Joyce and Showers (1982) found

that "when the coaching component is added and implemented effectively, most (probably nearly all) teachers will begin to transfer the new model into their active repertoire" (p. 5). This idea has been replicated more recently by Neuman and Cunningham (2008) when they studied the effects of professional development on teaching practice. What they found was "a lack of change resulting from the professional development course alone" (Neuman & Cunningham, 2008, p. 5). The course itself did not change teachers' practices because teachers did not see the connection back to their own classrooms. However, when coaches were added to the study, they found a much different result. When participants engaged in practice and reflection with an experienced coach, "teachers appeared to incorporate new physical design features, supports for learning, and teaching strategies into their daily routines" (Neuman & Cunningham, 2008, p. 557). Clearly, providing the support of a more experienced colleague within the context of a real-life classroom prompted changes in teachers' practices much more readily than simply sitting in a professional development session.

Showers (1985) calls coaching "…a cyclical process designed as an extension of training" (p. 44). Her research shows that teachers who learn strategies during formal professional development and are supported through coaching, are generally more willing to try new strategies. Coached teachers also develop a deeper knowledge about theories behind the new strategies they try in the classroom. Finally, teachers supported by coaching utilize new strategies more appropriately and better retain their knowledge of new strategies. All in all, teachers supported through coaching better understand and are more likely to effectively apply new instructional strategies learned through professional development (Showers, 1985).

Although much of the current writing about coaching teachers is anecdotal, there is a growing body of evidence showing that coaching teachers is an effective form of professional development (Galey, 2016; Joyce & Showers, 1982; Killion & Harrison, 2017; Lynch, Moody & Stricker, 2015; Neuman & Cunningham, 2008; Putnam & Borko, 2000, Steeg, 2016; Steiner & Kowal, 2013; Trach, 2014). Lynch, Moody, and Stricker (2015) state that, "the unique balance of support and pressure coaches can provide teachers has the potential to spur growth and impact student achievement unlike any other form of professional development" (p. 1). However, the benefits are not only for individual teachers and their students. Trach (2014) found that "coaching creates positive energy and professional renewal that revitalizes and benefits the school culture in a lasting way" (p. 16). For these reasons, many schools have begun to incorporate coaching into their professional development plans (Galey, 2016; Steeg, 2016; Steiner & Kowal, 2013).

With the increasing interest in utilizing instructional coaches to improve literacy instruction, a significant number of literary works have emerged to support instructional coaches and the districts and schools hiring them (Aguilar, 2013; Killion et al., 2012; Killion, 2015; Knight, 2007, 2009; Lipton & Wellman, 2018; Lipton, Wellman, & Humbard, 2003). These resources discuss the characteristics and roles of coaches, along with guidance for providing feedback to the teachers with whom they work. These resources acknowledge that different types of feedback are needed for different coaching situations, which may be referred to as coaching "stances" (Harrison & Killion, 2007; Killion et al., 2012; Killion, 2015; Knight, 2009; Lipton, Wellman & Humbard, 2003). Although there is a broad continuum of possible stances, they can be summarized into three categories: coach as consultant, wherein the coach provides

directive feedback; coach as collaborator, where the coach interacts with the teacher to co-construct ideas and solutions; and coach as promoter of reflective thinking, where the coach utilizes questioning and clarification techniques to help the teacher problem solve and self-prescribe. By flexibly moving between the coaching stances, instructional coaches can differentiate the support they provide teachers, according to their needs.

However, pedagogical expertise alone is not enough to be an effective instructional coach. The literature on coaching clearly shows the need for coaches to build strong, trusting relationships with the teachers with whom they work (Aguilera, 2016; Galey, 2016; Killion, 2007; Knight, 2007; Lipton & Wellman, 2018). By building collaborative, trusting relationships with individuals and working on goals set by the teacher, those being coached are more likely to be open to the change process. In fact, Fullan (2001) identifies relationship building as being an instrumental component in any educational change.

Coaching Professional Learning Community Collaborative Teams as Professional Development. The vast majority of literature on coaching in education is written within the context of coaching individual teachers. However, coaching Professional Learning Community collaborative teams is a concept growing in popularity (Bloomberg, Pitchford & Hattie, 2017; Many et al., 2018; Many & Maffoni, 2016; Neufeld & Roper, 2003). According to Many and Maffoni (2016), "The answer is not coaching individual teachers or coaching collaborative teams (it's not an either/or proposition), but the development of coaching models that improve the performance of collaborative teams needs to become a higher priority" (p. 8-9). Furthermore, Neufeld and Roper (2003) write, "Coaching models that rely solely on one-on-one interactions between the coach and the teacher do not show as much promise as those that incorporate small-

group learning" (p. 20). By providing PLC teams with coaches, the hope is to increase the effectiveness in grade level, content-area teams, which will ultimately lead to increased student achievement. We have already explored the fact that many PLC teams do not spend their meeting time in authentic PLC fashion, so providing coaches may help those teams spend more time on the "right" work.

In Educational Leadership's "Getting to the How and Why," Brasel, Garner, Kane, and Horn (2015) observed several collaborative data teams and found that most of them only discussed instructional interventions at a surface level. The researchers' goal was to help teams focus on Responsive Re-visioning, wherein "teachers answer all four guiding questions: what to reteach, how to reteach it, to whom it should be retaught, and why students struggled with the assessed content. This approach is the most likely to lead to instructional improvement" (Brasel et al., p. 4). Because teams spend most time on surface level discussions, Brasel and colleagues suggest that a coach "push teachers' thinking" by providing guiding questions that help teams "dig deeper" (p. 5-6). It is this digging deeper that will increase the amount of time teams spend talking about the topics of an authentic PLC and increase the team's effectiveness. As Guskey (2003) states, "For collaboration to bring its intended benefits it, too, needs to be structured and purposeful, with efforts guided by clear goals for improving student learning" (p. 749). It makes sense that this structure would come from a grade level coach who is an instructional expert trusted by the team to guide them forward. After all, "Quality teaching is not an individual accomplishment, it is the result of a collaborative culture that empowers teachers to team up to improve student learning beyond what any one of them can achieve alone" (Carroll, 2009, p. 13).

Newmann, King and Youngs (2000) agree with this notion, stating "We present a conception of school organizational capacity and argue that professional development ought to address all aspects of capacity rather than only the competence of individual teacher" (p. 260). They emphasize the need to build the capacity of the entire school staff working to increase achievement rather than the individual teacher working with a coach alone.

> Individual teacher competence is the foundation for improved classroom
> practice, but to improve achievement of all students in a school from one
> academic year to the next, teachers must exercise their individual knowledge,
> skills, and dispositions in an integrated way to advance the collective work
> of the school under a set of unique conditions (Newmann, King & Youngs, 2000, p. 261).

By coaching collaborative teacher teams, schools have the opportunity to accelerate staff cohesiveness and collective responsibility for student achievement.

Since the literature shows that collaborative teams increase their effectiveness by engaging in the analysis of student assessment data, analyzing student work, and reflecting on instructional practices (Bolam et al., 2005; Hipp & Huffman, 2010; Louis & Marks, 1998; Supovitz, 2002; Supovitz & Christman, 2003; Vescio, Ross & Adams, 2008), one would predict that this could be the work of coaches working with PLC collaborative teams. It has been stated that teachers of the future must become "motivated to analyze a situation, set goals, plan and monitor actions, evaluate results, and reflect on their own professional thinking" (Colton & Langer, 1993, p. 45). Effective analysis of assessment data and student work should both lead to some level of teacher reflection on instructional practices (National Board for Professional Teaching Standards, 1999; Sandholz, 2005). However, self-reflection does not come naturally to all teachers. It is a skill that can be honed over time, especially with the support of an instructional coach (Harrison & Killion, 2007; Jay & Johnson, 2002; Steeg, 2016). Simply

helping teachers understand the differences between reflection *on* action and reflecting *in* action can encourage teams to consider past instructional decisions and use them as a catapult for improved instruction in the future (Schon, 1983, 1991; Steeg, 2016). Providing PLC collaborative teams with instructional coaches can help schools build the capacity for data and student work analysis and reflection on instructional practices that lead to improved teaching and learning. This study placed the focus on coaching PLC collaborative teams in the area of reading instruction.

Coaching Professional Learning Community Collaborative Teams as Professional Development for Literacy Teachers. To increase reading achievement, schools must engage teachers of literacy in collaborative professional development that is focused on evidence-based instructional practices, along with ongoing coaching from experienced colleagues.   An example of success with coaching literacy teacher teams can be seen through a study conducted by the Institute of Education Sciences at the University of Pittsburgh, which centered on content-focused coaching from 2006 through 2010. Content coaches met each week with the grade level team, realizing it would help create "a culture of continuous improvement where all teachers — not just teachers who are new, seen to be struggling, or serve the lowest-performing students — participate" (Bickel, Bernstein-Danis, & Matsamura, 2015, p. 35). In addition, coaches met with individual teachers weekly for planning, classroom observations, and a post conference. The results "showed an increase in effective literacy instruction and student achievement" (Matsumura, Garnier, & Spybrook, 2013). The grade level coaching that took place had an impact, at least in part, on this increase in literacy instruction effectiveness. However, more research is needed to determine how coaching PLC collaborative teams of literacy teachers

impacts effectiveness. This study was designed to answer the question, *What are the implications of an instructional coach's participation in Professional Learning Community (PLC) grade level/content area collaborative team meetings focused on elementary reading instruction in grades 3 to 5 in a suburban Michigan classroom?*

Summary

This chapter illustrates clearly that PLCs provide teachers with highly effective professional development when it is implemented with fidelity. In addition, coaching teachers is an impactful practice that can positively influence classroom instruction, particularly in literacy instruction. When schools combine Professional Learning Communities with effective coaches, they can provide teacher teams with the most powerful professional development available. Rather than coaching individual teachers, the impact of coaches could be greatly expanded by coaching grade level/content area teams. Some districts, one of which was involved in this study, have begun the practice of coaching PLC collaborative teams. By answering the question *What are the implications of an instructional coach's participation in Professional Learning Community (PLC) grade level/content area collaborative team meetings focused on elementary reading instruction in grades 3 to 5 in a suburban Michigan classroom?,* this study provides practitioners with the data to decide for themselves whether or not they should invest in this type of professional development.

CHAPTER THREE: THE STUDY

Introduction

This chapter lays out the theoretical framework under which the study was planned and conducted. The purpose of the study and the resulting research questions are described, and a detailed explanation of the methods for data collection and analysis is provided.

Theoretical Framework

The research in this study was conducted using two theoretical frameworks: the learning organization and educational change. Both theories emphasize the need for organizations to constantly support the collaborative growth of their employees as a means of continuously improving the organization. By embracing change and being willing to learn and grow, organizations can better meet the needs of their clients and meet their collective goals (Fullan, 2006, 2011; Senge, 1990; 2012).

Senge (1990) began exploring the notion of the learning organization with the publication of his book, *The Fifth Discipline*. This book has become the backbone of the learning organization theory in the business world and has also been applied to other fields such as education (see Senge, 2012). Organizations that successfully transform into learning organizations are more likely to excel in a rapidly changing environment (Senge, 1990).

Current literature provides multiple definitions for learning organizations, all of which apply directly to Professional Learning Communities (PLCs) and the idea of coaching teams. A definition of learning organizations provided by Senge (1990) himself accurately describes schools that have implemented the philosophies of Professional Learning Communities with fidelity. Teachers in these schools work in collaborative teams toward the common goal of

improving student achievement. Teams in authentic PLC schools are encouraged to continually

try new methods to reach better results, similar to those described in Senge's definition of

learning organizations:

> Learning organizations [are] organizations where people continually
> expand their capacity to create the results they truly desire, where new
> and expansive patterns of thinking are nurtured, where collective
> aspiration is set free, and where people are continually learning to see
> the whole together (Senge, 1990, p. 3).

These learning organizations must also develop a shared vision and discipline to move towards

common goals and outcomes. There are five disciplines Senge (1990) identifies as necessary in

becoming a learning organization: (1) personal mastery, (2) mental models, (3) shared vision, (4)

team learning, and (5) systems thinking. He explains that these disciplines create a mind shift

toward seeing the big picture, seeing people as being in control of their own realities, and

creating the future rather than simply reacting to the present (Senge, 1990). When schools

practice these five disciplines, they too are better able to develop themselves into learning

organizations that adapt to the constant change taking place in society. By becoming a learning

organization, a school is far more likely to develop into an authentic Professional Learning

Community.

Becoming a learning organization that adapts to change is critical in the world of

education. Like business organizations, schools must be aware of the changing needs of their

"clients," and must be willing to change their systems as a means of meeting those needs. The

most notable author on educational change theory is Michael Fullan (2011, 2006), whose change

theory model focuses on the individuals participating in the change process. His writings

typically deal with the implications of change and the use of methods to assist leaders in

promoting large scale, educational change to positively influence student achievement. Fullan's

educational change theory presents four phases that school change agents must understand: (1)

initiation, (2) implementation, (3) continuation, and (4) outcome (Fullan, 2006; 2011). In order

to successfully implement sustainable change, the change agent must intentionally plan to

address all four phases of the change process.

Fullan (2006) states that Professional Learning Communities (PLCs) are a "flawed

theory" in that their theory of action "is not deeply enough specified by those adopting PLCs…"

(p. 6). He is concerned about the existence of too many "superficial PLCs"– "people calling

what they are doing 'professional learning communities' without going very deep into learning,

and without realizing that they are not going deep" (Fullan, 2006, p. 6). The current study took

place within a school district that has adopted PLCs as a reform and redesign strategy. This

district has also recently integrated instructional coaches into the PLC process. It has initiated

and is in the midst of the implementation phase of the change model. The results of this study

could help the school district to determine whether instructional coaching completed within PLC

collaborative teams can help prevent them from becoming what Fullan (2006) calls "superficial

PLCs."

