Spring 2021

The Impact of PLCS on Teacher Self-Efficacy

Paula Lynn Taylor

THE IMPACT OF PLCS ON TEACHER SELF-EFFICACY

by

Paula Lynn Taylor

Bachelor of Science
Lander University, 2006

Master of Education
Clemson University, 2015

Submitted in Partial Fulfillment of the Requirements

For the Degree of Doctor of Education in

Curriculum and Instruction

College of Education

University of South Carolina

2021

Accepted by:

James D. Kirylo, Major Professor

Yasha Jones Becton, Committee Member

Tammi Kolski, Committee Member

Susan Schramm-Pate, Committee Member

Tracey L. Weldon, Interim Vice Provost and Dean of the Graduate School

DEDICATION

This work is dedicated to my supportive husband, Travis, and our amazing children, Terry and Addison. Thank you for being understanding and sacrificing so that I could complete this dissertation. I set out on this journey to make you proud, and I hope I've succeeded.

Travis, time on this project meant time away from you and our family, but you were patient and pushed me to persevere. Terry, you've grown into a young man during this journey; you repaid my long work hours and complaints with encouragement and giggles. Addison, my constant companion, you helped me find a balance between work and life by asking me to play or craft with you. I hope we'll look back on these three years with fond memories and find laughter to last the rest of our lifetimes.

ACKNOWLEDGEMENTS

This work would not have been possible without the many educators who have nurtured a spirit of inquiry, resiliency, and purpose in me throughout this journey. Dr. James Kirylo has helped me grow as a writer, but more importantly as a thinker. Without your help, I would not have been comfortable challenging my motives and biases while critically reflecting on my practices. I want to thank the other members of my committee, Dr. Becton, Dr. Kolski, and Dr. Schramm-Pate, for their time and input during the completion of this dissertation. Thank you to the faculty and staff of the University of South Carolina's department of Curriculum Studies for your guidance and perspective.

To the participants of my study: thank you for allowing me into your meetings. It was a pleasure and honor to learn from you. Your willingness to be open and honest greatly influenced my work. You transformed my understanding of professional learning.

Additionally, I must thank my colleagues and friends in education. Dr. Fay Sprouse and Dr. Daniel Crockett, thank you for your leadership and faith in me. You both exemplify learning, serving, and leading. Kem Owens and Roxanne Spray, your advice and encouragement have been invaluable. Thank you for being my support system. I am privileged to work alongside principals, counselors, teachers, bus drivers, librarians, assistants, custodians, food service workers, and program directors who keep students at the center of everything they do. Our small community has a big heart!

Finally, I must thank my family. My parents always encouraged me to learn more, help more, become more. I pray they are smiling from Heaven as they watch over me. My husband Travis and our two children, Terry and Addison, who never doubt my abilities and inspire me to believe in myself. WE made it!

ABSTRACT

This study examined the impact of a professional learning community on teacher self-efficacy at Elm Primary School in rural South Carolina. The literature suggests that PLCs are an amenable approach to improving individual teacher efficacy beliefs and classroom practices (Corcoran, 2007; Guskey, 2003). For this study, self-and collective efficacy were measured using Likert-scale surveys, semi-open ended interviews, participant journals, observation and field notes, and artifacts. Both qualitative and quantitative data were collected, making this a mixed-methods study.

The results confirmed and expanded understandings about PLCs' impact on efficacy. Participants recognized goal setting, actions, and results as important qualities of collaboration during PLCs. Their reflections and interviews revealed the formation of dynamic relationships, impact beyond the community members, and recognition of reflection. The findings acknowledge the complexity of professional learning and the belief that PLCs are one approach that affects efficacy.

Keywords: professional learning community, self-efficacy, collective efficacy, goal setting, action orientation, collaboration

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF ABBREVIATIONS

ACEs ..... adverse childhood experiences

CTE ..... Collective Teacher Efficacy

NEA ..... National Education Association

NCLB ..... No Child Left Behind

NSDC ..... National Staff Development Council

PLC ..... Professional Learning Community

PLCA-R ..... PLCs Assessment-Revised

SCDE ..... South Carolina Department of Education

SEL ..... social-emotional learning

SES ..... socioeconomic status

CHAPTER 1: INTRODUCTION

The maintaining of ongoing professional development throughout the careers of educators is key for them to preserve their classroom effectiveness and their overall standing as professionals (Darling-Hammond, 1997; Darling-Hammond, 2010). In other words, professional development provides an opportunity for teachers to learn new teaching strategies, understand technology available to support learning, and ascertain how to meet the needs of an increasingly diverse population. Traditionally, many schools have utilized outside experts for one-time seminars or short workshops on a specific topic, but this type of structure does not promote professional growth or teacher efficacy. Instead, it promotes isolation and hinders teachers from improving teaching practices (Darling-Hammond & McLaughlin, 1995).

The concept of learning communities began in the 1960s as a response to these feelings of isolation (Hord & Sommers, 2008). By approaching professional development as a school-wide learning community, teachers shift from working in isolation to working through collaboration, with a focus on student learning. However, over the last two decades, student learning and teacher effectiveness has been primarily defined by standardized test scores, which was acutely heightened by No Child Left Behind (NCLB) and Race to the Top. Ravitch (2003) cautions against policies which define school effectiveness with test scores, arguing

> Our schools will not improve if we expect them to act like private, profit-seeking enterprises. Schools are not businesses; they are a public good. The goal of

> education is not to produce higher scores, but to educate children to become responsible people with well-developed minds and good character. (p. 95)

When the purpose of education becomes about increasing test scores, "teachers are relegated to mechanical functionaries, seriously handcuffing them from fostering critical thought, innovation, and the cultivation to inculcate the love of learning" (Kirylo, 2016, p. 152).

Teachers acting as mechanical functionaries impacts teacher efficacy. That is, the current accountability system implies a cause-and-effect relationship between how teachers feel about themselves and their work and its relationship with school ratings. Teachers have reported feeling shame, embarrassment, and guilt from the publication of student test scores and pressure to improve scores by narrowing curriculum, increasing test preparation time, and teaching to the test (Hoffman, et al., 2001; Koretz, et al., 1996; Smith 1991).

Teachers and Self-Efficacy

The idea that teachers' self-beliefs, also known as self-efficacy, are determinants of teaching behavior is a simple, yet powerful idea. The study of teacher efficacy began over four decades ago, and present-day researchers continue to use Albert Bandura's (1986) social cognitive theory and his construct of self-efficacy. Bandura (1994) defines perceived self-efficacy as "people's beliefs about their capabilities to produce designated levels of performance that exercise influence over events that affect their lives" (p. 71). Teachers' perceptions of efficacy increase when they experience increased collaboration with colleagues, make decisions related to the students they teach, and influence actions in the classroom (Raudenbush, et al., 1992; Rosenholtz, 1989). Self-efficacy is an

individual construct influenced by mastery experiences, modeling, social persuasion, and the person's physiological states during his or her assessment of capabilities (Bandura, 1993).

Unlike self-efficacy, collective efficacy is associated with the performance capabilities of groups (Bandura, 1997). Collective teacher efficacy (CTE) is rooted in Bandura's concept of self-efficacy (Hattie, 2016) and John Dewey's concept of social capital (1916). Dewey's idea of social capital, the collective value of relationships and cultural norms regulating interactions, describes a group's beliefs in its ability to be successful. Goddard, Hoy, and Woolfolk-Hoy (2000) defined CTE as

> a construct measuring teachers' beliefs about the collective (not individual) capability of a faculty to influence student achievement; it refers to the perceptions of teachers that the efforts of the faculty of a school will have a positive effect on student achievement. (p. 486)

Collective efficacy is context-specific. In other words, collective efficacy is based upon teachers' perceptions about the school staff's teaching competence, the difficulties related to educational tasks, and the available supports (Kennedy & Smith, 2013). Supports that build and shape efficacy improve the groups' sense of mastery and improves school culture (Bruce & Ross, 2008; Kennedy & Smith, 2013). The school's functions can influence a teacher's perception of self-efficacy, and school success is dependent upon the cumulative nature of teachers' self-efficacy. This demonstrates the reciprocal relationship between efficacy and professional learning.

Teachers and Professional Learning Communities

The premise of professional learning is based on the assumption that quality professional development activities improve teacher knowledge and instructional

practices. The National Staff Development Council (NSDC), the country's largest non-profit professional association, recommends that "every educator engages in effective professional learning every day" (NSDC, 2007, para. 2), intending to "develop thoughtful professionals who have the ability to assess and revise their own actions in order to improve the likelihood of success for their students" (DuFour, 1991, p. 57). DuFour (2004) asserts that professional development requires educators to build and apply shared knowledge as a means of problem-solving, collaborating, encouraging, and reducing fear of risk-taking. But as a nation, "we have failed to leverage this support and these examples to ensure that every educator and every student benefits from highly effective professional learning" (Darling-Hammond, et al., 2009, p. 3). When schools begin to function as PLCs, teachers work together to analyze and improve practices resulting in deep, meaningful professional learning.

A professional learning community (PLC) is one method of professional development that supports teachers' growth, collaboration, and student outcomes (Doppenberg, et al., 2012). PLCs are places where teachers work collaboratively to reflect on practices, analyze relationships between practices and student outcomes, and make changes to improve teaching and learning (McLaughlin & Talbert, 2006). While the term may sound ambiguous, the focus is not. PLCs use collective inquiry and action research to view how strategies are being implemented. Members of PLCs address academic issues and learn together, contributing to teachers' sense of belonging in addition to their perceptions of individual and collective competency.

Teachers will be "more likely to remain vital, dynamic, and contributing members of the school community" when they feel connected to the school, competent in their

work, and assured that the system is capable of supporting their role (Sargent, 2003, p. 47). Although PLCs encourage teachers' perceptions and increased levels of engagement, they cannot be arbitrarily formed if they are expected to be sustained. One of the biggest challenges facing schools today is initiating and leading changes in the development of well-functioning PLCs. DuFour, DuFour, and Eaker (2008) explore the commitment/consensus issue within PLCs:

> We have discovered, however, that the problem in improving schools is not presenting compelling evidence of the need for change, or even demonstrating the most promising strategies for raising student achievement; the problem is that the evidence and strategies often get filtered through the mental models and mythology of the hard working, well-intentioned educators who are ultimately called upon to do differently. (p. 21)

Many schools encounter difficulty negotiating between existing norms and the aspiration norms of the PLC, creating a shared vision, developing the capacity to address student achievement gaps, advancing mutual accountability, and engaging in critical conversations (Talbert, 2010).

When considering the magnitude of tasks necessary to develop well-functioning PLCs, teachers' beliefs can be critical to success. The preface to *Professional Learning in the Learning Profession* (Darling-Hammond et al., 2009), suggests that policymakers, researchers, and school leaders examine information "on the nature of professional development currently available to teachers across the United States and in a variety of contexts" to analyze professional development practices "to consider how teachers' learning opportunities can be further supported" (p. 4). In that light, as the researcher for

this action research study, I questioned how a PLC at our school would impact teacher self-efficacy and collective efficacy.

Statement of Problem of Practice

This study sought to investigate the self-efficacy of teachers at Elm Primary School (pseudonym), a rural school in the Southeast. Teachers at Elm Primary School recognized the need to develop curriculums that are responsive to their students. They have been collaborating to develop expectations of instructional rigor and implementing differentiated instruction. According to a 2017 AdvancED teacher inventory (Appendix A), 81% of teachers at Elm Primary School participated in formal professional collaboration with their peers regularly. Success lies in the critical nature of collaboration and the strength of believing that together, all stakeholders can exceed expectations.

To better understand teachers' beliefs and perceptions, I sent out a survey to teachers that drew in 16 teachers to participate (Appendix B). The survey results indicated that 68.75% of teachers did not believe that the PLCs regularly discussed how changes in their instructional practices might lead to changes in student learning, and 31.25% did not believe they collectively make adjustments to their instructional practices based on students' performance on common assessments. The responses focusing on collective inquiry, collaborative teams, and action-taking prompted me to consider how to engage teachers in a PLC process conducive to teacher learning—characterized by collaboration, respect, shared decision making, open communication, and a sense of professionalism.

Additional feedback from teachers described stress, anxiety, and doubts such as "I'm uncertain of pacing," "There has been a lot to learn in a small amount of time," and

"After so many years, I'm PDed out. I would just like some feedback about what I'm doing in my classroom." Knowing that teacher self-efficacy significantly affects teacher in-class behaviors, planning, instruction, motivation, and job satisfaction, this action research investigated how a PLC impacted self-and collective efficacy.

During the six-week intervention, the activities focused on teacher confidence, knowledge, awareness, and implementation of best instructional practices through criteria outlined in the Professional Learning Community Assessment-Revised (PLCA-R). PLCA-R (Appendix C) incorporates DuFour and Eaker's (1998) six dimensions of PLCs: shared mission, vision, and values; collective inquiry; collaborative teams; orientation towards action and willingness to experiment; commitment to continuous improvement; and a focus on results. For the purpose of this study, I focused on collaborative teams and action-orientation since these characteristics were identified in the anonymous survey (Appendix B).

Research Question

What impact will a professional learning community (PLC) have on the self-efficacy of six teachers at Elm Primary School?

Purpose of the Study

The purpose of this study was to examine the impact of a PLC on the self-efficacy of six teachers at Elm Primary School. The teachers agreed to join the action research as a way to study their self-efficacy while participating in a PLC. Teachers focused on unique innovations, interventions, and strategies to improve teaching strategies. This action research was grounded in the belief that part of the link between PLCs and teacher performance is the effect of high-quality collaboration on self-and collective efficacy.

For the purpose of this study, PLCs are defined as places where teachers work collaboratively to reflect on practices, analyze relationships between practices and student outcomes, and make changes to improve teaching and learning (McLaughlin & Talbert, 2006). Teacher self-efficacy was defined as the judgements teachers make about their abilities to promote student learning (Woolfolk Hoy & Spero, 2005), to support student learning (Bruce, et al., 2010), and bring about desired student outcomes (Takahashi, 2011). Collective efficacy was defined as the perception of teachers in a school that the faculty, as a whole, can positively influence student outcomes (Hattie, 2016).

Theoretical Framework

The goals of PLCs can be linked to Albert Bandura's social cognitive theory and John Dewey's social capital theory. These theories collectively support the development of strategies predicted to stimulate teacher self-and collective efficacy through individual and organizational learning.

Albert Bandura (1977) was one of the first to develop a theoretical framework of self-efficacy and was interested in uncovering psychological factors that influence individuals' behaviors. The social cognitive theory explains how people acquire and maintain certain behaviors while also providing the basis for interventions, asserting that people learn by observing others' actions, reinforcements from others, and modeling after others. Bandura (1997) maintained that educators' beliefs in their abilities to teach influenced how they shaped the environment for learners. From this perspective, human functioning is the product of personal, behavioral, and environmental influences.

Additionally, John Dewey (1916) developed the idea of social capital, commonly described as the collective value of the institutions' relationships and cultural norms that regulate the quality and quantity of social interactions. Using the term capital, this theory recognized the profitability of shared information and opportunities to learn from relationships. Hargreaves and Fullan (2012) stated, "individuals get confidence, learning, and feedback from having the right kind of people and the right kinds of interactions and relationships around them" (p 4). In other words, individual teachers' skill sets are developed through strategic participation in groups with common goals. From this perspective, teachers can adjust their self-beliefs, improve instructional practices, and remove isolation structures.

Within Bandura's and Dewey's theories are the ability to symbolize behaviors and actions that will guide future actions. The ability to learn through others and the ability to self-monitor through self-reflection are also emphasized. DuFour and Eaker's (1998) integral components of PLCs: a) collectively pursue shared mission, vision, values, and goals; b) work interdependently in collaborative teams focused on learning; c) engage in ongoing collective inquiry into best practice and the current reality of student achievement and the prevailing practices of the school; d) demonstrate an action orientation and experimentation; e) participate in systematic processes to promote continuous improvement are supported by Bandura's and Dewey's theories.

Methodology

Action research is a cyclical process, and its collaborative nature empowers participants to explore, improve, and advance learning within their contexts (Efron & Ravid, 2013; Herr & Anderson, 2015). I gathered relevant information, planned an investigation, implemented an intervention, analyzed data, developed an action plan, and

shared the findings with others. A mixed-methods approach was used with the goal of "draw[ing] on the strength of both quantitative and qualitative research to enhance school improvement" (Efron & Ravid, 2013, p.46). Multiple types of data were collected to analyze the impact of the PLC on teacher self-and collective efficacy. This study functioned to explore self-and collective efficacy while improving the quality of professional learning; therefore, this research meets the requirement of remaining a collective, reflective inquiry to enhance a situation.

I conducted this action research study during fall 2020 at a public school in the Southeast. Elm Primary School's faculty serve approximately 400 students in pre-kindergarten through 4th grade. The faculty have varying years of experience, from one year to 25 years. Faculty receive support from the school's reading coach, math coach, reading interventionists, RTI coordinator, physical and occupational therapists, mental health counselor, guidance counselor, principal, and district office personnel. Six teachers at Elm Primary School volunteered to participate in the study to increase their knowledge and understanding of self and collective efficacy concerning PLCs. A more descriptive profile of each participant is provided in Chapter Three.

Qualitative Data. Qualitative data sets included pre-and post-interviews, journals, and observation field notes. Pre- interviews responses influenced PLC activities used throughout the six-week intervention. My journal and observation field notes were organized after each session and used to identify emerging themes. Information from these data sets was also used to modify the intervention. Teachers journaled after each session, and at the end of the intervention their journals were analyzed for trends in self-

and collective efficacy. Post-interview responses were used to note changes in teacher's perceptions and levels of efficacy.

Quantitative Data. Quantitative data sets included pre-and post-surveys. Pre-survey responses influenced the PLC activities during the six-week study. Post-survey responses were used to note changes in teacher's perceptions. The survey used a Likert scale for teachers to rate PLCs with variables of efficacy embedded. The survey for this study was the PLCA-R.

Significance of the Study

Many opportunities for teachers are focused on creating and sustaining effective PLCs. The literature has suggested that establishing PLCs can be one of the most powerful and effective methods of professional development. Participation in PLCs provides job-embedded continuous learning where "new ideas and strategies emerge, take root, and develop, and where competence can be truly cultivated and nurtured" (Lieberman & Miller, 2008, p. 2). Although literature and research regarding teachers' self-efficacy and conditions that enhance efficacy are plentiful, Ross and Bruce (2007) indicated that research into interventions that increase teacher efficacy is relatively minimal. This study focused on strengthening self-and collective efficacy through collaboration and the group's actions.

Limitations of the Study

The study was limited by the small sample size (N=6) and the 6-week length of the intervention period. By design, action research cannot be used to make generalizations (Mertler, 2014); however, the knowledge gained can be transferred to my daily work with teachers.

Positionality

I employed the role of an insider working with other insiders while joining the PLC (Herr & Anderson, 2015). When a researcher takes the position of an insider working with other insiders, they desire to work with others within their setting. I currently work as a district level administrator. One aspect of my job includes collaborating with principals, teachers, and other staff in our efforts to provide practical, meaningful programming related to student support services. I am drawn to PLCs because of the opportunity to approach problems as a team, encourage reflection, and develop skills. I see PLCs as a way of encouraging all teachers' strengths and supporting new areas of learning.

My current role as a district administrator and previous role as a principal influenced my positionality. When working as an insider, researchers aspire to significantly impact the setting, not just themselves (Herr & Anderson, 2015). I have a strong desire for the school to succeed and my research to contribute to the school. I recognized my role could present issues related to power dynamics as I am involved in teacher evaluations. As I collected data, I was mindful of the level of collaboration and transparency with participants. I recognized that my positionality could shift during the cycles of action research, depending on the PLC's discussions and endeavors and my current role as a district administrator.

Summary of the Findings

The findings of the study indicate that participants perceived an increased ability related to the six dimensions of a PLC: a) shared and supportive leadership, b) shared values and vision, c) collective learning and application, d) shared personal practice, e)

supportive conditions-relationships, and f) supportive conditions-structures. The dimension of Supportive Conditions-Relationships revealed the most significant improvement in participant perceptions. Shared Personal Practice revealed the least amount of change. Three themes emerged from the study: a) setting goals, b) meaningful actions, and c) recognizing results. The findings support the usage of PLCs to guide and empower teachers as part of their professional learning. In addition, the action plan developed from the findings of this study details how the findings will be shared with peer administrators and recommendations for future research within the system.

Dissertation Overview

Chapter One provides the introduction and overview of PLCs and the importance of teacher-self efficacy. Chapter Two includes a literature review of PLCs, collective efficacy, and teacher self-efficacy. Chapter Three details the mixed methods used to analyze the collaborative action taking and teacher perceptions within PLCs. Additionally, it will focus on quantitative analysis of teacher perceptions. Chapter Four aims to analyze the data gathered during surveys, interviews, journals, and observations. The dissertation will conclude with Chapter Five, a summary of findings and recommendations for an effective framework for PLCs within our district as guided by research findings.

Definition of Terms

Collective inquiry – the process by which several individuals establish the questions they will examine as a group, the basis for shared knowledge among the group (DuFour, et al., 2008).

Collective teacher efficacy – the perception of teachers in a school that the faculty, as a whole, can positively influence student outcomes (Hattie, 2016).

Instructional rigor - The expectation that students will be able to perform at levels of cognitive complexity necessary for proficiency at each grade level, and readiness for college and the workplace (Southern Regional Education Board, 2010).

Professional capital – the systematic development and integration of three kinds of capital—human, social, and decision (Hargreaves & Fullan, 2012).

Professional learning communities – places where teachers work collaboratively to reflect on practices, analyze relationships between practices and student outcomes, and make changes to improve teaching and learning (McLaughlin & Talbert, 2006).

Social capital – the collective value of the institutions' relationships and cultural norms that regulate the social interactions (Dewey, 1916).

Social-emotional learning – the process of acquiring and applying the knowledge, attitudes, and skills necessary to understand and manage emotions, create and achieve goals, demonstrate empathy, make responsible decisions, and establish positive relationships (SCDE, 2020).

