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General Education and Special Education Elementary School Teachers' Understanding of Professional Learning Communities

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COLLEGE OF EDUCATION

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Abstract

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MA, National University, 2007

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Disseration Submitted in Partial Fulfillment

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Abstract

The purpose of this study was to identify general and special education teachers' understanding of professional learning communities (PLCs) at 2 public suburban elementary schools in the western United States. Both schools were in the second year of implementation of PLCs but seemed to be using PLC time to plan lessons. This quantitative descriptive survey sought to to identify the teachers' overall understanding of the 6 dimensions of the Professional Learning Communities Assessment – Revised (PLCA-R) and to determine if there was a difference between general and special education teachers' perceptions of PLCs. This survey was administered to general and special education teachers who had at least 3 years of teaching experience and at least 1 year of participation in a PLC. A total of 23 general education teachers and 10 special education teachers participated. Descriptive statistics were used to analyze the data from the 6 dimensions and the PLCA-R. The results indicated that both groups understood the PLC process and had favorable perceptions of PLCs. The results of the ANOVA for each of the 7 hypotheses showed that there was no significant difference between general and special education teachers' perceptions of PLCs. The dissemination of results will help administrators focus on the 6 dimensions of a PLC to provide teachers with an in-depth understanding of PLCs, which can help students to achieve their potential.

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Dedication

This journey has not only impacted me, but it has affected so many of my loved ones. Therefore, I dedicate this dissertation to my entire family. My wonderful sons, Parker and Tyler, who even though their lack of sleep during the day caused me to work late into the night, I persevered and accomplished this goal for them.

To my wonderful husband, Kevin, who despite working 50 plus hours per week, always made time to take the boys for a few hours on the weekends so that I could write. His love and dedication to our family and me is why I fell in love with him seventeen years ago.

I also want to thank my parents, Gary and Kathy Roberts, and my in-laws, Suzie and Steve Day for their endless support. Whether it was motivation through their kind words or to help babysit the children, their love and reinforcement kept me going even in the toughest hours. Thank you with all my heart. I love you all so very much.

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A special thanks to Dr. Putnam and Dr. Hoffman who spent countless hours helping me to perfect my writing and submit the best possible dissertation. Your support, time, and encouragement have meant the world to me and I appreciate all of your effort in helping me achieve this goal.

I would be remiss if I didn't thank my family, as they have been my rock throughout this entire process. You encouraged me even in my darkest hours and gave me the confidence to persevere. Your love inspires me every day.

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Chapter 1: Introduction to the Study

Introduction

Professional learning communities (PLCs) is a common term used throughout education. According to DuFour (2007), PLCs are often responsible for raising student achievement when implemented correctly. Improved student achievement occurs when there is a shared vision and all the participants of a PLC remain focused on promoting student learning (Hord, 2008; Harris & Jones, 2010). This thinking drives the belief that all stakeholders must work together to create, plan, and implement strategies, interventions, or curricula necessary to increase student achievement (Nathan, 2008). However, the implementation of PLCs is often more difficult than a mere discussion (Horn & Little, 2010). These authors acknowledged that the implementation of PLCs involved teachers and support staff, but also the support of administrators at the school site and district level. Moreover, the implementation of PLCs requires time and patience in order to be successful.

In an urban school district in California, teachers do not have a fundamental understanding of PLCs. Teachers also do not understand the power PLCs have to increase student achievement (D. Reyes, personal communication, May 5, 2014; I. Taylor, personal communication, May 5, 2014). This study focused on general and special education teachers' knowledge of PLCs according to the Professional Learning Communities Assessment – Revised (PLCA-R, Olivier & Hipp, 2010). Vescio, Ross, and Adams (2008) reported that PLCs are more than just a buzzword or a quick fix and that the challenge is their effective implementation. It is the overall understanding of teachers and administrators that impact the potential benefits of PLCs (Jappinen & Sarja, 2011; Thessin & Starr, 2011; Vescio et al.,

2008). In addition, Thessin and Starr (2011) argued that administrators must take an active role in the implementation process and coordinate a shared vision among all stakeholders. This collaboration process leads to educational change, which is a main goal of educators.

A critical component of PLCs is professional and collective learning. PLCs have the potential to shape the attitudes and perceptions of teachers and administrators in regards to any new practice. The idea to adopt PLCs as part of continuous learning should be the teachers (Blanton & Perez, 2011). With appropriate and targeted professional development and a focus on collective learning, the ability to change teacher perceptions of the PLC process is possible (Horn & Little, 2010; Resnick, 2010). These areas of focus guided this study and promoted the research toward the understanding teachers have of the practice of PLCs.

This study may influence administrators' PLC implementation practices by reviewing the perceptions and understanding current teachers have of the overall process.

The first chapter of this study identifies the problem, presents the purpose of the study, and describes the theoretical framework. This chapter also identifies key terms and the limitations and assumptions of the study. Chapter 1 concludes with the significance of the study and how this study with impact social change. Chapter 2 provides in depth review of the literature surrounding this study, including a review of the six dimensions of the Professional Learning Communities Assessment – Revised (PLCA-R). In Chapter 3 I discuss the research methodology and design used to collect and analyze data. This chapter includes information on the sampling methods and the instrumentation and procedures used to collect the data, as well as my role as a researcher. Chapter 4 is comprised of the analysis of data. This includes a variety of tables that show the data, as well as tests of normality to

ensure that the data is reliable. Finally, Chapter 5 provides further interpretation of the finding and reflects on the limitations of the study. This chapter also provides a discussion on the implications for social change and the recommendations for actions and further research.

Background of the Study

PLCs provide information that helps individuals learn from others. The concept of PLCs was initiated in the early 1960s as a possible solution to the isolation teachers felt. They sought an opportunity to work with other teachers to perfect their teaching style (McLester, 2012; Opfer & Pedder, 2011). During the 1960s, researchers began to use the term PLCs to describe collaboration among teachers (George, Stevenson, Thompson, & Beane, 1992; Johnson, 2010). However, it was not until the late 1980s that a new direction for educational reform, which included PLCs, was initiated (Honawar, 2008; McLester, 2012; Thessin & Starr, 2011). Researchers began to study the effectiveness of collaboration, and how small groups of teachers working together had a direct impact on student learning (Johnson, 2011; Honawar, 2008; Thessin & Starr, 2011). This new paradigm proved that the collaborative approach was more effective than relying solely on individual teaching practices (Griffin, Murray, Care, Thomas, & Perri, 2010; Thessin & Starr, 2011). This thinking generated the current concept of PLCs and districts began the initial stages of the implementation process.

In 2002, the President of the United States signed the No Child Left Behind (NCLB) Act into law. This law enacted specific parameters for increased student achievement (NCLB, 2002). Essentially, NCLB was created to change the level of rigor for school reform and it began holding districts accountable for the success of all students (NCLB, 2002). In

coordination with the NCLB, the National Staff Development Council (NSDC) and the Education Information and Resource Center (EIRC) contributed to the development of PLCs. They created standards and guidelines and provided grants to schools in order to have more effective PLC training. Additionally, the NSDC created the Standards Assessment Inventory (SAI) as an instrument for schools and districts to measure the quality of professional learning (NSDC, n.d.). Participants using the SAI can express their experiences of PLCs.

Professional learning has been the focus of many studies. Nathan (2008) described PLCs as "the entire faculty, including the administration, working together toward a shared set of standards and assessments known to everyone, including the students" (p. 2). This definition demonstrates the importance of collaboration as part of PLCs. Collaboration encourages teachers to work together to perfect teaching strategies and techniques (Griffin et al., 2010; Jackl & Baenen, 2010), to enhance the learning of all students, and increase student achievement (Griffin et al., 2010; Jackl & Baenen, 2010). DuFour (2007) elaborated, claiming that PLCs are made up of groups of individuals working together, interdependently to achieve a shared goal and vision. Grossman, Wineburg, and Woolworth (2000) clarified the term *interdependence,* writing that it is essential because it

- Provides equal access (equity, or universal access) to quality teaching by strengthening each teacher's practice through collaboration, coaching, and shared planning
- Ends teacher isolation (thus reducing burnout)
- Helps teachers work smarter by sharing the tasks of analyzing data, creating common assessment tools, and devising other strategies for both students who struggle and those who need more challenge

- Enables teachers on grade-level (interdisciplinary) teams to devise lessons that teach reading and writing across the curriculum
- Provides teacher professional growth and job satisfaction through intellectual renewal, new learning, and cultivating leadership. (p. 50)

These elements are critical to the PLC endeavor because it shows the potential that this practice has on teacher rejuvenation and student academic improvement. The history of educational reform led to the current state of PLCs. Although the art of PLCs has not yet reached perfection, the impact it has had on educational reform has garnered the appreciation of a majority of educators (McLester, 2012; Thessin & Starr, 2011). Thus, the popularity of PLCs is increasing and becoming a tool utilized in schools and districts across the country.

Problem Statement

In one urban school district in California, there is an inconsistency in the utilization of PLCs. Teachers and administrators presented information [information on what exactly?] through a series of professional development seminars, and then the principal of each site, along with his teachers, went out to implement PLCs, as they felt necessary. This process contributed to mass confusion because the staff at each site had a different focus and a different idea as to how to implement PLCs at their site. There was minimal consistency, and teachers ended up using designated PLC time to plan (H. Leas, personal communication, April 24, 2014). In turn, five out of eight elementary schools in the district do not implement PLCs (T. Acosta, personal communication, December 14, 2013). Thus, of the three elementary schools that implemented PLCs, the teachers at two of the chosen sites were used as part of the sample.

The superintendent acknowledged that most teachers in the district did not understand the process or the benefits of PLCs (B. Jacobs, personal communication, November 23, 2013). Although, he further stated that PLCs are increasingly becoming a priority within the district, full implementation was not enforced. As a result, school administrators are encouraged to have their staff implement PLCs and provide their teachers the time to meet. However, the district did not provide any guidelines regarding the effective use of PLCs. This lack has caused teachers to express frustration and indifference to the idea of PLCs (B. Kim, personal communication, November 22, 2013). However, other teachers have embraced the implementation of PLCs (H. Leas, personal communication, December 15, 2013). Therefore, the purpose of this study was to determine general and special education elementary school teachers' knowledge and understanding of PLCs.

The research centered around PLCs concentrates mainly on collaboration, professional development, and the impact PLCs have on student achievement. Essentially, the current literature focuses on the benefits, challenges, and collaborative efforts of PLCs. However, there is minimal information specializing in the overall understanding and perceptions teachers have of PLCs. According to DuFour, DuFour, Eaker, and Many (2007), teachers and administrators are focused around the term PLC, but lack the knowledge or will to implement and sustain the practice. Teachers, unaware of the benefits of PLCs, often use PLC time to plan rather than to concentrate on increased student achievement by enhancing their professional learning (DuFour & Marzano, 2011; Dworkin, 2009). Additionally, the principals of schools invited to participate commented that PLCs group teachers by grade level, not subject matter (S. Holguin, personal communication, September 9, 2014; D. Reyes, personal communication, September 12, 2014). Essentially, most special education teachers

are participating in PLCs with their general education colleagues because of time constraints rather than in a PLC designed specifically for special education issues. This study was designed to understand better general and special education elementary school teachers' perceptions of PLCs. Specifically, this study provided insight into teachers' understanding of, and perceptions of PLCs by focusing on the six dimensions of a PLC as stated in the PLCA-R. The study further identified whether there was a difference in perceptions between special and general education teachers in one urban school district. These six dimensions included (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, and through the answers to the questions surrounding these dimensions helped determine the general and special education elementary school teachers' perceptions of PLCs.

The local problem of this study begins with the perceptions that general education teachers and special education teachers have of PLCs. I spoke to several principals in the district, and many had the same concern: teachers did not understand the purpose of PLCs. In addition, without guidance and oversight, there would not be improvement (D. Reyes, personal communication, May 5, 2014; S. Holguin, personal communication, May 6, 2014; I. Taylor, personal communication, May 5, 2014). These principals were concerned that PLCs were not being implemented effectively and were frustrated because they could not attend each scheduled grade-level PLC. Principals commented that they were able to attend a grade-level PLC a few times a year (D. Reyes, personal communication, May 5, 2014; S. Holguin, personal communication, May 6, 2014). These principals further stated that in order to participate in the PLCs, they would need to devote more than a few minutes at each grade

level's PLC (D. Reyes, personal communication, May 5, 2014; S. Holguin, personal communication, May 6, 2014). Even with a focused goal and with the expectation to share results, these administrators believed that PLCs are not effective because of teachers' lack of understanding of the entire PLC process. Additionally, these principals were finding it difficult to provide special education teachers enough time to meet in multiple general education PLCs. Most special education teachers are responsible for educating multiple grade levels and are unable to attend two or more general education PLCs. Furthermore, special education teachers are interested in having specific special education PLCs. Although neither of the schools currently has PLCs designated specifically for special education teachers, the principals were aware that special education teachers have asserted that they would be interested in having a special education PLC. These principals understand the importance of including the special education teachers in both types of PLCs but are finding resistance due to time constraints and additional expectations.

Nature of the Study

This quantitative descriptive study was the most appropriate research methodology because although there is significant research on the topic of PLCs, there is minimal information focused on teachers' perceptions of PLCs. As far back as 2007, DuFour (2007) argued that the term PLC was overused, and was is in danger of failing in its goal of education reform. DuFour also believed that PLCs were an important component of increasing student achievement, although many teachers and administrators do not fully understand the commitment associated with the implementation process. Despite more schools implementing PLCs, there is a disconnect in the fundamental understanding of the expectations of a PLC (DuFour, Eaker, & DuFour, 2008; Graham & Ferriter, 2009; Hipp,

Huffman, Pankake, & Olivier, 2008). Additionally, schools should recognize the design of PLCs and institute PLC teams that account for the needs of all classes (Darling-Hammond, Chung-Wei, Andree, Richardson, & Orphanos, 2009; DuFour et al., 2007; Resnick, 2010). These authors asserted that some schools had grade-level PLCs; PLCs focused on subject matter, and PLCs designed specifically for students with exceptional needs. PLCs may vary according to the team members, but the principles remain the same. Thus, the goal of this study was to determine general and special education elementary school teachers' perceptions of PLCs. Additionally, this study sought to determine whether there was a significant difference in perceptions between general and special education teachers and a quantitative study was used to achieve this goal. Descriptive survey research focuses on individual's beliefs, understanding, attitudes, and perceptions on an educational issue. This study used descriptive research in surveying a group of teachers in order to gain more insight into their understanding of PLCs. Chapter 3 of this study provides additional details on this method.

Research Questions and Hypotheses

The questions for this study examine the overall perception general and special education elementary school teachers in one urban school district have of PLCs. The questions also determine whether there is a significant difference between special education elementary school teachers and general education elementary school teachers and their perceptions of PLCs. The PLCA-R was used, as it identifies the perceptions of teachers on six dimensions of PLCs and related attributes (Olivier & Hipp, 2010). In addition, the PLCA-R has questions that respondents answered to provide optional comments for each of the six dimensions.

Overall Research Question

What are general and special education elementary teachers' perceptions of PLCs as evidenced by the *Professional Learning Communities Assessment – Revised*.

H_0^1: There is no statistically significant difference in the perceptions of general and special education elementary school teachers among the six dimensions of PLCs.

H_A^1: There is a statistically significant difference in the perceptions of general and special education elementary school teachers among the six dimensions of PLCs.

The specific research questions for this study were as follows:

Research Question 1

What are general and special education elementary school teachers' perceptions of shared and supportive leadership of PLCs?

H_0^2 : There is no statistically significant difference in the perceptions of general and special education elementary school teachers among the six dimensions of PLCs.

H_A^2: There is a statistically significant difference in the perceptions of general and special education elementary school teachers among the six dimensions of PLCs.

Research Question 2

What are general and special education elementary school teachers' perceptions of shared values and visions of PLCs?

$H_0^{3:}$ There is no statistically significant difference in the perceptions of general and special education elementary school teachers among the six dimensions of PLCs.

$H_A^{3:}$ There is a statistically significant difference in the perceptions of general and special education elementary school teachers among the six dimensions of PLCs.

Research Question 3

What are general and special education elementary school teachers' perceptions of collective learning and application of PLCs?

$H_0^{4:}$ There is no statistically significant difference in the perceptions of general and special education elementary school teachers among the six dimensions of PLCs.

$H_A^{4:}$ There is a statistically significant difference in the perceptions of general and special education elementary school teachers among the six dimensions of PLCs.