Change theory centers its foundation on planning each stage of the change process,

basing each step on the intended outcome. To assist in this process, change theorists recommend

that a logic model be designed before initiating any large scale changes (Fullan, 2016). This will

help identify the components of the change and provide the leader with a concrete plan. The

model will predict the outcomes, inputs, sequence of events and help ensure the necessary data

are collected. Figure 1 presents a logic model for this study:
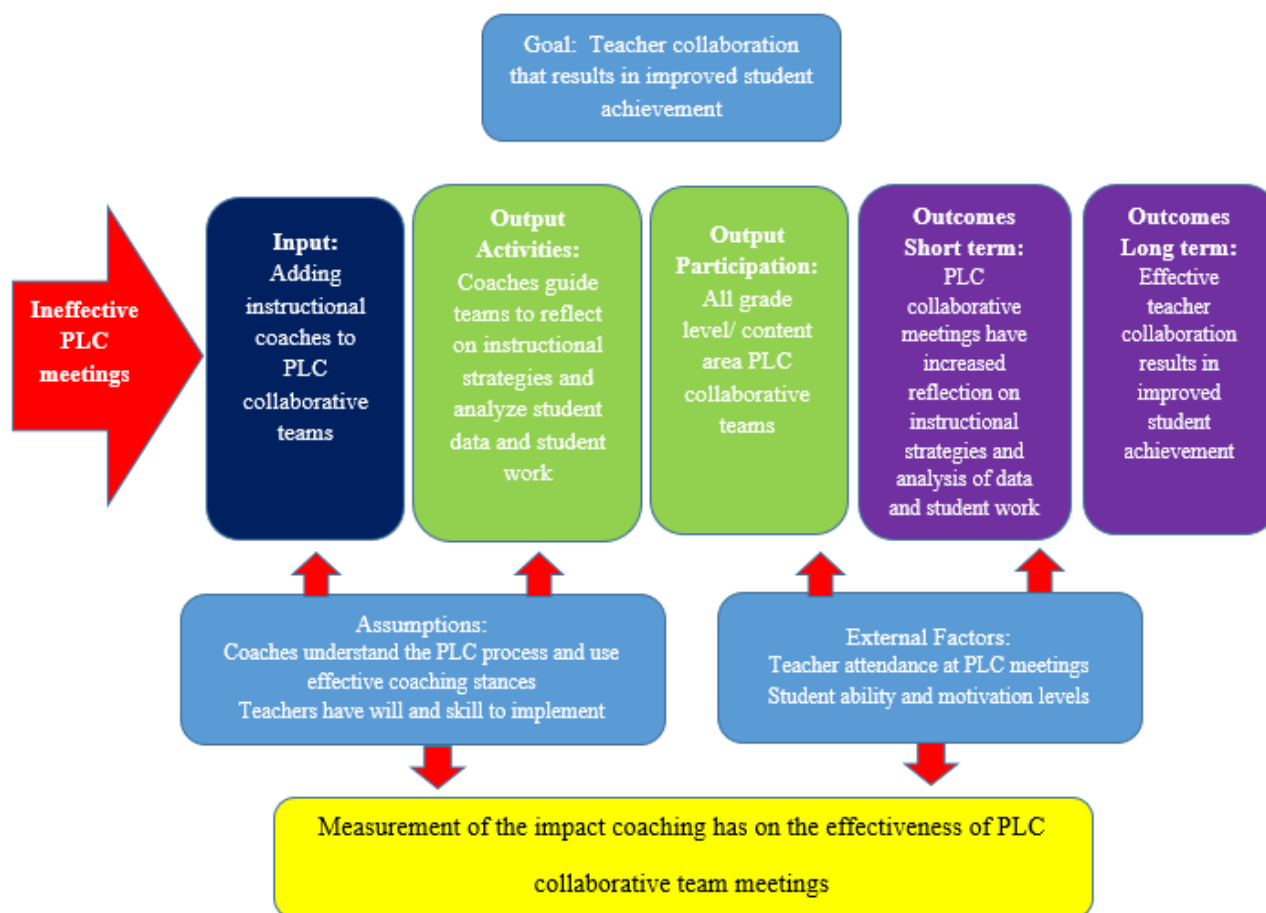
Figure 1: Logic Model for the Current Study

The change being implemented to the learning organization (the school district focused

on in this study) is adding coaches to PLC collaborative team meetings. This logic model shows

that the goal of the change is effective PLC collaborative team meetings that positively impact

instruction and thus, improve student achievement. The red arrow indicates the current condition

as generally ineffective PLC collaborative team meetings. Coaches are added to the

collaborative team meetings to help teams maintain the focus of their conversations on

instruction, assessment data, and student work analysis. While the short-term results are more

effective PLC meetings, the long term results add improved student achievement. However, there are certain assumptions that impact the model, such as the skill level of the coaches, the coaches' level of understanding the PLC process, and whether the teachers on the collaborative team have both the skill and the will to implement the practices suggested by the coach. External factors such as teacher attendance and student ability levels may also impact the results of the change. Taking these factors into consideration, the impact of instructional coaching on the effectiveness of PLC collaborative team meetings was measured in this study.

Purpose and Questions of the Research Study

Michigan's recently passed *Third Grade Reading Law* (MCL 380.1280f, 2016) demands, now more than ever, that teachers provide students with the best reading instruction possible. Two proposed methods for improving teaching and learning were identified through a review of educational literature: the effective use of PLC collaborative team time (i.e. analyzing assessment data and student work and reflecting on instructional strategies) and the practice of instructional coaching as professional development. There is a distinct lack of research showing how or if these two improvement practices converge, which led to the central question of this research: *What are the implications of an instructional coach's participation in Professional Learning Community (PLC) grade level/content area collaborative team meetings focused on elementary reading instruction in grades 3 to 5 in a suburban Michigan classroom?* This overarching question was more specifically addressed through the following sub-questions:

1. How is the effectiveness of grade level/content area collaborative team meetings impacted by various levels of coaches' participation in the meetings? (Effectiveness is determined by how the team spends collaborative meeting time – analyzing student data,

analyzing student work, reflecting upon instructional practices, or other. Levels of

participation may include participation of an experienced instructional coach,

participation of a beginning instructional coach, or no instructional coach at all.)

2. How does the effectiveness of grade level/content area collaborative team meetings

   change dependent upon the stances instructional coaches take during

   meetings? (Effectiveness is determined by how the team spends collaborative meeting time –

   analyzing student data, analyzing student work, reflecting upon instructional practice, or other.

   Stances may include coach as consultant, coach as collaborator, coach as promoter of

   reflective thinking, or no stance at all.)

3. How do grade level/content area PLC collaborative team members perceive instructional

   coaches' participation in collaborative team meetings?

These questions were used to guide the research study, the data collected, and the subsequent

data analyses.

METHODS

The study employed a parallel mixed-methods design. Although there was a sequence to

collecting the data for this study, one method of data collection did not depend upon another;

therefore, this study can be described as parallel rather than sequential (Creswell, 2008; Teddlie

& Tashakkori, 2010). Qualitative and quantitative data were collected simultaneously, with the

results being merged to more fully understand the research questions, data, and analyses

(Creswell, 2008; Teddlie & Tashakkori, 2010). This design can also be described as QUAL +

QUAN, as defined by Morse (1991).

This parallel mixed-method design was chosen due to the complexity of the research questions and the need for an integrated, holistic design to adequately collect and analyze the data (Green & Caracelli, 1997). Using qualitative and quantitative lenses allowed the researcher to better understand the data than was possible by studying it through one lens alone (Creswell, 2008). This may also be described as a triangulation typology, wherein "findings from one method [are] used to corroborate findings generated through other methods" (Teddlie & Tashakkori, 2010, p. 161). By analyzing the study's process (qualitative data) and its outcomes (quantitative data), "a complex picture of social phenomenon" could be developed (Green & Caracelli, 1997, p. 7).

Data Collection

The researcher acted as a non-participant observer during multiple PLC collaborative team meetings of various grade level teams, using an unstructured (open-ended) observation instrument for taking field notes (Teddlie & Tashakkori, 2010). In addition, the audio of each observed meeting was recorded and transcribed as a means of preserving the accuracy of the conversations and coding for themes to build theory. Unobtrusive measures were also collected through the analysis of artifacts – specifically, PLC collaborative team meeting minutes. "Unobtrusive measures (nonreactive measures) allow investigators to examine aspects of a social phenomenon without interfering with or changing it" (Teddlie & Tashakkori, 2010, p. 223). Specifically, minutes from meetings that the researcher did not observe or record were collected and analyzed. Finally, participants self-reported to "express their attitudes, beliefs, and feelings toward a topic of interest" through a survey comprised of both closed-ended and open-ended questions (Teddlie & Tashakkori, 2010, p. 232).

The data collected for this study included (1) the researcher's notes from observations of PLC collaborative team meetings, (2) audio recordings of observed PLC collaborative team meetings, (3) analysis of unobserved PLC collaborative team meeting minutes, and (4) participant surveys about instructional coaching and PLC collaborative team meetings. Each of these data sources were analyzed through qualitative and quantitative lenses using triangulation. This triangulation helped offset the weaknesses of one data set with the strengths of another (Creswell, 2008).

Participants and Context. The Newton Community Schools district, a pseudonym used to protect the research site, is located in the metropolitan area of Detroit, Michigan. With approximately 34,000 residents, the city is approximately 5 square miles. Over the past several years the city has undergone drastic changes both financially and demographically. Home values were reduced by up to 50% due to the economic depression of 2008, and a large number of Newton homes have been turned into rental properties. This has led to extensive transiency amongst Newton students and an increase in the number of students living in poverty; the current student body consists of 89% of students receiving free or reduced lunch. With these demographic changes have come significant decreases in academic achievement. All Newton schools eligible to be identified as Priority by the Michigan Department of Education have been named as such (Michigan Department of Education, 2017).

These academic and demographic challenges have also resulted in a mass exodus of resident students, with fewer than 3,000 of the 7,000 Newton resident students attending Newton schools. This severe decline in enrollment eventually led to a budget shortfall of over $5 million dollars. The district's union agreed to reduce teachers' pay by 24% over three years as a means

of closing the financial gap, which has led to Newton teachers being paid less than all other public school teachers in the county. As a result, the district suffers continuous teacher turnover and chronic rates of absenteeism amongst teachers. Professional Learning Community practices were implemented as a means of increasing teacher competency and student achievement.

Purposeful sampling was used to identify one participant school in the district before data collection began. This type of sampling was chosen as a means to describe "what is 'typical' to those unfamiliar with the case" (Creswell, 2008, p. 215), and is also called typical sampling. All grade level teams within the building participated in the study and represent a "typical" elementary school in the district. Keeping the study within one building ensured that all participant teams had the same expectations for outcomes, the same access to materials, and the same professional learning throughout the course of the school year.

Approximately 375 students attend the participant school in grades three, four and five. There are four classrooms with 113 students in grade three, three classrooms with 97 students in grade four, and three classrooms with 116 students in grade five. There are also two Multi-Aged Child classrooms with a total of 49 students. On average, teachers in the school have been teaching in the building for 3.35 years. There are two instructional coaches who service this building. One coach is new to the role and has been in this position for less than a year. She was previously a teacher in the district and has 6 years of teaching experience. The second instructional coach is employed by the local intermediate school district to assist the school in its turnaround efforts. She has been working with the district for three years and has over 30 years of teaching experience.

Data Analyses: Mixed-Method Approach

A mixed-methods approach was chosen to provide the researcher with a broader approach to fully answering the research questions posed. Neither quantitative nor qualitative data alone would fully explain how the effectiveness of PLC collaborative team meetings are affected by the presence of coaches, so a combination of the two data collection and analysis methods were used. By analyzing data through both narrative and numeric lenses, the researcher could more easily identify emerging themes and corroborate findings through triangulation (Creswell, 2008; Teddlie & Tashakkor, 2010). These analyses were parallel in that qualitative and quantitative collection occurred simultaneously (Teddlie & Tashakkori, 2010). The inductive analysis of this data pointed to emerging themes and theories, leading the researcher to develop a grounded theory (Strauss & Corbin, 1998; Teddlie & Tashakkori, 2010).

Progression of Data Collection and Analysis Processes of the Study. Due to the qualitative nature of the majority of data being collected – observation notes, meeting minutes, open-ended questions on the survey – much of the data analysis was qualitative. However, conversion of this qualitative data to numerical (quantitative) data, along with the numerical data from closed-ended questions on the survey, provided a point of comparison to the emerging themes and theories found in the qualitative data.

Initial data were collected through collaborative team meeting observations and the audio transcription of the conversations that took place during the meetings. Because multiple meetings of various grade levels were observed over time, ongoing analysis (constant comparison) was conducted (Creswell, 2008; Teddlie & Tashakkori, 2010). Concurrently, PLC collaborative team meeting minutes were collected from meetings where the researcher did not

observe. Constant comparison allowed the researcher to compare meeting minutes of one grade level to another and to the observation notes (Creswell, 2008; Teddlie & Tashakkori, 2010). In addition, participants completed a survey with open and closed-ended questions regarding their experiences personally and as a team. The data from closed-ended questions were analyzed with descriptive statistics and open-ended questions were coded for emerging themes and theories (Creswell, 2008; Teddlie & Tashakkori, 2010). All data sources were compared to one another in an effort to create a grounded theory on how instructional coaching impacts PLC collaborative team meetings.

Quantitative Analyses of the Data. The researcher acted as a non-participant observer of collaborative team meetings of all grade level teams (grades third, fourth, and fifth) where she collected both qualitative and quantitative data simultaneously. The researcher utilized descriptive statistics to identify how often specific topics of conversation arose during the observed meetings and the coaching stances taken by the instructional coaches when they were in attendance. Furthermore, the open-ended observation notes were converted to numerical data by identifying each occurrence when keywords and phrases were used, indicating either data analysis, student work analysis, or reflection on instructional practices. The audio recordings of the observed meetings were transcribed using a digital transcription program, corroborating the open-ended observation notes. The transcripts were analyzed through descriptive statistics by identifying each occurrence of data analysis, student work analysis, and reflection on instructional practice, which mimicked the analysis of the open ended observation notes.

During each collaborative team meeting at the participant school, teams use a standardized digital format to record and submit meeting minutes to which the researcher was

given access. The minutes from PLC collaborative team meetings where the researcher was not an observer were collected and analyzed through descriptive statistics by identifying the same occurrences as the observed meetings: data analysis, student work analysis, and reflection on instructional practice. T-tests and chi square analyses were performed using IBM's SPSS statistical analysis software.

Qualitative Analyses of the Data. As mentioned previously, during PLC collaborative meeting observations, the researcher took open ended notes based on the conversations among the team members and coaches. These combined notes were coded through an iterative process where the researcher used inductive reasoning to identify patterns, emerging themes, and theories (Teddlie & Tashakkori, 2010). The same process took place with the written transcripts of the audio recording of meetings the observer attended. PLC collaborative team meeting minutes and open-ended responses on the participant survey were also coded in this manner. In addition, a survey was administered to all participants which included both closed-ended and open ended questions. The closed ended questions were analyzed through statistical analysis utilizing Qualtrics, a data collection and analysis program.

The researcher used the constant comparative method, which was formulated by Glaser and Strauss in 1967 (Taylor & Bogdan, 1998). "By continually comparing specific incidents in the data, the researcher refines these concepts, identifies their properties, explores their relationships to one another, and integrates them into a coherent theory" (Taylor & Bogdan, 1998, p. 137). This method allowed the researcher to code and analyze data simultaneously to identify concepts and emerging themes.

Research Ethics

As with any research conducted with human participants, it was imperative that research ethics be strictly followed. The researcher fully adhered to the code of ethics for conducting educational research with human participants. Participants were adequately informed, and written consent was garnered from all participants, ensuring that their participation was voluntary. In addition, anonymity and confidentiality were honored for all those participating in the study. Finally, permission to conduct this study was obtained from the Institutional Review Board (IRB) of the University of Michigan – Flint. These consent documents and application to the IRB can be found in the attached appendix.

Because the researcher has worked within the school district community for the past several years, certain biases may exist. It was important that the researcher separate her work as a school improvement facilitator from the work of conducting the proposed research study. As the school improvement facilitator, it is not unusual for the researcher to participate in PLC collaborative team meetings. However, in the context of the proposed study, the researcher attended PLC collaborative team meetings only as a non-participant observer.

Limitations of the Study

Limitations in research are defined as weaknesses of a study that are usually out of the researcher's control (Teddlie & Tashakkori, 2010). The most significant limitation in this study was the researcher's connection to the school community in which the study took place. The topic of measuring the impact coaches have on PLC collaborative team meetings was chosen because of the researcher's connection with the school implementing the practice. Although this

is a limitation, the results of the study are of assistance to both the researcher and the school itself, particularly in regard to school- and classroom-level instructional improvements.