Teacher efficacy – judgements teachers make about their abilities to promote student learning (Woolfolk Hoy & Spero, 2005), to support student learning (Bruce, et al., 2010), and bring about desired student outcomes (Takahashi, 2011).

CHAPTER 2: REVIEW OF LITERATURE

Introduction

Literature concerning teacher self-efficacy emphasizes a conceptual understanding and influencing factors, so this review begins with a theoretical framework from the social cognitive theory and social capital theory. Following the framework, PLCs' characteristics are reviewed because existing literature suggested that a PLC provides an amenable approach to improving individual teacher efficacy beliefs and classroom practices (Corcoran, 2007; Guskey, 2003). In addition to PLCs' historical context, the review discusses qualities of successful PLCs and challenges faced by emerging PLCs. Goddard et al. (2000) suggested that to improve teacher efficacy organizations must "provide efficacy-building mastery experiences [through] thoughtfully designed staff development activities" (p. 502). The review concludes with a discussion of related research.

Social Cognitive Theory

Albert Bandura's (1986) social cognitive theory is based on learning that occurs by observing others, with the influence of the environment and behaviors. Social cognitive theory suggests we are not products of our own biology or environments, "instead, we are products of our interplay between the external, the internal, and our current and past behavior" (Henson, 2001, p. 3). Specific to teaching, this theory explains how educators analyze their performance by interpreting experienced or observed events and behaviors (Mongillo, 2011) and how the self-created interpretation of their

competency affects and determines self-beliefs, action-taking, and decision-making (Bandura, 1997). In other words, Bandura believed that our perceptions of abilities affect our behaviors, motivation, and success.

Self-efficacy is a subset of Bandura's social cognitive theory (Sutton, 2001). Bandura (1997) defined self-efficacy as "people's beliefs in their capabilities to produce desired effects by their actions" (p. vii). By definition, low self-efficacy would indicate little confidence in one's ability to succeed at a task. In contrast, high self-efficacy indicates a strong level of certainty towards the success of one's efforts. To be discussed below are how Bandura's four sources of efficacy: mastery experiences, vicarious experiences, social and verbal persuasions, and physiological and affective states (Gurvitch & Metzler, 2009) that naturally apply within the educational setting, and more often than not, more than one source is present during given experiences (Darling-Hammond, 2003).

Mastery experiences. Mastery experiences are direct teaching episodes that may be challenging yet are still attainable (Bandura, 1993; Usher and Pajares, 2008). These experiences continually "emerge in empirical studies as the most powerful source of self-efficacy across domains" (Blonder, et al., 2014, p. 6). According to Bandura (1993), mastery experiences are the most influential source of self-efficacy because they are the most authentic experience that demonstrates success. Positive teaching experiences serve as successful mastery experiences that build self-efficacy beliefs in the teacher (Bandura 1993; Usher and Pajares, 2008). Whereas unsuccessful lessons taught serve as negative mastery experiences that can diminish teacher self-efficacy.

Vicarious experiences. Observations of others' successes, otherwise known as vicarious experiences, increase self-efficacy (Bandura, 1977). Within the context of teacher efficacy, a vicarious experience refers to an individual observing another individual teach. Vicarious experiences "alter efficacy beliefs through transmission of competencies and comparison with the attainment of others;" (Bandura, 1997, p. 79). The altering of efficacy beliefs is especially true when the observer sees the model as effective (Bandura, 1997) because they "influence their behavior, thinking, the way they transform knowledge and the strategies used for managing environmental demands" (Blonder, et al., 2014, p. 5).

Social and verbal persuasions. Somatic and emotional states describe the physical and emotional states that occur when someone begins to consider doing something, giving clues to the likelihood of success and failure (Bandura, 1977). Stress, anxiety, worry, and fear negatively affect self-efficacy and prevent successful completion of a task (Pajares, 2002). Receiving positive feedback from peers and leaders creates a positive sense of self-efficacy through social and verbal persuasions (Usher and Pajares, 2008).

Physiological and affective states. Physiological and affective states provide information about arousal during situations in which a capability is demonstrated (Pfitzner-Eden, 2016). Physiological indicators of efficacy play an influential role in activities requiring physical strength and stamina, while affective states can have generalized effects on personal efficacy beliefs (Poulou, 2003). The information conveyed by physiological or affective states is not a predictor of personal efficacy by itself. Rather, such information affects efficacy beliefs through the mediation of cognitive

processes (Poulou, 2003). In forming their efficacy judgments, people have to deal with different sources of efficacy-relevant information, and at the same time, they have to integrate efficacy information and convey it to a number of cognitive, motivational, affective, or decisional processes (Poulou, 2003; Pfitzner-Eden, 2016).

Success requires specific skillsets and high levels of belief about the ability to be successful on a specific task (Bandura, 1993). Efficacious people set challenging goals and maintain a strong commitment to them. In the face of impending failure, they increase and sustain their efforts to be successful. They approach difficult or threatening situations with confidence (Bandura, 1993). If a person doubts his/her ability to be successful, even if he or she has a broad range of skills, these feelings can undermine his/her performance. "Efficacy beliefs affect thought processes, the level and persistency of motivation, and affective states, all of which are important contributors to the types of performances that are realized" (Bandura, 1997, p. 39).

Personal, environmental, or behavioral experiences can promote or inhibit teachers' self-efficacy (Bandura, 1997). The complex relationships between socioeconomic status (SES), ethnicity, educational outcomes, and other factors such as gender and family structure have been well documented (Lee, et al., 1991; McNeal, 1997; Park & Palardy, 2004). A small number of broad themes arise when researchers consider improving schools in disadvantaged areas (Muijs, et al., 2004). These themes include "a focus on teaching and learning, leadership, creating an information-rich environment, creating a positive school culture, building a learning community, continuous professional development, involving parents, external support and resources" (Muijs et al., 2004, p. 149). Teachers with low efficacy perceive that external factors, such as SES,

are beyond their control and overshadow their classroom efforts (Auwarter, 2008). High teacher efficacy is linked to willingness to change when facing challenges such as these (Ross & Gray, 2006).

Collective Teacher Efficacy

CTE is rooted in Bandura's concept of self-efficacy (Hattie, 2016). CTE can be considered the "perceptions of the collective efficacy directly affect the diligence and resolve with which groups choose to pursue their goals" (Goddard, et al., 2004, p.8). This malleable trait is impacted by the group's assessment of the task and how it deems its competency (Donohoo, 2017). Six enabling conditions associated with CTE influence the group's assessment of the task and how the group deems their competency: a) advanced teacher influence, b) goal consensus, c) teacher's knowledge about one another's work, d) cohesive staff, e) responsiveness of leadership, f) effective systems of interventions (Donohoo, 2017). While enabling conditions do not cause things to happen, they increase the likelihood that things will turn out as expected as teachers' realities are filtered through their beliefs that determine their focus, responses to challenges, and efforts (Donohoo, 2016; Hattie, 2012).

Advanced teacher influence. There is a strong relationship between collective efficacy and the degree of teacher leadership in a school (Derrington & Angelle, 2013; Goddard, 2002; Knobloch, 2007). Advanced teacher influence involves the power to make decisions on school-wide issues. Lewis (2009) suggested that "with more opportunity to participate in school decision-making, teams build more mastery experiences in this type of decision-making and experience social persuasion through colleagues' feedback" (p. 72).

Goal consensus. Setting measurable, challenging school goals helps teachers achieve decisive results—especially when teachers agree on which goals to set (Hattie, 2017). Robinson, Hohepa, and Lloyd (2009) define goal setting as "setting, communicating and monitoring of learning goals, standards, and expectations and the involvement of staff and others in the process so that there is clarity and consensus about goals" (p. 95). Kurz and Knight (2003) found consensus on school goals to be a significant predictor of collective efficacy, as goal setting influences school culture, decision-making processes, teacher satisfaction, commitment, and empowerment.

Teacher's knowledge about one another's work. Teachers gain confidence in their peers' ability to impact student learning when they know each other's practice; processes such as lesson studies or peer observations allow teachers to acquire knowledge about their teammate's abilities (Becker, 2017; Hattie, 2017). Donohoo (2017) suggests "if knowledge about one another's work develops via learning together and a learning stance is assumed, then teachers could co-construct knowledge about effective teaching practices" (p. 32). This shared learning about effective practices has the potential to increase collective efficacy and shrink the variance between grade-level teams (Becker, 2017).

Cohesive staff. Cohesion is defined as the degree to which teachers agree with each other on fundamental educational issues (Hattie, 2017). They also believe that success and failure in student learning are more about what they did or did not do, and they place value in solving problems of practice together (Hattie & Zierer, 2018). The more cohesive a team, the more likely team members are to buy in to social persuasion (Ross, et al., 2004).

Responsiveness of leadership. Responsive leaders demonstrate an awareness of teachers' personal aspects, protect teachers from influences that can negatively impact their focus, and remove issues that reduce teaching time (Hattie, 2017). Goddard, Goddard, Kim, and Miller (2015) demonstrated that a principal's instructional leadership significantly predicts collective efficacy by influencing teachers' collaborative work. Staff respond positively and work diligently when leaders demonstrate "a belief in empowerment over efficiency, choice over decisiveness, and autonomy over control" (Donohoo, 2017, p. 40).

Effective systems of interventions. Effective systems of intervention help ensure that all students are successful (Hattie, 2017). Since expectations for success are high, teachers and leaders approach their work with an intensified persistence and firm resolve (Donohoo, et al., 2008). The emphasis should be on identifying student learning needs and detecting problems that need to be addressed in classrooms, using various evidence to determine if approaches made a difference, and making adjustments as necessary (Donohoo, et al., 2018).

Social Capital Theory

Dating back to the 1890s, the idea of social capital was considered by John Dewey. By the 1970s, the concept of social capital gained interest as researchers analyzed the impact of interactions on personal and corporate success. The most common definition of social capital is the collective value of the institutions' relationships and cultural norms that regulate the social interactions (Dewey, 1916). This theory recognizes the value of sharing information and opportunities among its individuals.

Recently Hargreaves and Fullan (2012) wrote about professional capital, their concept based on social capital theory. Hargreaves and Fullan (2012) consider

professional capital to be "the systematic development and integration of three kinds of capital—human, social, and decision" (p. xv). The concept of decisional capital is the ability and opportunity to use expertise as part of decision-making within a team or individually. This concept is very similar to self-efficacy. Like self-efficacy, decisional capital is determined by a person recognizing his or her capacity. Unlike self-efficacy, decisional capacity is strongly aligned with collective efforts in a group with a common purpose. Decisional capital reflects a commitment to learn from and with others.

Linking Efficacy and Professional Learning Communities

When reviewing the literature, collective efficacy shows great promise when teachers work collaboratively, which is the essence of PLCs. While limited, research has shown increased levels of teacher efficacy when PLCs were characterized by collaboration (Rosenholtz, 1989), willingness to support one another and encourage innovation (Newmann, et al., 1989), and development of a sense of community (Boyd & Hord, 1994; Lee et al., 1991).

Rozenholtz (1989) conducted a mixed-methods study investigating characteristics of PLCs and teacher efficacy. Rosenholtz also found that "teachers' efficacy is one of the most powerful predictors of collaboration" (p. 46). Newmann, Rutter, and Smith (1989) studied the impact of ten organizational factors of efficacy, community, and expectations using a national probability sample of 353 public high schools and found a sense of community "conveys a relationship of unity, belonging, and cooperative interdependence among peers…" (p. 223). The study found two of the most powerful organizational effects relating to efficacy are teachers' willingness to support one another and encourage innovation, a characteristic of DuFour and Eaker's (1998) PLC model. The results for community and efficacy demonstrated an influential role in learning organizations

(Newmann et al., 1989). They, therefore, concluded that there was a strong relationship between efficacy and community.

Professional Learning Communities and Historical Perspectives

The term PLC first emerged among researchers as early as the 1960s as an alternative to the isolation of teaching. Still, Susan Rosenholtz (1989) brought teachers' workplace factors into the discussion of teaching quality, maintaining that teachers who felt supported in their own ongoing learning and classroom practice were more committed and effective than those who did not receive such confirmation. Support through teacher networks, cooperation among colleagues, and expanded professional roles increased teacher efficacy. Further, Rosenholtz found that teachers with a high sense of efficacy were more likely to implement new classroom behaviors and more likely to remain in the profession.

McLaughlin and Talbert (1993) confirmed Rosenholtz's findings, suggesting that when teachers had opportunities for collaborative inquiry and the learning related to it, they could develop and share a body of wisdom gained from their experience. Darling-Hammond (1996) referred to shared decision-making as a factor in curriculum reform and transformation of teaching roles. In such schools, structured time is provided for teachers to plan instruction, observe each other's classrooms, and share feedback. These and other elements characterize PLCs.

There has been a shift in the structure and context of professional development. The traditional and most common type of professional development is the workshop model. A workshop is a structured professional development outside the teacher's classroom through a lecture-style environment. This model typically involves a scheduled session led by a leader or expert. Examples of this approach are institutes, courses, and

conferences (Garet, et al., 2009). However, this workshop model has been highly criticized because of its limited contextual design, disregard for teacher knowledge construction, and inability to influence change within schools (Darling-Hammond & McLaughlin, 1995).

Lieberman (1995) asserts that when teachers engage in job-embedded meaningful learning, there are lasting impacts for the classroom instead of traditional workshops or isolated training. Ross, Hogaboam-Gray, and Hannay (2001) found that teacher efficacy is stronger when professional development is differentiated for individuals, distributed through the implementation period, established in school networks, and accompanied by focused support on instructional issues. High-performing PLCs address these factors to enhance teacher learning (Harris & Jones, 2010) while building teacher capacity (DuFour, 2004).

Characteristics of Successful Professional Learning Communities

Researchers have found that PLCs are the least expensive, most professionally rewarding way to improve teaching (Schmoker, 2005). According to Hannaford (2010), top researchers in the field have agreed upon essential characteristics of PLCs: shared leadership, shared mission, collaboration, collective inquiry, action orientation and experimentation, continuous learning, and results orientation.

Shared leadership. Shared leadership is having an opportunity to participate in the school's responsibilities and decision-making (DuFour, et al., 2005). Shared leadership is centered within teams in which the members display a shift in thinking that the principal is the lone leader in the school to include all stakeholders correlating to communal responsibilities (Lezotte, 2005). Shared leadership promotes a collaborative

culture that is the basis for successful PLCs. Principals who encourage shared leadership are more successful in promoting effective PLCs (Huffman & Jacobson, 2003) and attain greater teacher development (Mullen & Hutinger, 2008).

Shared mission. Shared mission is defined as members sharing a commitment to the fundamental goals of an organization. This critical attribute of PLCs provides answers to how teachers will reach their goal and why they are working toward that goal (DuFour, et al., 2008). Creating effective PLCs requires teachers to assume responsibility beyond their own classroom while investigating practices and focusing on results (Seashore, et al., 2011). The knowledge of teachers is vital when shared with colleagues. Collaboration and sharing of ideas promote common goals and a shared mission that influences the school culture. A shared mission is a significant benefit to PLCs' collaborative nature (Sharpe, et al., 2010; Sparks, 2005).

Collaboration. Collaboration is a shift from isolation to a structured process of working together to improve instructional practice (DuFour, et al., 2005). The concept of teacher teams reduces the sense of competition among teachers. Successful schools embrace teams, encourage relationships, and celebrate collaboration instead of isolation (Fullan, 2001). In PLCs, collaborative practices are focused on student learning. Collaboration is essential in order for teachers to establish desired outcomes and set baselines for student progress (Reeves, 2006).

Collective inquiry. Collective inquiry is the process by which several individuals establish the questions they will examine as a group. The dialogue generated from these questions is intended to result in the academic focus, collective commitments, and productive professional relationships that enhance teachers' learning. In PLCs, collective

inquiry is the basis for shared knowledge among the group (DuFour, et al., 2008). Collective inquiry is a process, and the process's effectiveness will depend on the extent to which the collective inquiry is focused on the issues.

Action-orientation and experimentation. Action-orientation and experimentation can be described as learning by doing. Members of PLCs realize that learning results from high engagement. Teachers should be ready to try new approaches while acting on their current beliefs and focusing on student results (Hannaford, 2010). Discussions within the PLC lead to further action and reflection. Hord and Sommers (2008) concluded that it is not the initial experience that is the learning point; instead, it is the reflection and conversation that follows the experience that fosters the most learning.

Continuous learning. Hord and Sommers (2008) defined continuous learning as the practice of using every opportunity and experience to learn something new. Continuous learning is the cyclical process of learning, applying, and refining understanding to achieve desired results. The ongoing cycle includes five steps: a) gathering evidence of current student learning, b) developing strategies and ideas to build on strengths and address areas of concern, c) implementing strategies and ideas, d) analyzing the effectiveness of changes, and e) applying new knowledge to the next cycle of improvement (DuFour, et al., 2008).

Learning in the context of PLCs pertains to people working towards a shared understanding and practices as a collective group (King & Newmann, 2001; Marks, et al., 2002). The members of a PLC constantly turn their learning and insights into action. Collaborative conversations encourage teachers to “make public what has traditionally been private—goals, strategies, materials, pacing, questions, concerns, and results”

(DuFour, 2004, p.8). Members are more likely to change their instructional practices after collaborative discussions, observations, and reflection (Goddard et al., 2000).

Hassler and Collins (1993) argued that unexamined beliefs that guide teachers' decisions and actions are often explored through reflection. Reflection that focuses on evaluating actions improves practice (Darling-Hammond & Bransford, 2005). Cochran-Smith and Lytle (1999) found that the knowledge needed to improve teachers' practices could be found by reflecting upon the situational contexts and action steps. Self-guided reflection establishes a feedback loop of goal-setting, planning, implementation, and evaluation driven by teachers and students (DuFour, et al., 2008).

Results orientation. Results orientation is the practice of knowing what students need to learn, knowing what is learned, and knowing what to do about those who have not learned (DuFour, et al., 2005). Here the focus is on outcomes instead of intentions or inputs. Effective PLCs must review and analyze student work with plans for modifications to facilitate future instruction (Schmoker, 2005). On-going analysis of student learning is reinforced through collaborative conversations (Stiggins & DuFour, 2009).

Bandura's (1997) four sources of efficacy: a) mastery experiences, b) physiological and emotional state, c) vicarious experiences, and d) social persuasion correlate to participation in PLCs. Teachers increase their efficacy when they have a successful experience (Corcoran, 2007). Sharing these experiences during collaborative discussions or by observations becomes a vicarious experience for others. Through vicarious experiences, teachers determine their capabilities for the same success. Feedback from peers is one example of social persuasion during PLCs that can improve

teacher efficacy and collective efficacy (Goddard et al., 2007). Supporting collaboration through PLCs is a key lever in the educational environment.

Challenges Faced by Professional Learning Communities

As PLCs become predominant in school systems, obstacles to achieving successful PLCs are apparent. Brown University's Annenberg Institute of School Reform (2004) and Lujan (2009) identified several barriers to PLCs' success, such as teachers' hesitancy to share, lack of leadership, misunderstanding of PLCs' purpose, and concerns regarding trust or quality. The Annenberg Institute of School Reform (2004) acknowledged that the level of collaboration and trust affected the quality and extent of data analysis. Therefore, collaboration and trust are crucial for effective PLCs.

A paradigm shift from working in isolation to collaboration has caused school leaders to reconsider how teachers improve their craft. Schmoker (1999) has noted that productive collaboration, characterized by frequent, precise, and continuous conversation among teachers, has contributed to significant classroom and school results. Teachers committed to improving student achievement share examples of practice and participate in reflective conversation (Scribner, et al., 1999).

Although teachers believe collaboration is important, they have little time or energy to participate in this practice. According to RAND's American Educator Panel Survey conducted in 2016, only 31 percent of teachers reported having sufficient time to collaborate with other teachers (Johnston & Tsai, 2018). The demanding daily schedules of teachers and administrators lead them to place a high value upon their time. Thus, they must view any efforts to establish additional responsibilities as a high priority for them to prioritize their time and allow professional growth to take hold and become a part of the school culture (DuFour, et al., 2005).

Implementation and sustainability of PLCs create a challenge for teachers and administrators (Fullan, 2005). Many schools claim to have PLCs as a form of professional development, but in reality, these schools fail to create and maintain a school culture where learning communities are valued. DuFour and Fullan (2013) identified mindsets of capacity building, social capital, instruction, and systemness as crucial to positive school cultures. Systemness is defined as the degree to which people identify and commit to a group larger than themselves and the actions associated with their commitment (DuFour & Fullan, 2013). Systemness can be likened to a shared mindset within the school culture.

Related Research

Researchers DuFour, DuFour, and Eaker have led the way for others to learn about and implement PLCs. Their many works, including Professional Learning Communities at Work (1998), Learning by Doing (2006), Revisiting Professional Learning Communities at Work (2008), have laid the foundation for numerous other researchers to collaborate. They have produced additional material to add to the body of literature that exists concerning PLCs.

In Prince's 2018 qualitative case study, she examined the effect of PLCs on teacher self-efficacy and whether the type of PLC structure affected efficacy. The guiding research question was: To what extent does perceived teacher self-efficacy change due to the practice of PLCs? Participants were selected using purposive and convenience sampling. Ten teachers and two principals on two different campuses participated in teacher focus groups and one-on-one principal interviews. Focus group data were coded into themes, and further comparisons were made with categories derived and saturated until conclusions were drawn.

The data showed teacher self-efficacy increased as a result of PLCs when teachers were able to experience positive feedback from teammates, shared leadership, trust and honesty, and a freedom to fail. For those teachers who were not on a campus where PLCs were present, the data suggested they created their own PLCs as the need arose. These teachers experienced all of the same benefits as those on a campus where a formal PLC structure existed; however, their stress level was higher. The higher stress level was attributed to the frustration of having to seek out their own PLC. Additionally, the teachers described the lack of drive or responsiveness of other teachers as a stressor. Prince's study justifies the effort required to plan and implement PLCs.