Research Question 4

What are general and special education elementary school teachers' perceptions of a shared personal practice of PLCs?

$H_0^{5:}$ There is no statistically significant difference in the perceptions of general and special education elementary school teachers among the six dimensions of PLCs.

$H_A^{5:}$ There is a statistically significant difference in the perceptions of general and special education elementary school teachers among the six dimensions of PLCs.

Research Question 5

What are general and special education elementary school teachers' perceptions of the relationship supportive conditions of PLCs?

$H_0^{6:}$ There is no statistically significant difference in the perceptions of general and special education elementary school teachers among the six dimensions of PLCs.

$H_A^{6:}$ There is a statistically significant difference in the perceptions of general and special education elementary school teachers among the six dimensions of PLCs.

Research Question 6

What are general and special education elementary school teachers' perceptions of the structures of supportive conditions of PLCs?

$H_0^{7:}$ There is no statistically significant difference in the perceptions of general and special education elementary school teachers among the six dimensions of PLCs.

$H_A^{7:}$ There is a statistically significant difference in the perceptions of general and special education elementary school teachers among the six dimensions of PLCs.

Purpose of the Study

A focus of schools and districts across the country is to increase student achievement. According to Griffin et al. (2010), PLCs are an integral component in this process, because they provide educators an opportunity to meet and collaborate about pertinent issues regarding educational practices. Moreover, Vescio et al. (2008) stated that the

> Virtues of learning communities operate as an essential way to organize schools in order to maximize time spent in professional development. Only recently has the focus of this literature shifted to examining empirically the changes in teachers' practices and students' learning as a result of PLCs. (p. 81)

This thinking constitutes a major enlightenment because it encompasses the principles of PLCs and reflected on the implementation process. It also focuses on teachers' understanding and attitudes toward PLCs, which is a major component of the success of PLCs.

Improved student achievement is usually enough for schools and districts to want to implement the practice of PLCs. Although one of the main requirements of PLCs is collaboration, it alone will not ensure the success of a PLC. Harris and Jones (2010) suggested that it is the responsibility of the team to address the hard questions that will have an impact on teaching practices and improved student achievement. These authors reported that developing a shared vision prior to commencing a PLC provides all participants a clear understanding of the expectations. Using these criteria and establishing an agenda allows all team members to determine what needs to be accomplished and answer the difficult questions. Many schools are implementing PLCs because they recognize the ability for educators to perfect their teaching practices, which directly improves student learning.

In some districts, special education teachers were included in PLCs in the same team as their general education counterparts (City, Elmore, Fiarman, & Teitel, 2009; Dooner, Mandzuk, Clifton, 2008; Hardman, 2012). PLCs are typically grouped by grade level. Teachers work together with their grade-level colleagues to focus on issues and increase student achievement. Although this is important, special education teachers may have a different focus or may need to address different issues than their general education colleagues, thus causing them to view PLCs as a waste of time (Hardman, 2012; Jappinen & Sarja, 2012; Ruebel, 2011). Specifically, some special education teachers believe that coordinating PLCs designated for special education teachers may be more useful (B. Kim, personal communication, September 16, 2014; K. Dethlefsen, personal communication, September 16, 2014). This study included teachers in general and special education to determine whether there was a significant difference in their perceptions of PLCs.

Theoretical Framework

This quantitative descriptive survey research study was based on the theoretical framework of cognitive constructivism, which focused on the work of Jean Piaget. Piaget believed that learners must construct their understanding and knowledge of the world through their experiences (Piaget, 1964). Specifically, the constructivism theory focuses on an individual's experiences. Individuals make meaning and construct knowledge by using what they already know. In fact, individuals use personal experiences to make meaning and create their own reality. Thus, the more experiences individuals have in their repertoire, the greater the ability to make meaning of all situations. General and special education teachers each have unique experiences that shaped their perceptions of PLCs. General education teachers have been implementing PLCs for years, whereas special education teachers often feel that they are new to the process (Arroyo, 2011; Correa & Wagner, 2011, Nathan, 2008). However, special education teachers have more options for participating in PLCs. Some special education teachers meet specifically with other special education teachers while some special education teachers believe that they receive more benefit from meeting with their general education colleagues. Special education teachers may participate in weekly PLCs at their school sites in grade-level teams with general education teachers, as well as in PLCs with other special education teachers within their district. This allows the special education teachers to focus on site issues, but also learn from other special education teachers in the district (Blanton & Perez, 2011; Chenoweth, 2009; Fogarty & Pete, 2009). Each unique experience, such as years of teaching experience, experience implementing PLCs, and knowledge of data and instructional strategies all play a role in how a teacher perceives certain educational issues. The collaborative meetings at each school site also contributed to

individual experiences, which helped the participants, understand each question in the PLCA-R.

Cognitive constructivism also plays a role in education. Resnick (2010) asserted that the way people think is not limited to advanced levels of development. Rather, thinking begins at the most elementary levels in all academic areas. Constructivism allows educators to construct knowledge and promote thinking by using their experiences (Darling-Hammond et al., 2009; Resnick, 2010). DuFour (2007) and Darling-Hammond et al. (2009) suggested that PLCs are a direct result of constructivism because individuals learn from each other. Essentially, individuals use experiences gained within the classroom and working with students to make meaning of certain situations. Furthermore, constructivism focuses on the learning and how an individual thinks about learning (Resnick, 2010). Similarly, PLCs help professionals work collaboratively to share visions and personal practices to enhance the learning of all students.

The six dimensions of the Professional Learning Communities Assessment – Revised are compatible with theoretical framework of cognitive constructivism. For example, shared and supportive leadership focuses on working together as a collaborative unit to enhance the learning of all students. Sharing experiences with other professionals to improve one's teaching practice is the epitome of a cognitive constructivism. Similarly, collective learning and applications, shared values and vision and shared personal practice are also dimensions promoted within this framework. Essentially, these four dimensions highlight the need for members of a PLC to work together to share experiences and examine effective teaching strategies and interventions to enhance student learning. Finally, the fifth and sixth dimensions of the PLCA-R include the supportive conditions of relationships and structures.

These dimensions are also compatible with a theoretical framework because positive relationships among all parties within the PLC are imperative in order to learn from others' experiences.

Definition of Terms

The following definitions are included in this study.

Adequate Yearly Progress: A statewide accountability system mandated by the No Child Left Behind Act of 2001 which requires each state to ensure that all schools and districts set and achieve certain goals (California Department of Education [CDE], 2013a).

Professional Learning Community: An organizational structure where professionals come together to share and gain access to ideas, materials, techniques, and strategies and use this new knowledge to improve student learning and increase achievement (Honawar, 2008).

Assumptions, Limitations, Scope and Delimitations

The researcher must convey the assumptions, limitations, and scope and delimitations of the study. Assumptions are considered facts that cannot be proven. This study also had methodological limitations. Creswell (2012) asserted that limitations are the weaknesses of a study. As a researcher, it is crucial to be cognizant of the limitations of the study in order to combat the possible criticisms of the study from other researchers. Finally, the scope and delimitations are critical components of the research because they outline the boundaries of the study. I included a discussion of the choices I made that may have affected the outcome of the study.

Assumptions

The study assumed that most participants gave honest responses to the questions to reflect their true attitudes, perceptions, and understanding of PLCs. Another assumption of this study was that the quantitative descriptive study was the most appropriate method to capture each participant's experiences of PLCs. A quantitative descriptive survey study focuses on individual's perceptions or attitudes about an educational issue, and this study used a survey to determine each participant's perception and understanding of a PLC.

The final assumption of this study was that PLCs improve student achievement when implemented correctly (Jackl & Baenen, 2010; Opfer & Pedder, 2011). Although the data support this statement, each teacher may have his or her interpretation of successful implementation of PLCs and what constitutes positive student achievement.

Limitations

There were several limitations of this descriptive survey study. The survey selected for this study included multiple-choice responses with minimal possibilities for participants to elaborate on their answers with a written response. At the end of each dimension in the survey the participants had the option to write a short statement to further elaborate an explanation to their answers. None of the participants chose to complete this section. Had the participants provided responses, the statements would have been noted in the data analysis section in order to justify or corroborate their answers to the questions. This was a pre-established instrument that was already deemed reliable and valid (Olivier et al., 2010). Changes were not allowed to this study because it would invalidate the survey (Creswell, 2009). Also, by collecting data solely through the means of a pre-established survey did not allow me to triangulate the data.

Another limitation of this study was the potential lack of transferability, given that only two schools were used in the sampling process. The ability to transfer the results across multiple districts may not be possible because this study only focused on one district. Different districts may be in different stages of the PLC implementation process and the data collected from the participants in this study may not align to the views and perceptions of teachers at different schools or districts. Specifically, this study was limited to the perceptions and understanding of the teachers at these two elementary schools and was not a representation of other teachers' or administrators' perceptions or understanding of PLCs at other school sites in the district with different demographics or in different stages of the implementation process.

Scope and Delimitations

The scope and delimitations section set the boundaries of the study. In this section of the study, I explain certain components of the study. The sample was taken from only two schools in one single district. Only two schools were selected because these particular schools have similar sample sizes, special education populations, but different adequate yearly progress (AYP) scores (i.e., student achievement scores). The other schools in the district did not have all three of these attributes, which would have made it difficult to compare results. Each teacher within the district was subjected to similar content about PLCs through professional development, however the ability to determine whether the information given played a role in the understanding or lack thereof of PLCs may be difficult to discern.

Another delimitation of this study was the time constraints. PLCs typically take years to implement (DuFour & Marzano, 2011). Over a period, teachers' perceptions of PLCs may change. For example, at the beginning of any practice there are challenges that cause

individuals to become frustrated and develop a negative attitude. However, once the negativities are resolved perceptions of the practice may become more favorable. Thus, a delimitation of this study was that it did not sample participants over a long period. According to Creswell (2012), there was not an infinite amount of time to collect data, so this would be considered a boundary to the study. Essentially, the participants had approximately 2 weeks to complete the survey, and the results were generated within a month after participants submit their responses.

Significance of the Study

This study is significant because the results of this study can be applied to the local problem, to the education profession, and to positive social change. This study encompassed the perceptions and understanding of PLCs of both general education and special education elementary school teachers.

Collective Learning and Professional Development

One of the most important components of PLCs is the effectiveness of professional development and the collective learning process. As far back as 2007, DuFour (2007) argued that the term PLC was being used ubiquitously and had the potential of losing its true value because individuals did not truly understand its meaning. Moreover, DuFour believed that teachers were not being adequately trained on PLCs and were operating from an incorrect bandwagon of perception as to what PLCs embrace. Vescio et al. (2008) argued that schools implementing PLCs needed to change their mentality of professional development practice "to shift the organization and structure of their professional development efforts toward integrating teacher learning communities of practice with the goal of meeting the educational needs of their students through collaboratively examining their day-to-day practices" (p. 81).

Vescio et al. (2008) also reported that professional development and collective learning are integral parts of providing teachers with a fundamental understanding of PLCs, because it provides them with the knowledge of the purpose, concepts, and implementation process. In fact, Ruebel (2011) wrote that without proper training and the ability to learn collectively, PLCs have the potential of losing credibility as a part of educational reform. In turn, when effective professional development exists, there is greater potential for increased student achievement.

Professional Application

The practice of PLC implementation is affected by the overall understanding teachers have of this term. According to Chang (2009) and City et al. (2009), PLCs are not being implemented effectively in many districts across the country. The errors in implementation cause teachers to develop a negative attitude toward the practice rather than to increase educational reform (Chang, 2009; City et al., 2009). Darling-Hammond et al. (2009) and Griffin et al. (2010) argued that teachers use designated PLC time as planning time rather than focusing on interventions and strategies that could increase student achievement (Darling-Hammond et al., 2009; Griffin et al., 2010). Understanding teachers' perceptions of PLCs provides administrators the opportunity to use that information to institute professional development training to combat misconceptions.

Positive Social Change

The potential of this study was to increase positive social change by discovering teachers' perceptions of PLCs, which in turn could garner the attention of administrators to clarify teachers on PLCs. Acknowledging the perceptions teachers have of PLCs is the first

step in change (DuFour, 2007; Harris & Jones, 2010). Once perceptions have been established, administrators could work with their teachers and share the benefits of PLCs. And identifying the difference in perceptions between general and special education teachers could give administrators better insight into how to incorporate special education teachers in the PLC process. Currently, administrators are confused about the specific PLC in which special education teachers should participate.

Implementing a PLC that meets the needs of teachers and makes them feel valued will increase its success (Hipp et al., 2008; Vojtek & Vojtek, 2009). Thus, if special education teachers were designated their own PLC, they might be able to focus on specific issues that would benefit students with special needs. Additionally, once teachers' perceptions of PLCs are identified, social change can ensue because when a group of teachers has the influence to impact the learning and future of a group of students each year, after a couple of years the number of students positively affected by this practice grows substantially.

One of the most critical components of social change is instituting a vision that the entire school can accept (Darling-Hammond et al., 2009; Hirsh & Hord, 2010). "Schools that are successful in achieving such a vision are places where all staff is members of a community committed to professional learning" (Hirsh & Hord, 2010, p. 11). Instituting a vision begins with a fundamental understanding of perceptions teachers have of PLCs. When all stakeholders focus on the same vision, positive results are more likely to occur.

A shared vision can promote professional learning through PLCs. Jackson and Bruegmann (2009) and Reeves (2010) asserted that a commitment to a shared vision may lead to an increase in student achievement. These authors also commented that a shared

vision has a lasting effect on the community because student achievement has a direct impact on the status of a community. The opportunity to have social change begins with the ability for school leaders to articulate a vision and share it with all stakeholders involved in the PLC process.

Summary

This study was designed to provide a particular school district with the knowledge of general and special education elementary school teachers' perceptions and understanding of PLCs. This information is intended to facilitate better their ability to train teachers and implement PLCs more effectively. PLCs are a quintessential component of educational reform because they provide educators with a means of continuous professional learning, while promoting increased student achievement. The background for this study and why it is a problem that needs to be studied for the promotion social growth was detailed in Chapter 1. In addition, a brief overview of the significance of the study, the methodology, and the assumptions, limitations, and scope and delimitations within the study was delineated.

A detailed description of the literature reviewed that examines the need for professional learning through the six dimensions of the PLCA-R is provided in Chapter 2. This chapter also includes background information on PLCs and uses current resources to discuss what is already known about PLCs. In Chapter 3 a detailed description of the methodology used in this study is presented: the data collection process, the research design, the instrumentation, and the measures used to analyze the data. Data analysis is covered in Chapter 4. In Chapter 5, two areas are covered: the limitations and benefits of the study and the implications for additional research.

Chapter 2: Literature Review

Introduction

Understanding all components and facets of PLCs—which are used in a variety of educational settings— is critical. Numerous professionals and educational studies have reported on the need for PLCs (Griffin et al., 2008, Harris & Jones, 2010; Vescio et al., 2008). According to Harris and Jones (2010), leaders are beginning to recognize that PLCs are partly responsible for the increase in student achievement (i.e., test scores), and thus more districts are choosing to implement them (Graham & Ferriter, 2009). Additionally, school and district leaders are realizing that their schools need PLCs in order to improve the overall culture of a school (Griffin et al., 2008). Griffin et al. (2008) and Vescio et al. (2008) suggested that the collaboration and discussion of relevant practices are influencing schools to implement PLCs. Thus, many schools and districts are beginning to implement this practice. However, the implementation process requires that all stakeholders understand in advance the challenges, benefits, along with the need for collaboration and professional development.

To obtain material for this review, I used the following databases: SAGE Research Methods Online and SAGE Premier, ProQuest Central, EBSCOhost ebooks, Education Research Complete Google Scholar, and Educational Resources Information Center (ERIC). I also reviewed some non-peer-reviewed articles and some professional websites. The following terms were used: *PLCs, perceptions*, *attitudes, collaboration* and *elementary school teachers*. The references cited in articles were also used to identify relevant literature. Although most of the articles cited in this study were published within the past 5 years, a few were published beforehand. These older articles were relevant because their authors—

Dooner, DuFour, Eaker, Hord, Huffman— were pioneers of PLCs and thus contributed to the comprehensive understanding of PLCs. This review of the literature also included information on the PLCA-R and the research methodologies used in this study.