An additional limitation is the use of only one school and school district setting. Because this study was only conducted within one school, replication with additional PLC collaborative teams in various contexts may shed further light on the topic and expand existing research. The final limitation to this study is time. While working in a school system full time, the researcher was required to make herself available to meet with PLC collaborative teams, administer surveys, and analyze team artifacts, survey responses, and observation notes in order to obtain the needed data. In addition, PLC collaborative team members volunteered their time to participate in the survey. This limitation was meditated through the use of an online survey, which could be completed remotely and at the participant's convenience, to ease the burden of participation for the PLC team members.

Summary

This chapter has described the two theoretical frameworks under which the research operated: learning organizations and educational change. The fact that there is little to no existing research on coaching collaborative teams in PLCs provides the purpose of the proposed research, which led to the main research question, *What are the implications of an instructional coach's participation in Professional Learning Community (PLC) grade level/content area collaborative team meetings focused on elementary reading instruction in grades 3 to 5 in a suburban Michigan classroom?* Additional sub-questions include:

1. How is the effectiveness of grade level/content area collaborative team meetings impacted by various levels of coaches' participation in the meetings? (Effectiveness is determined by how the team spends collaborative meeting time – analyzing student data, analyzing student work, reflecting upon instructional practices, or other. Levels of participation may include participation of an experienced instructional coach, participation of a beginning instructional coach, or no instructional coach at all.)

2. How does the effectiveness of grade level/content area collaborative team meetings change dependent upon the stances instructional coaches take during meetings? (Effectiveness is determined by how the team spends collaborative meeting time – analyzing student data, analyzing student work, reflecting upon instructional practice, or other. Stances may include coach as consultant, coach as collaborator, coach as promoter of reflective thinking, or no stance at all.)

3. How do grade level/content area PLC collaborative team members perceive instructional coaches' participation in collaborative team meetings?

The methods for answering the research questions were also described, including data collection, participants and context, data analysis techniques, and the progression and analysis processes of the study.

CHAPTER 4: RESULTS OF THE STUDY

The goal of a professional learning community is for teachers to improve their practice, which ultimately results in improved student achievement (Bolam et al., 2005; Louis & Marks, 1998; Newmann, Marks, and Gamoran, 1996; Supovitz, 2002; Supovitz & Christman, 2003). The most effective methods for improving teacher practice through PLCs include the analysis of student data, analysis of student work, and reflection on instructional practices (Bolam et al., 2005; Hipp & Huffman, 2019; Louis & Marks, 1998; Supovitz, 2002; Supovitz & Christman, 2003; Vescio, Ross & Adams, 2008).

To answer the questions posed within the study, the researcher observed collaborative team meetings both with and without coaches present, taking open ended notes and recording the conversations taking place. Through coding, the researcher identified each conversation occurrence where teams engaged in the following effective collaborative team practices: 1) analysis of student data, 2) analysis of student work, and 3) reflection on instructional practices. Additionally, the researcher identified each occurrence where a coach took on a particular coaching stance at each meeting: consultant, collaborator, or promoter of reflective thinking.

The findings of this study illustrate that the presence of coaches at PLC collaborative team meetings resulted in increased occurrences of data analysis and teacher reflection on instructional practices. When instructional coaches attended PLC collaborative team meetings, there were more occurrences of data analysis and teacher reflection than in meetings where coaches were not present. This chapter will provide a detailed explanation of the study's findings including the relevant quantitative and qualitative data supporting those findings.

Findings

The main question of this study is: *What are the implications of an instructional coach's participation in Professional Learning Community (PLC) grade level/content area collaborative team meetings focused on elementary reading instruction in grades three to five in a suburban Michigan classroom?* In short, the results showed that a coach's participation in PLC collaborative team meetings resulted in more effective meetings. Teams engaged in more instances of data analysis and reflection on instructional practice with coaches present than in meetings where coaches were not present. The study's sub-questions provide further detail into these findings. Each sub-question will be addressed in the sections below.

How is the effectiveness of grade level/content area collaborative team meetings impacted by various levels of coaches' participation in the meetings? The researcher observed a total of nine meetings; four meetings included a coach and five did not (observations, April – May 2018, see Appendix G). Of the five un-coached meetings, only one included data analysis and two included reflection upon instructional practice. Three of the five un-coached meetings did not include any elements of effective collaborative team meetings at all. On the other hand, all four coached meetings observed included at least one element of effective collaborative team meetings.

For the purposes of this study, an occurrence is defined as each time a team holds a conversation, no matter how long or short, centered on the elements of effective collaborative team meetings (data analysis, student work analysis, and reflection on instructional practice) or "other." Table 1 (p. 114) provides detailed information on each meeting observed including the type of coach who attended (new or experienced), and the number of conversation occurrences in

each element of effective collaborative team meetings – data analysis, student work analysis, reflection on instructional practice – or other.   The combined number of conversation occurrences from all nine meetings included 18 occurrences of data analysis, two occurrences of student work analysis, and 33 occurrences of reflection on instructional practice. There were 73 occurrences of conversation that did not fit these categories, defined as "other." It is interesting to note that 58% of conversation occurrences were defined as being focused on something other than data analysis, student work analysis, or reflection on instruction. Also interesting is the fact that of the three elements of effective meetings, reflection on instructional practice occurred the most often, at 26%. Even more important is how the presence of a coach did or did not impact the types of conversation that occurred during the observed meetings.

The data show that the type of coach attending team meetings impacted how often teams engaged in the elements of effective collaborative team meetings. Table 2 (p. 115) shows the combined number of conversation occurrences for all nine meetings (data analysis, student work analysis, reflection on instructional practice, or "other") according to the type of coach present (new coach, experienced coach, or no coach). In the two meetings when the new coach was present, teams engaged in data analysis on 10 occasions (35.7%) and reflected on instructional practices nine times (32.1%), as indicated by the data collected (observations, April – May, 2018). In the two meetings when the experienced coach was present, teams engaged in data analysis once (2.3%) and reflected on instructional practices 17 times (40%). There were no occurrences of student work analysis with either coach present. During the five meetings with no coach, teams engaged in data analysis seven times (12.2%), analyzed student work three times (5.3%), and reflected on instructional practices seven times (12.2%) (observations, April-

May 2018; see Appendix G). Teams without a coach engaged in "other" conversation 70.2% of

the time. When comparing the percentage of time un-coached teams engaged in elements of

effective collaborative team meetings (29.8%) to the number of times they spent in "other

conversation" (70.2%), it appears that un-coached teams spent a significant amount of time

discussing matters unrelated to data analysis, analysis of student work, or reflection on

instructional practices. Meetings with coaches present spent comparably less time discussing

"other" matters at 47%.

An independent t-test (Table 3, p. 116) was conducted comparing the number of times

teams engaged in one of the three elements of effective collaborative team meetings (data

analysis, student work analysis, or reflection on instructional practice) in meetings with a coach

to meetings without a coach. There was a significant difference in the use of effective

collaborative team meeting elements when a coach (either new or experienced) was present

(M=6.5, SD =2.646) compared to when no coach was present (M=1.40, SD=.548); $t(7)$=3.650,

p=.008. This data leads to the conclusion that a coach's presence at collaborative team meetings

led to an increase in the elements of effective collaborative team meetings. In other words,

meetings where coaches were not present were less effective.

Meetings where coaches were not present were more likely to include "other" elements

as opposed to data analysis, student work analysis, or reflection on instruction. These "other"

elements typically consisted of teacher teams co-planning upcoming lessons or units. For

example, one team spent the entire observed collaborative team period discussing which poems

to include in their upcoming poetry unit (observation, April 2018; see Appendix G). Another

team spent their observed non-coached collaborative team time identifying dates for book club

activities (observation, May 2018; see Appendix G). While these are important tasks, these

conversations did not include any reference to elements of effective collaborative team meetings

(data analysis, student work analysis, or reflection on instructional practices).

In contrast, a coached meeting was also observed where the team focused their time on

co-planning. However, this meeting was in sharp contrast to the un-coached meetings. The team

was planning to administer a common formative assessment the following week and wanted to

spend team time reviewing the assessment. The first question the coach asked is, "What

standards do we cover in the unit… and what standards… are you covering on the CFA

[common formative assessment]?" (observation, April 2018; see Appendix G). This question

required teachers to reflect on the content of their teaching and whether it and the assessment

were aligned. As they reviewed each assessment item, the coach probed about Depth of

Knowledge levels and whether the items should be revised to increase levels of rigor (Hess,

2004). Despite both meetings being focused on planning, the coached meeting included

reflection on instructional practices while the un-coached planning meeting did not.

Meeting Minutes. In addition to the nine meetings the researcher observed, meeting

minutes were also collected from 11 meetings in which the researcher did not officially observe.

Of the 11 unobserved meetings, four included a coach and seven did not. Two coached meetings

were with a new coach and two coached meetings were with an experienced coach. The district

utilizes a Google Survey format for meeting minutes, which requires teams to identify the PLC

critical question to which the team is responding along with a narrative summary of the team's

discussion. (The 4 critical questions of a PLC are: What do we want students to know and be

able to do? How will we know if students have learned? What will we do for students who have

not learned? What will we do for students who have already learned?) The researcher used this information to code the minutes of each meeting, identifying occurrences of data analysis, student work analysis, reflection on instructional practice, or other.   These data have been separated out from observation data due to their "self-reported" nature. Table 5 (p. 118) shows the number of each occurrence indicated through the meeting minutes as well as the coach type and number of meetings that coach type attended.

Minutes from four meetings were collected where the coach had been present and minutes from seven meetings were collected from meetings without coaches. Of the four coached meetings there were two instances of data analysis (28.5% of the conversation occurrences with coaches were coded as data analysis) and four instances of reflection on instructional practice (57.1%). Of the seven un-coached meetings, there were four instances of data analysis (44.4%), one instance of student work analysis (11.1%), and two instances of reflection on instructional practices (22.2%). When comparing the "other" conversation that took place, the coached meetings included 14.3% other, while the un-coached meetings calculated to 22.2%.

The data from these meeting minutes are consistent with the findings noted through the observation data. When a coach was not present, teams engaged in data analysis more often than any other conversation type. In addition, teams were more likely to engage in conversations that include data analysis and reflection on instructional practices when a coach was in attendance.

Elements of Effective Collaborative Team Meetings.

Student Data Analysis. Spending collaborative team time analyzing student assessment data is considered an effective collaborative team practice in high functioning professional

learning communities (Bolam et al., 2005; Hipp & Huffman, 2019; Louis & Marks, 1998; Supovitz, 2002; Supovitz & Christman, 2003; Vescio, Ross & Adams, 2008).

In coding the transcripts and observation notes from the nine observed meetings, the researcher identified the number of occurrences where teams engaged in student assessment data analysis when a coach was present and when a coach was not present. The difference between the mean of data analysis occurrences for any coach present (2.75) compared to no coach present (0.77) is minimal (see Table 4, p. 117). Teams seem to understand that data analysis is expected when common assessments are administered. However, there is a vast difference between data analysis occurrences with the new coach (M=5.0, SD=.00) compared to the experienced coach (M=.5, SD=.707). A t-test (Table 6, p. 119) was conducted comparing the number of occurrences of data analysis between the new coach and the experienced coach using a statistical significance value of .05. There was a significant difference in the number of occurrences of data analysis when the meetings included the new coach compared to meetings with the experienced coach, $t(2)=9.0$, $p=.012$. The new coach engaged in data analysis a mean of almost five times more than the experienced coach. There are several possibilities for why this may be. For example, it may be that the new coach is more comfortable with data analysis than she is with other coaching actions. Data analysis is concrete, based on numbers on a page, whereas analysis of student work requires deep content knowledge and insight as to student thought processes. Likewise, coaching reflective thinking takes practice and experience that the new coach may not yet possess.

As an example, in one occurrence of data analysis, the new coach asked teachers to share the percentage of students that reached their growth goal on the Northwest Evaluation

Assessment (NWEA). As teachers shared their percentages, it was clear that one teacher's scores came in significantly lower than the others. "The scores are 67%, 47%, 50% and 4%," the new coach said to the teacher with the lowest percentage. "What would you like to know from your team about how they taught it?" Unfortunately, this particular teacher chose to blame her students for the low scores rather than taking the opportunity to learn from her colleagues. She responded by saying, "My kids don't care." While the coach was encouraging collegial sharing, the way she posed the question may have caused the teacher to feel defensive or even embarrassed (observation, April 2018; see Appendix G).

In another instance, the new coach asked a team, "What percentage of yours [students] reached your growth target?" Teachers presented their percentages and the coach responded to each teacher, offering words of encouragement. This eventually led her to ask questions that reflected on instructional practices. "Do you do any morning work to help support this [standard]?" It also led to directive coaching: "If we add that to morning practice, that could help" (observation, May 2018; see Appendix G). The unanswered question here is whether or not the teacher actually changed her practice to include this instruction in her morning practice routine. A future research objective may be to observe coached meetings and follow up to determine if the teachers implement the advice of the coach.

The experienced coach, on the other hand, addressed data analysis far less often than the new coach (2.3% of the time as compared to the new coach at 35.7% of the time). This may be due, in part, to timing and the fact that the teams she coached had not recently delivered any assessments to review. During an occurrence of data analysis she asked, "You haven't done the summative [assessment] on informational text?" (observation, April 2018; see Appendix G).

The team's response was no. She probed further, insisting on analysis by asking, "On the formative assessment, what are they struggling with the most?" This forced teachers to look at the formative assessment data. They determined that main idea was the area students struggled with the most. She then moved to reflection on instructional practices by asking teachers what strategies they were using to support main idea. The teachers discussed the use of graphic organizers, the rubric they used to grade the assessment, and methods for helping students avoid plagiarism. In this case, the coach was more interested in the teachers' reflection on their practice than she was on the actual data. The fact that the experienced coach spent far more time engaging in reflection on instructional practice (17 times or 40.5%) as opposed to data analysis (one time or 2.3%), may show that her priority is for teachers to reflect and improve their practice rather than reviewing the actual numbers in the data.

There is a clear distinction between the new coach and the experienced coach in how often they conducted data analysis with the collaborative teams they coached during this study. In two meetings, the new coach guided 10 occurrences of data analysis (35.7%) while the experienced coach guided a team in data analysis once (2.3%). Because data analysis is concrete, it may be easier for the new coach to engage in data analysis rather than coaching student work analysis or reflection in instructional practice, which require more coaching expertise. It is also possible that the experienced coach is less comfortable with raw data than with instructional practices and encouraging reflection.

Student Work Analysis. The second element of high functioning collaborative teams is that of student work analysis (Vescio, Ross & Adams, 2008). Teams that review student work samples to identify patterns of misconceptions and identify current instructional levels for

individual students are likely to improve student achievement. Among the nine observations, only three occurrences of student work analysis took place, and each of those occurrences was when a coach was not present (observations, April-May 2018; see Table 2, p. 115). Two of the three occurrences took place during a meeting where the collaborative team was discussing a recently administered spelling inventory (observation, May 2018; see Appendix G). The teachers reviewed individual student answers to collaboratively determine students' spelling groups by identifying patterns in students' mistakes and diagnosing needs. For example, one teacher thought a student might be at the "emerging" level for spelling, and shared the student's work with her colleague. "He does recognize beginning sounds most of the time. I would put him into alphabetic instead of emerging. It would be too easy for him," the teacher stated. The team continued in this way for the remainder of the meeting, identifying appropriate spelling groups for each student based upon his/her current instructional level. Utilizing collaborative team time to analyze student work and identify students' instructional levels is an effective tool toward improving student achievement. It is interesting to note that there were no occurrences of student work analysis during the four meetings that coaches attended, which may be cause for further study.