A mixed-methods study by Putnam Havran (2017) analyzed the effect of a PLC for novice teachers as it related to a district required mentor program. The participant-researcher believed that the required mentor program affected novice teachers' feelings of self-efficacy. Data from the action research included questionnaires, semi-structured interviews, and classroom observations. Analysis of the qualitative and quantitative data found formal evaluation anxiety themes, desire for an improved support system, lack of confidence in teaching, and feelings of unpreparedness.

Murdaugh's (2017) qualitative action research study reviewed eight elementary English Language Arts teachers' perceptions of PLCs. The teacher-participants' opinions about the PLC were used to improve the existing PLC; to promote a more reflective and collaborative environment where ELA teachers could be supportive of each other as they worked to improve curriculum. Data collection strategies included semi-structured interviews and a focus group to debrief the individual interviews' data. The interview data was coded, analyzed, and interpreted by the participant-researcher. The teacher-

participants reflected on the data during follow-up focus groups to develop an action plan. Findings from the interviews and focus group indicated that the teacher-participants did not perceive their current PLC as meaningful and concluded that they needed a PLC that promoted a culture of collaboration and reflection in a trusting environment.

There are numerous studies about PLCs; however, few directly address PLCs in high–needs schools, such as Title I schools. Too often, improvement processes and PLC goals do not align. In this context, Ylimaki, Brunderman, Bennett, and Dugan (2014) found that improvement processes often impede PLCs' work. Using PLCs to improve instruction designed around student outcomes, not mandated improvement plans, must remain the principal's and teachers' focus. A collective effort that incorporates various stakeholder perspectives was found to be essential to the success of high-needs schools (Barrett, et al., 2016). The successful implementation of PLCs requires the school to develop capacity in collaborative decision-making, instructional strategies and data use, and informal accountability. A PLC's work to address underserved populations can bring light to critical areas of need (Ryoo, et al,, 2015). PLCs in successful high-needs schools can positively impact the school and the actions of the staff (Ylimaki et al., 2014). The lower the school's socioeconomic status, the less trust will be demonstrated by the students, parents, and colleagues. When structures emphasize communication and collaboration, which are the backbones of PLCs, cooperation and trust between actors are more likely (Van Maele & Van Houtte, 2009).

Conclusion

The analysis of literature presented within this chapter identifies PLC's ability to increase teacher self-efficacy through growth, inquiry, collaboration, and reflection. Given the body of research on teacher professional development and self-efficacy, it would be valuable to find an approach to professional development that increased participating teachers' reported self-efficacy. Previous researchers have made the recommendation for research on the relationship between teacher efficacy and job-embedded professional development. Teachers have typically been allowed and even encouraged to work in isolation with minimal communication and pedagogy sharing with other teachers. PLCs are one possible solution to overcoming the obstacle of isolation. By creating a culture of collaboration, teachers learn together by sharing best practices and researching concerns, using data to focus on student results, and adjusting instruction.

CHAPTER 3: ACTION RESEARCH METHODOLOGY

Problem of Practice

The informal survey (Appendix B) indicated that teachers desired professional development that was collaborative and action-oriented. The Elm Primary School's teachers agreed to join the action research to study and improve their functioning as a PLC. Using action research methods, I explored the impact of a PLC on teacher self-efficacy. The six-week intervention was designed to engage participants in activities that focus on teacher confidence, knowledge, awareness, and implementation of best instructional practices.

Research Question

What impact will a professional learning community (PLC) have on the self-efficacy of six teachers at Elm Primary School?

Purpose of the Study

The purpose of this study was to examine the impact of a PLC on the self-efficacy of six teachers at Elm Primary School. For the purpose of this study, PLCs are defined as places where teachers work collaboratively to reflect on practices, analyze relationships between practices and student outcomes, and make changes to improve teaching and learning (McLaughlin & Talbert, 2006). Teacher self-efficacy was defined as the judgments teachers make about their abilities to promote student learning (Woolfolk Hoy & Spero, 2005), to support student learning (Bruce, et al., 2010), and bring about desired student outcomes (Takahashi, 2011). Collective efficacy was defined as the perception of teachers in a school that the faculty, as a whole, can positively influence student outcomes (Hattie, 2016).

As previously noted, action research's collaborative nature empowers participants to explore, improve, and advance learning within their contexts (Efron & Ravid, 2013). I implemented the criteria outlined in the PLCA-R. The PLCA-R incorporates shared mission, vision, and values; collective inquiry; collaborative teams; orientation towards action and willingness to experiment; commitment to continuous improvement; and a focus on results (DuFour & Eaker, 1998).

Action Research Design

I conducted an action research study to understand our PLC and its impact on teacher self-efficacy. Action research is described as a cyclical process conducted by practitioners to improve educational practices (Herr & Anderson, 2015). The collaborative nature of action research empowers participants to explore, improve, and advance learning within their contexts (Efron & Ravid, 2013).

A mixed-methods approach, combining quantitative and qualitative data collection and analysis, was used to balance both designs' strengths and weaknesses, resulting in enhanced improvement (Efron & Ravid, 2013). The concurrent data collection was appropriate since quantitative and qualitative data could be collected throughout the study and used to develop new techniques while the study was taking place. For the purpose of this study, collaborative actions were measured using pre-and post-interviews, journals, and observation field notes. These tools provided qualitative data. Pre- and post-surveys using a Likert scale to rate perceptions of PLCs and efficacy were used to collect quantitative. The qualitative and quantitative data were used to determine the impact of a PLC on self-and collective efficacy.

Setting and Time frame of Study

Elm Primary School, a Title I school, served 403 students in pre-kindergarten through 4th grade at the time of this study. The public school is part of a small school district with three schools: one primary, one elementary/middle, and one high school. The population of students has little diversity among race or class. This diversity is a reflection of the community. Three-quarters of the school's students are part of White, lower or middle-class families. The faculty included 30 certified teachers, 13 paraprofessionals, one counselor, one reading coach, one math coach, and one principal. The faculty have varying years of experience, from one year to 25 years. Faculty received support from the school's reading coach, math coach, reading interventionists, RTI coordinator, physical and occupational therapists, mental health counselor, guidance counselor, principal, and district office personnel. These contextual factors affect teacher perceptions, levels of self-efficacy, and the development of effective PLCs.

The study was implemented during the first academic quarter of the 2020-2021 school year. Over a period of six weeks, I gathered qualitative and quantitative data concurrently. Surveys, journaling, and observation field notes occurred throughout the six regularly scheduled PLC times, each during a 45-minute period. Pre-and post-interviews were conducted independently at the convenience of the participants.

Participants in the Study

The six participants in the study were teachers at Elm Primary School, a rural, Title I school. Participants provided voluntary informed consent, and I made appropriate disclosures during the study. The process and findings were shared openly, as needed. To protect the identity of the participants and setting, pseudonyms are used throughout

this study. The following is a brief biographical sketch of each participant. Information for these sketches was gathered from the PLCA-R demographic section and pre-interview responses.

Nicole is a special education teacher with 15 years of experience. She has worked at Elm Primary School for 15 years. She holds a master's degree. Nicole worked with some grade-level teachers during previous school years to understand the content and the best ways to modify materials. She believes her perceptions influence her decisions to ask for help from a peer.

Elaine is a fourth-grade teacher in her first year of teaching. She attained a bachelor's degree in 2020. Elaine has no experience in a PLC but expects the members to provide support. She also believes her performance directly correlates to her self-efficacy beliefs.

Isabel is a second-grade teacher entering her 29th year of service. She has two years of experience at Elm Primary School. Before joining the faculty, she worked as a kindergarten teacher, first-grade teacher, kindergarten special education, third and fourth-grade special education teacher, and 1st-5th grade special education teacher. Additionally, she is a Board Certified Behavior Analyst. Isabel believes PLCs should be a safe place to discuss academic, emotional, and social concerns.

Hope is a second-grade teacher with one year of experience. She holds a bachelor's degree. Hope describes her teaching style as focusing on the whole child. Her goal is to continue learning the best ways to help students and how she can better meet students' needs. Hope would like to earn a masters' in early childhood education with a concentration in literacy.

Aubrey, an Early Childhood certified teacher, has three years of experience at Elm Primary School. During that time, she has taught third grade. She has 11 years of teaching experience. Aubrey believes that teachers commit to being lifelong learners and places a considerable amount of pressure on herself to be effective.

Danielle is a special education teacher with 25 years of experience. She is currently pursuing her doctorate. Her certifications include elementary education, special education with LD concentration, and language and literacy. She has previously taught students in grades 5K-8th. Danielle believes that PLCs are great ways for educators to work collaboratively together to improve their practices.

Research Methods

I employed a mixed methods research design similar to what Creswell (2014) termed concurrent procedures, "blending quantitative measures in the form of survey collection with qualitative measures, such as semi-structured interviews with open-ended questions, in order to provide a more comprehensive analysis than neither alone could provide" (p. 16). The data collection tools focused on PLCs' functions and the impact on teacher efficacy using criteria from PLCA-R.

Pre- and post-survey. The PLCA-R was created to assess PLCs' everyday practices (Olivier, et al., 2003). I received permission to use the PLCA-R before the intervention (Appendix L). The tool has gone through construct validity, yielding satisfactory internal consistency for reliability (Olivier, et al., 2003). The PLCA-R includes the following subcategories: a) shared and supportive leadership; b) shared values and vision; c) collective learning and application; d) shared personal practice; e) supportive conditions-relationships; and f) supportive conditions-structures. Table 3.1 lists the PLC dimensions and corresponding statement numbers.

The purpose of this survey was to determine how attitudes have changed, or not changed, from the perspective of the participating teachers (see Appendix C). Attitudes and perceptions are important to the development of efficacy, so this data was crucial for the study.

Table 3.1 *PLCA-R Survey Dimensions with Corresponding Statements.*

PLC Dimension	Corresponding Statement Numbers
Shared and Supportive Leadership	1-11
Shared Values and Vision	12-20
Collective Learning and Application	21-30
Shared Personal Practice	31-37
Supportive Conditions-Relationships	38-42
Supportive Conditions-Structures	43-52

A section at the beginning of the survey was used to capture years of experience, the number of years at current school, highest degree obtained, and grade level(s) taught. A four-point Likert scale ranging from 1 (Strongly Disagree) to 4 (Strongly Agree) is used to gather quantitative data. Maurer and Pierce (1998) found a Likert scale to be an acceptable method for measuring self-efficacy. The comments section is intended to support and enhance PLC development. Participant comments were optional and recorded as part of the qualitative data sets.

The pre-survey was used to establish a baseline for levels of efficacy before the intervention began. Pre-survey data influenced the selected articles and activities for the professional development sessions on PLCs. The same PLCA-R survey was used as a

post-survey to indicate changes in teacher perception as a result of the participants' engagement in the 6 professional development sessions on PLCs. The quantitative results were analyzed, and I determined trends within the results.

Pre- and post-interview. To understand the perspectives of all participants involved in the study, I interviewed each participant. Creswell (2014) suggests qualitative interviews use open-ended questions. Open-ended questions help gain the interviewee's perspective and do not lead them in the direction the interviewer wishes for them to go. Open-ended interview questions were aligned with PLC qualities. The interview questions were developed before the intervention (see Appendix D). Face-to-face interviews were conducted individually in an environment that provided a level of confidentiality at participants' convenience. I recorded and transcribed the interviews. Member-checking was used to validate the transcriptions' credibility by having participants verify the accuracy of their transcribed responses.

Observation field notes. Creswell and Clark (2018) suggest using an observational protocol to record events and processes observed as well as reflective notes. The recording form was developed before the study (see Appendix E). The form was adapted from Efron and Ravid's (2013) observational protocol. I reflected after each PLC session. Participants' responses were observed and recorded during PLCs for additional qualitative data. This data was used to provide insight into participants' choices and perceptions. Additionally, journaling was used to increase my understanding of the study, assist with retaining focus, and provide support (Creswell & Clark, 2018).

Journals. Throughout the intervention, teacher participants wrote in their journals, focusing on classroom practices, professional development, and efficacy (see

Appendix F). Reflection is not necessarily automatic (Schon, 1987), reflection must be guided (Reiman, 1998), and journaling provides an opportunity for guided reflection. Journal prompts focused on how teachers related to learning, students, and their values while documenting successes, challenges, and perspectives associated with their PLC. Journals were collected at the end of the intervention for analysis.

Artifacts. During the study, I collected material created during the PLC meetings. The process of collaboration and feedback as the artifacts were created encouraged verbal persuasion and celebration of others' successes (Wenger, et al., 2002), both critical components of self-efficacy. The intent of collecting artifacts was to observe the impact that the PLC may have had on the teachers' self-and collective efficacy.

Procedure

The professional development intervention, designed by the organization's leadership team, used a framework that focused on gaining new knowledge, planning with new knowledge, putting new knowledge into practice, and reflecting and refining practices. The PLC sessions design included video presentations, modeling by peers, interactive discussions, review of current literature, and individual reflection. Each session was planned to include professional development opportunities related to the instructional practices and student engagement aspects of teacher efficacy. Additionally, the sessions were designed to foster a collegial environment, hoping that participants would be encouraged to share best practices and areas of concern. Table 3.2 summarizes the weekly activities and data collections.

Prior to the first PLC session, a week was designated to conduct pre-interviews and collect pre-survey responses. Interviews were conducted individually during

participant's planning times or after school. Surveys were completed at the convenience of the participants.

Table 3.2 *Summary of Research Timeline and Activities*

Week	Activities	Data Collected
0	• Individual Interviews • Survey	• Pre-interviews • Pre-survey
1	• Interdependency Q&A • PLCs and Self-Efficacy: What is the Connection? Blog • Using School Improvement Goals to Drive Team Goals	• Journaling • Observation field notes • Artifacts
2	• Strategies for Respectful Collaboration • Reflection and Shifting Practices	• Journaling • Observation field notes • Artifacts
3-5	• Maslow's Hierarchy of Needs • Teaching Your Child to Identify and Express Emotions • Social-Emotional Lesson planning using materials from SCDE • Close Gap data analysis • How to Identify Bullying • Emotional Intelligence	• Journaling • Observation field notes • Artifacts
6	• Cycle of Inquiry • Revisiting Using School Improvement Goals to Drive Team Goals	• Journaling • Observation field notes • Artifacts
7	• Individual Interviews • Survey	• Post-interviews • Post-survey

During week 1, participants were asked to define and answer four questions (Appendix H) as a group. The purpose of the exercise was to understand the PLC members' interdependency and how they affect their efficacy levels (DuFour, 2004).

Participants read an excerpt from Jamie Virga's (2010) blog (Appendix I) to reflect on the importance of self-efficacy and how self-efficacy impacts their work. Collectively the group reviewed the school improvement goals and selected one goal to focus the group's efforts. The review was guided by DuFour, DuFour, Eaker, Many, and Mattos' (2016) prompts from *Using School Improvement Goals to Drive Team Goals* (Appendix J). Participants agreed to collaborate and focus their PLC's efforts on social-emotional learning.

South Carolina's Department of Education (SCDE) defines social-emotional learning (SEL) as the process of acquiring and applying the knowledge, attitudes, and skills necessary to understand and manage emotions; create and achieve goals; demonstrate empathy; make responsible decisions; and establish positive relationships (SCDE, 2020). The National Education Association (NEA) supports prioritizing social-emotional learning during the COVID-19 crisis.

During week 2, participants gathered to examine the reciprocal relationship between collaboration and self-efficacy. John Dewey (1938) identified continuity and interaction with the environment as essential to learning. The group began by reviewing strategies for collaborative dialogue (Appendix K) adapted from Garmston and Wellman (1999). Additionally, the group discussed reflection and owning shifts in our practices. According to Dewey, learning experiences are not isolated, and learners must connect current and past learning while seeing future implications (Merriam, et al., 2007). Reflection encourages the connection of current and past learning to future implications. Many models of reflective practice are described in the literature. Brookfield's (2005)

model analyses a situation through four different lenses-self, student, colleagues, and research. Figure 3.1 displays the four lenses.

During weeks 3-5, participants analyzed student work, anecdotal records, and formative assessments. Participants were able to share their expertise and collaborate to improve results. Participants addressed areas of improvement regarding instruction; additionally, they sought to highlight each other's strengths. Elm Primary School adopted Close Gap wellness platform and Caring School Community curriculum.

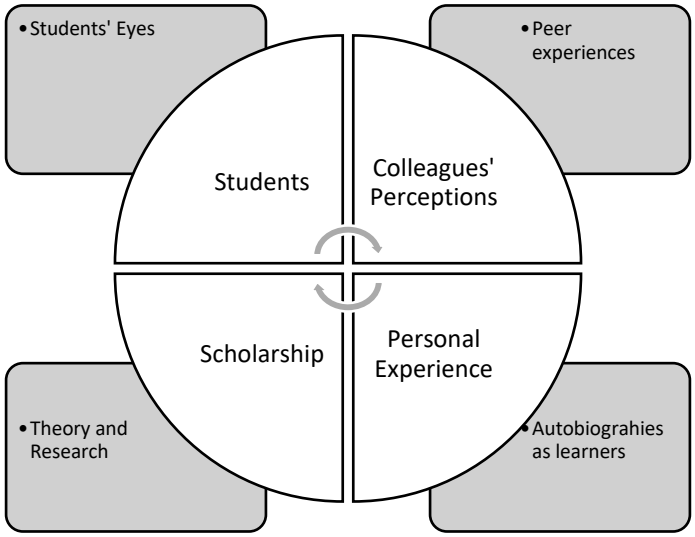


Figure 3.1 *Brookfield's Four Lenses of Reflection*

Close Gap, founded by Rachel Miller, created the platform in response to the adverse childhood experiences (ACEs) using a daily check-in to track, analyze, and manage emotions. The original ACE Study conducted by Kaiser Permanente included 8,506 participants regarding childhood experiences, current health, and behaviors (Felitti, et al., 1998). The study found seven categories of ACEs were interrelated, and participants experiencing multiple ACEs were likely to have multiple health risks later in

life (Felitti et al., 1998). This research, combined with the current global pandemic, validates the group's choice to focus their efforts on social-emotional learning.

Week 6's session focused on how the recurring cycle of inquiry in Figure 3.2 could continue outside the study. Successful PLCs are characterized by analyzing current achievement levels, identifying essential and valued student learning, developing assessments, sharing strategies, and researching best practices (DuFour, 2004). As a group, the participants reflected on their progress by referring to *Using School Improvement Goals to Drive Team Goals* (Appendix J) completed during week 1's session. Participants discussed their locus of control, sphere of influence, and personal perceptions.

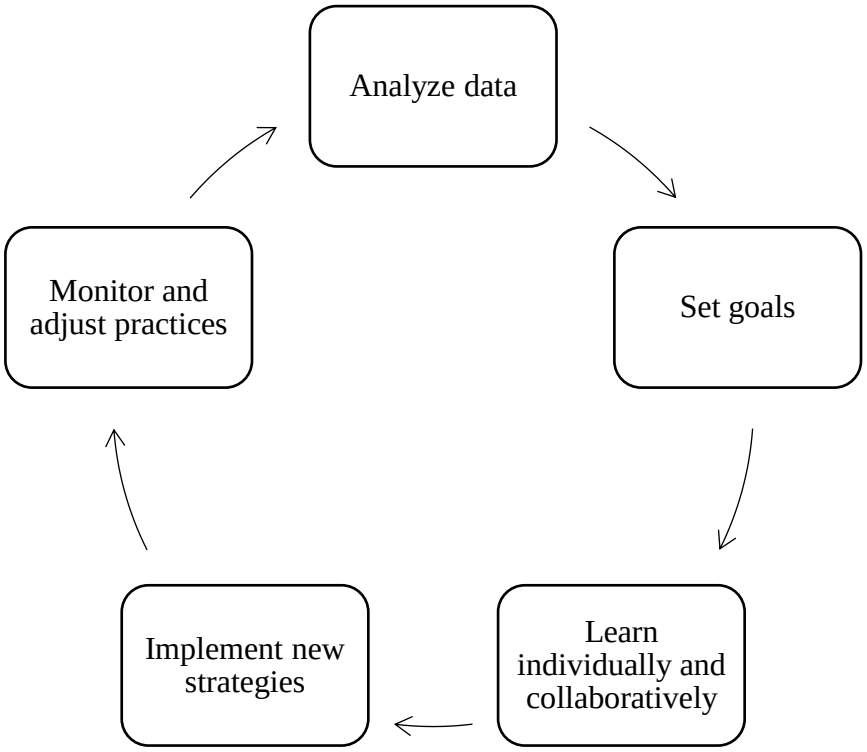


Figure 3.2 *Collective Inquiry Cycle*

A week following the last PLC session was used to conduct the post-interviews and collect the post-survey responses. Interviews were conducted individually after school.

One interview was conducted online using Microsoft Teams because of a participant's close contact to family member who tested positive for COVID-19. One participant was unable to complete a post-interview. Participants completed the post-survey independently.

Data Analysis

The data analysis process involved reducing the data, displaying the data, drawing conclusions, and verifying the data (Creswell & Clark, 2018). I incorporated the observation field notes, journals, and the pre- and post-interviews for an inductive analysis approach of conducting a thematic analysis of the qualitative data. This method takes large quantities of information and reduces it to organized themes to present findings in a clear manner (Mertler, 2017). A coding system was used to organize and analyze qualitative data. The coding system also identified patterns in perceptions and attitudes regarding efficacy.

For quantitative data analysis, participants completed the PLCA-R and outcomes were analyzed using descriptive statistics. Descriptive statistics "simplify, summarize, and organize relatively large amounts of numerical data" (Mertler, 2017, p. 178). The participants responded to each PLCA-R question on a Likert Scale ranging from 1 (Strongly Disagree) to 4 (Strongly Agree). The mean (M) and standard deviation (SD) of each PLCA-R question was calculated. To reflect changes in the participants self-reported levels of efficacy and perceptions of collective efficacy, the pre- and post-PLCA-R means were analyzed. Since the study's goal was to find the group's norm opinion, descriptive statistics was the most effective way to discover this (Mertler, 2017).