I organized the review around the six themes, which correspond to the dimensions of the PLCA-R survey:

- Shared and Supportive Leadership
- Shared Values and Vision
- Collective Learning and Application
- Shared Personal Practice
- Supportive Conditions – Relationships
- Supportive Conditions - Structures

In addition, there is a discussion on the influence of collaboration, particularly among administrators and staff. Moreover, the importance of collaboration as an important key to educational change and how a collaborative effort can change teacher perceptions and understanding of PLCs is included in this chapter . Finally, a comprehensive view of professional development is discussed. Specifically, this chapter reveals how professional development may also change teacher perceptions and understanding of PLCs, including how professional development can increase positive implementation.

Professional Learning Communities Assessment – Revised

PLCs are gaining popularity in many schools and districts across the country. However, DuFour (2007) wrote that even though schools are implementing PLCs they may not be implementing them correctly. Therefore the *Professional Learning Communities Assessment – Revised* was developed. According to Olivier, Antoine, Cormier, Lewis,

Minckler, and Stadalis (2009), while many schools, with the best intentions, choose to use the PLC label it is essential to assess the level of effectiveness of PLC characteristics accurately. In an effort to "gauge the level at which schools function along the continuum of PLCs, a survey measure was developed to assess teachers' perceptions of critical attributes within their learning organization" (p. 4). This allowed administrators and PLC participants to identify the next steps to successfully implement a PLC.

Hord and Hirsh (2008) suggested that this assessment is important because it focuses on the staff members of a PLC. Much of the data on the success of PLCs focuses on student achievement. However, these authors suggested that without a complete understanding of PLCs, the learning of staff precedes the learning of students because staff members may not be able to educate students to their full capacity. This assessment, utilized by several researchers and doctoral students, focused on their perceptions as to the viability of the assessment. Their responses were positive and indicated that the PLCA-R was a feasible instrument to measure the perceptions of teachers at the school level in relation to the PLC dimensions (Olivier et al., 2009);Arroyo (2011); Jaques (2010) and Cassity (2012) all conducted case studies as part of their dissertations that utilized the PLCA-R. These researchers gathered data that measured the perceptions of teachers and administrators of PLCs to determine the effectiveness of implementation. The PLCA-R measures the perceptions of individuals who are members of PLCs. This instrument uses six dimensions that are attributes of PLCs, including shared and supportive leadership, shared values and vision, collective learning and application, shared personal practice, and supportive conditions, including relationships and structures. Huffman and Hipp (2010a) asserted this assessment, used in numerous districts across the United States, has led to the opportunity for

a review of the dimensions of the assessment for internal consistency. Olivier et al. (2009) confirmed that this assessment, used in many studies, continues as a popular choice for subsequent studies that will ensure continuous validation of this instrument. Essentially, this diagnostic tool provides researchers with the data needed to determine teacher and administrators' perceptions of PLCs.

Shared and Supportive Leadership

Shared and supportive leadership is the first dimension addressed in the PLCA-R. Shared and supportive leadership stems from a transparent administration that emphasizes a collaborative approach and promotes shared responsibility (Patterson, Grenny, Maxfield, McMillan, & Switzler, 2007; Olivier et al., 2010). Huffman and Hipp (2010a) believed that shared and supportive leadership constitutes four essential attributes including "1) nurturing leadership among staff, 2) shared power, authority, and responsibility, 3) broad-based decision-making that reflects commitment and accountability, and 4) sharing of information" (p. 24). Essentially, these attributes ensure that all stakeholders involved with PLCs are active participants in the process. It also encourages the administrator of the site to be the facilitator and use a collaborative approach to ensure that all participants have a voice and a feeling of responsibility throughout the entire PLC process.

Although the literature provides evidence that PLCs are beneficial and have a positive effect on student achievement and teaching practices PLCs are not without challenges. In fact, Vescio et al. (2008) asserted that with the term PLCs at the forefront of educational change, many districts and schools are implementing PLCs but are doing so incorrectly. It is easy to say that a school is implementing PLCs, but "using the term PLC does not demonstrate that a learning community does, in fact, exist" (Vescio et al., 2008, p. 82). The

difference between a successful PLC and an unsuccessful PLC is the support systems in place for the administrators and the entire staff at a school site. Du Four et al. (2007) believed that one challenge associated with implementing PLCs is articulating an accurate portrayal of PLCs. In fact, these authors argued that without a clear strategy and vision of PLCs, the implementation process will fail, and PLCs may become a thing of the past. Jolly (2008), continued this belief by articulating that PLCs may not all look the same, but administrators must have a shared vision that is understood by all stakeholders in order to have a positive implementation. Thus, having a clear definition and implementation plan with the support from administrators is essential for the overall effectiveness of this practice.

Administrative Support

Another challenge identified in the literature includes the lack of administrative support needed to implement fully PLCs, which is essential to the full implementation of the practice. Within the practice, there are several different ways of providing support. Ontario Principals' Council (OPC) (2009) wrote that principals are an integral part of PLCs because they are the ones that articulate the overall vision of the entire process. Additionally, administrative support also influences professional development. It does this because it provides the money needed to incorporate the professional development and the time needed for teachers to learn the PLC process (Hord & Sommers, 2008; Thessin & Star, 2011). "Distributed pedagogical leadership includes common characteristics of a professional learning community when the educational actors intentionally share a common mission" (Jappinen & Sarja, 2011, p. 64). Furthermore, these authors elaborated that it is when all levels of educators share in collective responsibility that PLCs are effective. Furthermore, when one of those members does not demonstrate the necessary support it puts the entire

practice in jeopardy. For example, administrators may show support by providing staff ample time to collaborate and implement given tasks (Horn & Little, 2010). The challenge then becomes to make sure that all members understand their role in the process.

Shared Values and Vision

Having shared values and a shared vision is a key dimension used to create an effective implementation of a PLC. The attributes of this dimension include "1) espoused values and norms, 2) focus on student learning, 3) high expectations, and 4) shared vision guides teaching and learning" (Huffman & Hipp, 2010a, p. 25). Correra and Wagner (2011) and Dooner et al. (2008) suggested that expressing a vision and sharing it among all stakeholders enables a more successful implementation of the PLC. Implementation is successful because all participants are seeking the same goal. This shared vision allows everyone to be on the same page and implement ideas toward the overarching goal.

The commonly articulated goal is to increase student learning and administrators must set high expectations for all stakeholders in the very first meeting (Honawar, 2008). These values will lead to the long-term success of a PLC and increase the likelihood of sustainability (Huffman & Hipp, 2010b). These authors also believed that "a strong leader promotes a shared vision and encourages staff to begin a dialogue, share information, seek new knowledge, and commit to the effort to achieve their goals" (p. 26). A leader must continuously share the values and vision throughout the entire PLC process in order to maintain success.

A key to shared values and vision is collaboration. Collaboration is an integral component of PLCs because it contributes to continuous professional learning. Teachers, staff, and administrators can collaborate and learn from each other (Dooner et al., 2008).

Collaboration exhibits in different forms. For example, the collaboration between teachers may be different from that of teachers to administrators (Erkens et al., 2008). However, the collaboration among administrators to staff is one of the most important in the PLC process because administrators must share their vision during this collaborative exchange (Hord & Sommers, 2008). Harris and Jones (2010) asserted that administrators begin the implementation process by articulating a vision, with all stakeholders understanding the same focus. This process affords everyone the opportunity to share the same outlook on PLCs.

A shared vision also provides all team members with a clear definition and understanding of the PLC process. Additionally, collaboration allows administrators to be a part of the process. An administrator encourages his or her staff to meet and provides them with a vision to achieve success (Vescio et al., 2008). Having the support of the administrator also shows the importance of the practice. Administrators should articulate the expectations of the implementation process and share the successes of PLCs in order to increase the positive attitudes of all participants.

A shared vision also contributes to educational change because the ability to share ideas and implement those ideas may have a positive impact on students (Patterson et al., 2007). Furthermore, collaboration and a shared vision can change perceptions. According to Chenoweth (2009) and DuFour et al. (2007), change is not always easy, and it may take some longer to appreciate the benefits of the practice. However, with time and collaboration stakeholders have changed their perception of PLCs.

PLCs rely on shared values and vision. Hipp et al. (2008) confirmed that an important component of PLCs is the idea of shared values and vision. Huffman and Hipp (2010a) believed that the success of PLCs begins with creating a strong foundation based on shared

values and vision. In fact, the literature reviewed frequently mentions the dimension of shared values and vision as a prerequisite of PLCs.

Collaboration Among Administrators and Staff

Collaboration exists between teachers, between administrators, and between administrators and teachers. Administrators may not realize the importance of collaborating with staff, to pursue a shared vision (Creswell, 2012; Harris & Jones, 2010). Thessin and Starr (2011), as well as Vescio et al. (2008), suggested that the collaboration process allows the staff to understand the administrator's vision and direction of the school. This works on the understanding that the staff can share their thoughts and feelings to the administrator. The collaboration process is imperative to the implementation of any program or practice. Collaboration provides a forum for respectful and intelligent discourse among professionals (Hardman, 2012; O'Connor, 2009; Vojtek & Vojtek, 2009; Wiseman & Arroyo, 2011). DuFour et al. (2007) stated that collaboration among participants at all levels is instrumental to the improvement of teaching practices and an increase in student achievement. Essentially, meeting as a PLC is when professionals collaboratively determine strategies, including strategies that have a positive impact and strategies that are proven to be unsuccessful (DuFour & Marzano, 2011). Also, Jackson and Bruegmann (2009), as well as Servage (2008), asserted that PLCs provide an opportunity for administrators to share information across grade levels. Administrators need to communicate information among all grade levels because PLCs focus on certain grade levels, and there is not as much interaction between the teachers throughout the entire school. Reeves (2010) believed that with effective collaboration among teachers and the power of the administrator to spread information across the entire school, positive student results are likely to increase. Collaboration in conjunction

with shared values and vision provides an outlet for educators to discuss positive teaching strategies, which in turn will create a change in positive student achievement.

Collective Learning and Application

Collective learning and application highlighted as one of the six dimensions of the PLCA-R. These attributes include "1) sharing information, 2) seeking new knowledge, skills, and strategies, and 3) working collaboratively to plan, solve problems, and improve learning opportunities" (Huffman & Hipp, 2010a, p. 25). One attribute that tends to be a consistent theme is the idea of sharing information. Graham and Ferriter (2009) espoused that the quintessential factor of PLCs is working together to obtain the most knowledge to expand teaching practices. Additionally, PLCs aim to increase the level of rigor of student learning through new teaching strategies, techniques, and interventions. The art of sharing information reduces the needless manpower of continuously reinventing these practices. Essentially, when teachers, staff, and administrators share information on strategies that have proven effective the potential for the entire school to implement these practices and receive similar results is much more likely.

Additionally, the success of professional development relies heavily on the ability to impact teachers' collective learning abilities. Professional development usually focuses on best practices. PLCs are needed because they require that all stakeholders concentrate on the most effective strategies and practices to ensure success (Chenoweth, 2009; Darling-Hammond et al., 2009; Fogarty & Pete, 2009). The literature revealed the importance of determining what aspects are necessary to establish an effective implementation and ensure a positive climate after the culmination of the PLC process. In many countries around the world, the implementation of PLCs and the collaboration process is being established to

construct a climate of educational change (Jappinen & Sarja, 2012). “The PLC model is a way of ensuring that there is the opportunity for professionals to learn new practices and to generate new knowledge” (Harris & Jones, 2010, p. 173). Dedicating the time and effort it takes to implement PLCs is an example of a commitment to change. When educators devote themselves to work in a collaborative environment, changes to other educational practices may develop as a product of the collaborative effort (Harris & Jones, 2010). Greater student achievement and enhancement of teaching practices to meet the needs of all students are positive changes that can occur as a result of implementing PLCs (Hirsh & Hord, 2009). The ability for teachers and administrators to collaborate with professionals in the PLC process is key to educational change.

Documented as a critical component of PLCs are collective learning, and the importance of application. Teachers must share what works and what does not in the implementation of PLCs (DuFour, DuFour, Eaker, & Many, 2007). Additionally, these authors agreed that professional development and continuous learning strengthens the foundation of PLCs.

Change and the Perception of PLCs

Positive change usually reflects positive perceptions and attitudes of PLCs, whereas negative change has a direct correlation to negative perceptions. Change is essential to the field of education because educators would remain stagnant without change (Hirsh & Hord, 2009; Jackson & Bruegmann, 2009; Mundry & Stiles, 2009). Also, without change, educators would hinder the educational growth of all students (Hirsh & Hord, 2009; Jackson & Bruegmann, 2009; Mundry & Stiles, 2009). PLCs encourage educational change by helping educators improve teaching practices (Blanton & Perez, 2011). Specifically, in a

PLC teachers collaborate and discuss proven teaching strategies to help increase student achievement.

Conducted in the Wake County Public School System (WCPSS), one study supported the correlation between positive change in student achievement and positive teacher perceptions of PLCs. In this non-peer-reviewed study, Jackl (2010) reported that in WCPSS, teachers were wary of incorporating PLCs into their daily teaching routine. Initially, teachers believed that their teaching practices were adequate to increase student learning. However, after a 5-year study and data that illustrated positive results in test scores and overall student achievement, teacher perceptions started to change (Jackl & Baenen, 2010). Furthermore, Jackl (2012) conducted a PLC survey to determine teachers' knowledge of PLCs and asked a variety of questions. Questions included teachers' perceptions of PLCs and concluded that when teachers understood the practice of PLCs and observed their impact, perceptions became more positive. According to this author, the WCPSS study demonstrated that teachers have the potential to be persuaded to change their perceptions and attitudes of PLCs. As long as their efforts support positive change, and the overall message of PLCs gets conveyed for them to form a better understanding of this practice.

Another study that resulted in a similar outcome was facilitated by Strahan (2003) and conducted over a 3-year period. This study identified the dynamics of three elementary schools within the same district in regards to the implementation of PLCs. It determined that when all PLC participants shared the same vision and believed in the benefits of PLCs a noticeable change in positive student achievement occurred (Strahan, 2003). Each of the three schools received similar results in positive student achievement. Strahan (2003) wrote that each site may have initiated reform in different ways the fundamental aspects of the

change were similar. “Once they had identified priorities for school improvement and initiated conversations with instruction, teachers and administrators at these schools used data from formal and informal assessments to target areas for improving teaching” (Strahan, 2003, p. 142). This author acknowledged that once these initiatives were in place, each site developed professional development training to discuss the different aspects of positive instruction at each grade level and how to collaborate to implement these new instructional changes. Strahan (2003) also wrote that as teachers became more familiar with the PLC process and observed the benefits, the higher the educational expectations became and a new school culture was developed.

How Professional Development Changes Perceptions

Professional development is a major component in ensuring that all participants understand the practice of PLCs. Teachers’ perceptions improve when they understand the entire process. Work toward a shared goal or vision, and seeing a direct correlation between results and implementation (DuFour, 2007; Hipp et al., 2008; Olivier et al., 2010). In Strahan’s study (2003) the culture of each of the three participating schools experienced a shift in paradigm. This shift occurred when student achievement increased as the teachers began to collaborate and developed a shared vision and goal to enhance teaching practices. However, even with a shared pedagogy some teachers are reluctant to commit themselves to the practice of PLCs. These teachers may believe that it is overwhelming and cumbersome (Dworkin, 2009; Opfer & Pedder, 2011). DuFour et al., (2008) and Opfer and Pedder (2011) indicated that these perceptions directly relate to ineffective professional development. Opfer and Pedder (2011) identified several reasons that teachers’ attitudes tend to be more negative, and they are unwilling to implement new ideas. These reasons include when schools provide

teachers with professional development that does not relate to the shared vision, is time-consuming and does not provide them a better understanding of the overall process. DuFour (2007) further stated that teachers and administrators do not always understand the time and effort required for effective implementation of PLCs. When there is focused and continuous professional development, educators gain a better understanding of the process, and implementation is possible (Horn & Little, 2010). These authors also asserted that professional development provides a deeper understanding of the topic and professional development "strengthened teachers' ethical commitment to students" (p. 209). The desire to develop better teaching practices for the overall benefit of the students is the purpose of PLCs and professional development.