Reflection on Instructional Practice. The final element of effective collaborative team meetings in this study is reflection on instructional practice. In order for teachers to improve instruction, they must consider the strategies they are currently using and the student results those strategies are producing. By reflecting on the effectiveness of those practices and making adjustments to future instruction, teachers can improve their practice and increase student achievement (Lipton & Wellman, 2018; Neuman & Cunningham, 2008). The difference in the

average number of occurrences of reflection on instructional practices between coached and un-

coached meetings is striking. When a coach was present at collaborative team meetings, teams

reflected on their practice a mean of 6.5 times, compared to only 0.77 when no coach was

present. An independent-samples t-test (Table 3, p. 116) was conducted to compare the

occurrences of reflection in meetings that were coach led and non-coach led with a statistical

significance level of .05. There was a significant difference in the number of occurrences of

reflection for coach-led (M=6.5, SD=2.65) and non-coached (M=1.40, SD=0.55) meetings;

$t(7)=4.269$, $p=0.004$. These data suggest that coach-led meetings heavily influence the number of

times teachers reflect on their teaching practices with more occurrences of reflection during

coach-led meetings than when a coach is not present.

The researcher also compared the difference between the number of conversation

occurrences according to coach type (experienced or new). Table 4 (p. 117) shows the mean

number of occurrences per meeting for each coach type. On average, teams meeting with the

experienced coach reflected on instructional practices 8.5 times per meeting. Teams meeting

with the new coach reflected on instructional practices 4.5 times per meeting, and un-coached

teams reflected on instructional practices less than one time per meeting (0.77). These data show

that teams are far less likely to reflect on instructional practices without a coach encouraging

them to do so. This was confirmed through an independent-samples t-test (Table 9, p. 122),

which showed a significant difference in the number of occurrences of reflection of coached

compared to non-coached meetings, no matter whether the coach was experienced or new

(significance was based on a .05 level). There was a significant difference in the number of

occurrences of reflection for experienced-coach-led (M=8.5, SD=2.12) and non-coach (M=1.40,

SD=0.55) meetings; $t(5)=7.948$, $p=0.001$. Likewise, there was a significant difference in the number of occurrences of reflection for new-coach-led (M=4.5, SD=0.71) and non-coach (M=1.40, SD=0.55) meetings; $t(5)=-6.354$, $p=0.001$. However, there was no significant difference in the number of occurrences of reflection between the two types of coaches: new-coach (M=4.5, SD=0.71) and experienced coach (M=8.5, SD=2.12) led meetings; $t(2)=-2.530$, $p=0.127$. These analyses reveal that teacher teams in this study were far more likely to engage in reflection upon instructional practice when a coach was present compared to un-coached meetings.

As an example, in one coached meeting, teachers and the coach were reviewing results from a unit summative assessment (observation, April 2018; see Appendix G). They began by sharing overall scores on multiple standards. It wasn't until the coach asked pointed questions that they began to look at the data from specific standards to influence their future instruction. The coach asked, "So now going forward …what are we going to do to make sure the kids that didn't get it can still do something like this on NWEA [North West Evaluation Association] and MSTEP [the annual state assessment]?" (observation, April 2018; see Appendix G). The teachers responded by sharing their student scores on items that measured main idea, supporting details, and summary skills. In doing so, they found that students scored satisfactorily on identifying main idea and supporting details but scored poorly on summarization. As a result, the team decided to continue modeling summarization and assign students to summarize short passages related to the new unit. They also decided to have paraprofessionals work specifically with small groups of students on summarization skills. Lastly, they all agreed to emphasize main idea and summary in their guided reading groups. The coach's question about next steps led the

team to reflect on their practice and develop a specific plan for further instruction and intervention for struggling students (observation, April 2018;).

The coach was able to help the teachers dive even further into instructional strategies by asking teachers what strategies they used to teach summary and whether those strategies should be transferred into the next unit.

> Teacher: "I gave short, nonfiction articles and we highlighted [the] main idea or underlined or circled. We did [it] three different ways and we used a different color or underlined …the details. Then they had to go take that and transfer it into their writing."

> Coach: "Did you give them the different colors [to use to highlight] the test?"

The teacher reflected upon the coach's question and realized she did not provide students with the opportunity to highlight the test as they had done in practice, although students did have the option to circle or underline on their test booklets. This reflective question posed by the coach led to a team conversation about how teachers can help students independently transfer classroom skills to assessments (observation, April 2018; see Appendix G). This type of reflective conversation did not occur in observed meetings without a coach present.

How does the effectiveness of grade level/content area collaborative team meetings change dependent upon the stances instructional coaches take during meetings? The second sub-question of this study focuses on the stances coaches take during professional learning community (PLC) collaborative team meetings: *How does the effectiveness of grade level/content area collaborative team meetings change dependent upon the stances instructional coaches take during meetings?* Effectiveness is determined by how the team spends collaborative meeting time – analyzing student data, analyzing student work, reflecting upon instructional practice, or other (e.g., Bolam et al., 2005; Hipp & Huffman, 2019; Louis & Marks,

1998; Supovitz, 2002; Supovitz & Christman, 2003; Vescio, Ross & Adams, 2008). These stances may include the coach as consultant, the coach as collaborator, the coach as promoter of reflective thinking, or no stance at all (e.g., Killion et al., 2012, Killion, 2015; Knight, 2009; Lipton & Wellman, 2018; Lipton, Wellman & Humbard, 2003).

The stance a coach chooses to take when working with a team is situational, based on the context and the individual team's needs (Killion et al., 2012, Killion, 2015; Knight, 2009; Lipton & Wellman, 2018; Lipton, Wellman & Humbard, 2003). When a team is inexperienced in an area and requires direction, it is likely that the coach will take a consultant stance. However, when a team seems to be have an idea of where they would like to go but need guidance in achieving their goals, the collaborator stance is often most appropriate. In other situations, the team has reached a level of maturity where they simply need a coach to help them arrive at their own conclusions through reflective thinking. The same team may require each of these stances under different circumstances, even in the same meeting (Killion et al., 2012, Killion, 2015; Knight, 2009; Lipton & Wellman, 2018; Lipton, Wellman & Humbard, 2003). Deciding upon which stance to take is a coaching skill that develops with experience and an understanding of each team's strengths and challenges, which is why this researcher was interested in determining how a coach's decisions on choosing stances impacts the effectiveness of collaborative team meetings.

The researcher observed two meetings with the new coach and two meetings with the experienced coach (observations, April-May 2018; see Appendix G). The observation notes and transcripts from the meeting recordings were coded to identify each occurrence where a coach took one of these three stances. While both coaches spent the same amount of time with teams,

the experienced coach took one of the three coaching stances on 66 occasions while the new coach took a stance on 39 occasions. A Chi Square test (Table 11, p. 124) was conducted using the significance value of .05, which showed a statistically significant difference between how often the two coaches took one of the three coaching stances (x^2=6.94, df=1, p=0.008). The experienced coach chose to take a stance significantly more often than the new coach. The experienced coach's ability to choose a stance more often may simply be due to the fact that she has had more time to practice this skill (Lipton & Wellman, 2018). She may have more confidence in her abilities to monitor each team's level of need and choose the appropriate stance. Because of the new coach's inexperience, choosing which stance to take may be more difficult.

Although the experienced coach took a specific stance far more often than the new coach in the observed meetings, their choices of which stance to take was not significantly different (see Table 8, p. 121). For example, when we look at the instances in which each coach took a stance, the experienced coach took a consultant stance 60% of the time while the new coach took a consultant stance 54% of the time. The experienced coach chose to act as a collaborator 8% of the times she chose a stance, and the new coach chose collaborator 13% of the times she took a stance. Finally, the experienced coach chose the promoter of reflective thinking stance 32% of the times she took a stance, and the new coach chose reflection 33% of the time. A Chi-Square test (Table 11, p. 124) revealed that a coach's level of experience did not significantly influence the coaching stances they take most often during collaborative team meetings (x^2=0.918, df=2, p=0.632). This relatively even distribution of the three stances between the two coaches may be reflective of the teams' levels of need for guidance.

Consultant Stance. The data in Table 12 (pg. 125) show that coaches took the stance as consultants far more often than they took the stance of either collaborator or promoter of reflective thinking. The two coaches took the stance as consultant on 61 occasions (58.1%), while taking the stance of collaborator on 10 occasions (9.5%) and promoter of reflective thinking on 34 occasions (32.4%). A Chi-Square test (Table 11, p. 124), used for categorical data comparisons, revealed that there is a significant difference in the number of times coaches chose the stance of consultant in comparison to collaborator or promoter of reflective thinking (x^2=37.2, *df*=2, *p*=0.000). As many teachers on these teams were newer to the PLC process and are staff members of a Priority school, it makes sense that teams would need more direct guidance through the consultant stance.

Examples of coaches taking the consultant stance during assessment analysis include asking directive questions such as, "Which skills did your kids not get?" or task oriented statements like, "We have to find different strategies to teach this." These types of consultant feedback directed teams back to the data and guided them toward data-based decisions (observations, April-May 2018, see Appendix G). In addressing curriculum issues, coaches made statements in the consultant stance such as, "Our core instruction isn't getting the attention it needs" and "Whatever we can do to promote writing in our classes… Any opportunity to write… If you're using graphic organizers, take it to writing. Don't stop at the graphic organizer. Turn it into a piece of writing because kids struggle moving from the graphic organizer to creating a piece of writing" (observations, April-May 2018, see Appendix G). These examples show the direct, task-oriented coaching that one would expect from the consultant stance.

Collaborator Stance. Of the occasions where the two coaches took a specific stance, they chose to operate as collaborators 9.5% of the time. This stance was taken the least often of all three stances. Examples of a coach using this stance include questions such as, "How did you teach it in your class?" and "Did you teach it the same way?" where the coach was encouraging teammates to connect with each other (observations, April-May 2018, see Appendix G). In another example, a coach told the team, "If you want to take notes on it, I can take the changes you want back to the curriculum team" promoting communication between the team and representatives of the district's curriculum committee (observation, April 2018, see Appendix G). One coach even offered to work with the team to write their own reading passages that would better appeal to their students' interests. "What are things that your students are interested in that we could find passages for and use on the test?" she asked. "We could even write our own," offering to work side by side with the teachers she coaches (observation, April 2018, see Appendix G). These instances show a true willingness on the part of the coach to be a collaborative partner in the work of improving student learning.

Promoter of Reflective Thinking Stance. The final coaching stance studied in this research was that of promoter of reflective thinking. Having spent the same amount of time with teams, the experienced coach took this stance on 21 occasions (31.8%) while the new coach took this stance on 13 occasions (33.3%). Specific examples of coaches acting in the role of promoter of reflective thinking include questions such as, "Where do you think we go from here? How can we switch instructional strategies so they can hang on to the skills?" (observation, April 2018, see Appendix G). In another instance, the group was discussing a common formative assessment and its results. The coach asked, "Is it giving you the information you want? Are you finding

that your results are giving you what you're expecting? Is it reflecting what you taught?"

(observation, May 2018, see Appendix G). These questions encourage teachers to think deeply

not only about past practices, but also to consider their next steps (Schon, 1983). One of the

ultimate goals of a professional learning community is for teachers to reflect upon their own

practice in light of student results and make changes to their practice that will improve student

learning (Bolam et al., 2005; Hord, 1997, 2004; Hord & Sommers, 2008; Huffman & Hipp,

2003). By acting as a promoter of reflective thinking, coaches are encouraging these desired

behaviors.

   Effective conversation as a result of coaching stances. In addition to coding

observation notes and transcripts to determine when coaches took the stance of either consultant,

collaborator, or promoter of reflective thinking, the researcher also worked to identify patterns

between coaching stances and resulting conversational occurrences. A conversational

occurrence was defined as an instance when a coach took a specific coaching stance that led to

further discussion toward student data analysis, student work analysis, or reflection upon

instructional practices.

   After coding the data, it was found that a coaching stance led to a conversational

occurrence 60% of the time (see Table 13, p. 126). During the nine meeting observations,

coaches chose the stance of consultant on 61 occasions, 10 of which resulted in some form of

data analysis (6.1%). Coaches acting as consultant did not result in student work analysis but did

lead to 20 occurrences of reflection upon instructional practices (32%). Overall, when a coach

took a consultant stance, it led to a conversation occurrence of either data analysis, student work

analysis, or reflection on instructional practice, 49% of the time.

There were ten occasions where coaches acted as a collaborator in the nine observed meetings. Four of those instances resulted in reflection on instructional practice (40%) but none on data analysis or student work analysis. Among the 34 occasions where a coach chose the promoter of reflective thinking stance, there were six cases that led to data analysis (17.6%), no cases of student work analysis, and 23 cases of reflection on instructional practice (67.6%). In total, when a coach took the stance of promoter of reflective thinking, it led to an effective conversation occurrence 85.2% of the time. These data reveal that by taking on the role of promoter of reflective thinking, coaches are more likely to help teachers reflect on their own instructional practices.

For example, in one instance the coach took the stance of promoter of reflective thinking and brought up the fact that students did not seem to be retaining information about text structure from one grade level to the next (observation, April 2018, see Appendix G).

> Coach: "The way we're teaching it …they're going to the next grade level and they're not remembering. How do you think we can switch …instructional strategies where they can hang onto it a little better?"

This simple question led the team to a complex discussion about determining appropriate instructional text levels for students.

> Teacher: "The biggest problem I'm seeing is if you can't read, you can't distinguish what [structure] the text is, and my children are two to three years behind in reading. …How do you pick up their sequencing in a text if you can't read any of the text? So either we need to bring the text down in which we're teaching to their level so they can read it and pick out these text structures, or we need them to actually read more to bring up their reading …abilities" (observation, April 2018, see Appendix G).

As the conversation continued on, the teachers agreed they need to have students practice reading at their instructional levels more often but, since students are required to read grade level

text on the state assessment, students also need more exposure to grade level texts. The team concluded that they need to engage in guided reading groups more often, since many teachers were only seeing some student groups once per week. Because guided reading is designed to be at students' instructional levels, delivered within small group instructional settings, engaging in this practice more often would provide students more opportunities practicing with texts at their own instructional levels, in addition to the grade level texts they would encounter during large group literature units.

How do grade level/content area PLC collaborative team members perceive instructional coaches' participation in collaborative team meetings? The final sub-question in this study relates to teachers' perceptions of coaches' attendance at collaborative team meetings. The researcher collected perception data via an online survey consisting of both closed and open-ended questions. The survey was administered to all classroom teachers on collaborative teams (9 teachers total), with a response rate of 95%. Six of the nine teachers (67%) agreed to take the survey, one teacher declined (1%), and two did not respond (2%). Because the sample size is small, the results are not generalizable. However, the data provides insight into the individual school with possible ramifications for the school district.

In designing the survey, the researcher intentionally posed multiple questions related to the same topic in order to confirm respondents' answers. Appendix D (page 141) provides a blueprint of the survey questions, showing each item number and the topic to which, it is related. For example, survey questions 10, 18 and 23 were selected response items related to the topic of "data analysis with coach." This blueprint assisted the researcher in determining which items to compare for analysis.