Plan for Reflecting with Participants on Data

I reflected with the teacher-participants during each phase of the action research process, as outlined below. An informal survey (Appendix B) was administered during the planning stage of the study. Participants' identities were anonymous to protect their privacy. The survey indicated that teachers desired professional development that was collaborative and action-oriented. Once the study topic had been identified I gathered information, conducted a review of related literature, and developed a research plan. I met with teachers to provide them an overview of the study. Teachers were also provided an invitation to participate (Appendix G).

The action stage began with semi-structured pre-interviews and pre-surveys that I used to reflect upon the participants' viewpoints. Additionally, I read and analyzed the teachers' weekly journals. This activity aimed to gain information that could be used to modify the following week's activities. I gathered notes during each PLC and reflected afterward. The post-interviews and post-surveys were used to reflect on the changes in self-reported levels of efficacy and perceptions of collective efficacy.

During the study, as the interviews were transcribed and the biographies were written, member checking was used to suggest edits, additions, or deletions. Each document was shared individually with participants. Their revisions were maintained, and the descriptions in upcoming chapters are the result of a collaborative effort.

At the conclusion of the study, the group reflected upon the findings and compared the outcomes to the literature reviewed. Special considerations were taken in order to maintain the privacy and anonymity of each participant by removing names from data records and omitting descriptions of participants. This form of member-checking

was one attempt to increase the trustworthiness of the study. I used the information from these reflections to begin the Action Plan. During the conversation, I made anecdotal notes that could be beneficial for future studies. These are discussed in Chapter Five.

Plan for Devising an Action Plan

The idea of action research is that some action will occur as a result of the study (Mertler, 2014). A district administrator conducted this action research study to impact teacher self-and collective efficacy through a PLC. I devised the action plan based on this study's results and the implications to be considered related to the findings.

CHAPTER 4: FINDINGS FROM DATA ANALYSIS

Introduction

This study examined the impact of a PLC on six teachers' self-efficacy levels at Elm Primary School. The small group of teachers voluntarily participated in the study for a total of six weeks. The six-week intervention was designed to engage participants in activities that focus on teacher confidence, knowledge, awareness, and implementation of best instructional practices that focus on social-emotional learning. The weekly meetings occurred on Elm Primary School's campus at designated times for collaboration, creating authentic conditions. I explored the impact of PLCs' on participants' classroom instruction, attitudes, and beliefs, which directly affect their self-efficacy levels.

A mixed-methods approach was employed to balance strengths and limitations on both designs (qualitative and quantitative), resulting in enhanced improvement (Efron & Ravid, 2013). The concurrent data collection was appropriate since quantitative and qualitative data were collected and used to influence the study's weekly intervention techniques. A variety of data collection tools, including the PLCA-R survey, interviews, observation field notes, journals, and artifacts, were employed. This chapter presents a summary of the findings.

Research Question

What impact will a professional learning community (PLC) have on the self-efficacy of six teachers at Elm Primary School?

Purpose of the Study

The purpose of this study was to examine the impact of a PLC on the self-efficacy of six teachers at Elm Primary School. To reiterate, from chapter one, PLCs are defined as places where teachers work collaboratively to reflect on practices, analyze relationships between practices and student outcomes, and make changes to improve teaching and learning (McLaughlin & Talbert, 2006). Teacher self-efficacy was defined as the judgements teachers make about their abilities to promote student learning (Woolfolk Hoy & Spero, 2005), to support student learning (Bruce, et al., 2010), and bring about desired student outcomes (Takahashi, 2011). Collective efficacy was defined as the perception of teachers in a school that the faculty, as a whole, can positively influence student outcomes (Hattie, 2016).

Findings of the Study

This chapter begins with a detailed analysis of the individual quantitative and qualitative data sets: participant journals, field notes, surveys, interviews, and artifacts. After a presentation of each data set, it became apparent three broad themes emerged: a) goal setting, b) meaningful actions, and c) recognizing results. These three themes will be discussed. Within that discussion, thoughts, behaviors, and actions of the participants will be compared across the data sets to determine the PLC's impact on teachers' self-efficacy, which is described in the interpretations section and conclusion. Finally, a summary interpretation of the results of the study will be presented.

Quantitative Data

The PLCA-R was completed independently online as a pre-and post-survey (Appendix C). Participants used a four-point scale to rate 58 statements that corresponded to six dimensions: a) Shared and Supportive Leadership, b) Shared Values and Vision, c) Collective Learning and Application, d) Shared Personal Practice, e) Supportive Conditions-Relationships, and f) Supportive Conditions-Structures. The Likert scale of 1=strongly agree, 2=disagree, 3=agree, and 4=strongly agree was used. After data was collected and analyzed, the mean and standard deviation were reported. Figure 4.1 compares the pre-and post-survey mean score for each dimension. The mean scores fell between agree and strongly agree on the Likert scale. For the purpose of this study, I focused on the change in perception from pre- to post-intervention to gauge areas of success and areas for future considerations.

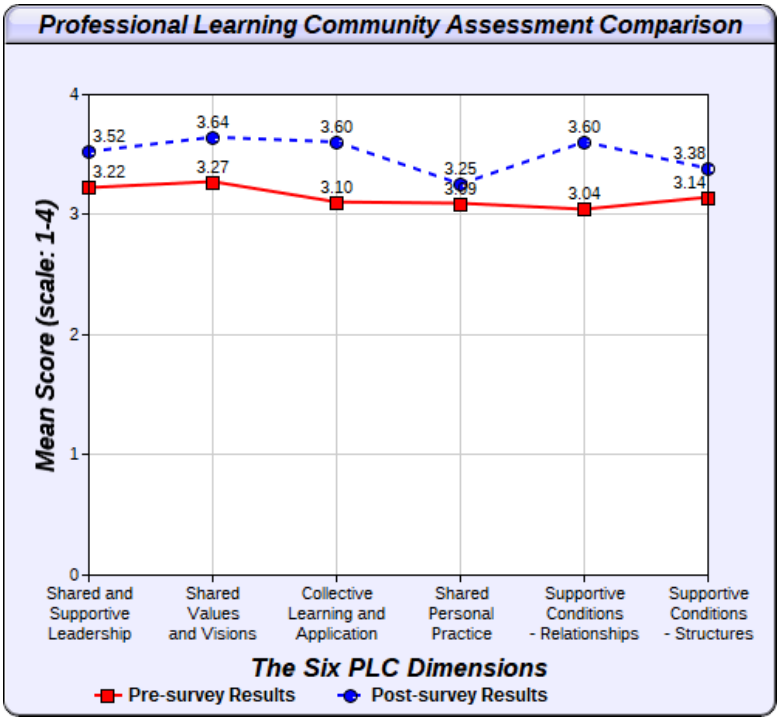


Figure 4.1 *PLCA-R Pre-and Post-Survey Comparison*

Analysis of the survey data found a positive increase in each dimension's mean score, displayed in Table 4.1. The dimension of Supportive Conditions-Relationships revealed the most significant improvement in participant perceptions. Shared Personal Practice revealed the least amount of change.

Table 4.1 *PLC Dimension Change in Mean Between the Pre- and Post-Survey*

PLC Dimension	**Pre-Survey Mean**	**Post-survey Mean**	**Increase in Mean**
Shared and Supportive Leadership	3.22	3.52	0.30
Shared Values and Visions	3.27	3.64	0.37
Collective Learning and Application	3.10	3.60	0.50
Shared Personal Practice	3.09	3.25	0.16
Supportive Conditions-Relationships	3.04	3.60	0.56
Supportive Conditions-Structures	3.14	3.38	0.24

To provide a more detailed analysis of the data, I individually examined three subsets of the survey: a) Shared and Supportive Leadership (action orientation), b) Collective Learning and Application (collaboration), and c) Supportive Conditions-Relationships that directly correlated to the work of the PLC. The results from the Shared and Supportive Leadership subset showed an increase in participants' perceptions regarding the shared responsibility and accountability for student learning without evidence of imposed power and authority (statements 8 and 10 of the survey). Comparisons of the pre-and post-survey means for statements in the Shared and Supportive Leadership subset can be found in Figure 4.2.

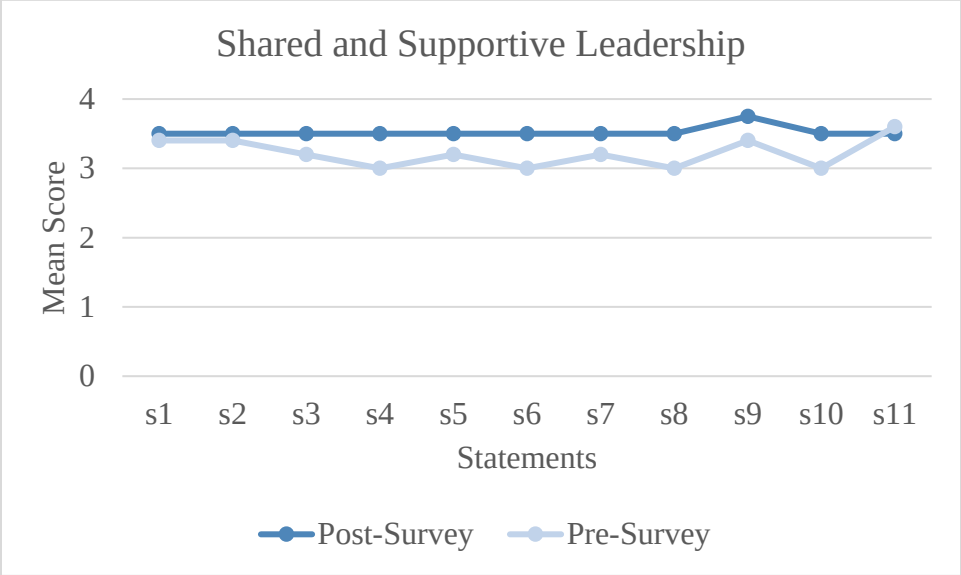


Figure 4.2 *Action Orientation Subset Statements*

Analysis of the Collective Learning and Application subset statements revealed that participants viewed analyzing student work, planning together, and dialogue leading to inquiry as influencing how they collaborate, learn together, and apply new knowledge to solve problems (statements 23, 24, 25, 27, 29, and 30 of the survey). Figure 4.3 includes the pre-and post-survey mean comparisons for statements related to collaboration.

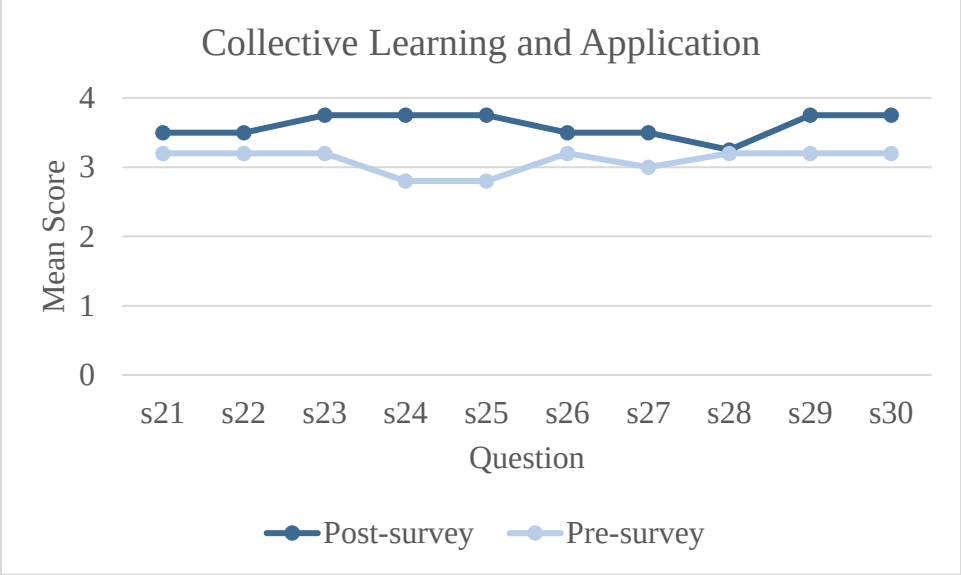


Figure 4.3 *Collaboration Subset Statements*

Finally, an analysis of Supportive Conditions-Relationships revealed relationships among staff members that support honest and respectful examination of data to enhance teaching and learning (statements 41 and 42 of the survey). Additionally, the relationships allow for risk-taking and inquiry (statements 38, 39, and 40 of the survey). Figure 4.4 displays the pre-and post-survey mean comparisons for statements related to relationships.

Lastly, I analyzed the statements within each dimension, a) Shared and Supportive Leadership, b) shared values and vision, c) Collective Learning and Application, d) Shared Personal Practice, e) Supportive Conditions-Relationships, and f) Supportive Conditions-Structures, using the mean and standard deviation on the pre-and post-survey. The difference in the mean scores was used to measure changes in participants' perceptions.

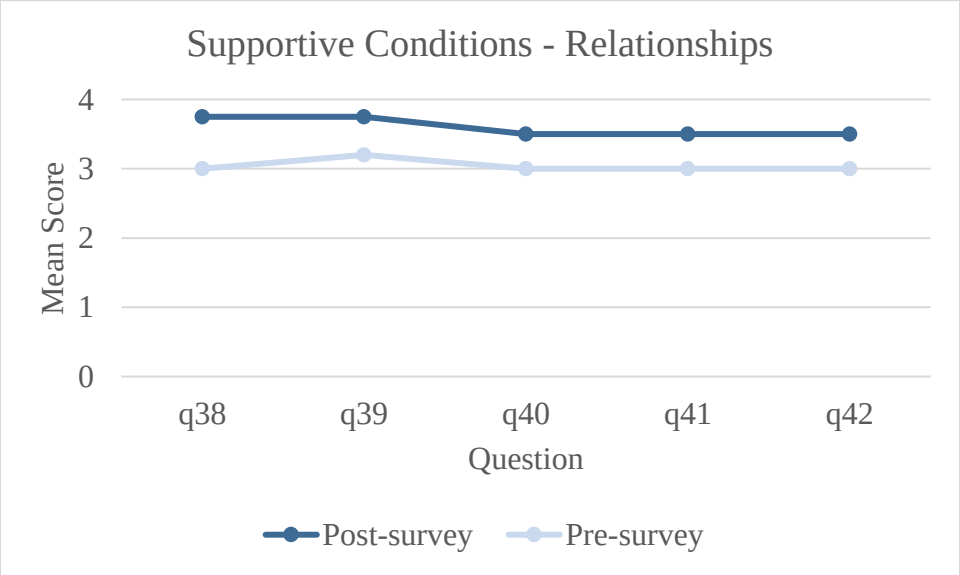


Figure 4.4 *Relationship Subset Statements*

For the shared supportive leadership dimension, each statement's mean increased except the statement regarding multiple data sources. Four of the eleven statements were

perceptions regarding the principal, who was not involved in this study. The findings for each statement in this dimension can be found in Table 4.2.

Table 4.3 shows the outcomes for the Shared Values and Vision statements. Two statements in this dimension revealed an improvement of 0.75, suggesting an increase in teacher perceptions regarding collaborative processes and being actively involved in setting high expectations. Both statements had the lowest mean for the pre-survey and the highest mean for the post-survey.

Collective Learning and Application statements included the most considerable improvements in participant perceptions. Table 4.4 shows the outcomes for the dimension's statements. Two statements revealed an improvement of 0.95. These two statements asked participants to assess the opportunities for collective learning through open dialogue and ongoing inquiry. The improvement in perceptions indicates the value of collaboration.

The outcomes of the Shared Personal Practice dimension statements are seen in Table 4.5. These statements revealed minimal growth in participants' perceptions regarding how they shared their learning application and how they shared students' work to guide overall school improvement. These perceptions seem to contradict the participants' views about collaboration and collective learning.

Table 4.6 displays the outcomes of the Supportive Conditions-Relationships' statements. All statements revealed a growth of 0.5 or greater. These statements represented participants' feelings regarding trust, respect, and honesty. The mean scores of the participants revealed that they strongly agree that their relationships between staff

and students are built on trust and respect. The participants also strongly agree that their culture allows them to take risks.

Finally, the participants' responses on the Supportive Conditions-Structures dimension were analyzed. Although four of the statements did not apply to the direct work of the PLC, the results in Table 4.7 reflect the desires for structural changes. Participants' perceptions regarding time allocated to collaborate, the proximity of personnel, and communication were noted as areas of needed improvement.

Table 4.2 *Shared Supportive Leadership Dimension*

Shared and Supportive Leadership Statements			
Statement	Pre-Survey Mean (Standard Deviation)	Post-Survey Mean (Standard Deviation)	Mean Difference
1. Staff members are consistently involved in discussing and making decisions about most school issues.	3.4 (0.55)	3.5 (0.58)	+0.1
2. The principal incorporates advice from staff members to make decisions.	3.4 (0.55)	3.5 (0.58)	+0.1
3. Staff members have accessibility to key information.	3.2 (0.45)	3.5 (0.58)	+0.3
4. The principal is proactive and addresses areas where support is needed.	3.0 (0.71)	3.5 (0.58)	+0.5
5. Opportunities are provided for staff members to initiate change.	3.2 (0.45)	3.5 (0.58)	+0.3
6. The principal shares responsibility and rewards for innovative actions.	3.0 (0.71)	3.5 (0.58)	+0.5
7. The principal participates democratically with staff sharing power and authority.	3.2 (0.45)	3.5 (0.58)	+0.3
8. Leadership is promoted and nurtured among staff members.	3.0 (0.71)	3.5 (0.58)	+0.5
9. Decision-making takes place through committees and communication across grade and subject areas.	3.4 (0.55)	3.75 (0.5)	+0.35
10. Stakeholders assume shared responsibility and accountability for student learning without evidence of imposed power and authority.	3.0 (0.71)	3.5 (0.58)	+0.5
11. Staff members use multiple sources of data to make decisions about teaching and learning.	3.6 (0.55)	3.5 (0.58)	-0.1

Table 4.3 *Shared Values and Vision Dimension*

Shared Values and Vision Statements			
Statement	Pre-Survey Mean (Standard Deviation)	Post-Survey Mean (Standard Deviation)	Mean Difference
12. A collaborative process exists for developing a shared sense of values among staff.	3.0 (0.71)	3.75 (0.5)	+0.75
13. Shared values support norms of behavior that guide decisions about teaching and learning.	3.2 (0.45)	3.75 (0.5)	+0.55
14. Staff members share visions for school improvement that have an undeviating focus on student learning.	3.4 (0.55)	3.5 (0.58)	+0.1
15. Decisions are made in alignment with the school's values and vision.	3.4 (0.55)	3.5 (0.58)	+0.1
16. A collaborative process exists for developing a shared vision among staff.	3.0 (0.71)	3.5 (0.58)	+0.5
17. School goals focus on student learning beyond test scores and grades.	3.6 (0.55)	3.5 (0.58)	-0.1
18. Policies and programs are aligned to the school's vision.	3.4 (0.55)	3.75 (0.5)	+0.35
19. Stakeholders are actively involved in creating high expectations that serve to increase student achievement.	3.0 (0.71)	3.75 (0.5)	+0.75
20. Data are used to prioritize actions to reach a shared vision.	3.4 (0.55)	3.75 (0.5)	+0.35

Table 4.4 *Collective Learning and Application Dimension*

Collective Learning and Application Statements			
Statement	Pre-Survey Mean (Standard Deviation)	Post-Survey Mean (Standard Deviation)	Mean Difference
21. Staff members work together to seek knowledge, skills and strategies and apply this new learning to their work.	3.2 (0.84)	3.5 (0.58)	+0.3
22. Collegial relationships exist among staff members that reflect commitment to school improvement efforts.	3.2 (0.84)	3.5 (0.58)	+0.3
23. Staff members plan and work together to search for solutions to address diverse student needs.	3.2 (0.84)	3.75 (0.5)	+0.55
24. A variety of opportunities and structures exist for collective learning through open dialogue.	2.8 (0.45)	3.75 (0.5)	+0.95
25. Staff members engage in dialogue that reflects a respect for diverse ideas that lead to continued inquiry.	2.8 (0.45)	3.75 (0.5)	+0.95
26. Professional development focuses on teaching and learning.	3.2 (0.45)	3.5 (0.58)	+0.3
27. School staff members and stakeholders learn together and apply new knowledge to solve problems.	3.0 (0.71)	3.5 (0.58)	+0.5
28. School staff members are committed to programs that enhance learning.	3.2 (0.84)	3.25 (0.5)	+0.05
29. Staff members collaboratively analyze multiple sources of data to assess the effectiveness of instructional practices.	3.2 (0.84)	3.75 (0.5)	+0.55
30. Staff members collaboratively analyze student work to improve teaching and learning.	3.2 (0.84)	3.75 (0.5)	+0.55

Table 4.5 *Shared Personal Practice Dimension*

Shared Personal Practice Statements			
Statement	Pre-Survey Mean (Standard Deviation)	Post-Survey Mean (Standard Deviation)	Mean Difference
31. Opportunities exist for staff members to observe peers and offer encouragement.	3.2 (0.84)	3.25 (0.96)	+0.05
32. Staff members provide feedback to peers related to instructional practices.	3.0 (0.71)	3.5 (0.58)	+0.5
33. Staff members informally share ideas and suggestions for improving student learning.	3.4 (0.89)	3.25 (0.96)	-0.15
34. Staff members collaboratively review student work to share and improve instructional practices.	3.0 (0.71)	3.25 (0.96)	+0.25
35. Opportunities exist for coaching and mentoring.	3.0 (0.71)	3.25 (0.96)	+0.25
36. Individuals and teams have the opportunity to apply learning and share the results of their practices.	3.2 (0.84)	3.25 (0.96)	+0.05
37. Staff members regularly share student work to guide overall school improvement.	2.8 (0.84)	3.0 (0.82)	+0.2

Table 4.6 *Supportive Conditions-Relationships Dimension*

Supportive Conditions - Relationships Statements			
Statement	Pre-Survey Mean (Standard Deviation)	Post-Survey Mean (Standard Deviation)	Mean Difference
38. Caring relationships exist among staff and students that are built on trust and respect.	3.0 (0.71)	3.75 (0.5)	+0.75
39. A culture of trust and respect exists for taking risks.	3.2 (0.84)	3.75 (0.5)	+0.55
40. Outstanding achievement is recognized and celebrated regularly in our school.	3.0 (0.71)	3.5 (0.58)	+0.5
41. School staff and stakeholders exhibit a sustained and unified effort to embed change into the culture of the school.	3.0 (0.71)	3.5 (0.58)	+0.5
42. Relationships among staff members support honest and respectful examination of data to enhance teaching and learning.	3.0 (0.71)	3.5 (0.58)	+0.5

Table 4.7 *Supportive Conditions-Structures Dimension*

Supportive Conditions - Structures Statements			
Statement	Pre-Survey Mean (Standard Deviation)	Post-Survey Mean (Standard Deviation)	Mean Difference
43. Time is provided to facilitate collaborative work.	3.2 (0.84)	3.0 (0.0)	-0.2
44. The school schedule promotes collective learning and shared practice.	3.0 (0.71)	3.0 (0.82)	0.0
45. Fiscal resources are available for professional development.	2.8 (0.45)	3.5 (0.58)	+0.7
46. Appropriate technology and instructional materials are available to staff.	3.2 (0.84)	3.5 (0.58)	+0.3
47. Resource people provide expertise and support for continuous learning.	3.2 (0.45)	3.25 (0.5)	+0.05
48. The school facility is clean, attractive and inviting.	2.8 (0.84)	3.25 (0.96)	+0.45
49. The proximity of grade level and department personnel allows for ease in collaborating with colleagues.	3.4 (0.55)	3.5 (0.58)	+0.1
50. Communication systems promote a flow of information among staff members.	3.4 (0.55)	3.5 (0.58)	+0.1
51. Communication systems promote a flow of information across the entire school community including: central office personnel, parents, and community members.	3.0 (0.0)	3.5 (0.58)	+0.5
52. Data are organized and made available to provide easy access to staff members.	3.4 (0.55)	3.75 (0.5)	+0.35

Qualitative Data

The qualitative data was analyzed consistent with Saldana's Coding Manual of Qualitative Research (2016). A sentence by sentence unit of analysis was conducted. Table 4.8 shows the number of codes generated from the qualitative data sources: participant interviews, field notes, and participant journals.