Professional development provides a comprehensive understanding of a practice, as with PLCs. Jackl and Baenen (2010) wrote that knowledge equates to power and commitment. Another nonpeer-reviewed mixed-methods study that focused on one Title I middle school concluded that teachers felt a sense of comfort after being trained on a particular component of a PLC (Stanfield, 2008). For example, teachers felt more secure about collaborating after learning techniques that did not make them feel criticized when other team members gave them suggestions on their teaching practices (Stanfield, 2008). When the anxiety of the unknown of PLCs weakens, a sense of possibility ensues (Patterson et al., 2007). When educators feel confident about a program, initial negative perceptions are replaced by favorable perceptions (Horn & Little, 2010; Patterson et al., 2007). Strahan (2003) wrote that the results of his study proved that over time teachers' attitudes changed when they observed the increase in positive student achievement due to teacher collaboration and a change in teaching practices. Patterson et al. (2007) suggested that raising confidence

levels in individuals is only possible with consistent and in-depth information provided through professional development. Essentially, when stakeholders participate in the professional development of PLCs, which incorporate time conveying the importance and focus on a comprehensive understanding of this practice, the stakeholders are more likely to demonstrate a positive perception. Jackl (2012) and Strahan (2003) received similar results in their studies that demonstrated teachers who witness the increased scores in student achievement have a more favorable view of PLCs.

How Professional Development Increases Implementation

Implementation of any practice, program, or intervention also requires a comprehensive understanding of the process. This understanding occurs from the pre-implementation stage to the result (Horn & Little, 2010; Patterson et al., 2007; Reeves, 2010; Reeves et al., 2010). Included are important aspects such as data collection, strengths and weaknesses of the program. Additionally, included is the use of the outcomes of the data collected (Horn & Little, 2010; Patterson et al., 2007; Reeves, 2010; Reeves et al., 2010). Each step of the process requires a series of training through professional development to ensure a smooth transition to the next step (Harris & Jones, 2010; Wood, 2007). These steps also serve to remediate and reexamine the previous steps before moving to the next stage (Harris & Jones, 2010; Wood, 2007). This movement allows all stakeholders to determine whether the process is working in its current form or whether they need to tweak part of the process to make it more successful.

Professional development then becomes essential to the success of the implementation of PLCs. According to Fogarty and Pete (2009) and Stanfield (2008) professional development provides teachers with the confidence and knowledge to institute

PLCs. Thus, having confident teachers and administrators implement PLCs the more likely the success of the practice and more positive perceptions of all stakeholders (Darling-Hammond et al., 2009; Graham & Ferriter, 2008). Jackl (2012) found that over a 5-year period, teachers' perceptions began to change as they observed the increase in student achievement as a direct result of PLCs. Additionally, Strahan (2003) wrote that after conducting a 3-year study similar results were evidenced. This author believed that teachers agreed formulating a shared vision and setting agreed upon goals through the implementation of a PLC resulted in increased student achievement. Thessin and Starr (2011) wrote that the implementation of PLCs is the key to extraordinary success within a school and a district. Resnick (2010) countered that suggestion by asserting that the key to a successful implementation process of a PLC is effective professional development. Blanton and Perez (2011), as well as Resnick (2010), stated that professional development is an essential component of understanding PLCs. This understanding is necessary to brainstorm and collaborate with other professionals to improve student achievement. Opfer and Pedder (2011) mentioned that the only way to achieve this is to provide a tremendous amount of professional development. Furthermore, the professional development provides educators the opportunity to engage fully and understand the intricate details of implementation. This understanding increases the percentage of successful implementation of PLCs (Griffin et al., 2010; Opfer & Pedder, 2011). Additionally, Opfer and Pedder (2011), as well as Blanton and Perez (2011), asserted that professional development provides the opportunity to make necessary changes. Specifically, it enables teachers and administrators to share strengths and weaknesses of the program or practice, which stimulates respectful discourse on how to perfect the given practice. Moreover, effective professional development is thoughtful and

occurs over a multitude of sessions. In Strahan's study (2003), one of the fundamental aspects of implementing a successful PLC is implementing an abundance of professional development. In fact, this author stressed that all three schools in his study first collected data and determined the need for educational change. Then, all of these sites implemented professional development prior to implementing PLCs. Furthermore, this author stated that professional development was not specific to PLC development, but also focused on professional development in specific areas. Areas included, instructional practices, collaboration, and the culture of the school and shared responsibility and shared visions.

Another essential component of the implementation of PLCs is time. Vescio et al., (2008) and DuFour et al. (2007) stressed that even with the successful implementation of PLCs, the process takes time. The implementation process is not something that happens overnight. Professional development helps establish a fundamental foundation of the implementation process (Griffin et al., 2010; Vescio et al., 2008). Professional development also allows participants the opportunity to understand the process more fully, thus increasing the potential for successful implementation (Griffin et al., 2010; Vescio et al., 2008). In fact, Vescio et al. (2008) suggested that the implementation process should last years to ensure its effectiveness with continuing professional development. Making time available requires the assistance of many stakeholders. Teachers may want to meet as a PLC on a weekly or bi-weekly basis, but without the support of administrators this is unlikely (DuFour et al., 2008; Horn & Little, 2010). One way for administrators to demonstrate support is to provide substitutes (Darling-Hammond et al., 2009; DuFour & Marzano, 2011; Horn & Little, 2010). Substitutes allow teachers to meet during school hours (Darling-Hammond et al., 2009; DuFour & Marzano, 2011; Horn & Little, 2010). Meeting during school hours enables

teachers to meet with all team members and understand the dedication of administrators to the PLC process.

Shared Personal Practice

A PLC is a collaborative approach to teacher learning. The shared personal practice takes into account the need for professionals to learn from each other and offer feedback to one another to ensure that teachers focus on continuous learning. The attributes of shared personal practice exposed in the PLCA-R include "1) peer observations to offer knowledge, skills, and encouragement, 2) feedback to improve instructional practices, 3) sharing outcomes of instructional practices, and 4) coaching and mentoring" (Huffman & Hipp, 2010a, p. 25). These authors expressed that during the implementation phase of PLCs, the leader must set high expectations that encourage all stakeholders to offer productive feedback of instructional strategies. This component of the PLC process offers teachers to act as coaches and work with each other. The reason is to enhance teaching practices to increase student learning (Graham & Ferriter, 2008; Huffman & Hipp, 2010b; Jolly, 2008; Mundry & Stiles, 2009). Teachers learn from one another to enlarge their repertoire and promote students' academic success by sharing knowledge and expertise.

According to Hord and Sommers (2008), the main reason for implementing PLCs is to increase student achievement. Student achievement outweighs any personal bias that teachers may have about PLCs. Student achievement also supersedes any challenges that arise from the implementation of PLCs (DuFour & Marzano, 2011; Hord & Sommers, 2008; Horn & Little, 2010; Jackl, 2012). In fact, having positive student achievement results from PLCs, demonstrates the need for shared personal practice (Jackl, 2010; Stanfield, 2008; Strahn, 2003). Shared personal practice helps teachers identify what works and what do not

work in a classroom (Jackl, 2010; Stanfield, 2008; Strahn, 2003). Furthermore, it allows them to share the information with other teachers to support their teaching efforts (Jackl, 2010; Stanfield, 2008; Strahn, 2003). Specifically, shared personal practice encourages teachers to become coaches and mentors to each other (Huffman & Hipp, 2010b). These authors also stated that watching other educators teach lessons with specific strategies is an important way for teachers to learn from each other and espouse a shared personal practice. Having the ability to work with others and learn from each other sets the foundation for PLCs and motivates teachers to receive the benefit of student achievement.

There have been several studies conducted that provide evidence that there is a relationship between PLCs and positive student achievement. Vescio et al. (2008) reviewed ten empirical studies, as well as one multi-site study in England. Nine of these studies were qualitative in nature, and two of the studies were quantitative. The studies reviewed by Vescio et al. (2008) showed that the schools that implemented PLCs effectively had a higher percentage of improved student achievement and a greater improvement in teaching practices. This study documented "that the presence of a professional community in a school contributes to higher levels of social support for achievement and higher levels of authentic pedagogy" (Vescio et al., 2008, p. 83). Strahan's study (2003) focused on three elementary schools increasing student achievement in reading. The results from this study revealed data that initially teachers had pessimistic attitudes in regards to student learning. "As part of the change process teachers worked collaboratively to develop a shared school mission around four guiding values that included integrity, respect, discipline, and excellence" (Strahan, 2003, p. 133). Strahan's study also concluded that collaboration was a vital part of the PLC process (Strahan, 2003). The collaboration led to instructional norms that encouraged

teachers to invest in shared personal practices and make necessary adjustments to improve all areas of teaching practices (Strahan, 2003). The results of this study determined that collaboration in conjunction with the implementation of PLCs had a positive impact on teaching strategies and increased student achievement.

Similarly, Jackl and Baenen (2010) and Stanfield (2008) found that the implementation of PLCs had a direct relationship to positive student achievement at all grade levels across the school district. However, these studies were not without limitations. Jackl and Baenen (2010) wrote that the limitation of their study included that although the Wake County Public School System (WCPSS) is the one of the largest school districts in the nation, comprised of 163 schools and serving 143,000 students annually there was a "considerable variation when it comes to implementing PLCs at these diverse sites" (p. 20). It was also noted that another limitation of the study was factors including, "individual personalities, group dynamics, administrators' expectations and operational parameters, and even the leadership style of the facilitator, as all of these factors, can impact the performance of the entire group" (Jackl & Baenen, 2010, p. 21). Also, Stanfield (2008) commented that the limitations in her study included educators who declined to participate, as well as teachers who may have exaggerated their responses. While acknowledging the limitations of these studies, the results from both attributed improved teaching practices in the areas of language arts and mathematics to PLCs. Additionally, Stanfield (2008) indicated that teachers met in grade levels at least twice a month to implement new strategies and interventions that targeted certain skills to raise student test scores.

Similar to collective learning and application, shared personal practice is another essential dimension for PLCs. When teachers coach one another and take responsibility for

their practices a PLC has the potential to increase student achievement (Vescio et al., 2008; Huffman & Hipp, 2010a). Sharing knowledge and working in a collaborative setting is one of the primary factors of PLCs.

Teachers' Understanding and Attitudes

Having a shared personal practice of PLCs is contingent on the attitudes of the teachers. In the implementation of any practice, attitude and enthusiasm are key components (Patterson et al., 2007). These authors further wrote that positive and negative attitudes have a direct correlation to the overall climate of a school, and the more negative the attitudes portrayed by teachers or administrators, the more negative the climate. Many teachers today complain of fatigue, burnout, and pressure (Chang, 2009). Dworkin (2009) suggested that the extensive demands placed upon teachers are causing a burnout in the teaching profession. With teachers helping each other, and formulating collaborative groups and having a common goal of increasing their desire to have shared personal practices there is potential for resilience. Forgarty and Pete (2009) formed an opinion based on the theoretical findings of multiple authors that instead of implementing all aspects of PLCs at one time, a more thoughtful approach works better. A thoughtful approach may reduce teacher apprehension and negativity toward PLCs. Specifically, research revealed that devising a plan that implements pieces of the PLC process on an annual basis, mitigates the challenges of PLCs (Fogarty and Pete, 2009; Graham and Ferriter, 2009). Although implementation and less enthusiastic teachers pose challenges, incorporating a shared vision and a collaborative forum enables all participants to have a voice and work together to understand and commit to the entire process.

Supportive Conditions – Relationships

Relationships are another essential component of PLCs. According to Huffman and Hipp (2010b), supportive conditions focused on relationships are based on trust and respect. This dimension also takes into consideration the need for small and large accomplishments to be celebrated and recognized by other staff members and administrators at the school and district level. The attributes acknowledged within this section of the PLCA-R include "1) caring relationships, 2) trust and respect, 3) recognition and celebration, 4) risk-taking, and 5) unified effort to embed change" (Huffman & Hipp, 2010a, p. 25).

The relationships among stakeholders in PLCs are essential to the success of PLCs. According to Vojtek and Vojtek (2009), positive relationships among all participants of a PLC increase the potential of a successful PLC. Moreover, Huffman and Hipp (2010a) as well as Vojtek and Vojtek (2009) elaborated that these relationships are based on trust, dedication to the PLC process, and a respect to all parties involved with the PLC. According to Strahan's study (2003), collaboration and a shared commitment to the process are imperative to the success of a PLC. More importantly, teachers who share knowledge and increase instructional practices have the ability to enhance students' academic achievement.

Relationships are an integral component of any practice. PLCs are no exception. In fact, the relationships formed within a PLC should include trust and respect. According to the research based on the PLCA-R survey and the rubric developed by Huffman and Hipp (2010b), sites implementing PLCs are in one of the four stages of supportive conditions in respect to relationships. These authors wrote that relationships in a PLC fall into the following categories: (a) not initiating, (b) initiating, (c) implementing, and (d) sustaining. The term "not initiating" is used when sites are not even considering the dimension, initiating

is used when a site is in the beginning stages of the dimension, implementing is when a site is actually incorporating the dimension into the everyday practice of PLCs, and sustaining is when a site is seeking to maintain the consistency of each dimension.

Each dimension falls into one of these categories and depending on the action, teachers and administrators can determine the next course of action. For example, if a school is not initiating shared and supportive leadership it may mean that the administrator does not share information and makes decisions in isolation. Therefore, the goal for this site would be to move to the initiate phase and have administrators determined what information to share with whom and select certain staff members to be included in decision-making. However, if the site is already in the initiating phase, the teachers and administrators at that site would look toward the implementing phase and encourage administrators to share most information with all staff and include most staff members in decision-making opportunities. Finally, if the implementation phase were already underway, the next step for the site would be to sustain the practice. This means that the information is available for all staff and administrators are consciously including all staff members in a wide variety of decision-making opportunities (Huffman & Hipp, 2010b). This rubric is a road map for teachers and administrators and helps guide them into the best practices for implementing PLCs

Additionally, promoting positive relationships within a PLC means that all participants must celebrate the successes of others and recognize even the slightest accomplishments. Again, this is measured by determining what stage a school is in with regards to relationships. Nathan (2008) agreed that relationships are essential to sustaining PLCs and must be supported by the administration. PLCs are only successful if teachers have respect for one another. If a teacher is unwilling to listen to another colleague's suggestion

the purpose of the PLC is undermined (DuFour et al., 2008; Hirsh & Hord, 2009; Huffman & Hipp, 2010a). Trusting other professionals may cause some anxiety, but the ability to take a risk and try new educational practices and techniques is essential for a successful PLC. Having the administration confirm the importance of relationships allows all staff members to recognize relationships as one of the goals of a PLC.

Relationships are a fundamental component in the implementation of any practice. The literature supports the importance of strong relationships in the implementation of PLCs. Correa and Wagner (2011) suggested that relationships play a pivotal role in PLCs because without teachers working together in a collaborative environment and sharing the same vision, the PLC is non-existent. A PLC cannot operate with a single member. It is a collaborative effort.

Supportive Conditions – Structures

A supportive condition involving structures ensures that appropriate resources are being designated for the implementation of PLCs. Resources include "1) the resources of time, money, people, and materials, 2) facilities, and 3) communications systems" (Huffman & Hipp, 2010a, p. 25). The success of PLCs is dependent upon a plethora of attributes. One is not more important than the other, as all are equally important. Attributes include the support of district and site administrators to provide time, manpower, interventions, and money (Horn & Little, 2010; Huffman & Hipp, 2010a; Jackl, 2010). These resources promote new teaching practices and result in positive student achievement.

Although resources may be similar, each school or PLC may need to employ different resources depending on the needs at the school site. For example, some schools may not need as much money, but may need to devote resources toward time (Olivier et al., 2010). Other

schools may have time to implement PLCs, but need money to purchase materials to adhere to the vision of increasing student achievement (Olivier et al., 2010; Wood, 2007). According to Patterson et al. (2007) and Servage (2008), each site must develop priorities and work to ensure that the administration provides these resources. The resources that are garnered by the participants of the PLC help shape the path toward a successful implementation of a PLC.

PLCs should involve collaboration to be successful. However, collaboration is not the sole requirement for an effective PLC. An essential component of a PLC is supportive conditions in regards to structures. According to Huffman and Hipp (2010a) supportive conditions for structures include communication and technology systems and resources needed to promote positive student achievement. These resources include personnel, facilities, time, money, and materials.

As with the implementation of any practice, this use of PLCs cannot be done alone and requires the support of administrators at the school site and district level. Thessin and Starr (2011) suggested that a district plays a pivotal role in establishing PLCs by encouraging the involvement of all participants in the entire process. These authors further articulated that administrators at the district level must support and provide professional development. Additionally, administrators need to demonstrate the importance of PLCs and how they contribute to positive student achievement. Administrators must also provide the necessary accommodations with differentiated support to each site. Accommodations include monetary support as with equipping schools with the appropriate resources (Horn & Little, 2010; Jackl, 2010; Morrow, 2010; Nathan, 2008). Also, the support of time by providing schools with an adequate number of substitutes for teachers to have the necessary time to collaborate with each other. Finally, the emotional support needed to encourage teachers and other

administrators to pursue the vision even in difficult times (Horn & Little, 2010; Jackl, 2010; Morrow, 2010; Nathan, 2008). Honawar (2008) took this idea a step further and asserted that it is when administrators at the school site provide support by giving teacher necessary structures, such as time to collaborate that educational reform occurs. Collaboration allows educators the opportunity to reflect on their needs, enhance their professional learning, and increase student achievement, which in turn will produce positive educational change.