To analyze the survey data, the researcher compared item results to determine whether correlations exist among respondents' answers. Appendix E (page 142) displays the items that were compared, an analysis of the results, and conclusions that were drawn as a result of the comparison. As an example, item number 5 asked teachers to estimate how much time they spend analyzing data at collaborative team meetings without a coach present and item number 10 asked for an estimation of the amount of time spent analyzing data at collaborative team meetings when a coach was present. 83% of respondents stated that they spend 10-20 minutes analyzing data when no coach is present. Responses varied widely when asked about data analysis with a coach present: 33% 10-20 minutes; 33% fewer than 10 minutes; 16% 20-30 minutes and 16% more than 30 minutes. In this case, it appears that teachers feel they spend more time analyzing data without a coach present at collaborative team meetings. However, observation data differs from this perception. The mean number of data analysis occurrences were .77 with no coach and 2.75 with a coach.

The second element of effective PLC collaborative team meetings is student work analysis (Vescio, Ross & Adams, 2008). Survey item number 6 asked respondents to identify how much time they typically spend at collaborative team meetings analyzing student work. 67% of respondents stated that they spend an average of 10-20 minutes per meeting analyzing student work when no coach is present, 33% responded that they spend 10-20 minutes analyzing student work when a coach is present, and 50% responded that they spend fewer than 10 minutes analyzing student work when a coach is present. This data is consistent with observation data in that teams did not analyze student work in any meetings with coaches present. However, only 5.3% of meetings with no coaches present included any student work analysis at all.

In comparing teacher reflection on instructional practice with coaches (items 12 and 13) and without coaches (items 7 and 8) in attendance, teachers felt that they spend the same amount of time reflecting on instructional practice whether a coach was present or not. However, observation data show that teachers reflected a mean of 6.5 times per meeting with a coach present compared to less than once per meeting (0.77) when there was no coach present.

Survey questions 22 and 15 compare respondents' perceptions on whether a coach detracts from meetings or is helpful. Teachers were evenly split on these questions with 50% feeling coaches make meetings less effective and 50% feeling the coach's presence was beneficial. These divergent responses were consistent throughout several similar questions: 50% felt coaches make meetings less effective (item 22), 50% felt the coach was distracting (item 16), and 50% agree the coach encourages reflection (item 21). However, survey question number 23 asked teachers to choose all answers that apply. In that case, 37.5% of teachers answered that coaches distract the team from their work, 12.5% stated that coaches help data analysis, 25% stated that coaches encourage student work analysis, and 25% stated coaches help teacher reflection on instructional practice. These inconsistencies can be further examined by making additional comparisons. For example, 33% of respondents agreed that the coach encourages data analysis (item 18), but only 12.5% chose this statement to be true in item 23. For item 21, 50% of respondents agreed that coaches encourage reflection on instructional practice, but in item 23, only 25% of respondents stated that coaches help teachers reflect on instructional practice. The format of the question may play a part in these divergent responses, but these inconsistencies lead to inconclusive results.

The open-ended survey questions revealed that there were two respondents who had negative perceptions toward the instructional coaches. These two individuals felt that there were no benefits to having coaches attend meetings and that they "distract from the original agenda" and it was a waste of time always having to "bring coaches up to speed" since they did not attend meetings every week. On the other hand, there was also a clear theme identifying coaches as helping teams "dig deeper into data" and making meetings "more productive." They felt that coaches held teachers accountable, suggested new instructional strategies, provided unbiased perspectives, and asked teachers reflective questions. This vast difference in opinions shows the importance of coaches' relationships with individual teachers and the need for trust among coaches and individual team members (Harrison & Killion, 2007; Knight, 2007, 2009; Lipton & Wellman, 2018).

Conclusion

This chapter examined the results of the study's data collection in an attempt to answer the research question, *What are the implications of an instructional coach's participation in Professional Learning Community (PLC) grade level/content area collaborative team meetings focused on elementary reading instruction in grades three to five in a suburban Michigan classroom?* The researcher utilized meeting observations, meeting minutes, and a survey with both open and closed ended questions to investigate, finding that collaborative team meetings that included coaches were more effective than team meetings where coaches were not present. The data revealed that teams were more likely to engage in data analysis and reflection on instructional practices when coaches attended PLC collaborative team meetings.

In addition, the research revealed that when a coach chose to take a specific coaching stance, teams were more likely to engage in elements of effective PLC collaborative team meetings. In fact, when a coach took on one of the three coaching stances, it led to an element of effective PLC collaborative team meetings 60% of the time. Interestingly, when a coach took the stance of promoter of reflective thinking, it led to an effective element of PLC collaborative team meetings 85.2% of the time. This leads one to believe that coaches should be trained to identify opportunities for taking a coaching stance in order to lead teams toward more effective collaborative team meetings. This conclusion will be explored further in Chapter 5.

Although the survey data indicate that teachers feel they spend the same amount of time (or more) engaging in high quality collaborative team activities such as analyzing student data, analyzing student work, and reflecting on instructional practices, the opposite was shown to be true through observation data and meeting minutes. While the survey indicates that, on average, teachers feel they spend approximately 10-20 minutes at each meeting analyzing student data, observations show that only 12% of team activities included analyzing assessment data compared to 35% when the new coach was present (see Table 2, p. 115). While 83% of teachers felt that they spent between 10 and 30 minutes of each PLC collaborative meeting reflecting on instruction, observation data showed that only 12% of team activities included teacher reflection, compared to 37% when coaches were present (see Table 2, p. 115). In fact, over 70% of team activities when coaches were not present were focused on "other" activities, such as searching for reading materials, compared to 47% of activities being identified as "other" when coaches were present (observations, April-May 2018, see Appendix G). These data clearly show that

teachers spend more time analyzing student data and reflecting on instructional practices when coaches are present at collaborative team meetings.

Finally, the perception data gathered through the participant survey revealed that teachers were evenly split on whether they feel coaches' attendance at PLC collaborative team meetings lead to more effective meetings. Overall, 50% of respondents indicated that coaches improve the effectiveness of PLC collaborative team meetings (see Appendix E, p. 142). It is interesting to note that some respondents contradicted their own answers among the survey items. For example, survey items 20, 21 and 23 all asked respondents whether coaches help teams reflect on instructional practice, yet each item yielded different results at 33%, 50%, and 25% respectively in agreement that coaches encourage teams to reflect on instruction (see Appendix E, p. 142). These survey results also revealed an element of distrust between at least two teachers and the instructional coaches, emphasizing the need for positive relationships between coaches and teachers in order to reach the maximum impact that coaching can provide (Aguilera, 2016; Killion, 2007; Knight, 2007; Lipton & Wellman, 2018; Teague & Anfara, 2012). These data will be discussed further in Chapter 5 as we explore the conclusions and implications of the study's findings.

CHAPTER 5: CONCLUSION

Schools across the nation have increasingly committed to hiring instructional coaches as a means of improving professional development and increasing student achievement—so much so that the number of instructional coaches in American schools has doubled in the last 18 years (Galey, 2016). While the majority of instructional coaches have been hired to work with teachers one on one, some schools have begun the practice of coaching collaborative teacher teams as a way of increasing efficiency and promoting the Professional Learning Communities model (Many, Maffoni, Sparks & Thomas, 2018). However, very little research exists on the effectiveness of coaching collaborative teams. As such, the author of this parallel mixed-methods study set out to answer the question, *What are the implications of an instructional coach's participation in Professional Learning Community (PLC) grade level/content area collaborative team meetings focused on elementary reading instruction in grades 3 to 5 in a suburban Michigan classroom?* This study included conducting observations of PLC collaborative team meetings both with and without instructional coaches, analyzing meeting minutes of unobserved PLC collaborative team meetings both with and without instructional coaches, and administering perception surveys to teachers involved in the study. Several sub-questions expanded the study by examining the effectiveness of grade level/content area collaborative team meetings by various levels of coaches' participation in the meetings, change dependent upon the stances instructional coaches take during meetings, and grade level/content area PLC collaborative team members perceive instructional coaches' participation in collaborative team meetings. The following discussion of the study and its implications for educational research and school as well as classroom practices will be examined in this chapter.

Discussion of Findings

   Elements of Effective PLC Collaborative Team Meetings. Literature clearly shows

that, "collaboration and professional learning [are] two characteristics that consistently appear"

among the most effective schools ("The State of Teacher Professional Learning", 2017, p. 5).

The Professional Learning Communities model combines purposeful collaboration with elements

of high-quality professional learning activities that are ongoing, sustainable, and include

opportunities for teacher experimentation and reflection (Borko, Jacobs, & Koellner, 2010). This

study shows that including instructional coaches in this process results in PLC collaborative team

meetings that are more effective than meetings without the presence of instructional coaches.

   Studies conducted by Supovitz (2002) and Supovitz & Christman (2003) show that when

teachers spend more time analyzing student work, analyzing assessment data, and reflecting on

their instruction, student achievement levels increase proportionately. The more teachers engage

in these practices, the more student achievement increases (Bolam et al., 2005; Louis & Marks,

1998; Supovitz, 2002; Supovitz & Christman, 2003; Vescio, Ross & Adams, 2008; Hipp &

Huffman, 2019). Although this study did not directly measure student achievement levels, team

meetings with coaches included more time engaging in the analysis of student data and reflection

on instructional practices increases (Bolam et al., 2005; Louis & Marks, 1998; Supovitz, 2002;

Supovitz & Christman, 2003; Vescio, Ross & Adams, 2008; Hipp & Huffman, 2019). Based on

the research cited above, it can be deduced that student achievement levels will increase as a

result of more time spent analyzing assessment data and reflecting on instruction, which both

increased as a result of the attendance of instructional coaches at collaborative team meetings. In

light of this deduction, it may behoove school and district leaders to intentionally create

opportunities for instructional coaches to regularly attend PLC collaborative team meetings, which are likely to lead to an increase in student data analysis and reflection on instructional practices.

The vast majority of existing literature on instructional coaching is focused on coaching individual teachers (Killion, Harrison, Bryan, & Clifton, 2012; Knight, 2015, 2009, 2007; Kowal & Steiner, 2007; Lipton & Wellman, 2001; Lipton, Wellman, & Humbard, C., 2003; Lynch, Moody & Stricker, 2015; Many & Maffoni, 2016; Many, Maffoni, Sparks & Thomas, 2018; Matsumura, Garnier, & Spybrook, 2013; Neufeld & Roper, 2003; Steiner & Kowal, 2013. Working with individual teachers to identify goals for improvement, model best practice instructional strategies, and collaboratively solve instructional problems are common goals for instructional coaches. However, this study shows the need to expand the coaching research to include the implications of coaching collaborative teams. Schools could benefit by identifying specific PLC collaborative teams that need additional support and intentionally scheduling instructional coaches to attend those team meetings. By increasing the likelihood that teachers will spend PLC collaborative team meetings engaged in effective practices such as analyzing student work, analyzing assessment data, and reflecting on instructional practices with the presence of coaches, leaders also increase the likelihood that student achievement will increase as a result.

Assessment Data Analysis. Not only did the presence of coaches at PLC collaborative team meetings impact the effectiveness of PLC collaborative team meetings, but how the coach engaged in each meeting impacted the meeting's effectiveness as well (observations, April – May 2018; meeting minutes, April – May 2018, see Appendix G). The study looked at how

often each coach engaged with the team in the elements of effective PLC collaborative team

meetings – analyzing assessment data, analyzing student work, and reflecting on instructional

practices. Interestingly, the new coach engaged in data analysis almost ten times more often than

the experienced coach (see Table 2, p. 115). This may be due simply to the timing of meetings

and whether assessments had recently been given (i.e. availability of recent assessment data).

However, it is also possible that the new coach was more comfortable with the concrete aspects

of data analysis compared to the ambiguity of student work analysis and reflection on

instruction. While data analysis is based on specific figures, successfully analyzing student work

and encouraging reflection on instructional practices is more abstract and requires a coach to be

insightful about both student and teacher thought processes. These coaching practices

necessitate the coach to be skilled at posing probing questions that help teachers delve into the

underlying meaning of why students and teachers chose specific processes (Aguilar, 2016;

Knight, 2009; Knight, 2015, Lipton & Wellman, 2018). It is possible that the new coach felt

more comfortable with the concreteness of data analysis and, therefore, spent more time in that

activity than in analyzing student work and reflecting on instructional practices. Lipton &

Wellman (2018) show that it is important for coaches to have a repertoire of strategies in order to

fluidly provide effective feedback. It is possible that the new coach did not have enough

experience from which to draw to utilize student work analysis and reflection on instruction as

coaching practices. This study shows the need for coaches to be trained in how to provide teams

with effective feedback that leads teams to the use of effective elements of PLC collaborative

teams. By providing coaches with specific training on the elements of effective PLC

collaborative teams, districts show they are learning organizations willing to adapt to the needs

of their stakeholders (Senge, 1990). Furthermore, training coaches empowers them to become

change agents who support the implementation of the Professional Learning Communities

model, avoiding what Fullan calls "superficial PLCs" (Fullan, 2006, 2011).

Student Work Analysis. The primary aim of analyzing student work is to determine

whether instruction is leading to increased student understanding (Little, Gearhart, Curry&

Kafka, 2003; Sandholtz, 2005). It is interesting to note that, among the nine observations of

collaborative team meetings both with and without coaches present, only three occurrences of

student work analysis took place (observations, April – May 2018; see Appendix G). Each of

those three occurrences took place when a coach was not present. All three occurrences took

place at the same meeting where teachers used the results of a spelling assessment to confirm

their analysis of student groupings for future instruction. This seemed to be a natural step in

their data analysis and helped ensure they were making accurate decisions for students' next

steps. One can only speculate as to why coaches did not ask teams to look at student work to

confirm their data analysis decisions in this same way, or why other collaborative teams did not

use a similar process. Coaches need to be trained on how to help teams engage in student work

analysis, and how to connect it to both assessment data analysis and reflection on instructional

practice (Little, Gearhart, Curry& Kafka, 2003; Sandholtz, 2005). Because the results of this

study did not show this effective element of collaborative team meetings to be prominently used,

it leads this researcher to conclude that more training is needed on what teams can learn from

analyzing student work and how to go about engaging in the process.

Reflection on Instructional Practice. Teacher reflection is readily considered one of the

most powerful influences on the growth and development of educators (Colton & Sparks-Langer,

1993; Jay & Johnson, 2002; NBPTS, 1999; Schön, 1983, 1991). In fact, the National Board for Professional Teaching Practice (NBPTS) directly states that teacher reflection "will improve the quality of teaching and improve student learning" (1999, p. 7). By examining past practices, teachers can identify patterns, causal factors, and student results that lead to increased understanding about teaching and learning (Lipton & Wellman, 2018; Schon, 1983, 1991). Most importantly, teachers can use this increased understanding to influence future decisions about instructional practices.

When a coach attended PLC collaborative team meetings in this study, team members were almost 6 times more likely to reflect on their instructional practices than when coaches were not in attendance (see Table 5, p. 117). In meetings with coaches, teachers reflected on their practice a mean of 6.5 times, whereas in meetings without coaches, teachers reflected on their practice a mean of 0.77 times. Based on these data, the inclusion of coaches at PLC collaborative team meetings leads to an increase of reflection practices. By simultaneously providing teacher teams with support and pressure through paraphrasing and probing questions, coaches provide teachers teams with the opportunity to process past experiences and think about them in new ways to influence future decision-making (Lipton & Wellman, 2018, Lynch, Moody and Stricker, 2015; Schon, 1983, 1991). When coaches are not present to paraphrase and pose probative questions, teams are left to rely upon each other to encourage reflective thinking. However, in most cases, teachers are not trained in the practice of encouraging reflection among their colleagues. There is often uneasiness among collaborative team members in challenging the status quo and pushing one another to think deeply, which is why these skills must be explicitly taught through collaboration (DuFour, et al., 1998; 2006; 2008; 2010). Until teams

have been explicitly taught and have had time to practice these skills, it is important that coaches become a regular part of collaborative team meetings to model the use of reflection practices, as well as model the practice of leading teammates to reflection through paraphrasing and questioning.