Table 4.8 Number of Codes from Qualitative Sources

Qualitative Data Source	**Number**	**Total Number of Codes Applied**
Interview transcripts	11	76
Field notes	6	119
Participant journals	6	124
Totals	23	319

The first round of coding was in-vivo coding, which uses the participants' words to create the codes (Saldana, 2016), ensured the study's findings accurately portray the participants' experiences. After the in vivo coding, 319 codes emerged from the data. Some examples of in vivo coding included: *At the beginning of this journey, I was somewhat apprehensive, nervous and insecure*; *If we have had a great day and I got everything done that was supposed to be done, I feel successful*; and *I would have never thought I would be able to do that*. In vivo coding reflected the participants' perspectives and actions in addition to attaining an in-depth understanding of their stories, ideas, and expressions.

Next, emotion and values coding were used to label participants' feelings, attitudes, and belief systems. According to Saldana (2016), affective qualities should not

be absent from our investigations because they are "core motives for human action, reaction, and interaction" (p. 124). Some of the original codes were grouped, discarded, or renamed to convey participants' emotions and values. For example, these codes were added to reflect emotions: *fear* and *surprise*. Codes to convey values included *trust, reflection*, *engagement*, and *relationships*. Table 4.9 quantifies the qualitative data for the participant interviews, field notes, and participant journals after emotion and value coding were completed. These codes were used to help determine the categories during the second cycle of coding.

Table 4.9 *Number of Codes from Qualitative Sources at End of First Cycle*

Qualitative Data Source	**Number**	**Total Number of Codes Applied**
Interview transcripts	11	62
Field notes	6	83
Participant journals	6	77
Totals	23	222

Code charting was used to summarize and compare codes after the first coding cycle (Saldana, 2016). The charting included two columns, one for a summary of the participant's data set and another for significant codes. The code charting was used to create tabletop categories, a method involving the literal arrangement of codes on a table. The codes were arranged by frequency, then clustered together by a broader theme. Touching the data allowed me to understand the interrelationship of the codes better.

For the second cycle of coding, I chose focused coding to develop major categories and themes from the data. Data grouped during the code charting was reviewed to create tentative category names (Saldana, 2016). Using focused coding, I

was able to compare across participants' data to assess comparability and transferability. Categories were generated from the codes, which were further analyzed and consolidated to generate themes. Figure 4.5 shows the flow of quantitative data coding.

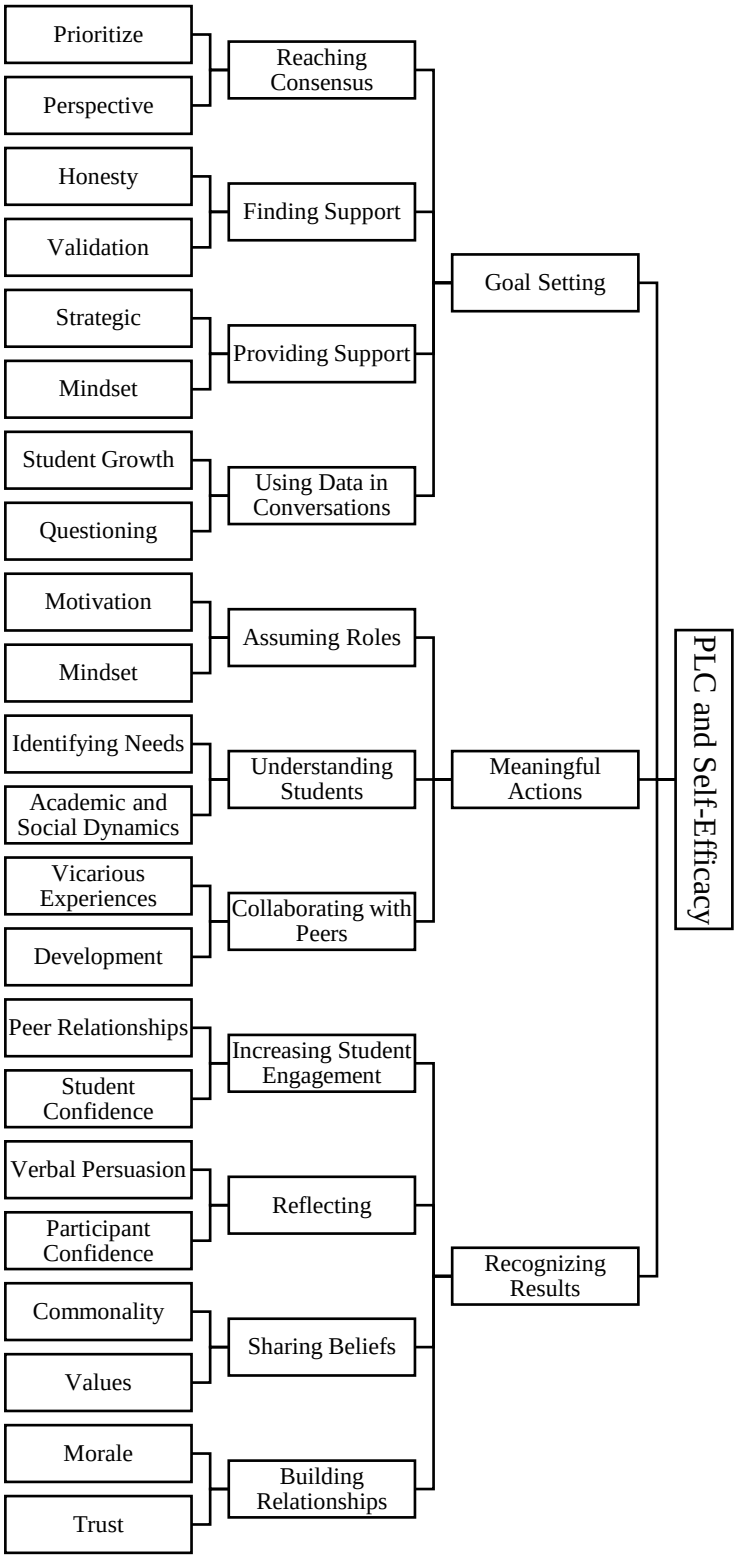


Figure 4.5 *Flow of Qualitative Data Coding*

Theme One: Goal Setting

The first theme that emerged was the importance and influence of goal setting. Reaching consensus, finding support, providing support, and using data in conversations were identified as recurring topics in the qualitative and quantitative data sets.

Reaching consensus. There can be difficulty negotiating between existing personal beliefs and group aspirations (Talbert, 2010). In her pre-interview, Hope acknowledged the need for a common goal:

> The purpose of these meetings is not about you or your feelings. You have to let that go, and then it becomes a team effort. When there's a variety of experiences, and there's a relationship with the people who are trying to work together for a common goal versus individual goals, we can be successful.

During the first PLC meeting, the group used data from the school's needs assessment to generate a common goal. The group's focus began with class-specific ideas, such as "my students need to improve writing" and "math fluency is not what it needs to be." Nicole and Aubrey extended the discussion by pointing out that every grade level acknowledged a need to address social-emotional learning during the COVID pandemic. Elaine further focused the group by suggesting that the "daily student check-ins revealed a need for further student learning" and that the data could be used to monitor the group's progress. The group connected data to a need and a need to a realistic, measurable goal. Setting measurable, challenging goals is essential for teachers to achieve meaningful results (Hattie, 2017).

Finding support. Collective efficacy influences how educators feel, think, motivate themselves, and behave (Bandura, 1993). Qualitative and quantitative data convey the relationships between honesty, respect, and support. The Supportive

Conditions-Relationships subset revealed growth in beliefs that staff were honest and respectful when examining data (statements 41 and 42 of the survey). Figure 4.4 and Table 4.6 display the pre-and post-survey comparisons for statements related to relationships. Journal entries confirmed a connection between goals, support, and efficacy. Nicole wrote:

> Even though I have been teaching for 16 years, this is just my second year doing this group, and I feel like I am constantly asking for help from 4k. It was really interesting to see even some of the activities 4th grade does I can do in my class. I would have never thought I would be able to do that.

Isabel's journal substantiates how finding support within the PLC impacted her personal beliefs. "Listening to others talk about their school day, their concerns for student's emotional well-being, as well as academics validates my personal goal to teach to the whole child."

Providing support. Participants reaching goal consensus influenced the future work of the PLC and their perceptions of the PLC as revealed by the increased mean score for Shared Values and Visions on the PLCA-R in Figure 4.1. The group's mean score increased from 3.27 to 3.64; moreover, Aubrey noted in her journal that using the group's goal and weekly agenda increased collaboration and the group's effectiveness:

> Collaborating as a group in our PLC has helped me come up with ideas to implement in my classroom. I think people are naturally social, but taking that social element and pairing it with goals and an agenda, helps all who are involved.

She reiterated the idea in her post-interview when she discussed providing resources to one another:

> I've really liked the resources and just ideas that have come with being a part of a group and having resources that you can actually implement into your teaching along with working with different teachers that are coming from different backgrounds that have and levels of experience.

During Elaine's post-interview, she referred to an assumption she made before beginning the PLC, that as a first-year teacher, she would not be beneficial to the group. However, she noted a change in her self-perception. "I know now that I can ask questions, and they can help me, but I can also help them. I find myself excited to share ideas and experiences with teachers in other grade levels." Hope also spoke of increased confidence during her post-interview:

> Coming together every Wednesday to share our victories and how we can improve for the next week helped me see how everything builds. I was able to help build others' ideas by sharing things from my classroom that are working for my students. I could see how it helped me grow, and my colleagues grow too. That made me feel really good.

The PLC's common goal empowered the group to work collectively to provide quality instruction, and the participants' success impacts their self-efficacy and collective efficacy.

Using data in conversations. Artifacts collected during the PLC also supported the influence of the group's common goal on conversations. During week two and week four, Isabel and Aubrey shared student data with the group. Using the student data from Close Gap, the school's wellness platform, the participants were able to discuss student-specific needs, plan for instruction, and monitor students. During her post-interview,

Aubrey described the importance of this activity. “So being able to talk that through and just getting some different ideas bouncing ideas off of other people and hearing what they said and then the fact that we had the resources to help out.” Additionally, Isabel described a desire to see the participants continue their relationships and impact student growth:

> I have seen how our willingness to share our concerns, praises and needs has allowed each one of us to grow. This is evident by the smiles, conversations and eagerness to meet weekly. I really hope we can continue to meet as a group and learn to rely on each other to help our students grow.

An analysis of interactions during the PLC found teachers repeatedly acknowledged current student levels as part of the data-driven conversations regarding meeting their goals. 64% of the PLC members' questions were in regards to Close Gap data or teacher observations.

The first-year and second-year teachers’ contributions to the PLC were posing questions and answering those directly posed to them. 30% of their interactions were posing questions, and an additional 25% of their contributions were answering questions that were directly posed to them. An example of this question and answer exchange occurred during the third week of our PLC. When I asked the group to consider Maslow’s hierarchy of needs, Hope asked the group what strategies they were using to help students focus. After a few participants responded, Isabel specifically asked Hope what was working in her classroom, to which she replied, “we focus on breathing, to recenter and refocus especially after transitions or difficult activities.” Isabel wrote about

these interactions in her participant journal, “As I reflect on my role in our group, I feel as though I make a strong effort to contribute value.”

Theme Two: Meaningful Actions

The second theme that emerged was the significance of the collective and individual participant’s meaningful actions. Participants assuming roles, seeking to understand students, and collaborating with peers were identified as recurring topics in the qualitative and quantitative data sets.

Assuming roles. Participants assumed roles, which were self-imposed or anticipated. Some participants made statements revealing they felt obligated to fulfill specific roles within the group. Aubrey described this sense of obligation in her post-interview, “knowing my personality, I don’t want to be a leader, but will lead if no one else takes the initiative.” During the weekly meetings, Aubrey’s interactions included providing specific feedback to questions posed by participants and explaining successful techniques from her classroom instruction. These interactions could be categorized as taking the initiative to lead.

Danielle anticipated being an ineffective participant as she described “trying to meet the challenge of many roles” and believing she would not be able to contribute to the group. Danielle’s anticipation of being an inadequate participant was reflected in her dialogue during week three’s discussion when she “felt like she hadn’t contributed.” This perception could be categorized as a characteristic of low self-efficacy; however, the PLC members did not share the same views. During the final PLC weekly meeting, Nicole acknowledged Danielle’s contributions. She thanked Daniele for sharing during the group’s meetings, and in Hope’s post-interview she specifically mentioned how helpful Danielle’s perspective had been.

Another self-imposed role was Elaine's view that being a first-year teacher made her a novice with less to contribute. During her pre-interview, Elaine mentioned that she learned a lot during meetings "because she took notes and listened to others." During weeks one and two of the PLC, Elaine demonstrated this same behavior, leaving it up to others with more experience to share strategies and pose questions. Her actions required other participants to be more active within the group. After successfully sharing an engagement tool during week three's meeting, Elaine became more involved in the PLC discussions. Her actions during weeks three through six encouraged other teachers within the group to be more active. Isabel's journal captured this sentiment, "often times, it is when risks are taken – learning takes place."

Understanding students. Participants frequently discussed students' diversity in their classroom, specifically related to the student grouping for hybrid scheduling. Each participant was teaching two groups of students who rotated face-to-face instruction to maximize student safety with smaller class sizes during the COVID19 pandemic. Elaine and Hope's participation during the third week's discussion reflected their students' differing social-emotional needs. Elaine noted that "within (her) small group there were two groups of students who had different needs based on their feelings," and Hope explained to the group that she "see(s) different groups having different needs on the hybrid schedule." After the PLC meeting, Elaine continued to address the diversity in her journal:

> It makes it really hard for me to understand their behaviors at school, every other day, when I don't know what their eLearning days are like, especially with my

> students who have never communicated with me while at home. I know they have needs, but it's difficult to make sense of it all.

The PLCA-R revealed a positive increase in the belief that staff members plan and work together to address diverse student needs (Table 4.3). Aubrey's journal described the process of collaboration:

> For the beginning of the year, there is a lot of discussion about creating a classroom community, so I include think-pair-share activities and partner activities that have students working together and working with different students.

Additionally, Isabel summarized week five's discussion by saying that, "Student growth comes from us talking, prompts us to reflect, and focus on change. Then when we feel in control of changes in the classroom, the tools we've gained can transfer easily to other subjects."

Participants hold a belief that their self-efficacy, or how effective they were, impacted their students. In her pre-interview, Hope said, "I know I have a lot of growing to do and I do want to make sure I'm doing my kids the best." Nicole's journal described her viewpoints of success and disappointment:

> If we have had a great day and I got everything done that was supposed to be done, I feel successful. If everything went to pot, I feel very bad and I feel like I let my kids down. I did not do my best.

Isabel addressed collective efficacy and peer perceptions in her journal. "I hope my peers and colleagues will allow me grace as I struggle to meet the challenges each day presents and embrace the opportunities provided to me for the benefit of my kids." Participants repeatedly discussed monitoring students' progress and connected student progress to

teacher effectiveness. During the final week of PLC sessions, Isabel said, "I see connections with my kids and their progress, so I know I am making a difference," to which Nicole responded that a specific student "is getting it from somewhere, it helps me to know I am making a difference too."

In their journals, participants discussed observing their students and their own impact on student behaviors. Isabel says, "I am learning to listen more and more to what they are telling me in words and in body language," and Danielle says, "when I can adapt, so can they." During discussions, participants would often provide examples from their classrooms to extend the discussion. One such example occurred when discussing observing students during week three. Isabel told the group she was recognizing more things and noticing more things about her students. Hope shared that she realized her group needed a break morning, midday, and afternoon to re-center and refocus, especially after transitions or difficult activities. She also explained how the activity benefited her as well. Isabel continued this thought process in her journal when she asserted:

> I think students thrive off of their teacher's vibes and attitude. It is important to help students to be able to identify their emotions, understand them and then to be able to learn to control/regulate/and deal with these emotions.

Finally, Elaine journaled that she's "learning that my students most days reflect the energy that I put out, and days that I stress they do too."

Collaborating with peers. Participants valued analyzing student work, planning, learning, and applying new knowledge as a group (Table 4.4). Both novice and veteran teachers emphasized the need for collaboration. Elaine described the necessity of a PLC

as “now, as a first-year teacher in a global pandemic, I am very aware of the need for groups/communities who are willing to help and support you.” Also, Aubrey’s journal revealed how the collaboration “helped me come up with ideas to implement in my classroom” and that she “can draw on experiences from other teachers about what works and what doesn’t.” Nicole reiterated this idea in her post-interview when she said, “I love, love, love hearing what other people were doing in their classrooms, and I was able to take it back and use in my own.” Finally, Aubrey described in her journal how “collaborating is a great way to learn about resources that I am not familiar with.”

Building each other up and encouraging each other were crucial traits for positive self-efficacy that the participants described. In Hope’s pre-interview, she hoped that “just knowing that it's a group of my peers, and because I'm my second-year teacher, it's helpful to know I can go into a group where I know there's experience, and I can share my struggles.”

The participants described how their involvement impacted their instruction. “My involvement in the PLC and interactions with the other members has absolutely affected my instruction,” Elaine journaled. Isabel echoed the sentiments in her post-interview, “there is no doubt in my mind that my instructional practices have improved as a result of being in this PLC.” During her post-interview, Elaine said, “Just listening to their experiences and ideas has helped me better handle quite a few situations as well as motivate me to do better with my social-emotional instruction.”

Theme Three: Recognizing Results

The third theme that emerged was the focus on recognizing results, relating to participants and their students. Participants made intentional decisions that impacted student engagement, reflection, shared beliefs, and interpersonal relationships. These

decisions also impacted student learning, participant confidence, morale, and motivation, as found in the qualitative and quantitative data sets.

Increasing student engagement. When the group began discussing student data, Nicole remarked that the group might need to "find small victories" with social-emotional learning. During week two's PLC, Isabel remarked that she needed to "find tools and resources to make a level playing field for students. A structure or plan for how to use feelings or controlling feelings."

As the group continued to use the social-emotional strategies, materials, and monitoring tools, the participants noted improvement in student engagement and student learning. Isabel noted changes in her students during week three's PLC. She noticed that students were influencing one another and then during week five's PLC that "the social-emotional lessons have affected the confidence with kids giving more effort." Danielle journaled that "one student who was previously not completing any work in SeeSaw (learning management system) is now completing everything assigned to him daily which is HUGE." In Aubrey's post-interview, she explained how she was monitoring student engagement and learning:

> Yes, I do definitely feel like they [her students] have improved. Before, I was focused on using the caring school's curriculum and doing morning meeting, then doing the afternoon meeting, but I wasn't focused as much on Close Gap. It was just kind of a thing that the kids needed to check in. But now, I'm more mindful about talking them through the different adjectives. We talk more about feelings, so they understand. It has made them talk more in class. I'm learning more about

them, and they are learning how to manage and understand what's going on around them now.

Reflecting. Most reflection was the result of prompting. I prompted participants with journal topic suggestions and by guiding conversations during the weekly PLC meeting. When the opportunity was provided, reflection did occur. Of the forty-two reflections coded, 80% were the result of my questions. One participant stated in her post-interview that she didn't reflect a lot, but she was trying to get better at it because she saw how useful it was for other PLC members. I intentionally created journal prompts that related to the topics generated by the participants during weekly PLC meetings. Creating the opportunity for reflection through these prompts was worthwhile because two participants shared more in their journals than they did during group discussions.

Participants equated their reflections to improve confidence. During their post-interview, Elaine, Aubrey, and Isabel pondered on the reflection process.

> Elaine: Between frequent changes in expectations and responsibilities here at school and constant chaos surrounding COVID situations at school, I have been really impressed with my own ability to adapt. Being intentional and reflecting helped me see how much I've been able to accomplish.
>
> Audrey: Reflecting helps me judge how well I've done. I definitely think that if I have taught the lesson before and I know I've reflected on it, I know what went wrong, what went well, and I know how to deliver that content or make it better.