Structures must be in place to accommodate the needs of a PLC. The review of literature exhorts that communication, collaboration, and shared visions are not the only components of PLCs. In fact, DuFour et al. (2008) acknowledged that providing teachers with the appropriate accommodations and the necessary resources and funding are also essential to the success of PLCs. The support from administrators at the site and district level to provide these supportive conditions is critical and allows teachers to understand the importance of the implementation of PLCs.

Methodology

The methodology used in this study was a quantitative descriptive research study. The PLCs Assessment – Revised dictated the use of this methodology. This tool is a survey that measures teacher and administrators' perceptions of PLCs. It provides a numerical rating system that lends itself to quantify the answers of each participant in the study. A 4-point Likert scale was used ranging from 1 (*strongly disagree*) to 4 (*strongly agree*). . The PLCA-R is a preestablished quantitative survey, which supports a descriptive research study. Creswell (2012) suggested that surveys are provided to sample populations to identify the perceptions and attitudes of the participants in the study. Although descriptive research studies are frequently used in educational research the inability to elaborate on responses is a

weakness of surveys used for this methodology (Fraenkel & Wallen, 2003). The authors of the PCLA-R recognized this issue and added a comments section for participants to contribute to their scaled responses (Hipp & Huffman, 2010). Additionally, Hopkins (2000) wrote that quantitative research identifies the relationship between variables in a population. This study examined the differences between the variables of special education teachers and general education teachers and their perception of PLCs.

Various Methodologies

Although there have been numerous studies focusing on PLCs and specifically teachers' perceptions of PLCs, these studies have been predominately qualitative. These studies use observations, interviews, and focus groups to collect data. Strahan (2003) conducted a qualitative study that focused primarily on interviews and observations of all three elementary schools. The results of this showed that implementing PLCs effectively with shared visions and goals, and thoughtful and meaningful professional development training teacher perceptions of PLCs increases by the increase in student achievement. Additionally, Vescio et al. (2008) suggested that PLCs have the potential to make positive changes to instructional practices and yield positive student achievement. Vescio et al. (2008) believed that when teachers observe firsthand the impact PLCs have on student achievement their perceptions of this practice becomes more favorable. However, this author also recommended that more quantitative studies are conducted that focus on teachers' perceptions of PLCs.

Mixed method studies are another popular methodology used in determining teachers' perceptions of PLCs. Stanfield (2008) conducted a mixed-methods study, which included components of a qualitative and quantitative study. This study used the PLCA-R as the

quantitative component and conducted interviews and observations as part of the qualitative component. The benefit of this type of study allows the researcher to triangulate the data. Jackl and Baenen (2010) also used mixed methods to conduct their 5-year study. Also to using a self-created survey, interviews were also implemented to obtain a comprehensive assessment of teachers' perceptions of PLCs. Even though these studies implemented a different methodology from the qualitative studies, the results of the both of these studies were similar. Stanfield (2008), as well as Jackl and Baenen (2010), found that teachers' perceptions of PLCs related to the fundamental attributes of instilling shared visions and values. Stanfield (2008) also found that teachers' perceptions impacted shared personal practice and collective learning and application. Specifically, when PLCs were implemented teachers' attitudes and perceptions effectively positively increased.

Summary

A review of the literature concluded with the idea that PLCs are a critical factor in increased professional learning and greater student achievement. It also supports the attributes of the six dimensions within the PCLA-R. The six dimensions of the PLCA-R, including (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 promote a complete understanding of general and special education elementary school teachers' understanding of PLCs.

Although there are challenges associated with the practice of PLCs, stakeholders need to weigh the benefits to determine implementation at their site. Furthermore, teachers need to have a comprehensive understanding of PLCs and the process of implementation to gain a favorable perception of the practice. Additionally, this chapter elaborated on the need for

collaboration and professional development to promote educational change and alter teachers' perception of PLCs by providing a deeper understanding of the practice.

In Chapter 3 I will provide a detailed plan on how I collected the data, as well as how I will interpret the data. Specifically, in this chapter I will address the methods I used to analyze the data. Additionally, I will discuss the sampling procedures and the reliability and validity of the PLCA-R.

Chapter 3: Research Method

Introduction

Numerous research studies support the benefits, challenges, and sustainability of PLCs. According to Harris and Jones (2010), they have a direct positive impact on student learning. However, PLCs also have drawbacks that create challenges for the entire process, for example, time and resources (Horn & Little, 2009; DuFour et al., 2007). Opfer and Pedder (2011) wrote that focused professional development promotes successful implementation of PLCs and offers a better chance of sustainability. These topics provide a plethora of information on PLCs. However, there is little research that supports the overall understanding and perceptions elementary school teachers have of PLCs. Thus, the purpose of this study was to identify general and special education elementary school teachers' knowledge of PLCs. Therefore, a survey was used to give teachers the chance to express their understanding.

In this chapter , the research method, role of the researcher, data collection methods, and data analysis were all examined.

Research Design and Approach

The most efficient approach for this study was quantitative. The descriptive design was used to determine general and special education elementary school teachers' perceptions of PLCs. Data were collected with the PLCA-R survey, a pre-established survey that has six dimensions focusing on the key aspects of PLCs.

An experimental research method was considered. However, this research method is typically used to determine whether one way of doing something is better than the current way (Lodico et al., 2010; Rumrill, Cook, & Wiley, 2011). In this study, an experimental

research method would not be appropriate because this study was not comparing a way to do something. Instead this study identified general and special education teachers' perceptions of PLCs. A correlational design was not used because it focuses on the relationship of two or more variables (Taflinger, 2011). This design was not appropriate for the study because it did not address the relationship between general and special education teachers. Rather this study used a descriptive research design because this design method allowed me to gain insight into a group of individual's perceptions and views of an overarching question or issue.

Setting

The setting of this study was two elementary schools, both in the second year of the implementation process and had received the same information about the importance of effective implementation of PLCs (D. Reyes, personal communication, April 3, 2014). Dissemination of information occurred through professional development. The teachers at these schools participated in monthly grade-level meetings. Also, monthly school-wide staff meetings were implemented to share current research-based strategies, employ professional development opportunities, and share student data, in both schools. Principals claimed that the information gained from these meetings drove the goals of collaboration among the PLCs (Deirdre Reyes, personal communication, May 5, 2014; S. Holguin, personal communication, May 6, 2014).

These schools were selected based on similar demographics, stage of implementation of PLCs, and population. Additionally, these two schools were chosen according to their AYP. One school is currently in program improvement (PI), whereas the other school earned Blue Ribbon School status in the state of California (California Department of Education

[CDE], 2013c). The second school also has a consistent AYP of over 800 (CDE, 2013c). Although the demographics are similar at these schools, the scores at each site are vastly different, including the scores among students with special needs. These two schools have similar special education populations. Both of these sites have multiple moderate and severe special days classes, as well as mild and moderate special day classes and a resource specialist program. Based on the results of the California Standardized Testing and Reporting (STAR) from 2012 which includes all students at a given site, one school had an overall proficiency rating of 47.5% in English language arts (ELA) and 60% proficient in math, whereas the school in PI yielded scores proficient or above of 37% in ELA and 49.3% in math ([CDE], 2013c).

Currently, one of the elementary schools employs 31 regular education teachers, five special education teachers, and one intervention teacher. The second school has 28 regular education teachers and five special education teachers. Approximately 89% of the teachers at both of these school sites have at least 3 years of teaching experience ([CDE], 2013b). All of these teachers were invited to participate in the study with a goal of 10 general education teachers and five special education teachers from each school involved in the study.

The sample of teachers was recruited based on their years of teaching experience and their participation as members of a PLC. Specifically, those invited to participate in the study needed at least 3 years of teaching experience and involved in the PLC process for at least 1 year. Teachers were asked to take part during a staff development meeting, upon receiving permission from the school principal. The superintendent requested distribution of a hardcopy survey (B. Jacobs, personal communication, August 6, 2014). Thus, the investigations and the informed consent were available in the teachers' lounge, and a separate

slotted locked box was located next to the forms for teachers to return their completed surveys. The participants were instructed to keep the copy of the informed consent for their records, as the completion of the questionnaire was considered implied consent to participate.

Sampling Methods and Eligibility

The context of this study included the permission to conduct the study, procedures, sampling of participants, the setting, and the instrumentation used in this study. The participants were given a preestablished questionnaire at each of the two elementary schools selected for this study. This survey addressed six dimensions of a PLC and provided information as to the overall understanding general and special education elementary school teachers have of PLCs.

The district administrator granted permission once supplied with a letter that included a detailed description of the study. The letter also included a description of any potential risks involved, the voluntary nature of the study, and a confidentiality statement ensuring participants that their answers would remain anonymous (Appendix A). Permission was obtained to conduct the study from the two elementary school principals. I also provided the same written notice to the administrators at the participating school sites (Walden IRB No. 01-27-15-0304250; Expiration: January 26, 2016).

The sampling procedures for the participants included a census population, which encouraged all teachers at each location to participate. However, given the restrictions, such as years of experience as a teacher, as well as years of experience as a participant of a PLC required me to eliminate one survey prior to calculating the data. The goal was to have at least 10 general education teachers and five special education teachers from each site participate in this study. I was able to collect 10 special education surveys in total, five from

each location, as well as 24 surveys from the general education teachers. I collected 11 surveys from one site and 14 surveys at the other site but had to eliminate one questionnaire because of lack of PLC experience for one teacher. The elimination ensured a realistic and valid sampling of the overall understanding teachers have of PLCs. Special education teachers were unique to the PLC because at one school they participated in PLCs with the general education teachers and at the other school they only participated with other special education teachers.

Prior to the distribution of the survey, I explained the purpose of the study at a staff meeting. The informed consent consisted of the objective of the study, with the directions and written permission. I distributed it in the staff lounge for the teachers to complete if they decide to participate. This document also explicitly stated that all participation was on a voluntary basis, and there would be no repercussions if a teacher chose not to participate.

Instrumentation and Materials

Participating teachers completed the Professional Learning Communities Assessment – Revised (PLCA-R, Olivier et al., 2010). Permission was obtained to reproduce and distribute the survey to participants (Appendix B). The questionnaire consisted of 52 closed-ended questions using a 4-point Likert scale ranging from 1 (*strongly disagree*) to 4 (*strongly agree*). A numeric system was included to help designate the number of the responses to each question. According to Allen and Seaman (2007), analyzing interval data as parametric statistical tests may be more effective and provide more information that is easier to interpret than nonparametric alternatives.

Concepts Measured by the PLCA-R and Nature of the Scale of the PLCA-R

This PLCA-R contained six dimensions of a PLC and helped determine whether or not a school is fully implementing PLCs. These attributes include: (a) Shared and Supportive Leadership, (b) Shared Values and Vision, (c) Collective Learning and Application, (d) Shared Personal Practice, (e) Supportive Conditions – Relationships, (f) Supportive Conditions – Structures.

The Professional Learning Communities Assessment – Revised is a 52-closed-ended survey that identified six dimensions of PLCs as summarized in Table 1. The original PLCA was developed to "assess everyday classroom and school-level practices about PLC dimensions" (Olivier et al., 2010, p. 30). In 2010, Olivier et al. revised the survey to institute a more cumulative diagnostic tool that served as a way to delve into school-level programs that support PLCs. Huffman and Hipp (2010a) wrote that the PLCA-R incorporates critical attributes from the six dimensions that constitute a PLC, according to Hord's (1997) model. These authors used "qualitative analysis methods to identify holistically the critical attributes of each dimension due to the overlapping characteristics found within the dimensions" (Huffman & Hipp, 2010a p. 24). The descriptive research design method allowed me to gain a more comprehensive understanding of how PLCs affect teacher and student learning.

Table 1

Professional Learning Communities Assessment - Revised

Dimensions of Framework	Items
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

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 (*p. 24). Lanham, MD: Rowman & Littlefield.

Participants selected the statement that best summarized their opinion of each question. Each account was designated a numerical response: 1 (*strongly disagree*), 2 (*disagree*), 3 (*agree*), and 4 (*strongly agree*). The rating associated with the PLCA-R scale was used to calculate individual questions and mean dimension scores, as well as a mean overall questionnaire score. Additionally, the participants completed additional basic demographic questions, including years of teaching experience, years as a member of a PLC, and whether they taught general or special education. These questions did not alter the reliability or validity of the survey because the additional questions only take into account the demographics of the participant.

Data Collection

The PLCA-R survey was the data collection method for this study. The PLCA-R is similar to the original PLCA except a comments section was added at the "conclusion of each of the dimension sections." This revision provided a means to offer data within each

dimension that can enrich the understanding of each question and guide future action" (Olivier & Hipp, 2010, p. 35). As a quantitative study, the comments were taken into consideration and were identified in the discussion of this study. This survey measured the respondents' perceptions of PLCs.

Processes to Complete the PLCA-R

The processes to complete the PLCA-R began with permission from the principal at each school site to disseminate the survey. The questionnaire consisted of 52 closed answer questions that took approximately 10-15 minutes to complete. At a staff meeting, I explained the procedures, and I also incorporated time for a question and answer session. At the completion of the question and answer session, I left the surveys in the staff lounge for the teachers to obtain as they wish. Once the participants retrieved the questionnaires from the staff lounge at their school, they had approximately 2 weeks to complete the assessment. When they had completed the survey they were to put the finished document in the locked box in the teachers' lounge at their school site.

Response Calculation, Meaning, and Raw Data

Scoring on the PLCA-R consisted of a Likert-type scale. These scores were computed by changing the participants' answers to a numerical score. Numerical scores allowed me to find the mean and determined if general, and special education elementary school teachers had an overall understanding of PLCs as outlined by the six dimensions of the PLCA-R. With the data obtained, a mean score was computed for each of the research dimensions. Also, the Analysis of Variance (ANOVA) statistical test was used to complete an inferential analysis to test each hypothesis.

Reliability and Validity of the PLCA-R

The PLCA-R has undergone extensive reliability to ensure internal consistency, as well as validity measures.

> PLCA-Rs reliability and validity has been analyzed and has confirmed internal consistency resulting in the following Cronbach Alpha reliability coefficients for factored subscales (n=1209): Shared and Supportive Leadership (.94); Shared Values and Vision (.92); Collective Learning and Application (.91); Shared Personal Practice (.87); Supportive Conditions – Relationships (.82); Supportive Conditions – Structures (.88), and a one-factor solution (.97). (Oliver & Hipp, 2010, p. 30)

The PLCA-R has been validated by other researchers through the use of the survey that has led to contributions in various studies related to PLCs (Bolivar-Botia, 2014; Lippy & Zamora, 2012). Specifically, this instrument was used to determine teachers' understanding of what a PLC accomplishes. The instrument also disclosed the dynamics of a PLC, and whether the promotion of a shared vision existed at the site (Jackl & Baenen, 2010; Olivier & Hipp, 2010).

Data Analysis

I used descriptive statistics to analyze and interpret the results of each of the 52 questions in the questionnaire. I also analyzed the results to determine the overall understanding general and special education elementary school teachers have the six dimensions of the PLCs as illustrated in the PLCA-R. Also, an ANOVA was used to compare the difference between general and special education teachers in regards to each of the six dimensions.

The first step of the data analysis process for a quantitative study began with the preparation of the data. Preparation of the data consisted of scoring the data. When scoring data, I assigned a value or numeric score to each response within each category in the survey. The PLCA-R survey used a numeric score with each response. A descriptive statistic was used to address measures of mean and standard deviation (Gall, Gall, & Borg, 1999).

I chose the Statistical Package for the Social Sciences (SPSS) program to calculate the ANOVA to compare elementary school general and special education teachers' perceptions of PLCs for each cluster of scores. Inputting the data into SPSS was accomplished by transferring the responses from the survey to the program for analysis (Creswell, 2012).

Research Questions and Hypotheses

The focus of the questions in this study was to provide clarity of the overall understanding of PLCs among general and special education elementary school teachers. The PLCA-R was used which identified the perceptions of teachers on six dimensions of PLCs and related attributes..