Coaching Stances. The literature on instructional coaching promotes the idea of coaches intentionally designing their feedback according to specific "stances" (Killion et al., 2012; Killion, 2015; Knight, 2009; Lipton & Wellman, 2018; Lipton, Wellman & Humbard, 2003). When coaches in this study took on a specific coaching stance – either consultant, collaborator, or promoter of reflective thinking - teams were more likely to engage in data analysis or reflection on instructional practices. In fact, coaches taking a stance led to effective meeting elements 60% of the time (Table 13, p. 126). The results of this study confirm the importance of training coaches on how to provide teams with effective feedback utilizing intentional coaching stances (Killion et al., 2012; Killion, 2015; Knight, 2009; Lipton & Wellman, 2018; Lipton, Wellman & Humbard, 2003). As coaches become more experienced in using the stances, they develop what Lipton & Wellman (2018) refer to as "fluency of interaction" wherein they are able to move among the coaching stances according to verbal and nonverbal cues (pg. 38).   With ongoing training and practice, coaches increase their proficiency in both choosing and utilizing the stances to maximize the effectiveness of coaching conversations. With training, practice, and experience, coaches become "increasingly more flexible, expanding their skill sets to differentiate conversations, monitoring goals for teachers' development over time" (Lipton & Wellmn, 2018, pg. 39). By intentionally training coaches on feedback stances and providing

opportunities for practice, coaches become more fluid in their use at PLC collaborative team meetings, which will lead to an increase in the elements of effective collaborative team meetings.

For the purposes of this study, both coaches were observed for the same amount of time with collaborative teams, yet the number of times they chose to take a stance varied greatly. There are a number of reasons for why these differences may exist, including their levels of comfort with more abstract content such as teacher reflection. The data in this study show that the experienced coach chose to take a stance significantly more often than the new coach (Table 8, p. 121). This may be simply because of her extensive experience with coaching and extended opportunities to practice providing teams with feedback. In addition, the experienced coach was trained through the Michigan Department of Education Coaching 101 program, wherein the new coach in this study had received little formal training. This study shows that when coaches chose to provide feedback using a specific stance, teams were more likely to engage in data analysis or reflection on instruction. Providing coaches with training about the stances and how and when to use them will increase the likelihood that coaches will intentionally use specific stances during team meetings. In turn, according to the data in this study, coaches using stances more often will lead to teams analyzing assessment data and reflecting more often on instructional practices – all leading to increased student achievement (Killion, et al., 2012, Killion, 2015; Knight, 2009; Lipton & Wellman, 2018; Lipton, Wellman & Humbard, 2003).

Consultant Stance. Although the experienced coach took a specific stance far more often than the new coach, the specific stances they chose were not statistically different (see Table 11, p. 124). There was a relatively even distribution among the three stances when the coaches used them. Of the three stances, the coaches took on the stance of consultant over 58%

of the time. The consultant stance is the most direct of the three and provides teachers with task

oriented feedback directly related to the immediate conversation (Killion et al., 2012, Killion,

2015; Knight, 2009; Lipton & Wellman, 2018; Lipton, Wellman & Humbard, 2003).

Interestingly, when a coach took a consultant stance, it led to an element of effective

collaborative team meetings 49% of the time (see Table 13, page 126). These data show the

value of the consultant stance and the fact that it often leads to either data analysis or reflection

on instructional practices. However, Lipton & Wellman (2018) warn that, "If overused, the

consultant stances builds dependency on the mentor [coach] for problem solving" (pg. 42). It is

important that coaches understand the danger of overusing the consultant stance so that coaching

provides scaffolding that leads to independence rather than an over-reliance on the coach.

Collaborator Stance. Knight (2007) calls collaboration "the lifeblood of instructional

coaching" (p. 27). When a coach takes on a collaborator stance, they seize the opportunity to

work side by side with teachers to co-generate ideas, solve problems, and analyze data (Knight,

2007; Lipton & Wellman, 2018). They operate as equals to improve teaching and learning. The

coaches in this study took on the collaborator stance only 9.5% of the time (Table 8, page 121).

This can be a difficult stance for coaches to take on as they must conscientiously measure the

amount of input they provide so as not to overtake conversations (Lipton & Wellman, 2018). In

contemplating why the coaches in the study spent so little time in the collaborative stance, it

makes sense to consider the needs of the PLC collaborative teams they were coaching. Teams

were comprised mostly of teachers new to the PLC process, all of whom were employed in a

high priority school identified by the state for low student achievement. Under these

circumstances, it is understandable that coaches would spend more time in the consultant stance

than any of the other three. However, it is also important to nudge teacher teams toward reflection on instructional practices as a means of improving teaching and learning.

Promoter of Reflective Thinking Stance. With reflection on instructional practice being one of the three elements of effective collaborative team meetings, the coach's role as promoter of reflecting thinking is an important stance. Lipton and Wellman (2018) describe the ultimate aim of this stance as development of "the internal resources of self-coaching" (p. 47). The best coaches provide teachers with tools for reflection and lead by example through their own self-reflection processes (Knight, 2007). For the purposes of this study, coaches promote reflection *on* action rather than reflection *in* action, as delineated by Schon (1987), since the reflection is taking place during PLC collaborative team meetings after the teaching has already taken place.

During this study, coaches took the Promoter of Reflective Thinking stance 32.4% of the time (Table 8, p. 121). When coaches took on this stance, it led to data analysis or reflection on instructional practices over 85.2% of the time (Table 13, p. 126). Of the three stances, Promoter of Reflective Thinking was the most likely to result in one of the elements of effective PLC collaborative team meetings. However, it was also the stance taken least often by the new coach (see Table 8, p. 121), emphasizing the need for coaches to be intentionally trained in coaching stances.

By training coaches on the differences among the three stances and when and how to employ them, schools increase the likelihood that coaches will intentionally utilize those stances, which will result in increased occurrences of the elements of effective PLC collaborative team meetings. In this study, the coaches had received such training in these stances and utilized them within and across the PLC collaborative meetings. Specifically, it is crucial that coaches

understand the importance of promoting reflective thinking and the fact that it most often results in data analysis or reflection on instructional practices. Although the consultant stance is the most concrete and is the most accessible for new coaches, schools seeking to become learning organizations (Senge, 1990; 2012) will intentionally train coaches to use all three stances, differentiating their support as teams require.

Senge (2012) explains that educators must change the way they interact with others if the school is to become a true learning organization. This means that structural change (ie. inserting the structure of professional learning communities) while necessary, is not enough. School leaders and, in the case of this study, coaches must look inward to identify patterns of relationships with teachers and teacher teams to determine whether they are adequately addressing relational needs (Senge, 2012). Simply departing knowledge is insufficient. For coaching to be effective, coaches need to nurture the connection between learning and learners. This study shows the need for schools and districts to provide coaches with intentional, direct instruction on how to build relationships alongside the technical information on coaching stances if they are to become an authentic Professional Learning Community.

Adding coaches to Professional Learning Community collaborative teams, as was done in this study, provides schools with the opportunity to accelerate the "reculturing" needed to become a true Professional Learning Community and learning organization (Fullan, 2001; Senge, 1990, 2012). Coaches have a unique opportunity to create a space where teachers learn to seek out new ideas, assess them critically, and connect them to their own contexts for implementation (Fullan, 2001). However, this work cannot be accomplished without positive relationships between coaches and teachers teams.

Teacher Perception of Coaches' Participation in PLC Collaborative Team Meetings.
The final sub-question in this study asked how grade level or content area PLC collaborative team members perceive their coaches' participation in collaborative team meanings. The survey administered to all participants revealed that teachers were evenly split as to whether coaches attending collaborative team meetings increased effectiveness or not. These opinions seemed to be impacted by the relationship levels between the coaches and the individual teachers taking the survey. While the data shows a significant increase in the effectiveness of collaborative team meetings when coaches were present, 50% of teachers felt that coaches' attendance actually detracted from the meetings (see Appendix D, p. 141). In fact, there were several discrepancies between the observation data and teacher perceptions. For example, the survey revealed that many teachers felt they conducted data analysis more often without coaches present at PLC collaborative team meetings. However, observation data show that teams were more than three times more likely to analyze student data when a coach was present than when teams met without coaches (mean data analysis occurrences without coaches were .77 and with a coach were 2.75) (see Table 4, p. 117).

While the majority of open-ended survey responses showed that teachers appreciated the coaches providing unbiased perspectives, nudging teams forward through reflective questions, and encouraging teams to dig deeper into the data, there were clearly two respondents who felt differently. These two teachers openly expressed their frustration with coaches attending their meetings. One open-ended question asked respondents to explain what benefits they see in having instructional coaches attend their PLC collaborative team meetings. One respondent stated that he/she did not see any benefit in their attendance and another respondent stated, "I

find the coaches to be intrusive to the team's discussion because they are not regularly part of the team so they need to be caught up a lot and take away from what the team is working on" (Survey, May 2018). Another question asked respondents to identify what could make their PLC collaborative team meetings more effective. One response stated, "An environment where teachers are allowed to think with creativity and not constantly worry about the 'judging' that happens by coaches." Clearly, there is at least one damaged relationship among the teachers and coaches in this study.

Literature on both instructional coaching and Professional Learning Communities explain the importance of trust among participants (Aguilera, 2016; DuFour, et al., 1998, 2006, 2008; Galey, 2016; Hord, 1997; Killion, 2007; Knight, 2007; Lipton & Wellman, 2018; Teague & Anfara, 2012). For successful implementation of school improvement processes such as Professional Learning Communities, Fullan states that organizations must "incorporate moral purpose, understand complexity science, and respect, build, and draw on new human relationships…" (Fullan, 2001, p. 70). The data in this study reveal the importance of the relationship between each individual teacher and the instructional coach, and how a damaged relationship can completely derail the coaching process.

Building trusting relationships must be a priority for instructional coaches, which does not come naturally to everyone. Knight (2007) calls relationship building as a coach a, "subtle, unconscious dance between two partners, hinging on each person's ability to send and accept bids for emotional connection" (p. 24). While there is no guarantee that every coach will be able to build a strong relationship with every teacher, it is imperative that coaches be trained in the art of building relationships and given specific strategies they can use to make connections between

themselves and the teachers with whom they will work. When teachers trust coaches, they will be more willing to be open to the advice of coaches and more apt to make improvements to their instruction (Aguilera, 2016; Galey, 2016; Killion, 2007; Knight, 2007; Lipton & Wellman, 2018).

Implications for Research and Practice

While Professional Learning Communities have been described as one of the most powerful engines for improving schools, most schools that identify themselves as PLCs do not follow the model with fidelity. Reeves and DuFour (2016) have stated that "'PLC lite' is the most accurate way to describe the current state of professional learning communities around the country" (p. 69). To assist collaborative teacher teams with deepening PLC practices, some schools have begun the practice of coaching PLC collaborative teams. The results of this study show that PLC collaborative team meetings that include instructional coaches are more likely to include effective PLC practices such as analyzing student data and reflecting on instructional practices at collaborative team meetings.

In addition, when instructional coaches utilize a specific coaching stance (consultant, collaboration or promoter of reflective thinking) teams are even more likely to engage in effective PLC practices. The findings of this study show that it is not only what coaches do at collaborative team meetings that matter, but also how they do it. The relationship between coaches and PLC collaborative team members is of the utmost importance when embarking together on the PLC journey. Without a positive, trusting relationship between the coach and team members, it is extremely difficult for the coach to positively impact implementation of the PLC process.

These data have several implications on the field of education. First, schools that want to move away from "PLC Lite" (Reeves & DuFour, 2016) and toward full implementation of the PLC model should consider utilizing instructional coaches to work with teachers during PLC collaborative team meetings. While many schools employ instructional coaches, they typically do so for the sole purpose of providing one on one coaching (Aguilar, 2016; Galey, 2016, Killion et al., 2012; Killion & Harrison, 2006; Knight 2007, 2009, 2015). By adjusting the role of instructional coaches to include coaching PLC collaborative teams, schools broaden the coach's impact and become more efficient in their use of resources. Most importantly, including instructional coaches in the PLC process helps keep teams on track for doing the "right work," maintaining their focus on the elements of effective PLC collaborative teams – analyzing assessment data, analyzing student work, and reflecting on instructional practices (DuFour, et al., 2006, 2010).

The second implication of this study relates directly to the instructional coaches themselves. The data herein reveal a need for coaches to be trained in how to utilize specific coaching stances when working with PLC collaborative teams. When coaches intentionally employ a specific coaching stance (either consultant, collaborator, or promoter of reflective thinking), teams are more likely to engage in the effective practices of PLCs. However, each stance requires a specific skillset and knowledge base that not all coaches possess (Lipton & Wellman, 2018). Training coaches when and how to utilize these stances will lead to an increase in their use, which leads to an increase in data analysis and reflection on instructional practices. Although coaches should be trained in all three stances, a coach's use of the Promoter of Reflecting Thinking stance was proven to be most likely to result in effective PLC elements.

In addition to coaches being trained on the use of coaching stances, it is imperative that coaches understand the importance of positive relationships between the coach and PLC collaborative team members. While relationship building is often a naturally occurring process, it will benefit both teams and coaches if coaches are trained on specific methods for building trust as they work with teams. Although building trust between a coach and the teachers with whom she works is not a new concept (Aguilera, 2016; Galey, 2016; Killion, 2007; Knight, 2007; Lipton & Wellman, 2018), the data in this study emphasizes the importance of trust not only between the coach and individual teachers, but also building collective trust among the coach and the entire team. Even one derailed relationship between teacher and coach can negatively impact the entire team. Providing coaches with training on trust building and strategies for strengthening coach-teacher relationships will increase the likelihood of positive relationships between the coach and collaborative teacher teams (Aguilera, 2016; Galey, 2016; Killion, 2007; Knight, 2007; Lipton & Wellman, 2018). These positive, trusting relationships will strengthen the collaborative team and lead to more effective PLC collaborative team meetings (DuFour, et al., 1998, 2006, 2008; Hord, 1997; Teague & Anfara, 2012).

Limitations of the Study

In completing this study there were limitations that should be acknowledged. First, this study was conducted at a single school site in a single school district and the number of survey participants was extremely small (n=7). Because of the small number of participants and the single setting, the results may not be generalizable to other settings. Also, the researcher acted as a non-participant observer in the study, but had worked with the teacher teams and instructional coaches in the past. The existing relationship between the researcher and participants could have

had an impact on participants' answers to survey questions. However, the choice of the constant

comparison model and triangulation among data sources (observations, team meeting minutes,

and survey responses) as part of the selected methodology helped mitigate these limitations.

Although there are limitations to the study, they do not lessen the contributions this

research adds to the field of education. Instructional coaching can no longer be isolated to

individual teachers if schools are to become true learning organizations operating as Professional

Learning Communities (PLCs). It is imperative to train instructional coaches with intentionality

to work with collaborative teams by building trusting relationships and utilizing specific

coaching stances. These stances, in turn, lead to data analysis, analysis of student work, and

reflection on instructional practices, which promote instructional/pedagogical growth and student

achievement.