> Isabel: I have benefitted the most from reflecting. It's been part of the process. Working together, sharing thoughts and reflecting on how the strategies are working in my classroom and theirs.

Participants also benefited from hearing each other's reflections. Hearing each other reflect on their content, their time with students, and how they are making a difference was a few of the topics brought up by participants. Elaine said, "so knowing what they think about their past experiences, that's helping you even though you haven't actually experienced it." Isabel journaled that she has "seen how our willingness to share our concerns, praises and needs has allowed each one of us to grow." These interactions can be considered verbal persuasion, a component of efficacy. Social persuasion can take many forms in a school setting, including feedback from a principal, superintendent, instructional coach, or discussions with peers during meetings (Eells, 2011).

Sharing beliefs. There was some concern about how successful the group of participants would be, having never participated in a PLC together. Isabel noted that "you can't just throw people together and expect to have successful results" during her pre-interview. Determining group norms and working with purpose were described by Isabel in her journal and how the "group has made me feel safe, valued, and thus I am able to participate and take risk to speak up and ask questions as needed." When asked about the group's sense of values, alignment of decisions, and focus the participants journaled about how shared beliefs affect their morale:

> Aubrey: It has been a great opportunity to collaborate with teachers of various teaching backgrounds and discuss problems we are noticing with our students'

social-emotional states and how to best meet their needs during this difficult and very different school year.

Elaine: I have become very grateful for my grade level team, but also this PLC of teachers I wouldn't normally have the chance to work with.

Isabel: I do think being a part of the PLC has given me a certain feeling that I am not alone. Others believe in the same things as me.

Building relationships. The participants described relationships that emerged from the PLC that motivated themselves and indirectly motivated their students. In her journal, Isabel wrote that "the camaraderie we are building is something that I hope will continue after we finish with this project.' Elaine's journal displayed a change in her self-perception over time. The second week Elaine wrote, "I need to contribute, but being a first-year teacher, I don't feel like I'm bringing anything to the table," but at week five, she wrote, "I find myself excited to hear the ideas and experiences of those from other grades and subject areas as a way of gaining knowledge. I am confident to give advice too, and share what my students are doing."

Aubrey noted a change in her students and their peer relationships. To maintain these relationships, she shared her plans to "incorporate a lot of discussion, read alouds, and activities to help build and maintain relationships between students."

Isabel and Nicole encouraged each other to share information from the PLC with others. Isabel said she was "going to use the opportunity this PLC is providing to share a common goal with my grade level PLC as well," and Nicole plans to "see if we can spotlight something related to social-emotional learning from each grade level at our

monthly meetings. I've enjoyed learning from other grade levels. Everyone in our school could benefit."

Interpretation of Results of the Study

The results of the study and triangulation of the data indicate that the PLC had an impact on the self-efficacy of the participants. Participants recognized the PLC's positive effects on their shared values and vision, collective learning and application, and their interpersonal relationships. The participants were able to identify goals, actions, and results from the PLC that impacted their self-and collective efficacy. While the data collectively indicates a positive relationship between PLC and self-efficacy, I am unable to assert that all of the change in self-efficacy was related to the PLC. There are many variables that contribute to self-efficacy, but the data supports this study's hypothesis that there would be a positive link between PLCs and teacher performance is the effect of high-quality collaboration on self-and collective efficacy.

With respect to the first theme, goal setting, PLCs empower participants to work collectively to examine instruction, impact learning, and collaborate. Setting measurable, challenging school goals helps teachers achieve decisive results—especially when teachers agree on which goals to set (Hattie, 2017). The dialogue generated from these questions resulted in the academic focus, collective commitments, and productive professional relationships that enhance teachers' learning. In PLCs, collective inquiry is the basis for shared knowledge among the group (DuFour, DuFour, & Eaker, 2008).

Advanced teacher influence involves the power to make decisions on school-wide issues. The group acknowledged the importance of setting a school-wide goal instead of a class-specific goal. The group's collective efficacy was impacted by the group's

assessment of their task and their competency. The "perceptions of the collective efficacy directly affect the diligence and resolve with which groups choose to pursue their goals" (Goddard, et al., 2004, p.8).

In other words, individual teachers' skill sets are developed through strategic participation in groups with common goals. To enhance teacher learning, the PLC required active engagement, focusing on finding and receiving support. The group provided each other with resources, exercised verbal persuasion, and devoted time to data-driven conversations. High-performing PLCs address these factors to enhance teacher learning (Harris & Jones, 2010) while building teacher capacity (DuFour, 2004).

In regards to the second theme, meaningful actions, it can be inferred that in forming their efficacy judgments, people have to deal with different sources of efficacy-relevant information, and at the same time, they have to integrate efficacy information and convey it to a number of cognitive, motivational, affective, or decisional processes (Poulou, 2003; Pfitzner-Eden, 2016). PLC members emphasized the importance of learning from others and self-monitoring through reflection. Discussions within the PLC lead to further action and reflection. Hord and Sommers (2008) concluded that it is not the initial experience that is the learning point; instead, it is the reflection and conversation that follows the experience that fosters the most learning.

PLC members discussed positive teaching experiences. These experiences serve as successful mastery experiences, a critical component of self-efficacy. As conversations continued, PLC members received positive feedback from their peers. Feedback from peers is one example of social persuasion during PLCs that can improve teacher efficacy and collective efficacy (Goddard et al., 2007). These social and verbal

persuasions also assist in creating self-efficacy (Usher & Pajares, 2008). The PLC focused on outcomes instead of inputs. Effective PLCs must focus on reviewing and analyzing student work (Schmoker, 2005); on-going analysis of student learning is reinforced through collaborative conversations (Stiggins & DuFour, 2009).

During the PLC, collaborative practices were focused on student learning. Collaboration is essential in order for teachers to establish desired outcomes and set baselines for student progress (Reeves, 2006). The knowledge of teachers is vital when shared with colleagues. Supporting collaboration through PLCs is a key lever in the educational environment.

Finally, with respect to the third theme, recognizing results, teachers' perceptions of efficacy increase when they experience increased collaboration with colleagues, making decisions related to the students they teach, and influencing classroom actions (Raudenbush, et al., 1992; Rosenholtz, 1989). In other words, difficulties related to tasks, availability of support, and perceptions about the school staff influence the PLCs' functions. The reciprocal relationship between efficacy and professional learning cannot be ignored.

Since expectations for success are high, teachers and leaders approach their work with an intensified persistence and strong resolve (Donohoo, et al., 2008). The PLC members displayed decisional capital, reflecting a commitment to learn from and with one another. Learning within the PLC was characterized by turning discussions and insights into action. Members are more likely to change their instructional practices after collaborative discussions, observations, and reflection (Goddard et al., 2000).

Conclusion

Danielle, Isabel, Nicole, Aubrey, Hope, and Elaine were active participants throughout the PLC activities. Data analysis indicates that the PLC impacted shared values, collective learning, personal practice, and interpersonal relationships. Some barriers to self-and collective efficacy were also identified during the process. The participants recognized the benefits of participating in a PLC and applying inquiry cycles to improve learning. The themes identified in this process can help Elm Primary School make positive changes in the structures and approaches to professional development. This process would encourage positive self-and collective efficacy of all staff at Elm Primary School.

CHAPTER 5: DISCUSSIONS, IMPLICATIONS, AND RECOMMENDATIONS

Introduction

This study examined the impact of a PLC on six teachers' self-efficacy levels at Elm Primary School. The small group of teachers voluntarily participated in the study for six weeks. The intervention, designed to engage participants in activities that focused on teacher confidence, knowledge, awareness, and implementation of best instructional practices, was driven by a group-created goal to improve social-emotional learning. I explored the PLCs' impacts on participants' classroom instruction, attitudes, and beliefs, which directly affect their self-efficacy levels.

Research Question

What impact will a professional learning community (PLC) have on the self-efficacy of six teachers at Elm Primary School?

Purpose of the Study

The purpose of this study was to examine the impact of a PLC on the self-efficacy of six teachers at Elm Primary School.

Overview and Summary of the Study

This study involved six teacher participants during a six-week professional development opportunity focusing on PLCs, social-emotional learning, and efficacy. The participants were representative of the faculty of Elm Primary, with varying degrees, years of experience, and grade/subjects taught. The study was implemented during the

first academic quarter of the 2020-2021 school year. The teachers agreed to join the action research as a way to study their self-efficacy while participating in a PLC. This action research was grounded in the belief that part of the link between PLCs and teacher performance is the effect of high-quality collaboration on self-and collective efficacy.

A mixed-methods approach was employed with concurrent data collection. The quantitative and qualitative data could be collected throughout the study and used to influence the weekly intervention techniques. A variety of data collection tools, including the PLCA-R survey, interviews, observation field notes, participants' journals, and artifacts were used. The quantitative data set included the PLCA-R pre-and post-survey. The survey was administered to measure changes in participants' perceptions. The observation field notes, participants' journals, and artifacts were used to modify and adjust the weekly interventions. The pre- and post-interviews were used to ensure that participants' voices were acknowledged and considered an integral component of the study.

In response to the research question, the synthesized results of the multiple data sources indicated that the PLC participants demonstrated increased perceptions in their ability to set goals, engage in meaningful interactions, and recognize results. Overall, the findings indicated that the participants experienced an increase in their self- and collective efficacy. Each of the five data sources independently supported these findings from the unique perspectives of the PLC participants and my observations. Although some of the results in the PLCA-R survey subcategories indicated no change or modest decreases in participants' perceptions, by and large, the data indicated that participants benefited from participating in the PLC.

While generalizations cannot be made from this action-research study, there are implications for Elm Primary's administration and teachers. Prior to this study, an informal survey (Appendix B) of 16 teachers found that 68.75% did not believe that the PLCs regularly discussed how changes in their instructional practices might lead to changes in student learning, and 31.25% did not believe they collectively make adjustments to their instructional practices based on students' performance on common assessments. However, this study demonstrated that a PLC is one method of professional development that supports teachers' growth, collaboration, and student outcomes (Doppenberg, et al., 2012). Participants acknowledged the positive impact of the PLC on their shared values and vision, collective learning and application, and interpersonal relationships.

A PLC supporting participants through vicarious experiences, verbal persuasion, mastery experiences, and physiological and affective states (Bandura, 1997) influences self-efficacy development. During this study, participants acknowledged that listening to their colleagues discuss effective social-emotional techniques was a positive experience. Participants reflected on the importance of supportive dialogue provided by PLC members to their own success. Although direct evidence of physiological and affective states was not collected, participants discussed feeling encouraged by their students' progress and inspired to collaborate with others in the building. In this regard, PLCs can serve as a catalyst for creating shared knowledge and determining processes to focus on student learning.

When PLC members create their group norms, considerations regarding reflection should be integrated. Incorporating other models of reflection may encourage more

teacher-driven reflection and contribute to PLC discussions. This suggestion is based on the qualitative data from interviews and participants' journals that showed a relatively small amount of teacher-driven reflection. Hassler and Collins (1993) argued that unexamined beliefs that guide teachers' decisions and actions are often explored through reflection. The study implemented self-guided reflection; however, the journaling exercises were not used by all participants. Participants acknowledged the desire to reflect but cited a lack of time or competing priorities. The lack of reflection impacted dialogue in the group and consequently engagement levels in the group. Cochran-Smith and Lytle (1999) found that the knowledge needed to improve teachers' practices could be found by reflecting upon the situational contexts and action steps.

Additionally, the PLC was composed of various grade-level and experience-level educators. A collective effort that incorporates various stakeholder perspectives was found to be essential to the success of high-needs schools (Barrett, et al., 2016). Decision-making, instructional strategies, and accountability were integral components of the PLC. When structures emphasize communication and collaboration, which are the backbones of PLCs, cooperation and trust between participants are more likely (Van Maele & Van Houtte, 2009).

District support of PLCs contributes to a culture of long-term improvement, focused professional learning, and enhanced student learning. Previous research has already confirmed that there is not a need for one-time seminars or workshop professional development (DuFour, 2004). This type of structure does not promote professional growth or teacher efficacy. Instead, it promotes isolation and hinders teachers from improving teaching practices (Darling-Hammond & McLaughlin, 1995).

Alternatively, we should focus on sustained, systematic professional development opportunities, such as PLCs. PLCs offer adequate time to learn, practice, implement and reflect on strategies that facilitate changes in practices (Darling-Hammond et al., 2009).

Too often, improvement processes found within high-needs schools, such as Elm Primary, and PLC goals do not align. For example, the historic shutdown of US schools in spring 2020 due to the COVID pandemic and the consequential prolonged period of remote learning impacted student learning. An in-class experience is the foundation of our education system, and most schools were not prepared for remote or hybrid learning. In many high-needs communities, "schools are also the hub for supports such as school meals, mental-health counseling, and childcare" (Dorn, et al., 2020, p. 2). The COVID closure pressurized the need for student supports in addition to academic instruction.

Faculty and staff were challenged with mastering the technical competencies of remote learning while developing social-emotional support behaviors to maintain teacher-student relationships. In this context, Ylimaki, Brunderman, Bennett, and Dugan (2014) found that improvement processes often impede PLCs' work, meaning that PLCs have a tendency to focus on test scores and report card ratings to attain school effectiveness while overlooking basic student needs. Yet, because of the heightened awareness during the COVID crisis, the participants in this study determined that social-emotional learning was a school-wide concern, more so than an acute focus on academic progress. That is, the PLC that was cultivated during this study empowered teachers to help create and design a learning community that worked for them, ultimately meeting the basic and academic needs of their students.

The COVID pandemic continues to affect educators as they reconceptualize their classrooms and professional learning. District leaders can enable teachers to feel and be more efficacious in their curriculum and pedadogy by establishing teacher-centered PLCs. Literature reflects stronger efficacy when professional development is differentiated, distributed through the implementation period, established in school networks, and accompanied by focused support on instructional issues (Ross, et al., 2001). While the focus of this study was self-efficacy, another area related to PLCs organically appeared. Evidence demonstrated that collective efficacy was one means of facilitating shared leadership. High-performing PLCs address factors to enhance teacher learning (Harris & Jones, 2010) while building teacher capacity (DuFour, 2004). Shared leadership promotes a collaborative culture, the basis for successful PLCs, and impacts collective efficacy. As educators grapple with the intricacies of learning-management systems, conferencing technologies, and changing curriculums in the midst of COVID, it is necessary to consider the best ways to provide professional learning and how that model will impact both self- and collective efficacy.

Action Plan

This action research study showed that the PLC had a positive impact on shared values, collective learning, personal practice, and interpersonal relationships. With the focal point of this research being on the PLC's impact on six teacher's self-and collective efficacy, it is fitting for the researcher to determine if this type of professional learning could benefit a larger group of participants within the school and possibly the district. According to Mertler (2014), the action plan outlines how the research will be used and what will be done in the future as a result of the research findings. The ongoing plan consists of continued reflection while following these phases (see Figure 5.1):

(1) Sharing the findings of the study with colleagues and school-level administration;

(2) Conducting and sharing additional research using the same protocols while including additional school-level administration participants and,

(3) Conducting future research throughout the district's other schools with colleagues.

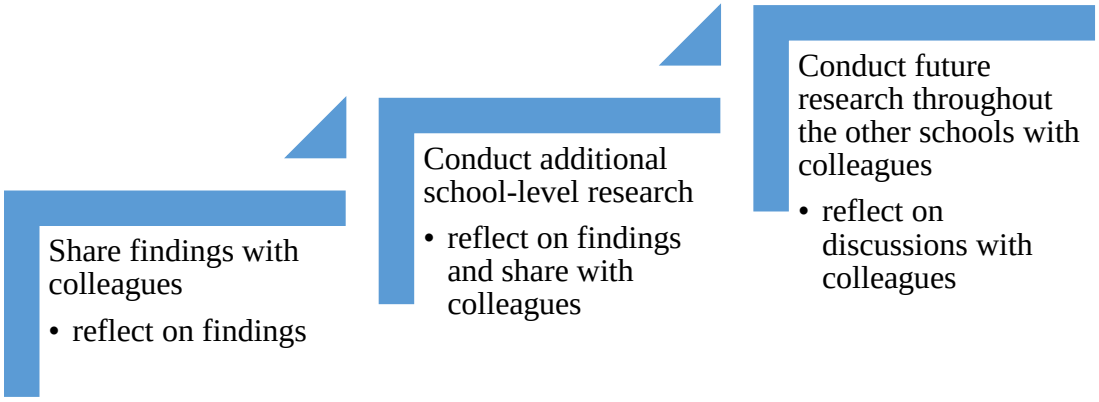


Figure 5.1 *Action Plan*

First, I plan to share the findings of the study with my colleagues and school-level administration. Findings will be shared with PLC participants for member-checking purposes and to celebrate the successes of the group's work. The presentation will include graphic representations of the quantitative day and narratives of the findings. I will also use the presentation as an opportunity to solicit member's suggestions for improving the techniques used during the intervention. This will encourage reflection and open dialogue. In addition, I plan to share the findings with school-level administration in the hopes that other PLCs can be formed. Perhaps this could impact the self- and collective efficacy of more staff at Elm Primary.

The second phase of the action plan is to conduct additional school-level research on PLCs over a longer period of time with a larger number of participants working in multiple groups. Additional data can be collected from a controlled group of staff who choose not to participate in the PLCs. Mertler (2014) suggests, "the results of action research are neither right nor wrong but rather tentative solutions that are based on observations" (p. 21). Redesigning this study to include data from multiple PLC groups with a control group will provide an opportunity to compare PLC dimensions. In doing so, I may be able to better answer the research question. Again, the findings of this study will be shared with colleagues in order to gain additional perspectives and strengthen reflection.

The third phase of the action plan would include research throughout the other schools within the district. Being a relatively small school district with three schools makes a district-wide study manageable. Possible research could include analysis of PLCs at different stages of implementation; variances among primary, middle, and high school's PLCs' functions; or sustainability of district-wide PLC groups. The findings of this study will be shared with colleagues as a way to interpret and address new ideas and strategies which could improve self-and collective efficacy within the district (Mertler, 2014). This collaboration will be a key component for future professional learning.

Suggestions for Future Research

Given that this action research study focused solely on teacher participants, further research to determine the role that school leadership plays in teachers' self-and collective efficacy could extend understanding of PLCs. This suggestion supported by the quantitative findings from the PLCA-R that showed a relatively low increase in Shared and Supportive Leadership perceptions. Research has shown that social

persuasion, a component of self-efficacy, can take many forms, including feedback from a principal, superintendent, instructional coach, or discussions with peers during meetings (Eells, 2011). Broadening the participants, phase two of the researcher's action plan could include a balanced team of administrators, paraprofessionals, instructional coaches, and specialists. Each will bring a different perspective and contribute to the overall success of the learning community (DuFour, 2006).

Future studies that compare efficacy levels and perceptions at different grade levels may provide information regarding differences within school contexts. Louis, Marks, and Kruse (1996) suggest that PLCs are more easily implemented at the elementary school level, noting potential differences in scheduling and time allocations. Studying schools with varying levels of PLC implementation can also expand the research and understanding of the process involved as schools move from typical hierarchical structure to collective leadership. This study supports the value of collaboration and shared leadership. Studying levels of implementation, future researchers may be able to definitively support PLCs as a strategy for enhancing collective leadership.

Conclusion

The study of teachers' self-efficacy has progressively increased because of its implications for teacher effectiveness, instructional practices, and student achievement. Teachers face many difficulties and challenges as they address students' differing social-emotional needs. Albert Bandura (1977) expressed the need for self-efficacy in times such as these when he said, "In order to succeed, people need a sense of self-efficacy, to struggle together with resilience to meet the inevitable obstacles and inequities of life" (p. 191). The conceptual framework of this study proposed that PLCs impact efficacy levels.

The framework considers that high-quality professional learning, combined with Bandura's (1997) sources of efficacy, can impact teacher behaviors and quality. Participants in the study believed that their students benefitted from the social-emotional strategies the PLC explored. The success of the group seemed to motivate participants to share beyond the group. This potentially can create a cycle of change, improved instruction, and better student outcomes.

REFERENCES

AdvancED. (2017). Teacher inventory report Greenwood County School District #51. Retrieved from: https://www.advanc-ed.org/

Annenberg Institute for School Reform. (2004). PLCs: Professional development strategies that improve instruction. Retrieved from http://www.annenberginstitute.org/images/ProfLearning.pdf

Auwarter, A. E. (2008). Effects of student gender and socioeconomic status on teacher perceptions. *Journal of Educational Research, 101*(4), 242-246.

Bandura, A. (1986). Social foundations of thought and action: A social cognitive theory. Englewood Cliffs, NJ: Prentice Hall.

Bandura, A. (1993). Perceived self-efficacy in cognitive development and functioning. *Educational Psychologist*, 28(2), 117-148.

Bandura, A. (1997). *Self-efficacy: The exercise of control.* New York: W H Freeman. ISBN: 978-0716728504

Barrett, S. E., Ford, D., & James, C. (2016). Beyond the lone hero: Providing supports for new teachers in high-needs schools. Occasional Paper Series, 2011(25), 7.

Blonder, R., Benny, N., & Jones, M. G. (2014). Teaching self-efficacy of science teachers. In R. H. Evans, J. Luft, C. Czerniak & C. Pea (Eds.), *The role of science teachers' beliefs in international classrooms: From teacher actions to student learning* (p. 3-15). The Netherland: Sense Publishers.

Boyd, V., & Hord, S.M. (1994). *Principals and the new paradigm: Schools as learning communities.* Paper presented at the annual meeting of the American Educational Research Association, New Orleans.

Bruce, C. D., Esmonde, I., Ross, J., Dookie, L., & Beatty, R. (2010). The effects of sustained classroom-embedded teacher professional learning on teacher efficacy and related student achievement. *Teaching and Teacher Education, 26,* 1598-1608.

Bruce, C. D. & Ross, J. A. (2008). A model for increasing reform implementation and teacher efficacy: Teacher peer coaching in grade 3 and grade 6 mathematics. *Canadian Journal of Education, 31*(2), 346-370.