Overall Research Question

What are general and special education elementary teachers' perceptions of PLCs as evidenced by the PLCA-R.

$H_0{}^{1:}$ There is no statistically significant difference in the perceptions of general and special education elementary school teachers among the six dimensions of PLCs.

$H_A{}^{1:}$ There is a statistically significant difference in the perceptions of general and special education elementary school teachers among the six dimensions of PLCs.

The specific research questions for this study are as follows:

Research Question 1

What are general and special education elementary school teachers' perceptions of Shared and Supportive Leadership of PLCs?

$H_0^{2:}$ There is no statistically significant difference in the perceptions of general and special education elementary school teachers among the six dimensions of PLCs.

$H_A^{2:}$ There is a statistically significant difference in the perceptions of general and special education elementary school teachers among the six dimensions of PLCs.

Research Question 2

What are general and special education elementary school teachers' perceptions of Shared Values and Visions of PLCs?

$H_0^{3:}$ There is no statistically significant difference in the perceptions of general and special education elementary school teachers among the six dimensions of PLCs.

$H_A^{3:}$ There is a statistically significant difference in the perceptions of general and special education elementary school teachers among the six dimensions of PLCs.

Research Question 3

What are general and special education elementary school teachers' perceptions of Collective Learning and Application of PLCs?

$H_0^{4:}$ There is no statistically significant difference in the perceptions of general and special education elementary school teachers among the six dimensions of PLCs.

$H_A^{4:}$ There is a statistically significant difference in the perceptions of general and special education elementary school teachers among the six dimensions of PLCs.

Research Question 4

What are general and special education elementary school teachers' perceptions of a Shared Personal Practice of PLCs?

$H_0^{5:}$ There is no statistically significant difference in the perceptions of general and special education elementary school teachers among the six dimensions of PLCs.

$H_A^{5:}$ There is a statistically significant difference in the perceptions of general and special education elementary school teachers among the six dimensions of PLCs.

Research Question 5

What are general and special education elementary school teachers' perceptions of the Relationship Supportive Conditions of PLCs?

$H_0^{6:}$ There is no statistically significant difference in the perceptions of general and special education elementary school teachers among the six dimensions of PLCs.

$H_A^{6:}$ There is a statistically significant difference in the perceptions of general and special education elementary school teachers among the six dimensions of PLCs.

Research Question 6

What are general and special education elementary school teachers' perceptions of the Structures of Supportive Conditions of PLCs?

$H_0^{7:}$ There is no statistically significant difference in the perceptions of general and special education elementary school teachers among the six dimensions of PLCs.

$H_A^{7:}$ There is a statistically significant difference in the perceptions of general and special education elementary school teachers among the six dimensions of PLCs.

Statistical Analysis

The statistical analysis of this study incorporated descriptive statistics to analyze the participants' response to each dimension within the survey. I used descriptive statistics to examine the questionnaires and determine the "strengths and weaknesses of the PLC dimensions" (Southwest Educational Development Laboratory, 2014). Specifically, the ANOVA was used to determine whether the difference in means for the general education teachers and the special education teachers is statistically significant for each of the seven research questions. I computed the mean for the overall dimension, which included all of the questions within the section to determine whether a difference existed between these two groups. The level of significance (or alpha level) was set at 0.05, which indicates a very low probability value. A low probability means that there is no statistically significant difference in the perceptions of general and special education elementary school teachers among the six dimensions of PLCs.

According to the SEDL (2014) there are four steps necessary to interpret the results of the PLCA-R:

1. Examine the individual attributes (item statements); determine the highest and lowest scores. Receiving scores of 3.0 or higher show general agreement with the quality.
2. Focus on the dimension sections to determine those dimensions that have a majority of high- or low-scoring attributes.

3. Focus on the overall results at the dimension level to determine if there is a pattern of high or low scores.
4. Refer to the calculated standard deviation (SD) to account for outliers (variance within the group). A smaller SD indicates greater agreement; while a larger SD shows more variation among respondents (less agreement). There may be an outlier or two, but a significant overall level of support for the dimension remains. (p. 3)

Specifically, a mean score with a standard deviation was calculated for each of the six dimensions of the surveys to determine whether there was a general agreement with each dimension. Also, an ANOVA was used for each of the six dimensions to compute the overall dimension score to determine whether there was a significant difference between general and special education teachers. These scores provided a better understanding of the patterns that are apparent among the dimensions and attributes of the survey, as well as determining any outliers that existed and their impact on the standard deviation.

Ethical Protection

Ethics in quantitative research ensures protection from harm by the participants and ensures confidentiality of all participants. One way to achieve this protection is to provide all participants with informed consent. According to Olsen and Anderson (2007), informed consent provides participants with the knowledge of what measures and treatments will be used prior to the start of the study. Furthermore, Lodico et al. (2010), as well as Taflinger (2011), wrote that informed consent outlines the procedures and risks associated with participating in the study. These authors also indicated that informed consent must include a clause that states that participation in the study is voluntary, and any participant can

withdraw from the study at any time without repercussions. The informed consent for this study provided each participant with a detailed explanation of the study, a statement that participation was voluntary, and there would be no retaliation for not agreeing to participate.

Also, the survey did not include any information that would identify the participant. According to Rumrill et al. (2011) one way to ensure anonymity is not to use any locating information, such as name, address, or school site. However, respondents mentioned whether they taught special education or general education. Respondents also reported years of teaching experience, and years as a member of a PLC, which is additional demographic information, but did not infringe on their anonymity. Additionally, this descriptive survey study took place in the participants' school allowing them to be in their natural setting. It was my responsibility to protect all participants from harm.

Role of the Researcher

My past and current professional positions and the relationships developed because of these professional roles come under review in this chapter . Specifically, I share a history in the district, which contributed to the knowledge that there is an issue of teachers' understanding of PLCs. Because of the history I have with the district relationships have been forged. Mostly, the roles these relationships played in data collection are discussed in this chapter. I included a definite plan of how the participants and I maintained appropriate relationships and did not jeopardize the validity and reliability of this study. Additionally, I discussed personal experiences or biases related to the topic and the control of these issues.

Context of the Role of the Researcher

I have worked for the same district for 11 years. During this time, I have played a multitude of roles. These roles included a mild/moderate special day class teacher, an English Language Arts (ELA) coach, and a consultant. Also, for the past 2 years, I have served as the Program Administrator of Special Education.

The lack of practical implementation of PLCs became apparent after 2 years of little to no growth in AYP scores. Thus, I began to speak to site administrators and teachers to determine if they understood the significance of PLCs and how to implement PLCs. Teachers and administrators admitted that although they knew that PLCs could have a direct impact on student achievement, they felt their time was better served by planning.

Therefore, I focused this study on determining whether teachers truly have an understanding of PLCs, as well as their overall perceptions of this practice. Once establishment occurred through the study, a plan was developed to rectify any misconceptions and target the particular needs to implement PLCs effectively.

Experiences

Having knowledge of the district's established procedures of PLCs spurred the interest to study this practice. Understanding the procedures and steps the district has taken to implement PLCs provided me some insight into the process. This knowledge contributed to prior opinions I had of PLCs, so I was careful not to focus on a research question that would cause bias in my study. Therefore, I concentrated on the perceptions and overall understanding teachers have of PLCs. Therefore, I felt that if I understood teachers' perceptions of PLCs, I could provide that information to administrators and ensure that the professional development is targeting any misconceptions teachers have of PLCs.

Professional Relationships

The teachers who were invited to participate in the study work in the same district that I have worked in for the past 11 years. During that time, I have established friendly relationships with a few of the teachers who were asked to participate in the study. Most of the participants in this study were considered acquaintances or colleagues, but I did not oversee or evaluate any of these teachers. Friendly or not, it did not change the fact that I treated all participants equally.

I was interacting with some people whom I knew well and I remained professional at all times. I clearly explained the procedures and answered any question. Also, I thoroughly explained that there are no right or wrong answers and that an accurate and honest answer to the questions would provide the most valid results. I also was not in the room while the participants were completing the survey.

Summary

The information in this chapter revealed the reason that a quantitative descriptive survey research design method was most efficient and appropriate. A quantitative study was utilized because the PLCA-R, a Likert-type survey was distributed as the primary data collection method for this study. This pre-established survey was chosen based on the effectiveness of the questions to determine general and special education elementary school teachers' perceptions of PLCs. Once the data were collected and inputted into the SPSS system, the data were analyzed using ANOVA. Primarily, I reviewed the data analysis procedures and the methods used to ensure validity and trustworthiness. The research method was a fundamental component of the study that ensured that the data provided was accurate and useful to address the research question.

Additionally, the information in this chapter justified a census population as the preferred method sampling, as well as choosing two elementary schools as the setting for this study. Each participant was given a copy of the informed consent document that outlined the ethical guidelines that ensured protections for all respondents. This chapter also included my role as a researcher and how I managed the relationships established with some of the participants.

In Chapter 4 I will analyze and interpret the data. In addition, I will use descriptive statistics to determine general and special education teachers' perceptions of each dimension of the PLCA-R. The analysis will identify the questions that the majority of the participants agreed with and the questions with the greatest level of disagreement.

Chapter 4: Analysis of Data

Introduction

The purpose of this study was to determine general and special education teachers' perceptions of PLCs. Seven research questions addressed the six dimensions of the PLCA-R, the survey used to collect data from the participants. The PLCA-R is separated into 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.

This chapter begins with a comprehensive examination of each of these dimensions and determines whether there was a significant difference between special education and general education in each by using a one-way ANOVA., The inclusive findings of the PLCA-R (a) also produced results for the guiding research question and by combining the scores on the 52-question PLCA-R survey, (b) determined whether there was a difference in perceptions between general education teachers and special education teachers of PLCs. The data were analyzed in correspondence with each of the research questions.

Description of the Sample

All 10 special education teachers at both sites completed the PLCA-R. Additionally, a total of 24 general education teachers from both sites completed the survey. One survey was disqualified because the respondent had been a teacher for less than 3 years, as stipulated on the informed consent form. Thus, 23 of the 24 surveys completed by general education teachers were included in the data.

Although I initially gave the teachers 2 weeks to complete the survey, I had to extend this deadline, because by the 2-week mark I had not collected a sufficient number of

surveys. It took 6 weeks to collect the 34 surveys. Several e-mails were sent out as gentle reminders; my frequent presence in the schools was also a reminder. I exceeded my goal of 30 total surveys with a total of 33 usable surveys.

Survey Description

The Professional Learning Communities Assessment – Revised used a 4-point Likert scale survey to assess six dimensions that are attributes of a PLC (Olivier et al., 2010). The response choices to the items were as follows:

Table 2

Professional Learning Communities Assessment – Revised Scale

Rating Scale	Numeric Rating
Strongly Disagree (SD)	1
Disagree (D)	2
Agree (A)	3
Strongly Agree (SA)	4

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 (*p. 24). Lanham, MD: Rowman & Littlefield.

I used the answers on the survey to construct tables to portray the percentage of general education teachers' perceptions of each question and did the same for special education teachers. I also calculated the overall percentages for general and special education teachers who agreed or strongly agreed with each dimension. The calculation of this percentage provided a comprehensive understanding of the overall positive perceptions each group (i.e.,

general education teachers and special education teachers) had to each question within the dimension. Additionally, I combined strongly disagreed and disagreed to determine the overall disagreement among the teachers for particular questions within each dimension.

Table 3

PLCA-R *Participant Responses: Shared and Supportive Leadership – General Education*

Question	*SD*	%	*D*	%	*A*	%	*SA*	%
1	2	8.70	0	0.00	18	78.20	3	13.00
2	1	4.30	3	13.00	16	69.60	3	13.00
3	2	8.70	2	8.70	17	73.90	2	8.70
4	1	4.30	1	4.30	19	82.60	2	8.70
5	1	4.30	7	30.40	12	52.10	3	13.00
6	2	8.70	6	26.00	14	60.90	1	4.30
7	1	4.30	12	52.10	9	39.10	1	4.30
8	1	4.30	4	17.40	13	56.50	5	21.70
9	2	8.70	2	8.70	15	65.20	4	17.40
10	2	8.70	6	26.10	11	47.80	4	17.40
11	0	0.00	3	13.00%	15	65.20	5	21.70
Total Mean Percentage		**5.91**		**18.15**		**62.83**		**13.02**

Note. SD = strongly disagree; D = disagree; A = agree; SA = strongly agree.

This dimension focused on opportunities for all stakeholders to share a voice in the implementation of PLCs. General education and special education teachers had similar responses. Less than one-quarter of both groups strongly disagreed or disagreed with the 11 questions in this dimension resulting in three-fourths of the participants agreeing or strongly agreeing with the overall dimension of Shared and Supportive Leadership. The two questions that reflected the highest level of disagreement among the participants were Questions five and seven. Question 5 generated responses of 34.70% and 30.00% disagreement among general and special education teachers, respectively. This question focused on whether members of the staff are able to initiate change. Approximately one-third of the combined

participants believed that they did not have opportunities to promote change. Question 7 focused on the principal sharing power and authority when implementing PLCs. General education participants responded with over half disagreeing that the principal shared power and special education teachers responded with 30.00% disagreement

Table 4

PLCA-R *Participant Responses: Shared and Supportive Leadership – Special Education*

Question	*SD*	%	*D*	%	*A*	%	*SA*	%
1	1	10.00	1	10.00	6	60.00	2	20.00
2	1	10.00	2	20.00	6	60.00	1	10.00
3	1	10.00	3	30.00	5	50.00	1	10.00
4	1	10.00	1	10.00	5	50.00	3	30.00
5	0	0.00	3	30.00	6	60.00	1	10.00
6	1	10.00	2	20.00	5	50.00	2	20.00
7	1	10.00	2	20.00	4	40.00	3	30.00
8	1	10.00	1	10.00	5	50.00	3	30.00
9	0	0.00	1	10.00	7	70.00	2	20.00
10	0	0.00	0	0.00	9	90.00	1	10.00
11	0	0.00	1	10.00	7	70.00	2	20.00
Total Mean Percentage		**6.36**		**15.45**		**59.09**		**19.09**

Note. SD = strongly disagree; D = disagree; A = agree; SA = strongly agree.

Table 5

PLCA-R *Participant Responses: Shared Values and Vision – General Education*

Question	*SD*	%	*D*	%	*A*	%	*SA*	%
12	1	4.30	5	21.70	14	60.70	3	13.00
13	1	4.30	3	13.0%	16	69.60	3	13.00
14	1	4.30	3	13.00	16	69.60	3	13.00
15	1	4.30	2	8.70	14	60.70	6	26.10
16	1	4.30	4	17.40	16	69.60	2	8.70
17	1	4.30	6	26.10	12	52.20	4	17.40
18	1	4.30	0	0.00	20	70.00	2	8.70
19	1	4.30	2	8.70	15	65.20	5	21.70
20	1	4.30	5	21.70	14	60.70	3	13.00
Total Mean Percentage		**4.30**		**14.48**		**64.26**		**17.86**

Note. SD = strongly disagree; D = disagree; A = agree; SA = strongly agree.

The dimension of Shared Values and Vision showed over 90% positive perceptions among special education teachers and over 80% positive perceptions among general education teachers. The questions in this dimension focused on the goals of PLCs. General and special education teachers answered question 17 with the highest negative response with over 30% and 20% disagreement, respectively. Some participants believed that their school sites only focused on test scores as a means to improve student achievement. However, the overall results of these data indicated that special and general education teachers had similar positive perceptions of the Shared Values and Vision dimension.

Table 6

PLCA-R *Participant Response: Shared Values and Vision – Special Education*

Question	*SD*	%	*D*	%	*A*	%	*SA*	%
12	1	10.00	0	0.00	6	60.00	3	30.00
13	1	10.00	0	0.00	5	50.00	4	40.00
14	1	10.00	0	0.00	6	60.00	3	30.00
15	1	10.00	0	0.00	5	50.00	4	40.00
16	1	10.00	0	0.00	5	50.00	4	40.00
17	0	0.00	2	20.00	5	50.00	3	30.00
18	0	0.00	0	0.00	7	70.00	3	30.00
19	0	0.00	0	0.00	7	70.00	3	30.00
20	0	0.00	1	10.00	8	80.00	1	10.00
Total Mean Percentage		**5.56**		**3.33**		**60.00**		**31.11**

Note. SD = strongly disagree; D = disagree; A = agree; SA = strongly agree.