Future Research

While this study has provided data to show that instructional coaches can have a positive

impact on PLC collaborative team meetings, additional questions have arisen as a result. First,

one might inquire as to why there were no occurrences of student work analysis during the

coached meetings and only one un-coached meeting included student work analysis. Because

student work analysis can lead to improved teaching and learning, it would be interesting to

investigate why teams did not engage in this important work more often (Bolam et al., 2005;

Hipp & Huffman, 2019; Louis & Marks, 1998; Supovitz, 2002; Supovitz & Christman, 2003;

Vescio, Ross & Adams, 2008).

Additionally, while this study focused on how coaches impacted the content of PLC

collaborative team meetings, it did not look at how teachers' actions were impacted by the

coaching. A future research objective may be to observe coached PLC collaborative team meetings and follow up to study the implications of team coaching on teachers' classroom practices.

Finally, this study focused on the three elements of effective collaborative team meetings: data analysis, student work analysis, and reflection on instructional practices. While "other" conversations were identified, the specifics of the "other" conversations were not studied. Future research that investigates the contents of "other" conversations could provide further insight as to the effectiveness of team meetings and the relationships among team members.

Conclusion

This study has set out to examine the implications of instructional coaches' participation on PLC collaborative team meetings. The results have revealed that the participation of instructional coaches at collaborative team meetings does, indeed, result in the increased effectiveness of these meetings. PLC collaborative teams that include instructional coaches at their meetings spend more time analyzing student assessment data and reflecting on instructional practices than when coaches are not involved in the process. Magnifying these positive impacts even further are the results showing that coaches' use of specific coaching stances lead to even greater use of elements of effective PLC collaborative teams.

While these results demonstrate the positive impact of instructional coaches on the effectiveness of PLC collaborative teams, the data also reveal the importance of professional development for coaches in order to maximize these positive effects. In order to reap the benefits of coaching for PLC collaborative teams, coaches must be trained on the importance of the three elements of effective PLC collaborative team meetings: analyzing assessment data,

analyzing student work, and reflecting on instructional practices. In addition, coaches must be

trained on how and when to utilize the three coaching stances to differentiate support for teams:

consultant, collaborator, and promoter of reflective thinking. Finally, it cannot be left to chance

that coaches will naturally build positive relationships with teachers and teams. Instead,

intentional training for coaches on relationship and trust building will result in increased

effectiveness for both coaches and teacher teams.

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TABLES

Table 1

Number of conversation occurrences at each meeting

Meeting #	Coach Type	Data Analysis	Student Work Analysis	Reflection on instructional practices	Other
1	New	5	0	4	7
2	Experienced	1	0	10	15
3	No Coach	4	2	2	10
4	No Coach	0	0	2	7
5	Experienced	0	0	7	9
6	New	5	0	5	2
7	No Coach	3	0	1	6
8	No Coach	0	1	1	10
9	No Coach	0	0	1	7

Table 2

Total Number of conversation occurrences at each meeting

Coach Type	Data Analysis	Student Work Analysis	Reflection on Instructional Practice	Other	Totals
New (2 meetings)	10 35.70%	0	9 32.10%	9 32.10%	28
Experienced (2 meetings)	1 2.30%	0	17 40.50%	24 57.10%	42
Any Coach (4 meetings)	11 15.70%	0	26 37.10%	33 47%	70
*No Coach (5 meetings)	7 12.20%	3 5.30%	7 12.20%	40 70.20%	57
Totals	18 14.20%	3 2.40%	33 26%	73 57.40%	127

Table 3

t-test: Coach vs. No Coach

	t	df	sig.
Data Analysis	0.888	7	0.404
Student Work Analysis	-1.323	7	0.227
Reflection on Instructional Practices	4.269	7	0.004
Other	0.098	7	0.925
Y_G_B	3.65	7	0.008

Table 4

Mean number of occurrences per meeting

	Data Analysis	Student work analysis	Reflection on instructional practices	Other conversation
New Coach	5	0	4.5	4.5
Experienced Coach	0.5	0	8.5	12
Any Coach	2.75	0	6.5	8.25
No Coach	0.77	0.33	0.77	8
Average of new coach, experienced coach, and no coach	2	0.33	3.66	8.11

Table 5

Meeting Minutes Review

	Data Analysis	Student work analysis	Reflection on instructional practices	Other conversation	Totals
New Coach (2 meetings)	2 50%	0	2 50%	0	4
Experienced Coach (2 meetings)	0	0	2 66.60%	1 33.30%	3
Any Coach	2 28.50%	0	4 57.10%	1 14.30%	
No Coach (7 meetings)	4 44.40%	1 11.10%	2 22.20%	2 22.20%	9
Totals	6	1	6	3	16

Table 6

t-test: Coach Type
(Experienced vs. New)

	t	df	sig.
			0.01
Data Analysis	-9	2	2
Reflection on Instructional Practices	2.53	2	0.12 7
	1.92		0.19
Other	1	2	5

Table 7

Number of stance occurrences per meeting

Mtg. #	Coach Type	Stances		
		Consultant	Collaborator	Reflective Thinking
1	New	9	4	0
2	Experienced	21	1	14
5	Experienced	19	4	7
6	New	12	1	13
Totals		61	10	34

Table 8

Number of stance occurrences per coach type

Coach Type	Stances			Totals	
	Consultant	Collaborator	Reflective Thinking		
New	21	5	13	39	
	54%	13%	33%		
Experienced	40	5	21	66	
	60%	8%	32%		
Totals	61	10	34	105	
	58%	10%	32%		

Table 9

t-test: Coach Type and Conversation Occurrences

	t	df	sig.
Data Analysis	-0.607	5	0.57
Student Work Analysis	-0.896	5	0.411
Reflection on Instructional Practices	7.948	5	0.001
Other	1.89	5	0.117

Table 10

Chi-Square Test: Difference in Stance Taking Between Coaches

	Experienced	New	Marginal Row Totals
Data Analysis	1	9	10
Reflection	12	8	20
Marginal Column Totals	13	17	30

Table 11

Chi-Square Test: Number of Stance Occurrences per Coach Type

	Experienced	New	Marginal Row Totals
Consultant	40	21	61
Collaborator	5	5	10
Reflective Thinking	21	13	35
Marginal Column Totals	66	39	105

Table 12

Mean number of stance occurrences per meeting

Coach Type	Stances		
	Consultant	Collaborator	Reflective Thinking
New	10.5	2.5	6.5
Experienced	20	2.5	10.5

Table 13

Conversation Occurrences	Coach Stances			
	Consultant (61)	Collaborator (10)	Promoter of Reflective Thinking (34)	
Data Analysis	10 34%	0 0%	6 21%	16 25%
Student Work Analysis	0 0%	0 0%	0 0%	0 0%
Reflection on instructional practice	20 66%	4 100%	23 79%	47 75%
	30	4	29	63

Table 14

Number of stance occurrences concurrent with conversation occurrences by individual coach

Conversation Occurrences	Coach Stances					
	Consultant		Collaborator		Promoter of Reflective Thinking	
	Experienced	New	Experienced	New	Experienced	New
Data Analysis	1	9	0	0	1	3
Student Work Analysis	0	0	0	0	0	0
Reflection on Instructional Practice	12	8	1	3	14	9
	13	17	1	3	15	12

APPENDICES

APPENDIX A: LETTER TO UNIVERSITY OF MICHIGAN-FLINT INSTITUTIONAL
REVIEW BOARD

January 27, 2018

Institutional Review Board
University of Michigan – Flint
4203 William S. White Building and
303 E. Kearsley Street
Flint, Michigan 48502-1950

Dear UM-Flint IRB Members,

      I am writing this letter to seek approval for a research project entitled *The Impact of Instructional Coaching on the Effectiveness of Professional Learning Community Collaborative Teams.* The parallel mixed-methods study I propose will provide information on how the effectiveness of Professional Learning Community (PLC) collaborative teams is impacted by the participation of an instructional coach. The research will involve human subjects, all of whom are adult teachers in a southeastern Michigan public school. Consent will be obtained from all participants, who will be provided the full reasons for, and methods of this research.

      My review of the relevant literature indicates that effective PLC collaborative teams spend most of their meeting time discussing instructional practices and analyzing student work. However, many PLC collaborative teams do not spend meeting time engaging in these practices. The proposed study will indicate how adding instructional coaches to these collaborative teams does or does not impact the teams' effectiveness. I will utilize a purposeful sample of a southeastern Michigan school in a district that has implemented the Professional Learning Communities framework. The school will be chosen based on the researcher's past experience in the district and with the district and school administrators' permission. Participants will be asked to complete a survey regarding their thoughts on the effectiveness of their collaborative team both with and without the presence of instructional coaches. I will act as a non-participant observer at the school's collaborative team meetings, of which I will record and transcribe the audio. In addition, PLC collaborative team minutes will be analyzed through coding to determine emerging themes. The results will be used to determine how the presence of an instructional coach does or does not impact the effectiveness of PLC collaborative teams.

      There are no discernable risks to the participants in the study. Participation is voluntary, and each participant may withdraw from the study at any time without consequence. The results will provide

important information as to how instructional coaches do (or do not) impact the effectiveness of PLC collaborative team meetings, and assist education leaders as they make future decisions on whether to continue the practice, abandon it, or make revisions to improve it.

The confidentiality of all research materials will be closely guarded by the researcher. Only the researcher and the supervising professor, Dr. Chad Waldron, will have access to the data. Reasonable precautions will be taken for the secure storage of survey results, audio recordings and transcriptions, observation notes, and analysis materials. Anonymity and confidentiality will be maintained throughout the study, with participants being identified only by number.

I would be happy to answer any questions you may have in this regard.

Sincerely,

Tesha J. Thomas
Graduate Student, Education Department
tthomas@misd.net

APPENDIX B: SAMPLE CONSENT FORM

PARTICIPANT INFORMED CONSENT LETTER

HUM00142305

Implications of Instructional Coaches' Participation in Professional Learning Community Collaborative Team Meetings

Researchers:
Tesha J. Thomas, University of Michigan-Flint Doctoral Candidate, Principal Investigator
Chad Waldron, PhD., University of Michigan-Flint, Faculty Advisor

Dear PLC Collaborative Team Member,

You are being invited to participate in a research study of Professional Learning Communities and instructional coaching. The focus of this study is your experiences with instructional coaches in collaborative team meetings.

If you agree to participate in this study, you will be asked to engage in your normal collaborative team meetings while the researcher observes, takes field notes, and utilizes an audio recording device to record the conversation that takes place during the meeting. Each team will be observed and recorded on approximately 3-4 occasions over a five week period. In addition, you will be asked to complete an online survey that will take approximately 15 minutes to complete. Lastly, the researcher will be analyzing collaborative team meeting minutes submitted at the conclusion of each collaborative team meeting.

Your participation in this project is voluntary and your identity will be kept anonymous at all times. Even after you sign the informed consent document, you may decide to leave the study at any time without penalty or loss of benefits to which you may otherwise be entitled.

You will not be identified in any reports on this study. Records will be kept confidential to the extent provided by federal, state, and local law. However, the Institutional Review Board, the sponsor of the study (if applicable, i.e. NIH, FDA, etc.), or university and government officials responsible for monitoring this study may inspect these records. All data collected, including audio recordings, transcriptions, field notes, and survey responses, will be kept confidential. Hard copies of these materials will be kept in a locked file cabinet in a locked office, and digital copies will be kept on a password protected computer.

The audio recordings from observed collaborative team meetings will be transcribed into written documents for analysis. All participants will remain anonymous throughout the transcription, and may be given a pseudonym for the purpose of analysis and/or reporting. You have the right to choose not to participate in the audio recordings of the collaborative team meetings.

This project is deemed as no more than minimal risk. The study team does not foresee or anticipate any risk greater than that encountered in your routine daily activities.

While direct benefits of participation may not be recognizable, we believe that allowing teachers to reflect on their experiences, perceptions, and understandings of their collaborative team experiences can be of great personal satisfaction and might offer strategies for enhancing the Professional Learning Community. You will not be asked to miss your teaching for any part of participation in this study. All data collection will be completed at your convenience.

If you agree to participate, **please check the items below to indicate your voluntary participation** in data collection that will contribute to this study. Please note that your decision to refrain from participation in one component of the study does not preclude you from participating in the other components. **At the bottom of this letter, please sign and print your name, and indicate today's date**. One copy of this document will be kept together with the research records of this study. You will also be given a copy to keep.

_____You grant permission to allow us to use your completed surveys as part of a study on instructional coaching and Professional Learning Communities.

_____You grant permission to allow us to use your completed surveys responses to inform future research studies.

_____You grant permission to allow us to observe your participation in PLC collaborative team meetings and use observation notes as part of a study on instructional coaching and Professional Learning Communities.

_____You grant permission to allow us to record and transcribe your verbal participation (audio recording) in PLC collaborative team meetings and use your responses as part of a study on instructional coaching and Professional Learning Communities.

_____You grant permission to allow us to review and collect artifacts of your Professional Learning Community collaborative team meetings.

If you have questions about the study, such as scientific issues, your role in this study, or any part of the study; or would like to obtain more information or offer input, please contact, Dr. Chad Waldron, 303 East Kearsley Street, Flint, MI 48502, (810) 762-3300, chadwald@umflint.edu or Tesha Thomas, doctoral candidate, 44001 Garfield, Clinton Township, MI 48038, (586) 228-3559, tthomas@misd.net.   Should you have questions regarding your rights as a research participant, or wish to obtain information, ask questions, or

discuss with someone other than the researcher(s), please contact the Institutional Review Board, 4204 William S White Bldg., Flint, MI., 48502, 810-762-3383, email: irb-flint@umflint.edu.

Thank you,

Chad Waldron, PhD., Professor and Principal Investigator &
Tesha J. Thomas Ed.D. Candidate and Research Assistant

College of Education
Department of Education Leadership

_____	_____
Name (please print)	Signature

_____
Date

APPROVED UNIVERSITY OF MICHIGAN-FLINT IRB- EXEMPT- IRB #***

The Impact of Instructional Coaching
On The Effectiveness of Professional
Learning Community Collaborative Teams

PARTICIPANT INFORMED CONSENT FORM

I have read [or been informed] of the information given above. Tesha Thomas has offered to answer any questions I may have concerning the study. I hereby consent to participate in the study.

Teacher's Signature _____

Date _____

Email _____

Contact Phone Number _____

Researcher Signature _____

Please sign below if you are willing to participate in the audio recordings of the collaborative team meetings.

_____
Signature   Date

Please sign if you <u>do not</u> wish to participate in the audio recordings of the collaborative team meetings, but you <u>do</u> wish to participate in the research project.

_____
Signature   Date

APPENDIX C: SURVEY

Consent to Participate in a Research Study-Online Survey

Welcome to the Instructional Coaching and Professional Learning Community Survey. (HUM0000----)

Researcher Tesha Thomas and Dr. Chad Waldron of the University of Michigan Flint , Department of Education invite you to be a part of a research study that looks at instructional coaching and professional learning communities. The focus of this study is your experiences with instructional coaches in collaborative team meetings.

If you agree to be part of the research study, you will be asked to complete an online survey about instructional coaching and professional learning. We expect this survey to take 15 to 20 minutes to complete. While you may not receive any direct benefit for participating, we hope that this study will contribute to the improvement of the use of instructional coaching in professional learning communities.