Cochran-Smith, M., & Lytle, S. L. (1999). Relationships of knowledge and practice: teacher learning in communities. Review of Research in Education, 24, 249-305.

Corcoran, T. B. (2007). *Teaching matters: How state and local policymakers can improve the quality of teachers and teaching* (Consortium for Policy Research in Education, RB-48). Retrieved from http://www.cpre.org/teaching-matters-how-state-and-local-policymakers-can-improve-quality-teachers-and-teaching

Creswell, J. W. (2014). Research design: Qualitative, quantitative, and mixed methods approaches (4th ed). Thousand Oaks, CA: SAGE.

Darling-Hammond, L. (1997). The right to learn. San Francisco: Jossey-Bass.

Darling-Hammond, L. (2003). Keeping good teachers: Why it matters & what leaders can do. *Educational Leadership,* 60, 6-13.

Darling-Hammond, L. (2010). Teacher education and the American future. *Journal of Teacher Education,* 61, 35-47.

Darling-Hammond, L., Andree, A., Richardson, N., Orphanos, S. (2009). Professional learning in the learning profession: A status report on teacher development in the United States and abroad. Dallas, TX. National Staff Development Council.

Darling-Hammond, L., & Bransford, J. (2005). Preparing teachers for a changing world. What teachers should learn and be able to do. San Francisco: Jossey-Bass.

Darling-Hammond, L., & McLaughlin, M.W. (1995). Policies that support professional development in an era of reform. *Phi Delta Kappan, 76*(8), 597-604.

Derrington, M., & Angelle, P. (2013). Teacher leadership and collective efficacy: Connections and links. *International Journal of Teacher Leadership, 4*(1), 1- 13.

Dewey, J. (1916). Democracy and education: An introduction to the philosophy of education. New York: Macmillan.

Dewey, J. (1938). *Experience and education.* New York, NY: Collier Books.

Donohoo, J. (2017). *Collective efficacy: How educators' beliefs impact student learning.* Thousand Oaks, CA: Corwin.

Donohoo, J. and Katz, S. (2017). When teachers believe, students achieve: Collaborative inquiry builds teacher efficacy for better student outcomes. *Learning Professional 38* (6), 20-21, 23, 25-27.

Donohoo, J., Hattie, J., & Eells, R. (2018). The power of collective efficacy. *Leading the Energized School, 75* (6), 40-44.

Doppenberg, J., den Brok, P., & Bakx, A. (2012). Collaborative teacher learning across foci of collaboration: Perceived activities and outcomes. *Teaching and Teacher Education, 28*, 899-910. doi:10.1016/j.tate.2012.04.007

Dorn, E., Hancock, B., Sarkatsannis, J., & Viruleg, E. (2020). COVID-19 and learning loss: Disparities grow and students need help. McKinsey & Company. https://www.mckinsey.com/industries/public-and-social-sector/our-insights/covid-19-and-learning-loss-disparities-grow-and-students-need-help#

DuFour, R. (1991). *The principal as staff developer*. Bloomington, IN: National Educational Service.

DuFour, R. (2004). What is a professional learning community? *Educational Leadership, 61*, 6-11.

DuFour, R. (2006). *Learning by doing: A handbook for PLCs at work*. Bloomington, Ind: Solution Tree.

DuFour, R., DuFour, R. B., & Eaker, R. E. (2008). Revisiting PLCs at work: New insights for improving schools. Bloomington: Solution Tree.

DuFour, R., DuFour, R., Eaker, R., & Karhanek, G. (2004). *Whatever it takes: How PLCs respond when kids don't learn*. Bloomington, IN: National Educational Service.

DuFour, R. Eaker, R., & DuFour, R. (2005). Recurring themes of PLCs and the assumptions they challenge. In E. DuFour & R. DuFour (Eds.). *On common ground: The power of PLCs, (pp. 7-29).* Bloomington, IN: Solution Tree.

DuFour, R., & Eaker, R. (1998). PLCs at work: Best practices for enhancing student achievement. Bloomington, IN: National Educational Service.

DuFour, R., & Fullan, M. (2013). *Cultures built to last: Systemic PLCs at work.* Bloomington, IN: Solution Tree Press.

Earley, P., & Porritt, V. (2014). Evaluating the impact of professional development: The need for a student-focused approach, *Professional Development in Education, 40*(1), 112-129. doi:10.1080/19415257.2013.798741.

Eells, R. (2011). Meta-analysis of the relationship between collective efficacy and student achievement. Dissertation. Loyola University of Chicago.

Efron, S., & Ravid, R. (2013). Action research in education: A practical guide. New York: Guilford Press. ISBN: 978-1-4625-0961-4

Felitti, V. J., Anda, R. F., Nordenberg, D., Williamson, D. F., Spitz, A. M., Edwards, V., Koss, M. P., & Marks, J. S. (1998). Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults: The Adverse Childhood Experiences (ACE) Study. *American Journal of Preventive Medicine, 14*(4), 245–258. https://doi.org/10.1016/S0749-3797(98)00017-8

Fullan, M. (2001). *Leading in a culture of change*. San Francisco: Jossey-Bass.

Fullan, M. (2005). Leadership and sustainability: System thinkers in action. Thousand Oaks, CA: Corwin Press.

Garet, M. S., Porter, A. C., Desimone, L., Birman, B. F., & Yoon, K. S. (2009) What makes professional development effective? Results from a national sample of teachers. *American Educational Research Journal, 38*(4), 915-945.

Garmston, R. J., & Wellman, B. M. (1999). The adaptive school: A sourcebook for developing collaborative groups. Norwood, Mass: Christopher-Gordon Publishers.

Goddard, R. D., Hoy, W. K., & Woolfolk-Hoy, W. A. (2000). Collective teacher efficacy: its meaning, measure and impact on student achievement. *American Educational Research Journal, 37*(2), 479–507.

Goddard, R. (2002). Collective efficacy and school organization: A multilevel analysis of teacher influence in schools. *Theory and Research in Educational Administration, 1*, 169-184.

Goddard, R., Goddard, Y., Kim, E., & Miller, R. (2015). A theoretical and empirical analysis of the roles of instructional leadership, teacher collaboration, and collective beliefs in support of student learning. *American Journal of Education, 121*(4), 501-530.

Godddard, R., Hoy, W., & Woolfolk Hoy, A. (2004). Collective efficacy beliefs: Theoretical developments, empirical evidence, and future directions. *American Education Research Association*, 33(3), 3-13.

Guskey, T. R. (2000). *Evaluating professional development.* Thousand Oaks, CA: Corwin Press.

Gurvitch, R., & Metzler, M. W. (2009). The effects of laboratory-based and field-based practicum experience on pre-service teachers' self-efficacy. *Teaching and Teacher Education, 25*, 437-443. doi:10.1016/j.tate.2008.08.006

Hannaford, (2010). A study of teacher perceptions toward a professional learning community in a rural middle school. Walden University.

Hargreaves, A., & Fullan, M. (2012). *Professional capital: Transforming teaching in every school*. New York: Teachers College Press.

Harris, A., & Jones, M. (2010). PLCs and system improvement. *Improving Schools, 13*(2), 172–181.

Hassler, S. S., & Collins, A. M. (1993). *Using collaborative reflection to support changes in classroom practice*. Paper presented at the American Educational Research Association Conference, Atlanta, GA.

Hattie, J. (2016). Third Annual Visible Learning Conference (subtitled Mindframes and Maximizers), Washington, DC, July 11, 2016.

Hattie, J. (2012). Visible learning for teachers: Maximizing impact on learning. Routledge. New York, NY.

Hattie, J. A. C., & Zierer, K. (2018). Ten Mindframes for Visible Learning: Teaching for Success. Routledge.

Havran, M. P. (2017). A Professional Learning Community for Novice Teachers at a Title I Elementary School: An Action Research Study. (Doctoral dissertation). Retrieved from https://scholarcommons.sc.edu/etd/4083

Henson, R. (2001). The effects of participation in teacher research on teacher efficacy. *Teaching and Teacher Education, 17*, 819–836.

Herr, K., & Anderson, G. (2015). The action research dissertation: A guide for students and faculty. Thousand Oaks: Sage. 2nd Edition ISBN: 978-1-4833-3310-6

Hoffman, J. V., Assaf, L. C., & Paris, S. G. (2001). High-stakes testing in reading: Today in Texas, tomorrow?. *The reading teacher, 54*(5), 482-492.

Hord, S. M. (2004). PLCs: An overview. In S. Hord (Ed.), *Learning together, leading together: Changing schools through PLCs* (pp. 5-14). New York, NY: Teachers College.

Hord, S.M., & Sommers, W.A. (2008). *Leading PLCs: Voices from research and practice.* Thousand Oaks: Corwin Press and National Association of Secondary School Principals.

Johnston, W. & Tsai, T. (2018). The prevalence of collaboration among American teachers: National findings from the American teacher panel. Santa Monica, CA: RAND Corporation.

Keith, N. Z. (1996). A critical perspective on teacher participation in urban schools. *Educational Administration Quarterly*, *32*(1), 45-79.

Kennedy, S. Y., & Smith, J. B. (2013). The relationship between school collective reflective practice and teacher physiological efficacy sources. *Teaching and Teacher Education, 29*, 132-143.

King, M. B., & Newmann, F.M. (2001). Building school capacity through professional development: conceptual and empirical considerations. *International Journal of Educational Management*, 15(2), 86-93.

Kirby, M., & DiPaola, M. (2011). Academic optimism and community engagement in urban schools. *Journal of Educational Administration*, *49*(5), 542–562.

Kirylo, J. D. (2016). Teaching with purpose: An inquiry into the who, why, and how we teach. Lanham/ Boulder/ New York/ London: Rowman and Littlefield.

Knobloch, S. (2007). Teacher Participation in Decision Making and Collective Efficacy. Dissertation. University of Virginia.

Koretz, D., Mitchell, K., Barron, S., & Keith, S. (1996). The perceived effects of the Maryland School Performance Assessment Program (CSE Tech. Rep. No.

409). *Los Angeles: Center for Research on Evaluation, Standards, and Student Testing*.

Kurz, T. B., & Knight, S. (2003). An exploration of the relationship among teacher efficacy, collective teacher efficacy, and goal consensus. *Learning Environments Research, 7*, 111-128.

Lee, V.E., Dedrick, R.F., & Smith, J.B. (1991). The effect of the social organization of schools on teachers‟ efficacy and satisfaction. *Sociology of Education*, 64, 190-208.

Lee, J., Zhang, Z., & Yin, H. (2011). A multilevel analysis of the impact of a 100 professional learning community, faculty trust in colleagues and collective efficacy on teacher commitment to students. *Teaching and teacher education*, *27*(5), 820-830.

Lewis, S. (2009). The Contribution of Elements of Teacher Collaboration to Individual and Collective Teacher Efficacy. Dissertation, Curry School of Education, University of Virginia.

Lezotte, L. (2005). More effective schools: PLCs in action. In E. DuFour & R. DuFour (Eds.) *On common ground: The power of PLCs*, (pp. 177-191). Bloomington, IN: Solution Tree.

Lieberman, A. (Ed.). (1995). Practices that support teacher development: Transforming conceptions of professional learning. *Phi Delta Kappan, 76*(8), 591-596.

Lieberman, A. & Miller, L. (2008). Teachers in professional communities: Improving teaching and learning. New York: Teachers College Press.

Louis, K. S., Marks, H. M., & Kruse, S. (1996). Teachers' professional community in restructuring schools. *American Educational Research Journal, 33*(4), 757-798.

Lujan, N.R.B. (2009). PLCs and their impact on the roadblocks that inhibit collaboration among teachers and certified staff at Berkshire Elementary school. (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses. (3355811)

Marks, H., Louis, K.S. and Printy, S. (2002). The capacity for organizational learning: implications for pedagogy and student achievement in K. Leithwood (Ed.). *Organizational Learning and School Improvement.* Greenwich, CT: JAI.

Maurer, T. J., & Pierce, H. R. (1998). A comparison of Likert scale and traditional measures of self-efficacy. *Journal of Applied Psychology, 83*(2), 324– 329. https://doi.org/10.1037/0021-9010.83.2.324

McLaughlin, M.W. & Talbert, J.E. (2006). Building school-based teacher learning communities: Professional strategies to improve student achievement. Chicago: University of Chicago Press.

McNeal, R. B. (1997). High school dropouts: A closer examination of school effects. *Social Science Quarterly*, *78,* 209–222.

Merriam, S. B., Caffarella, R. S., & Baumgartner, L. M. (2007). *Learning in adulthood: A comprehensive guide*. San Francisco, CA, Jossey-Bass.

Mertler, C. A. (2017*). Action research: Improving schools and empowering educators*, Thousand Oaks, California: SAGE Publications.

Mongillo, M. B. (2011). *Exploring the development of novice teachers' self-efficacy* (Unpublished doctoral dissertation). Southern Connecticut State, CT.

Muijs, D., Harris, A., Chapman, C., Stoll, L., & Russ, J. (2004). Improving schools in socioeconomically disadvantaged areas—A review of research evidence. *School Effectiveness and School Improvement, 15*, 149-175.

Mullen, C.A., & Hutinger, J.L. (2008). The principal's role in fostering collaborative learning communities through faculty study group development. *Theory Into Practice, 47*(4), 276-285.

Murdaugh, E. C. R. (2017). *Promoting a culture of collaboration and reflection through a professional learning community* (Order No. 10262426). Available from Dissertations & Theses @ University of South Carolina. (1930961665). Retrieved from https://login.pallas2.tcl.sc.edu/login?url=https://search-proquest-com.pallas2.tcl.sc.edu/docview/1930961665?accountid=13965

National Staff Development Council. (2007). *NSCS introduces bold new purpose.* Retrieved from http://www.nsdc.org/standfor/nsdcpurpose.cfm

Newmann, F., Rutter, R., & Smith, M. (1989). Organizational factors that affect school sense of efficacy, community, and expectations. *Sociology of Education*, 62(4), 221-238.

Olivier, D. F., Hipp, K. K., & Huffman, J. B. (2003). Professional learning community assessment. In J. B. Huffman, & K. K. Hipp (Eds.), Reculturing schools as PLCs (pp. 70-74). Lanham, MD: The Scarecrow Press.

Pajares, F. (2002). Overview of Social Cognitive Theory and of self-efficacy. Retrieved from http://www.uky.edu/~eushe2/Pajares/eff.html.

Park, E., & Palardy, G. J. (2004). *The impact of parental involvement and authoritativeness on academic achievement: A cross ethnic comparison.* In S.J.

Paik & H. Walberg (Eds.), Advancing educational productivity: Policy implications from national databases (pp. 95–122). Greenwich, CT: Information Age.

Patterson, K., Grenny, J., Maxfield, D., McMillan, R., & Switzler, A. (2013). *Influencer: The power to change anything* (2nd ed.). New York, NY: McGraw-Hill.

Pfitzner-Eden, F. (2016). Why do I feel more Confident? Bandura's sources predict preservice teachers' latent changes in teacher self-efficacy. *Frontiers in Psychology, 7*, 1486.

Poulou, M. (2003, Nov). Influential factors on teaching efficacy: prospective teachers' beliefs. Paper presented at British Educational Research Association Annual Conference, Edinburgh, Scotland.

Prince, C. E. (2018). *The effect of PLCs on perceived teacher self-efficacy* (Order No. 11003998). Available from ProQuest Dissertations & Theses Global: Social Sciences. (2120448387). Retrieved from https://login.pallas2.tcl.sc.edu/login?url=https://search-proquest-com.pallas2.tcl.sc.edu/docview/2120448387?accountid=13965

Raudenbush, S. W., Rowan, B., & Cheong, Y. K. (1992). Contextual effects on the self-perceived efficacy of high school teachers. *Sociology of Education, 65*(1), 150-167.

Ravitch, D. (2003). The Death and Life of the Great American School System. New York: Basic Books.

Reeves, T. C. (2006). Design research from a technology perspective. In J. van den Akker, K. Gravemeijer, S. McKenney, & N. Nieveen (Eds.), *Educational design research* (Vol. 1, pp. 52–66). London, England: Routledge.

Robinson, V., Hohepa, M. & Lloyd, C. (2009). *School leadership and student outcomes: Identifying what works and why.* Best evidence synthesis iteration [BES]. New Zealand: Ministry of Education.

Rosenholtz, S. (1989). Teachers' workplace: The social organization of schools. New York: Longman.

Ross, J. A., & Bruce, C. (2007). Professional development effects on teacher efficacy: Results of randomized field trial. *Journal of Educational Research, 101*(1), 50–60.

Ross, J., & Gray, P. (2006). Transformational leadership and teacher commitment to organizational values: The mediating effects of collective teacher efficacy. *School Effectiveness and School Improvement, 17*(2), 179-199.

Ross, J., Hogaboam-Gray, A., & Gray, P. (2004). Prior student achievement, collaborative school processes, and collective teacher efficacy. *Leadership and Policy in Schools, 3*(3), 163-188.

Ryoo, J., Goode, J., & Margolis, J. (2015). It takes a village: Supporting inquiry-and equity oriented computer science pedagogy through a professional learning community. Computer Science Education, 25(4), 351-370.

Saldana, J. (2016). *The coding manual for qualitative research*. Los Angeles, California: SAGE Publications.

Sargent, B. (2003). Finding good teachers—and keeping them. *Educational Leadership, 84*(9), 44-7.

Schmoker, M. (1999). *Results: The key to continuous school improvement.* Alexandria, VA: Association of Supervision and Curriculum.

Schmoker, M. (2005). No turning back: The ironclad case for PLCs. In R. DuFour, R. Eaker, & R. DuFour (Eds.), *On common ground: The power of PLCs* (pp. 135-150).

Scribner, J.P., Cockrell, K.S., Cockrell, D.H., & Valentine, J.W. (1999). Creating professional communities in schools through organizational learning: An evaluation of a school improvement process. *Educational Administration Quarterly, 35*(1), 130-161.

Seashore Louis, K., & Wahlstrom, K. (2011). Principals as cultural leaders. *Phi Delta Kappan, 92*(5), 52-56.

Sharpe, N.R., Reiser, R.I., & Chase, D.C. (2010). Developing a collaborative assessment framework. *Assessment Update, 22*(1), 4-6.

Smith, M. L. (1991). Put to the test: The effects of external testing on teachers. *Educational researcher, 20*(5), 8-11.

South Carolina Department of Education. (2020). Social *and emotional learning.* Retrieved from https://sel.ed.sc.gov/

Southern Regional Education Board. (2010). *Broadening the definition of rigor for instructional improvement and academic achievement* [PowerPoint slides]. Retrieved from http://www.sreb.org/uploads/documents/2010/01/2010012109273172/b3_ Broadening_ the_Definition_of_Rigor.ppt

Sparks, D. (2005). Leading for transformation in teaching, learning, and relationships. In R. DuFour, R. Eaker, & R. DuFour (Eds.). *On common ground: The power of PLCs* (pp. 155–175), Bloomington, IN: Solution Tree Press.

Stiggins, R. & DuFour, R. (2009) Maximizing the power of formative assessments. *Phi Delta Kappan, 90(9),* 640-644.

Sutton, S. (2001). Health behavior: Psychosocial theories. *International Encyclopedia of the Social & Behavioral Sciences,* 6499-6506.

Takahashi, S. (2011). Co-constructing efficacy: A "communities of practice" perspective on teachers' efficacy. *Teaching and Teacher Education* 27(4), 732-741.

Talbert, J. (2010). PLCs at the crossroads: How systems hinder or engender change. In Hargreaves, A., Lieberman, A., Fullan, M., & Hopkins, D. (Eds.), *Second international handbook of educational change* (pp. 555-571). New York: Springer.

Usher, E. L., & Pajares, F. (2008). Sources of self-efficacy in school: Critical review of the literature and future directions. *Review of Educational Research, 78, 751-796.*

Van Maele, D., & Van Houtte, M. (2009). Faculty trust and organizational school characteristics: An exploration across secondary schools in Flanders. Educational Administration Quarterly, 45(4), 556-589.

Wenger, E., McDermott, R. A., & Snyder, W. (2002). Cultivating communities of practice: A guide to managing knowledge. Boston: Harvard Business School Press.

Woolfolk Hoy, A. E., & Spero, R. B. (2005). Changes in teacher efficacy during the early years of teaching: a comparison of four measures. *Teaching and Teacher Education,* 21, 343-356.

Ylimaki, R. M., Brunderman, L., Bennett, J. V., & Dugan, T. (2014). Developing Arizona turnaround leaders to build high-capacity schools in the midst of accountability pressures and changing demographics. Leadership and Policy in Schools, 13(1), 28-60.