Table 7

PLCA-R *Participant Responses: Collective Learning and Application–General Education*

Question	*SD*	%	*D*	%	*A*	%	*SA*	%
21	0	0.00	1	4.30	13	56.50	9	39.10
22	0	0.00	2	8.70	12	52.20	9	39.10
23	0	0.00	2	8.70	14	60.90	7	30.40
24	1	4.30	3	13.00	12	52.20	7	30.40
25	0	0.00	3	13.00	14	60.90	6	26.10
26	0	0.00	1	4.30	15	65.20	7	30.40
27	1	4.30	2	8.70	12	52.20	8	34.80
28	0	0.00	2	8.70	12	52.20	9	39.10
29	0	0.00	5	21.70	13	56.50	5	21.70
30	0	0.00	2	8.70	14	60.90	7	30.40
Total Mean Percentage		**0.86**		**9.98**		**56.97**		**32.15**

Note. SD = strongly disagree; D = disagree; A = agree; SA = strongly agree.

Collective Learning and Application had one of the highest positive responses for each group. In fact, special education teachers responded with 97% agreement within the

Collective Learning and Application dimension and general education teachers had over 89% agreement within this dimension. This dimension focused on relationships among colleagues and team members and also concentrated on collaboration and positive working relationships. These two groups believed that their PLCs embodied the goal of teamwork and collaboration. The highest response of disapproval was among five general education teachers for Question 29. These five participants did not believe that multiple data sources were analyzed to determine the success of instructional strategies. In comparison, only one special education teacher shared this same perception.

Table 8

PLCA-R *Participant Responses: Collective Learning and Application–Special Education*

Question	*SD*	%	*D*	%	*A*	%	*SA*	%
21	0	0.00	0	0.00	5	50.00	5	50.00
22	0	0.00	0	0.00	4	40.00	6	60.00
23	0	0.00	0	0.00	5	50.00	5	50.00
24	0	0.00	0	0.00	7	70.00	3	30.00
25	0	0.00	0	0.00	6	60.00	4	40.00
26	0	0.00	1	10.00	6	60.00	3	30.00
27	0	0.00	1	10.00	7	70.00	2	20.00
28	0	0.00	0	0.00	6	60.00	4	40.00
29	0	0.00	1	10.00	9	90.00	0	0.00
30	0	0.00	0	0.00	9	90.00	1	10.00
Total Mean Percentage		**0.00**		**3.00**		**64.00**		**33.00**

Note. SD = strongly disagree; D = disagree; A = agree; SA = strongly agree.

Table 9

PLCA-R *Participant Responses: Shared Personal Practice – General Education*

Question	*SD*	*%*	*D*	%	*A*	%	*SA*	%
31	1	4.30	7	30.40	11	47.80	4	17.40
32	0	0.00	10	43.50	11	47.80	2	8.70
33	0	0.00	2	8.70	14	60.90	7	30.40
34	0	0.00	2	8.70	16	69.60	5	21.70
35	0	0.00	5	21.70	10	43.50	8	34.80
36	0	0.00	1	4.30	18	78.30	4	17.40
37	1	4.30	7	30.40	13	70.00	2	8.70
Total Mean Percentage		**1.23**		**21.10**		**57.77**		**19.87**

Note. SD = strongly disagree; D = disagree; A = agree; SA = strongly agree.

The dimension of Shared Personal Practice highlighted the importance of learning from each other and being coaches and mentors to other team members. The descriptive statistics revealed that over three-fourths of general and special education teachers agreed that their sites had staff that worked together and shared knowledge. One area of dissatisfaction for approximately 43.50% of general education teachers and 30% of special education teachers was Question 32. The combined 13 participants did not believe that there was appropriate feedback after instructional intervention. The disapproval responses for Question 31 between general and special education teachers were 34.70% and 20%, respectively. Eight general education teachers and two special education teachers did not believe that there were appropriate opportunities for observation of colleagues. Finally, 30% of general education teachers did not believe that teachers shared student work samples as a means to improve instructional quality at a school site, whereas only 10% of special education agreed with this view.

Table 10

PLCA-R *Participant Responses: Shared Personal Practice – Special Education*

Question	*SD*	%	*D*	%	*A*	%	*SA*	%
31	0	0.00	2	20.00	5	50.00	3	30.00
32	0	0.00	3	30.00	3	30.00	4	40.00
33	0	0.00	0	0.00	6	60.00	4	40.00
34	0	0.00	0	0.00	9	90.00	1	10.00
35	0	0.00	1	10.00	7	70.00	2	20.00
36	0	0.00	0	0.00	9	90.00	1	10.00
37	0	0.00	1	10.00	8	80.00	1	10.00
Total Mean Percentage		**0.00**		**10.00**		**67.14**		**21.43**

Note. SD = strongly disagree; D = disagree; A = agree; SA = strongly agree.

Table 11

PLCA-R *Participant Responses: Supportive Conditions – Relationships –General Education*

Question	*SD*	%	*D*	%	*A*	%	*SA*	%
38	0	0.00	1	4.30	14	60.90	8	34.80
39	1	4.30	5	21.70	10	43.50	7	30.40
40	1	4.30	8	34.80	10	43.50	4	17.40
41	1	4.30	9	39.10	10	43.50	3	13.00
42	0	0.00	6	26.10	12	52.20	5	21.70
Total Mean Percentage		**2.58**		**25.20**		**48.72**		**23.46**

Note. SD = strongly disagree; D = disagree; A = agree; SA = strongly agree.

Positive relationships are a necessity for effective PLCs. The questions in this dimension focus on the culture of the school. Specifically, these questions focused on relationships and trust. The trend of the data continued with special education teachers having a high percentage of positive responses. Over 77% of general education teachers also had positive perceptions of Supportive Conditions – Relationships. However, nine general education teachers disagreed that success and achievement were celebrated and three special

education teachers had the same opinion. Additionally, 43.40% of general education teachers did not agree that there was a unified effort to promote a change of culture at their site, whereas only one special education teacher agreed with this perception.

Table 12

PLCA-R *Participant Responses: Supportive Conditions – Relationships –Special Education*

Question	*SD*	%	*D*	%	*A*	%	*SA*	%
38	0	0.00	0	0.00	3	30.00	7	70.00
39	0	0.00	1	10.00	3	30.00	6	60.00
40	1	10.00	2	20.00	3	30.00	4	40.00
41	1	10.00	0	0.00	7	70.00	2	20.00
42	0	0.00	0	10.00	7	70.00	3	30.00
Total Mean Percentage		**4.00**		**6.00**		**46.00**		**44.00**

Note. SD = strongly disagree; D = disagree; A = agree; SA = strongly agree.

Table 13

PLCA-R *Participant Responses: Supportive Conditions – Structures – General Education*

Question	*SD*	%	*D*	%	*A*	%	*SA*	%
43	0	0.00	0	0.00	13	56.50	10	43.50
44	0	0.00	2	8.70	16	69.60	5	21.70
45	0	0.00	3	13.00	15	65.20	5	21.70
46	0	0.00	1	4.30	17	74.00	5	21.70
47	0	0.00	5	21.70	15	65.20	3	13.00
48	0	0.00	0	0.00	13	56.50	10	43.50
49	0	0.00	0	0.00	12	52.20	11	47.80
50	2	8.70	1	4.30	16	69.60	4	17.40
51	2	8.70	4	17.40	14	60.90	3	13.00
52	0	0.00	5	21.70	14	60.90	4	17.40
Total Mean Percentage		**1.74**		**9.11**		**63.06**		**26.07**

Note. SD = strongly disagree; D = disagree; A = agree; SA = strongly agree.

The supportive conditions – structures dimension is comprised of 10 questions that focused on the attitudes and perceptions teachers have towards fiscal support. These questions addressed whether teachers are provided the necessary resources to implement PLCs effectively. General and special education teachers' responses were similar in this dimension. Approximately, 89% of general education teachers and 91% of special education teachers agreed that they were provided appropriate materials and conditions to effectively implement PLCs. The questions that yielded the highest percentage of disagreement were questions 47 and 52. Five general education teachers and only one special education teacher disagreed that resources were provided to staff to enhance continuous learning. Similarly, five general education teachers and one special education teacher disagreed with question 52. These combined six participants disagreed that data were readily available to the staff.

Table 14

PLCA-R *Participant Responses: Supportive Conditions – Structures – Special Education*

Question	*SD*	%	*D*	%	*A*	%	*SA*	%
43	0	0.00	1	10.00	6	60.00	3	30.00
44	0	0.00	1	10.00	5	50.00	4	40.00
45	1	10.00	0	0.00	8	80.00	1	10.00
46	1	10.00	0	0.00	6	60.00	3	30.00
47	0	0.00	1	10.00	5	60.00	4	40.00
48	0	10.00	0	0.00	4	40.00	6	60.00
49	0	10.00	0	0.00	6	60.00	4	40.00
50	1	10.00	0	0.00	5	50.00	4	40.00
51	1	0.00	1	10.00	5	50.00	3	30.00
52	0	0.00	1	10.00	8	80.00	1	10.00
Total Mean Percentage		**4.00**		**5.00**		**58.00**		**33.00**

Note. SD = strongly disagree; D = disagree; A = agree; SA = strongly agree.

Table 15

Agreed and Strongly Agreed Percentages

	General Education Teachers	Special Education Teachers
Shared and Supportive Leadership	75.85%	78.18%
Shared Values and Vision	82.12%	91.11%
Collective Learning and Application	89.12%	97.00%
Shared Personal Practice	77.64%	88.57%
Supportive Conditions - Relationships	72.18%	90.00%
Supportive Conditions – Structures	89.13%	91.00%

The tables above depict a clear picture of perceptions for both general and special education teachers in regards to PLCs. Descriptive statistics were used to analyze the participants' responses to each question in the survey. In all six dimensions, it was apparent that both special education and general education teachers agreed or strongly agreed with each of the six dimensions as it pertains to their school and understanding of PLCs. When comparing the ANOVA in each dimension there was not a significant difference between these two groups. For example, Supportive Conditions – Structures only had a difference of 1.87%. The largest difference in total positive responses was within the dimension of Supportive Conditions – Relationships with a difference in the percentage of 17.82%. Although this was the largest discrepancy in scores, the data for all six dimensions had total positive responses, which encompassed all agreed and strongly agreed responses was above 70%. A more detailed examination using a one-way ANOVA will be described to support the above percentages in the next chapter .

Analysis of the Data

I chose to use a one-way ANOVA because it provided me the ability to make decisions regarding the results by comparing a population value with an observed value of

the sample to acknowledge whether a difference exists between the values (Creswell, 2012). The ANOVA determined if there was a significant difference between the perceptions of special education teachers and general education teachers in regards to PLCs (Triola, 2012). The results of the ANOVA data would help administrators determine if there were specific issues pertaining to the implementation of PLCs or issues pertaining to general or special education teachers implementation of PLCs. Triola (2012) asserted that the confidence level, which is synonymous with the confidence interval provides "the success rate of the procedures used to construct the confidence interval," (p. 346). Specifically, I calculated the mean and standard deviation for dimension using a 95% confidence interval.

After closely analyzing the data, it appeared that one special education teacher and one general education rated some of the dimensions heavily with *strongly disagree* or *disagree*. The results of this rating proved evident when reviewing the outliers. The one outlier for each grouping consistently showed the same participants, 8 and 23. Each participant was designated a number, which allowed me to determine any consistencies or inconsistencies among the same participants. I included the outliers in the data because I combined the categories *strongly disagree* and *disagree* as well as *agree* and *strongly agree*. By taking out either of the strongly disagrees it would have altered the data. Additionally, because I have such a small sample size I included all responses in the data except for those who did not meet the initial criterion of years of teaching experience and years of PLC experience. I did review these scores carefully because their responses were consistent and did not always align with the other participants. I determined that these two participants' scores should be analyzed with caution.

Table 16

Group Statistics: Shared and Supportive Leadership

Grouping	*N*	Mean	Std. Deviation	Std. Error Mean
Spec. Ed	10	32.00	7.102	2.246
General Ed.	23	31.130	6.137	1.280

Note. The mean is a composite score resulting from 11 items.

Table 17

ANOVA: Shared and Supportive Leadership

	Sum of Squares	*df*	Mean Square	*F*	Sig.
Between Groups	5.270	1	5.270	0.127	.0724
Within Groups	1282.609	31	41.374		
Total	1282.879	32			

Table 18

Group Statistics: Shared Values and Vision

Grouping	*N*	Mean	Std. Deviation	Std. Error Mean
Spec. Ed	10	28.500	5.297	1.675
General Ed.	23	26.261	5.250	1.095

Note. The mean is a composite score resulting from 9 items.

Table 19

ANOVA: Shared Values and Vision

	Sum of Squares	*df*	Mean Square	*F*	Sig.
Between Groups	34.944	1	34.944	1.261	0.270
Within Groups	858.935	31	27.708		
Total	893.879	32			

Table 20

Group Statistics: Collective Learning and Application

Grouping	*N*	Mean	Std. Deviation	Std. Error Mean
Spec. Ed	10	32.500	3.2040	1.025
General Ed.	23	32.130	5.048	1.053

Note. The mean is a composite score resulting from 10 items.

Table 21

ANOVA: Collective Learning and Application

	Sum of Squares	*df*	Mean Square	*F*	Sig.
Between Groups	0.952	1	0.952	0.045	0.833
Within Groups	655.109	31	21.133		
Total	656.061	32			

Table 22

Group Statistics: Shared Personal Practice

Grouping	*N*	Mean	Std. Deviation	Std. Error Mean
Spec. Ed	10	21.900	3.071	0.971
General Ed.	23	20.739	3.278	0.684

Note. The mean is a composite score resulting from 7 items.

Table 23

ANOVA: Shared Personal Practice

	Sum of Squares	*df*	Mean Square	*F*	Sig.
Between Groups	9.392	1	9.392	0.906	0.349
Within Groups	321.335	31	10.366		
Total	330.727	32			

Table 24

Group Statistics: Supportive Conditions – Relationships

Grouping	*N*	Mean	Std. Deviation	Std. Error Mean
Spec. Ed	10	16.500	2.953	0.934
General Ed.	23	14.652	3.256	3.256

Note. The mean is a composite score resulting from 5 items.

Table 25

ANOVA: Supportive Conditions – Relationships

	Sum of Squares	*df*	Mean Square	*F*	Sig.
Between Groups	23.798	1	23.798	2.367	0.134
Within Groups	311.717	31	10.055		
Total	335.515	32			

Table 26

Group Statistics: Supportive Conditions – Structures

Grouping	*N*	Mean	Std. Deviation	Std. Error Mean
Spec. Ed	10	29.100	4.458	1.410
General Ed.	23	28.261	3.333	0.695

Note. The mean is a composite score resulting from 10 items.

Table 27

ANOVA: Supportive Conditions – Structures

	Sum of Squares	*df*	Mean Square	*F*	Sig.
Between Groups	4.908	1	4.908	0.359	0.553
Within Groups	423.335	31	13.656		
Total	428.242	32			

Research Questions

When I analyzed the data for special education and general education teachers' perceptions of each of the dimensions within the PLCA-R, the results showed that both groups tended toward agreement for the six dimensions. The one-way ANOVA in all seven

research questions showed that the difference in scores between the special education teacher group and the general education teacher group were not statistically significant. The p-value in each of the six dimensions was greater than the significance level of 0.05, so the null hypotheses were not rejected. These scores indicated that each of the dimensions did not show a significant difference in scores between special and general education teachers' perceptions of PLCs.

Table 28

Group Statistics: Professional Learning Communities Assessment – Revised

Grouping	*N*	Mean	Std. Deviation	Std. Error Mean
Spec. Ed	10	160.500	18.775	5.937
General Ed.	23	153.174	21.867	4.560

Note. The mean is a composite score of 51 items.

Table 29

ANOVA: Professional Learning Communities Assessment – Revised

	Sum of Squares	*df*	Mean Square	*F*	Sig.
Between Groups	374.074	1	374.074	0.847	0.365
Within Groups	13691.804	31	441.671		
Total	14065.879	32			

Overall Research Question

The guiding research question encompassed all six dimensions of the PLCA-R to determine the overall perceptions of PLCs among general and special education teachers. The overall perceptions of the PLCA-R were positive. The mean scores in Table 27 combine the responses to all 51 questions in the PLCA-R to achieve 160.5 and 153.174. The range is

between 51 and 204 and the mean scores are closer to 204, which indicates overall agreement among both groups. As shown in Table 28, the p-value for the entire PLCA-R was greater than the significance level of 0.05, so the null hypothesis for the guiding research question was not rejected. The general education teachers responded with over 72% in all six dimensions of the PLCA-R. The dimension with the lowest percentage of agreement was Supportive Conditions – Structures with 72.18% positive perceptions. On the other hand, the dimensions with the highest percentages of positive responses were Collective Learning and Application and Supportive Conditions – structures with 89.12% and 89.13% agreement, respectively. Special education teachers also had favorable perceptions of PLCs. The dimension with the highest percentage of disagreement among special education teachers was shared and supportive leadership with 78.18%. In contrast, Collective Learning and Application dimension had a positive response of 97% among special education teachers.