Researchers will not be able to link your survey responses to you. The survey software has been set so that no identifying information is captured. We may publish the results of this study, but will not include any information that would identify you.

Participating in this study is completely voluntary. Even if you decide to participate now, you may change your mind and stop at any time. You may choose to not answer an individual question or you may skip any section of the survey. Simply click "Next" at the bottom of the survey page to move to the next question.

If you have questions about this research study, you can contact Researcher Dr. Chad Waldron., University of Michigan Flint, Department of Education, 303 East Kearsley Street, Flint, MI 48502, (810) 762-3300, chadwald@umflint.edu or Tesha Thomas, doctoral candidate, 44001 Garfield, Clinton Township, MI 48038, (586) 228-3559, tthomas@misd.net.

If you have questions about your rights as a research participant, please contact the UM Flint Institutional Review Board, 303 E Kearsley, 4204 William S White Bldg., Flint, MI 48502-1950, (810) 762-3384, irb-flint@umflint.edu.

By clicking on "Yes, I agree to participate", you are consenting to participate in this research survey.

If you do not wish to participate, select "No, I do not wish to participate" to exit the survey.

(page break)

Survey Directions:

Thank you for participating in this survey, which will take approximately 15 minutes to answer. Please be sure to answer all questions to the best of your ability. There are no right or wrong answers.

1. Please indicate the grade level you currently teach.
    a. 3rd Grade
    b. 4th Grade
    c. 5th Grade

2. Please indicate the number of years you have taught at this school.
    a. 0-2 years
    b. 3-5 years
    c. 6-8 years
    d. 9 or more years

During an average collaborative team meeting, approximately how much time does your team spend:

3. Analyzing common formative and common summative assessment data?
    a. Fewer than 10 minutes
    b. 10-20 minutes
    c. 20-30 minutes
    d. 30-40 minutes
    e. More than 40 minutes

4. Analyzing student work samples?
    a. Fewer than 10 minutes
    b. 10-20 minutes
    c. 20-30 minutes
    d. 30-40 minutes
    e. More than 40 minutes

5. Reflecting on, researching, or discussing instructional strategies?
    a. Fewer than 10 minutes
    b. 10-20 minutes
    c. 20-30 minutes
    d. 30-40 minutes

     e. More than 40 minutes

6. Reflecting on and planning instructional improvements?
   a. Fewer than 10 minutes
   b. 10-20 minutes
   c. 20-30 minutes
   d. 30-40 minutes
   e. More than 40 minutes

When a coach attends your collaborative team meetings, approximately how much time does your team spend:

7. Analyzing common formative and common summative assessment data?
   a. Fewer than 10 minutes
   b. 10-20 minutes
   c. 20-30 minutes
   d. 30-40 minutes
   e. More than 40 minutes

8. Analyzing student work samples?
   a. Fewer than 10 minutes
   b. 10-20 minutes
   c. 20-30 minutes
   d. 30-40 minutes
   e. More than 40 minutes

9. Reflecting on, researching, or discussing instructional strategies?
   a. Fewer than 10 minutes
   b. 10-20 minutes
   c. 20-30 minutes
   d. 30-40 minutes
   e. More than 40 minutes

10. Reflecting on and planning instructional improvements?
   a. Fewer than 10 minutes
   b. 10-20 minutes
   c. 20-30 minutes
   d. 30-40 minutes
   e. More than 40 minutes

Please rate your level of agreement with the following statements:

11. Having an instructional coach attend our collaborative team meetings is beneficial to our team.
    a.   Strongly agree
    b. Agree
    c. Neither agree nor disagree
    d. Disagree
    e. Strongly disagree

12. Having an instructional coach attend our collaborative team meetings detracts from the work we need to do.
    a. Strongly agree
    b. Agree
    c. Neither agree nor disagree
    d. Disagree
    e. Strongly disagree

13. Having an instructional coach attend our collaborative team meetings encourages our team to spend more time analyzing student work.
    a. Strongly agree
    b. Agree
    c. Neither agree nor disagree
    d. Disagree
    e. Strongly disagree

14. Having an instructional coach attend our collaborative team meetings encourages our team to spend more time analyzing common assessment data.
    a. Strongly agree
    b. Agree
    c. Neither agree nor disagree
    d. Disagree
    e. Strongly disagree

15. Having an instructional coach attend our collaborative team meetings detracts from our time analyzing common assessment data.
    a. Strongly agree
    b. Agree

     c. Neither agree nor disagree
     d. Disagree
     e. Strongly disagree

16. Having an instructional coach attend our collaborative team meetings encourages our team to spend more time discussing instructional strategies.
     a. Strongly agree
     b. Agree
     c. Neither agree nor disagree
     d. Disagree
     e. Strongly disagree

17. Having an instructional coach attend our collaborative team meetings helps our team to be more reflective about our teaching practices.
     a. Strongly agree
     b. Agree
     c. Neither agree nor disagree
     d. Disagree
     e. Strongly disagree

18. Having an instructional coach attend our collaborative team meetings makes our meetings less effective.
     a. Strongly agree
     b. Agree
     c. Neither agree nor disagree
     d. Disagree
     e. Strongly disagree

19. Please choose all that apply. Having an instructional coach attend our collaborative team meetings:

     a. Encourages us to spend more time analyzing assessment data
     b. Distracts the team from work we need to do
     c. Encourages us to spend more time analyzing student work
     d. Helps us reflect upon our own instructional practices

Please answer the questions below in as much detail as possible.

20. What PLC collaborative team activities are most valuable to you? Please explain what makes them valuable.

21. What PLC collaborative team activities are most challenging to you? Please explain what makes them challenging.

22. In your opinion, what are the benefits (if any) of having a coach attend your PLC collaborative team meetings?

23. How are collaborative team meetings with a coach different than collaborative team meetings without coaches?

24. What, if anything, do you believe would make your team meetings more effective?

25. Please share any additional thoughts you might have on Professional Learning Community collaborative teams or instructional coaching.

APPENDIX D: SURVEY BLUEPRINT

Question #	Topic	Selected Response	Constructed Response
10, 18, 23	Data analysis with coach	x	
5,	Data analysis with no coach	x	
11, 17, 23	Student work analysis with coach	x	
6	Student work analysis with no coach	x	
12, 13, 20, 21, 23	Reflection on instruction with coach	x	
7, 8	Reflection on instruction with no coach	x	
15,17, 18, 20, 21, 23, 27, 28	Coach as helpful	x	x
16, 19, 22	Coach as distracting	x	
28	Difference between meetings with and without a coach		x
29	Improve effectiveness of meetings		x
30	Additional thoughts		X

APPENDIX E: SURVEY ANALYSES - CORRELATIONS

Item Number and Topic	Item Number and Topic	Analysis of Results	Conclusions Drawn
6 Time analyzing student work – no coach	7 Time reflecting on instruction – no coach	The answers are the exact same in both questions. 1 at fewer than 10 minutes; 4 at 10-20 minutes; and 1 at 20-30 minutes.	Teachers estimate that they spend the same amount of time analyzing student work as they do reflecting upon instruction when no coach is present (67% say 10-20 minutes).
6 Time analyzing student work – no coach	8 Time reflecting on improvements – no coach	The answers are the exact same in both questions. 1 at fewer than 10 minutes; 4 at 10-20 minutes; and 1 at 20-30 minutes.	
6 Time analyzing student work – no coach	10 Data analysis with coach	Don't see a connection	
7 Time reflecting on instruction – no coach	8 Time reflecting on planning and improvements – no coach	The answers are the exact same in both questions. 1 at fewer than 10 minutes; 4 at 10-20 minutes; and 1 at 20-30 minutes.	67% of teachers estimate they spend 10-20 minutes reflecting on instruction and improvements when no coach is present.
7 Time reflecting on	10 Data analysis with coach	Don't see a connection	

instruction – no coach			
8 Time reflecting on planning and improvements	10 Data analysis with coach	Don't see a connection	
16 Coach is distracting	17 Coach is helpful (analyzing student work)	50% agree that coach detracts from work. 50% disagree that coach encourages analyzing student work	Teachers are evenly split between whether coaches are helpful in analyzing student work or if they detract from the work.
15 Coach is helpful	19 Coach is distracting	50% agree that coach in attendance is beneficial. 33% agree that coach detracts from data analysis. (67% do not feel coach detracts from data analysis)	
21 Coach encourages reflection	15 Coach is helpful	On both questions 50% agree that coach is helpful.	
21 Coach encourages reflection	18 Coach encourages data analysis	67% disagree coach encourages data analysis (33% agree coach encourages data analysis)	

		50% agree coach encourages reflection on practices	
17 Coach encourages student work analysis	22 Coach makes meetings less effective (coach detracts)	33% agree coach encourages student work analysis 50% feel coach makes meetings less effective	
18 Coach encourages data analysis	21 Coach encourages reflection	33% agree coach encourages data analysis 50% agree coach encourages reflection on instruction	
20 Coach encourages discussion on instruction	21 Coach encourages reflection	33% agree coach encourages discussion on instruction 50% agree coach encourages reflection on instruction	
17 Coach encourages student work analysis	18 Coach encourages data analysis	33% agree coach encourages student work analysis 33% agree coach encourages data analysis	
17 Coach encourages student work analysis	22 Coach makes meetings less effective (coach detracts)	33% agree coach encourages student work analysis 50% feel coach makes meetings less effective.	

20 Coach encourages discussion on instruction	21 Coach encourages reflection	33% agree coach encourages discussion on instructional strategies 50% agree coach helps team reflect on practices	
21 Coach encourages reflection	16 Coach is distracting	50% agree coach helps team reflect on practices 50% agree coaching detracts from team work.	Although 50% agree that the coach helps the team reflect on their practices, 50% also feel that coaching detracts from the work.
21 Coach encourages reflection	17 Coach encourages student work analysis	50% agree coach helps team reflect on practices 33% agree coach encourages student work analysis	
22 Coach makes meetings less effective (coach detracts)	15 Coach is helpful	50% feel coach makes meeting less effective 50% feel coach is beneficial	Teachers are evenly split between whether coaches encourage reflection or if they detract from the team's work. This may be influenced by the nature of the relationships between coaches and individual teachers. However, in question #23, only 37.5% of teachers answered that coaches distract the team from their work.

22 Coach makes meetings less effective (coach detracts)	16 Coach is distracting	50% feel coach makes meeting less effective 50% feel coach detracts from the work	Same as #22 and 15 above. Teachers are evenly split – 50/50.
21 Coach encourages reflection	22 Coach makes meetings less effective (coach detracts)	50% feel coach encourages reflection about teaching practices 50% feel coach makes meeting less effective	Same as #21, 16, 22 and 15 above. Teachers are evenly split – 50/50.
23 All topics		Coaches: 12.5% Help data analysis 37.5% Distract the team from their work 25% Help encourage student work analysis 25% Help teacher reflection on instructional practice	
18 Coach encourages data analysis	23 All topics	33% agree coach encourages data analysis 12.5% Help data analysis	Same question, different answers
22	23 All topics	50% coach makes meeting less effective	Same question, different answers

Coach makes meetings less effective (coach detracts)		37.5% Coach distracts the team from their work	
17 Coach is helpful (analyzing student work)	23 All topics	50% Coach encourages student work analysis 25% Coach encourages student work analysis	Same question, different answers
20 – coach encourages discussion of instructional strategies 21 – coach encourages reflection on teaching practices	23 All topics	33% coach encourages discussion on instructional strategies 50% coach encourages reflection on instructional practice 25% Coach helps teacher reflection on instructional practice	It is interesting that the answers are so different, despite it being essentially the same question.
5 Data analysis no coach	10 Data analysis with coach	5 no coach: 83% 10-20 minutes 10 with coach: 33% 10-20 minutes; 33% fewer than 10 minutes	Teachers feel strongly that they spend more time analyzing data without a coach than with them. However, observations showed the opposite. The average number of data analysis occurrences were 2.33 with no coach and 2.75 with a coach.

6 Student work analysis no coach	11 Student work analysis with coach	6 no coach: 67% 10-20 minutes 11 with coach: 50% fewer than 10; 33% 10-20 minutes	Teachers estimate that they spend more time analyzing student work when a coach is not present. However, there was only 1 meeting observed (of 9) where teachers analyzed student work. A coach was not present when this analysis occurred.
7 and 8 Teacher reflection no coach	12 and 13 Teacher reflection with coach	7 no coach 50% 10-20 minutes 8 no coach 67% 10-20 minutes 12 with coach 67% 10-20 minutes 13 with coach 67% 10-20 minutes	Whether a coach is in attendance or not, teachers estimate that they spend 10-20 minutes at each meeting reflecting on instructional practices. Observation showed, however, that teachers were 6 times more likely to engage in reflection when coaches were present.

APPENDIX F: SURVEY ANALYSES – OPEN ENDED QUESTIONS

#25	Most valuable activities in a PLC	- Analyze student data (3) - Instructional strategies (3) - Identify misconceptions (2) - Student work analysis (2)	
#26	Most challenging activities in a PLC	- Interpretations of best practice strategies - Coach takes team discussion off track - Meetings too frequent - Too many participants on team - Finding common misconceptions	
#27	Benefits of coach attending meetings	- No benefits (2) - Hold teachers accountable - Coaches ask reflective questions - Coaches suggest new instructional strategies - Coach gives unbiased perspective	
#28	How are meetings with coach different than without?	- More focused - More productive - Dig deeper into data - Another person to bounce ideas off of	- Distract from original agenda - Wasted time bringing coach "up to speed"
#29	What would make meetings more effective?	- Hold teachers accountable for productivity - No "judging" by coaches - More time between meetings	
#30	Additional Thoughts	- PLC allows strategy exchange - Coach does not understand "the population we are dealing with." - Monthly meetings would lead to deeper conversations - Current role of coaches is ineffective - Would like coaches to model instruction	

APPENDIX G: COLLABORATIVE TEAM OBSERVATION SCHEDULE

Goal: Observe each grade level team at least 3 times.

To do:
- Make sure that all teams meet during common planning time for reading meeting when topic is math on PLC Wednesdays.
- Obtain schedule of when teams will meet during common planning time.
- Researcher will observe highlighted grade level teams on dates/times below (without coaches).
- District instructional coach will meet with highlighted team.
- ISD instructional coach with meet with highlighted team.
- Researcher will observe team with * when coach is present.
- Observed team should meet in a separate location (outside media center).

Week #	Date	Wednesday PLC Topic	Common Planning PLC Topic
Week #1	April 9-13, 2018	Grade 3 – reading* Grade 4 – math Grade 5 – reading	Grade 3 – math Grade 4 – reading Grade 5 – math
Week #2	April 16-20, 2018	Grade 3 – math Grade 4 –reading* Grade 5 – math	Grade 3 – reading Grade 4 – math Grade 5 – reading
Week #3	April 23-27, 2018	Grade 3 – reading Grade 4 – math Grade 5 – reading*	Grade 3 – math Grade 4 –reading Grade 5 – math
Week #4	April 30-May 4, 2018	Grade 3 – math Grade 4 – reading* Grade 5 – math	Grade 3 – reading Grade 4 – math Grade 5 – reading
Week #5		Grade 3 – reading	Grade 3 – math

	May 7-11, 2018	Grade 4 – math Grade 5 – reading*	Grade 4 –reading Grade 5 – math

3rd: week 1, week 2, week 4

4th: week 1, week 2, week 3, week 4

5th: week 2, week 3, week 4, week 5