APPENDIX A: ADVANCED TEACHER INVENTORY

surveys **Teacher Inventory - 2017**

Teacher Inventory — 1 survey(s) 35 response(s)

AdvancED Certified Content

Demographics

Number of Responses | Percentages of Total Responses

1. Gender

Female	35	100%

35 responses

2. Race

White	35	100%

35 responses

3. Ethnicity

Not Hispanic or Latino	28	100%

28 responses

4. Role

Teacher	29	83%
Teaching Assistant	6	17%

35 responses

5. Education

Bachelor's Degree	19	54%
Master's Degree	16	46%

35 responses

6. Term

This is my 1st year	7	20%
2 years	7	20%
3 years	1	3%
4 years or more	20	57%

35 responses

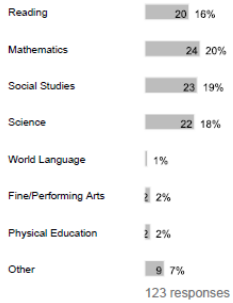
7. Grade Taught

Pre-K	11	13%
K	16	18%
1st grade	15	17%
2nd grade	16	18%
3rd grade	15	17%
4th grade	14	16%

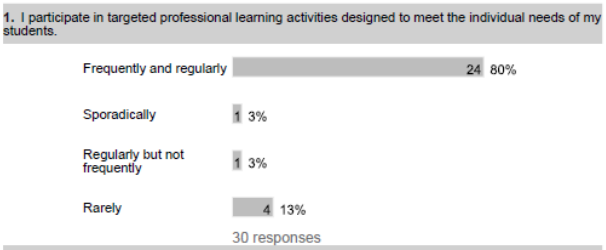
87 responses

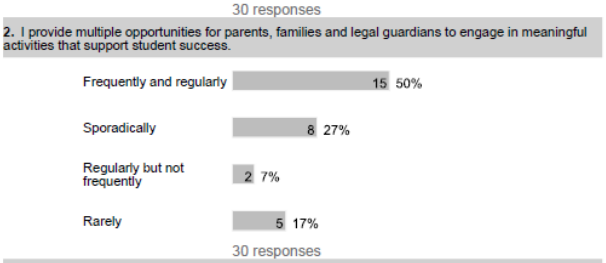
8. Subject Taught

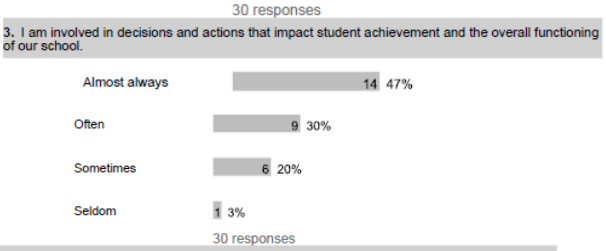
English/Language Arts	20	16%

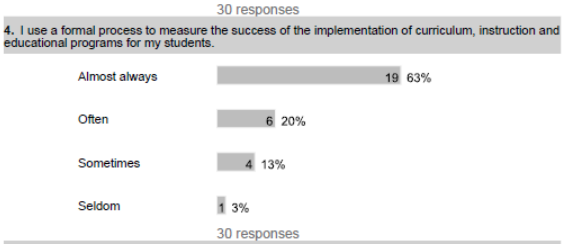

Reading 20 16%
Mathematics 24 20%
Social Studies 23 19%
Science 22 18%
World Language 1 1%
Fine/Performing Arts 2 2%
Physical Education 2 2%
Other 9 7%
123 responses

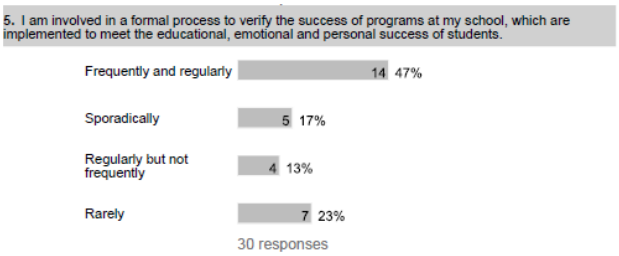
D.


1. I participate in targeted professional learning activities designed to meet the individual needs of my students.
Frequently and regularly 24 80%
Sporadically 1 3%
Regularly but not frequently 1 3%
Rarely 4 13%
30 responses


2. I provide multiple opportunities for parents, families and legal guardians to engage in meaningful activities that support student success.
Frequently and regularly 15 50%
Sporadically 8 27%
Regularly but not frequently 2 7%
Rarely 5 17%
30 responses


3. I am involved in decisions and actions that impact student achievement and the overall functioning of our school.
Almost always 14 47%
Often 9 30%
Sometimes 6 20%
Seldom 1 3%
30 responses


4. I use a formal process to measure the success of the implementation of curriculum, instruction and educational programs for my students.
Almost always 19 63%
Often 6 20%
Sometimes 4 13%
Seldom 1 3%
30 responses


5. I am involved in a formal process to verify the success of programs at my school, which are implemented to meet the educational, emotional and personal success of students.
Frequently and regularly 14 47%
Sporadically 5 17%
Regularly but not frequently 4 13%
Rarely 7 23%
30 responses

APPENDIX B: ANONYMOUS SURVEY

Team-Based Collaboration:

Please indicate the extent to which each of the statements below is true using the following scale:

1 = Very true 2 = True 3 = Somewhat true 4 = Not true

(16 responses)

1. My PLC team has worked to define the most important student learning goals in our content areas.

Very True 31.25%

True 56.25%

Somewhat True 12.50%

Not True 0%

2. If you were to ask each of the members of my PLC team to list the most important student learning goals in our content areas independently, we would all come up with nearly identical lists.

Very True 31.25%

True 50.0%

Somewhat True 18.75%

Not True 0%

3. In my PLC team, we regularly administer common assessments to our students (in other words, all students complete the same assessment).

Very True 50.0%

True 37.50%

Somewhat True 12.50%

Not True 0%

4. As a PLC team, we regularly to assess student work samples as a team.

Very True 0%

True 31.25%

Somewhat True 37.50%

Not True 31.25%

5. As a PLC team, we regularly to make adjustments to our instructional practices across all classrooms based on students' performance on common assessments.

Very True 25.0%

True 43.75%

Somewhat True 25.0%

Not True 6.25%

6. As a PLC team, we regularly discuss how our specific instructional practices affect student learning and how changes in our instructional practices might lead to changes in student learning.

Very True 12.5%

True 18.75%

Somewhat True 18.75%

Not True 50.0%

APPENDIX C: PRE-SURVEY AND POST-SURVEY

PLCs Assessment – Revised

Directions:

This questionnaire assesses your perceptions about your principal, staff, and stakeholders based on the dimensions of a professional learning community (PLC) and related attributes. This questionnaire contains a number of statements about practices which occur in some schools. Read each statement and then use the scale below to select the scale point that best reflects your personal degree of agreement with the statement. Shade the appropriate oval provided to the right of each statement. Be certain to select only one response for each statement. Comments after each dimension section are optional.

Key Terms:

- Principal = Principal, not Associate or Assistant Principal
- Staff/Staff Members = All adult staff directly associated with curriculum, instruction, and assessment of students
- Stakeholders = Parents and community members

Scale: 1 = Strongly Disagree (SD) 2 = Disagree (D) 3 = Agree (A) 4 = Strongly Agree (SA)

STATEMENTS		**SCALE**			
	Shared and Supportive Leadership	**SD**	**D**	**A**	**SA**
1.	Staff members are consistently involved in discussing and making decisions about most school issues.				
2.	The principal incorporates advice from staff members to make decisions.				
3.	Staff members have accessibility to key information.				
4.	The principal is proactive and addresses areas where support is needed.				

5.	Opportunities are provided for staff members to initiate change.				
6.	The principal shares responsibility and rewards for innovative actions.				
7.	The principal participates democratically with staff sharing power and authority.				
8.	Leadership is promoted and nurtured among staff members.				
9.	Decision-making takes place through committees and communication across grade and subject areas.				
10.	Stakeholders assume shared responsibility and accountability for student learning without evidence of imposed power and authority.				
11.	Staff members use multiple sources of data to make decisions about teaching and learning.				
COMMENTS:					
	STATEMENTS	**SCALE**			
	Shared Values and Vision	**SD**	**D**	**A**	**SA**
12.	A collaborative process exists for developing a shared sense of values among staff.				
13.	Shared values support norms of behavior that guide decisions about teaching and learning.				
14.	Staff members share visions for school improvement that have an undeviating focus on student learning.				
15.	Decisions are made in alignment with the school's values and vision.				

16.	A collaborative process exists for developing a shared vision among staff.				
17.	School goals focus on student learning beyond test scores and grades.				
18.	Policies and programs are aligned to the school's vision.				
19.	Stakeholders are actively involved in creating high expectations that serve to increase student achievement.				
20.	Data are used to prioritize actions to reach a shared vision.				
COMMENTS:					
	Collective Learning and Application	**SD**	**D**	**A**	**SA**
21.	Staff members work together to seek knowledge, skills and strategies and apply this new learning to their work.				
22.	Collegial relationships exist among staff members that reflect commitment to school improvement efforts.				
23.	Staff members plan and work together to search for solutions to address diverse student needs.				
24.	A variety of opportunities and structures exist for collective learning through open dialogue.				
25.	Staff members engage in dialogue that reflects a respect for diverse ideas that lead to continued inquiry.				
26.	Professional development focuses on teaching and learning.				
27.	School staff members and stakeholders learn together and apply new knowledge to solve problems.				

28.	School staff members are committed to programs that enhance learning.				
29.	Staff members collaboratively analyze multiple sources of data to assess the effectiveness of instructional practices.				
30.	Staff members collaboratively analyze student work to improve teaching and learning.				
COMMENTS:					
	STATEMENTS	**SCALE**			
	Shared Personal Practice	**SD**	**D**	**A**	**SA**
31.	Opportunities exist for staff members to observe peers and offer encouragement.				
32.	Staff members provide feedback to peers related to instructional practices.				
33.	Staff members informally share ideas and suggestions for improving student learning.				
34.	Staff members collaboratively review student work to share and improve instructional practices.				
35.	Opportunities exist for coaching and mentoring.				
36.	Individuals and teams have the opportunity to apply learning and share the results of their practices.				
37.	Staff members regularly share student work to guide overall school improvement.				
COMMENTS:					

48.	The school facility is clean, attractive and inviting.				
49.	The proximity of grade level and department personnel allows for ease in collaborating with colleagues.				
50.	Communication systems promote a flow of information among staff members.				
51.	Communication systems promote a flow of information across the entire school community including: central office personnel, parents, and community members.				
52.	Data are organized and made available to provide easy access to staff members.				
COMMENTS:					

Source: Olivier, D. F., Hipp, K. K., & Huffman, J. B. (2010). Assessing and analyzing schools. In K. K. Hipp & J. B. Huffman (Eds.). *Demystifying professional learning communities: School leadership at its Best.* Lanham, MD: Rowman & Littlefield.

Permission was granted for use of this survey instrument for this study.

APPENDIX D: STRUCTURED OPEN-ENDED INTERVIEW QUESTIONS

Structured Open-Ended Pre-Interview Questions

1. Please share your experiences with Professional Learning Community (PLC) in the past?

2. Please share other experiences you have had in schools or in your life where there was an organized community of scholars, educators, or others who were tasked with helping each other. Did those communities have any benefits for you? How would you describe your level of confidence while working in an organized community? Why or why not?

3. What recommendations do you have that would enable teachers to work more collaboratively together? Do you view collaboration as an advantage/disadvantage? Why or why not?

Structured Open-Ended Post-Interview Questions

1. Do you believe your instructional practices improved as a result of participating in the PLC? Why or why not? Please provide an example.

2. How would you describe your level of satisfaction with your job as a result of collaboration? How does the quality of collaboration affect your satisfaction? Describe the dynamics of the PLC's collaboration. What is particularly beneficial to you?

3. In what ways does your own confidence in your teaching impact your students? What factors do you identify as influencing your professional self-efficacy?

4. How have reflective practices influenced your confidence? Has reflection affected the collective efficacy of the group when facing challenges?

APPENDIX E: OBSERVATION FIELD NOTES

Observation Field Notes

Adapted from Efron & Ravid, 2013

Research Question: Purpose of Observation: Activities:	Date: Time Frame: Location: Foci:
Descriptive Field Notes	Reflective Field Notes
Indications of Importance	Modifications/Adjustments for Next Session

APPENDIX F: JOURNAL ENTRIES

Journal Entries

Week 1

How would you define success in terms of student outcomes? How do you measure your success?

Week 2

What questions or problems related to your student's social/emotional learning have you had? How will you answer these questions or resolve these problems?

Choose a collaboration strategy and apply it to your work. Describe your experience and how it affected those involved.

Week 3

How do you feel about your ability to facilitate social/emotional learning within the current school model?

Have your interactions with PLC members affected your instruction? Give an example.

Week 4

What are you learning about working together as a group? Explain your thoughts about collaboration. How are your understanding/perceptions changing about your colleagues?

Week 5

How did you surprise yourself this week? What have you learned about yourself?

Week 6

What did you enjoy about the PLC? How did the PLC help you move you closer to reaching your goals?

APPENDIX G: INVITATION LETTER

Dear Colleague,

My name is Paula Taylor. I am a doctoral candidate in the Curriculum and Instruction Department at the University of South Carolina. I am conducting a research study as part of the requirements of my degree, and I would like to invite you to participate.

I am studying PLCs and teacher self-efficacy. If you decide to participate, you will be asked to complete a pre-and post-survey, pre-and post-interview, journal, and reflect as we work within our professional learning community.

In particular, you will be asked questions about your personal beliefs and the impact of PLCs on your perceptions. The meeting will take place at a mutually agreed upon time and place, and should last about 30 minutes. The interviews will be audiotaped so that I can accurately transcribe what is discussed. The tapes will only be reviewed by members of the research team and destroyed upon completion of the study.

Participation is confidential. Study information will be kept in a secure location at the University of South Carolina. The results of the study may be published or presented at professional meetings, but your identity will not be revealed.

We will be happy to answer any questions you have about the study. You may contact me at [redacted] or [redacted] or my faculty advisor, Dr. James Kirylo, [redacted] or [redacted].

Thank you for your consideration. If you would like to participate, please provide your email address, so a link to the survey can be provided. Interviews will be scheduled after our pre-interview. The post-survey and interviews will be conducted at the conclusion of our study. Contact me at the number listed below to discuss participating.

With kind regards,

Paula Taylor

[redacted]

[redacted]

APPENDIX H: INTERDEPENDENCY GROUP ACTIVITY

What questions do the members of a PLC need to define and answer?
What do we expect students to learn?

How will we know if they learn it?

How do we respond when students experience difficulty in learning?

How do we respond when students do learn?

APPENDIX 1: PLCS AND SELF-EFFICACY

PLCs and Self-Efficacy: What Is the Connection?

Jaime Virga

November 18, 2010

https://www.allthingsplc.info/blog/view/95/plcs-and-self-efficacy-what-is-the-connection

For those on the PLC journey, one of the most puzzling and frustrating realities is that we still see what Rick DuFour calls the "knowing-doing gap." We know what to do, but we just don't seem to execute at a high level. Recently, I have been doing a lot of research in the area of self-efficacy as part of my doctoral studies. I have found that the research on self-efficacy beliefs provides an interesting lens to use in examining the knowing-doing gap problem.

First, a little background. Albert Bandura is widely regarded as the foremost authority on self-efficacy. He defines self-efficacy as "beliefs in one's capabilities to organize and execute the courses of action required to produce given attainments." Bandura also states, "People guide their lives by their beliefs of personal efficacy" (Bandura 1997). He explains that people's beliefs about their own capabilities determine if they will try to cope with situations, the effort they will exert in trying to cope, and how long they will keep up the effort in the face of adversity.

Bandura's research shows that a person's self-efficacy beliefs about a specific task or challenge have a profound effect on his/her performance of that task. He argues that the self-efficacy beliefs a person has when approaching a task are more predictive of their performance than any other factor.

When we think about the tasks that we ask teachers, principals, and staff to complete as part of becoming a PLC, it is easy to see that their self-efficacy beliefs can be critical in whether or not the transformation happens.

So where do self-efficacy beliefs come from? Bandura's research shows that a person's self-efficacy beliefs are developed and reinforced in four ways: mastery experiences, vicarious experiences, verbal persuasion, and emotional response. In this blog, I will describe the first three.

In mastery experiences, individuals build their self-efficacy beliefs by successfully carrying out a challenging task at a high level. After you have an experience of mastery, when you are faced with a similar experience in the future, you will be able to draw on the past experience and have a powerful expectation that you will be successful. For example, a new principal who is successful in conducting a difficult conference with a teacher will have greater self-efficacy about that task the next time he sits down with a challenging staff member.

People can also build self-efficacy by seeing other people successfully complete a task. Seeing that the task is doable helps them to feel that they can be successful. However, this effect is minimized if the person thinks that the model has some special skills or advantage that assists him/her with the task. So the same principal could benefit from observing a veteran principal successfully conduct a difficult conference, but the effect is not as strong as conducting the conference himself.

Verbal persuasion can be a powerful source of self-efficacy. When a trusted colleague tells you that you can be successful with a challenge, you are likely to approach the task with a high expectation of succeeding. If our new principal had a veteran principal who coached him and persuaded him that he had the skills and knowledge to conduct a conference with a difficult teacher, this would increase his self-efficacy, but the effect would be less than modeling or a mastery experience.

Why is self-efficacy so important to think about when working with educators? Well, consider how Bandura describes the differences between a person with low self-efficacy and high self-efficacy. People with a low sense of self-efficacy:

- Avoid difficult tasks because they see these tasks as threatening
- Have low aspirations and are weakly committed to the goals they set
- Focus on their personal deficiencies, on the obstacles they will face, and all of the adverse outcomes they can imagine
- Lessen their efforts and give up quickly in the face of difficulty
- Are slow to recover from failures or setbacks

- Are very vulnerable to stress and depression

Conversely, people with a strong sense of self-efficacy:

- "Approach difficult tasks as challenges to be mastered, rather than as threats to be avoided"
- Apply deep interest and focus about their activities
- Set ambitious goals and keep their commitment to them
- "Heighten and sustain their efforts in the face of failure"
- Rapidly recover their sense of self-efficacy after setbacks or failures
- Have an outlook that "reduces stress… and lowers vulnerability to depression" (Bandura 1993)

Clearly, people with high self-efficacy are going to be more effective in their work, and educators with strong self-efficacy beliefs are going to be more successful at implementing reforms and creating meaningful change in schools and districts.

So, what does this mean for us on the PLC journey? Could it be that a lack of self-efficacy beliefs among educators is contributing to the gap between what we know we should do and what we actually carry out? The research on self-efficacy offers several critical questions for educators who are leading the effort to create PLCs in schools and systems:

- What are we doing to build the self-efficacy of our people so that they can be successful in creating and sustaining PLCs? Are we explicit and deliberate in cultivating these important beliefs?
- What are we doing to provide mastery experiences in key PLC actions like curriculum analysis, effective first instruction, creation of common formative assessments, examination of student work, and planning of effective interventions?
- What are we doing to provide compelling models and examples of PLCs? (The schools highlighted on allthingsplc.info are great examples of how to do this.)
- How are we communicating messages of encouragement, expectation, and support to the people we expect to implement these changes?

The research tells us that if we can be deliberate in building up the self-efficacy of our educators, they will perform at a higher level and persevere through difficult tasks. The research on collective teacher efficacy is even more compelling. It would be exciting to see what could happen in our schools and school systems if we really understood and implemented this research.

APPENDIX J: SCHOOL IMPROVEMENT GOALS TO DRIVE TEAM GOALS

The PLCs at Work Continuum: Using School Improvement Goals to Drive Team Goals

We assess our effectiveness on the basis of results rather than intentions.

Where Do We Go From Here? Worksheet Using School Improvement Goals to Drive Team Goals				
Indicator of a PLC at Work	What steps or activities must be initiated to create this condition in our school?	Who will be responsible for initiating or sustaining these steps or activities?	What is a realistic timeline for each step or phase of the activity?	What will we use to assess the effectiveness of our initiative?
The members of our team are working interdependently to achieve one or more goals that align with our school goals. We will identify specific action steps members will take to achieve the goal and a process for monitoring progress toward the goal.				

APPENDIX K: RESPECTFUL COLLABORATION

Adapted from Garmston & Wellman, 1999

Promoting a spirit of inquiry

"I would like to know more about your idea/ position." "Tell me more about…" (Seek first to understand before advocating for your own idea.)
Pausing . . .

"I am waiting a minute to allow time to think first."
(Pausing before responding and/or asking a question allows for think time for yourself and others.)
Paraphrasing

"So…" "As you are…" "You're thinking…" "You're wondering…" "The intention seems to be…" (Efficient paraphrases help all members hear and understand the ideas being presented.)
Probing for specificity

"Please say more…" "I'm curious about…" "I'd like to hear more about…" "Then, you are saying…" "Do you mean everyone?" "Specifically what…"
(Asking questions to increase clarity and understanding as well as the precision of the group's thinking.)
Putting ideas on the table

Label the intention of your comments: "Here is one idea…" "One thought I have is…" "Here is a possible approach…" "Here is one idea…" "Another consideration might be…"
Paying attention to self & others

How am I reacting to what is being said? How am I feeling? How are others reacting to what I am saying? Have I used possible charged language unintentionally?
(Watch for body language and check perceptions by paraphrasing and probing for specificity.)
Presuming positive intentions

"I know we are trying to learn more about all angles so let me share…" "Knowing that we would like to make a decision that works for all of us, let's…"
(Thinking in your head thoughts like: "I am sure she didn't mean to sound charged when she said that.")

APPENDIX L: PERMISSION FOR PLCA-R

May 24, 2020

Paula Taylor
Waterloo, South Carolina
Doctoral Candidate University of South Carolina

Dear Ms. Taylor:

This correspondence is to grant permission for the utilization of the *Professional Learning CommunityAssessment-Revised* (PLCA-R) for your doctoral research at University of South Carolina. I am pleased you are interested in using the PLCA-R measure to *examine the impact of PLCs on teacher self-efficacy.* This study's findings will contribute to the PLC and efficacy literature.

This permission letter allows use of the online version of the PLCA-R administered through PLC Associates (www.plcassociates.org). While this letter provides permission to use the measure in your study, authorship of the measure will remain as Olivier, Hipp, and Huffman, 2010 (exact citation on thefollowing page). This permission does not allow renaming the measure or claiming authorship.

Upon completion of your study, our research team would be interested in learning about your findings and would welcome the opportunity to receive an electronic version of your study outcomes. Thank you for your interest in our research and measure for assessing professional learning community attributes within schools. Should you require any additional information, please feel free to contact me.

Sincerely,

Dianne F. Olivier

Dianne F. Olivier, Ph. D.
Professor and Coordinator of the Doctoral
Program Joan D. and Alexander S.
Haig/BORSF Professor Department of
Educational Foundations and Leadership
College of Education, University of Louisiana at Lafayette
[redacted]

[redacted]
http://www.plcassociates.org
cc: Dr. Jane Huffman
Dr. D'Ette Cowan

Reference Citation for Professional Learning Community Assessment-Revised measure:

Olivier, D. F., Hipp, K. K., & Huffman, J. B. (2010). Assessing and analyzing schools. In K. K. Hipp & J. B. Huffman (Eds.). *Demystifying PLCs: School leadership at its Best.* Lanham, MD: Rowman & Littlefield