Although a majority of the participants shared a favorable view, there was a discrepancy between general and special education teachers for the Supportive Conditions-Relationships dimension. Both groups responded positively to the questions in this dimension, but there was a 17.82% difference between general education teachers and special education teachers' perceptions. The dimension with the most similar responses between general and special education teachers was Supportive Conditions – Structures with a difference of only 1.87%. These two groups had a high rate of positive responses. General and special education teachers also shared similar responses in the shared and supportive leadership dimension with a difference of 2.33%. Although the overall responses were positive, the Shared and Supportive Leadership dimension had the highest response of disagreement. Approximately three general education teachers and three special education

teachers disagreed with question 7. Other than Shared and Supportive Leadership, special education teachers overwhelmingly agreed with the dimensions of the entire survey. General education teachers also responded favorably to the questions of the survey, but they had lower percentages for both shared personal practice and Supportive Conditions – Relationships.

The mean score for the entire PLCA-R was obtained by taking the mean of total percentages for agree and strongly agree responses. General education teachers had an overall mean percentage of 80.51%. This encompasses all six dimensions of the survey and indicates that general education teachers have positive perceptions of PLCs. Special education teachers also had overall positive perceptions of PLCs with an overall mean percentage of 89.31%. The results of these data indicated high levels of positive perceptions among all participants.

Similar to the individual six dimensions, the level of significance between general education teachers and special education teachers for the entire PLCA-R survey indicated that the difference between the two groups failed to be significant. Although researchers seek to find a level of significance, sometimes finding that there is no significance between two or more groups provides just as much information. The data in this study showed that special education teachers and general education teachers had similar perceptions of PLCs. As shown in Figure 1 the bar graph depicts the overall mean of the PLCA-R among special and general education teachers. The closeness between the two bars indicates that their views were similar, and they both agreed with the dimensions within the PCLA-R.

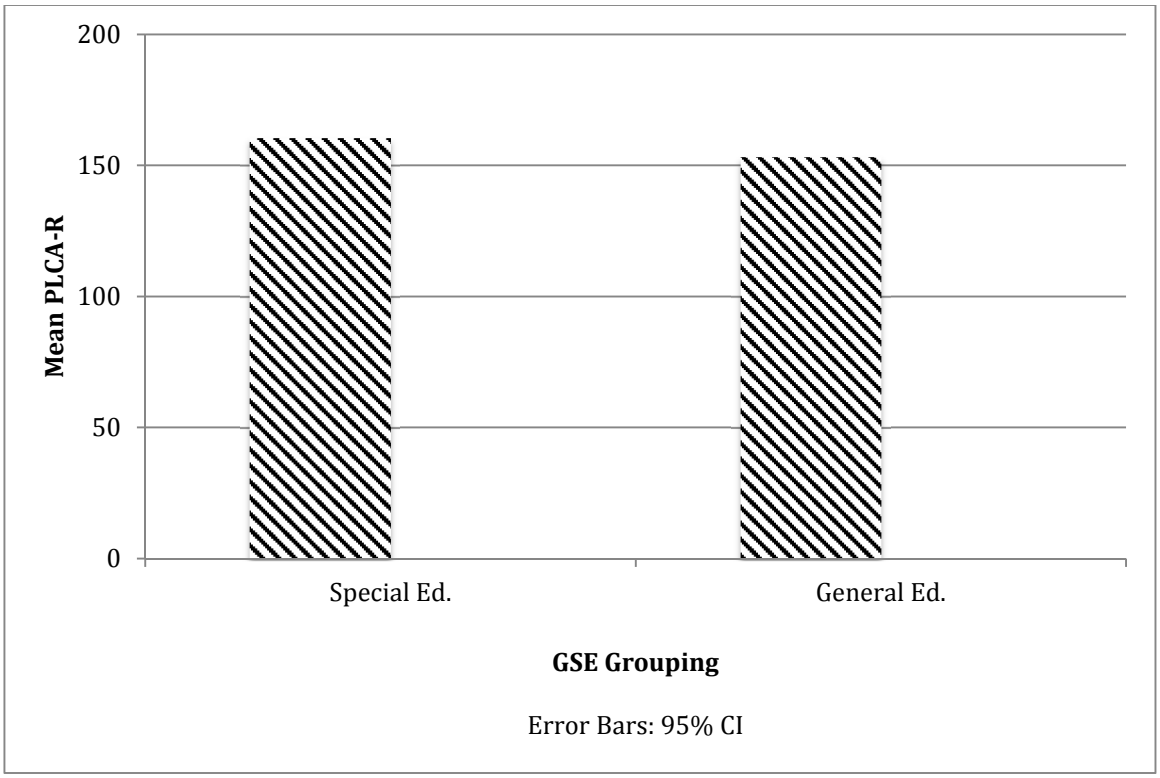

Figure 1. The mean scores of the PLCA-R of special and general education teachers.

The PLCA-R consisted of 52 questions with one question removed. Supportive Conditions – Structures dimension initially included Question 45 in the PLCA-R. However, there was a discrepancy in the data, and Cronbach's alpha indicated a 0.446 in reliability. This score did not meet the level of reliability of 0.750. Therefore, removing question 45 from the dimension because it conflicted with question 46 enabled the Cronbach's alpha to increase from 0.446 to 0.819, which meets the reliability test (Tabachnick & Fidell, 2001). I found that Questions 45, 46, and 47 were similar in nature after analyzing the answers to each question in this dimension. The questions focused on the availability of fiscal resources. I conducted Item-Total Statistics in SPSS to determine which question should be removed to increase Cronbach's alpha. After comparing the Cronbach's alpha for each of the 10

questions within the dimension, it clearly showed that question 45 was the only one that would increase Cronbach's Alpha if removed.

The one-way ANOVA indicated that the difference in scores between the special education teacher group and the general education teacher group were not statistically significant. The p-value of 0.365 is greater than the significance level of 0.05, so the null hypothesis was not rejected. Specifically, the overall PLCA-R did not show a significant difference in scores between special and general education teachers. The percentages shown at the beginning of this chapter supported this finding. The participants in both groups perceived PLCs similarly.

Tests of Normality

Several other tests were conducted because the analysis of the data failed to reject the null hypotheses for each research question. This was done to ensure that the data were adequate to ensure that the data were adequate. Specifically, the skewness was calculated for each dimension. The skewness for each dimension was below three, which achieved normality (Triola, 2012). The skewness for each dimension is as follows. Shared and Supportive Leadership = -1.064, 2) Shared Values and Vision = -1.124, 3) Collective Learning and Application = -0.056, 4) Shared Personal Practice = 0.309, 5) Supportive Conditions – Relationships = -0.232, and 6) Supportive Conditions – Structures = 0.248. Another Test of Normality conducted was the Shapiro-Wilk test. This test was used because it is conservative and does not require a large sample size (Mohd-Razali & Bee-Wah, 2011). The Kolmogorov-Smirnov was considered, but it requires a significantly large sample. The Shapiro-Wilk (SW) test requires a benchmark of 0.01. This benchmark means that if the level of significance is below 0.01 it violates normality (Mohd-Razali & Bee-Wah, 2011). When

analyzing special and general education teachers in each dimension the level of significance for each group was above 0.01 signifying that it meets the criteria for normality (Appendix C). Additionally, the equality of variance under the ANOVA is also met. Table 26 illustrates the Threshold of Tolerance and the Variance Inflation Factor (VIF). All dimensions should be accepted because each of the six dimensions has a tolerance level above .10 and a VIF below five.

Table 30

Collinearity Statistics

	Tolerance	VIF
SSL	0.287	3.49
SVV Scale	0.222	4.496
CLA Scale	0.503	1.987
SCR Scale	0.271	3.687
SPP Scale	0.712	1.404
SCS	0.448	2.234

Correlation Matrix

The Inter-Item Correlation Matrix was calculated to determine whether each unique variance within the dimension was able to by itself explain what it needed to explain (Triola, 2012). The correlation provides a measure of the association between two variables measured in a sample and indicates the strength of the relationship between two variables, which ranges from -1 to +1 (Triola, 2012). In the Inter-Item Correlation Matrix, I analyzed each question and whether the question was above or below 0.7. The dimensions with a value above 0.7 indicated that they were also being explained by another dimension.

Table 31

Inter-Item Correlation Matrix

	SSL Scale	*SVV* Scale	*CLA* Scale	*SCR* Scale	*SPP* Scale	*SCS* Scale
SSL Scale	1.000	0.830	0.443	0.723	0.242	0.606
SVV Scale	0.830	1.000	0.566	0.780	0.285	0.653
CLA Scale	0.443	0.566	1.000	0.651	0.426	0.402
SCR Scale	0.723	0.780	0.651	1.000	0.388	0.671
SPP Scale	0.242	0.285	0.426	0.388	1.000	0.440
SCS Scale	0.606	0.653	0.402	0.671	0.440	1.000

Note. *SSL* = Shared and Supportive Leadership; *SVV* = Shared Values and Vision; *CLA* = Collective Learning and Application; *SCR* = Supportive Conditions – Relationships; *SPP* = Shared Personal Practice; *SCS* = Supportive Conditions – Structures.

Summary

The results in this chapter indicated that each dimension of the PLCs Assessment – Revised showed that there was no significant difference in perceptions among general and special education teachers in regards to PLCs. In each of the six dimensions general and special education teachers provided responses that revealed that they were in agreement and had positive perceptions of PLCs. In fact, in only one dimension the mean percentage of special education teachers was lower than 88%. This dimension was Shared and Supportive Leadership and the mean score for special education teachers was 78.18%. General education teachers also responded favorably to the questions within each dimension. In three dimensions, the results indicated that general education teachers responded with a mean percentage over 80%. These dimensions include Shared Values and Vision, Collective Learning and Application, and Supportive Conditions – Structures. The results for the remaining three dimensions also indicated positive perceptions, but these dimensions had

mean percentages of 75.85% (Shared and Supportive Leadership), 77.69% (Shared Personal Practice), and 72.18% (Supportive Conditions – Relationships). The results showed positive perceptions for all dimensions for general and special education teachers.

There was not a significant difference in perceptions of PLCs between special and general education teachers. Therefore, the null hypotheses were not rejected for any of the research questions. The one-way ANOVA was used to compare the mean scores of special education teachers and general education teachers for each dimension in the PLCA-R and the overall PLCA-R (Triola, 2012). The one-way ANOVA comparison supported the mean score data, which indicated that general and special education teachers had similar positive perceptions of PLCs. Additionally, this chapter presented the data from all 33 participants and explained why removing one question from the 52-question survey was needed to ensure reliability of the entire study.

In the next chapter , I will review the limitations of this study clearly indicating that the sample size was small. However, it was shown using the Shapiro-Wilk Test for Normality, and the skewness test, each of the dimensions met the requirements of normality, which validate this study.

Chapter 5: Summary, Implications, and Recommendations

Introduction

PLCs are becoming more popular in the field of education, and many schools and districts are implementing this practice. I sought to determine if there was a difference between general and special education teachers' perceptions of PLCs. This chapter revisits the basis of the study and the data that were collected from the Professional Learning Communities Assessment – Revised survey. This chapter contains a synopsis of the research, including an interpretation of the findings and how to apply the data with caution. It also includes the limitations of the study, which may influence the recommendations for additional research and the implications for social change. Finally, in the last part of this chapter I will offer my reflections as a researcher and what I have learned from this process.

Summary of the Research

The PLCA-R consisted of six dimensions and 52 questions . Approximately two-thirds of the 33 participants were general education teachers and one-third were special education teachers. Initially, the percentage for each of the responses was calculated for each dimension. Tables were provided to illustrate the percentages for each question of the survey and how those percentages differed between the two groups. Once the percentages were calculated, an overall percentage of total positive responses was calculated for both groups. The overall percentage of total positive responses from the PLCA-R made it possible to determine whether there were similar perceptions between each group for each dimension. Once the percentages were calculated, I used SPSS to determine the mean score and standard deviation for each dimension. I also used an ANOVA to determine the p-value and level of significance. Although rejection of the null hypothesis could not occur, each dimension and

the overall PLCA-R yielded vital information, which indicated that there was not a significant difference in perceptions of PLCs between general and special education teachers. Learning that both groups shared positive perceptions of PLCs indicated that the PLC practices implemented by the administrators of these two schools provided teachers with the support, resources, and vision required by PLCs. However, when analyzing the descriptive data for each question within the dimension, I was able to determine the specific areas of need for general and special education teachers.

Interpretation of Findings

The overarching research question and six sub-questions guided the study. The overarching question was: What are general and special education elementary teachers' perceptions of PLCs as evidenced by the Professional Learning Communities Assessment – Revised. The six subquestions were: (a) What are general and special education elementary school teachers' perceptions of Shared and Supportive Leadership of PLCs? (b) What are general and special education elementary school teachers' perceptions of Shared Values and Vision of PLCs? (c) What are general and special education elementary school teachers' perceptions of Collective Learning and Application of PLCs? (d) What are general and special education elementary school teachers' perceptions of a Shared Personal Practice of PLCs? (e) What are general and special education elementary school teachers' perceptions of Supportive Conditions - Relationships of PLCs? And (f) What are general and special education elementary school teachers' perceptions of Shared and Supportive Leadership of PLCs?

The results showed that for each of the six dimensions general and special education teachers had positive perceptions of PLCs. After analyzing the descriptive data I found that

there was agreement with both groups. The participants felt that PLCs were being implemented effectively. However, the results also determined that there were some discrepancies in the responses among general and special education teachers. For example, the majority of general education teachers did not feel that they shared the power and authority with the principal to make decisions regarding PLCs. Special education teachers also disagreed, but the percentage was much less. Also, the responses for Question 41 indicated different perceptions between general and special education teachers. Almost half of the general education teachers disagreed that school staff and stakeholders promote change into the school's culture, whereas only one special education disagreed with this question. The responses for Question 32 showed a high percent of general and special education teachers disagreement that staff members provide adequate feedback to peers in regards to instructional practices. Both of these groups answered this question with a high rate of disagreement. Overall, general and special education had similar positive perceptions of PLCs with the highest level of agreement for Questions 21, 26, and 38. Question 21 yielded over 95% agreement for general education teachers and 100% agreement for special education teachers. This question related to staff members working together to seek knowledge that could be utilized in their own work. Question 26 focused on professional development. This question had similar responses with over 90% agreement among general education teachers and 90% agreement with special education teachers. Finally, Question 38 focused on the importance of relationships and trust. Both groups had over 95% agreement for this question.

Further analysis using ANOVA indicated that rejection of the null hypotheses for each of the seven research questions could not occur because of the similarity in the mean

scores. Specifically, the findings from the study showed that both special and general education teachers have similar perceptions of PLCs as both groups agree with the six dimensions of the survey. As discussed in chapter 4 the mean scores between special and general education teachers were similar and both groups had mean scores fall within the agreed to strongly agreed range in all of the six dimensions within the PLCA-R.

The results also can be understood in terms of the framework of cognitive constructivism because the participants used their own knowledge and experiences of PLCs to answer the questions in the PLCA-R. The answers to the questions of the PLCA-R provided the data used to compare the results and determine whether or not there was a significant difference between special and general education teachers' perceptions of PLCs. I learned that general and special education teachers have favorable perceptions of all aspects of PLCs, which indicated that collaboration and shared visions are part of the PLC implementation process at these two sites. Teachers work together and learn from each other, which is the foundational component of PLCs. Teachers who agreed and participated in the PLC practice indicated that they were incorporating the ideas of cognitive constructivism. Individuals who understand cognitive constructivism and how it applies to PLCs are able to initiate practical applications at each of the sites. For example, focusing on each dimension of the PLCA-R and what each group designated as their perceptions helps an administrator move forward with introducing professional development that may enhance the PLC practice. Administrators may begin a discussion with teachers on how to maintain and promote the implementations of PLCs. Furthermore, the information provided from this study may alert the district to utilize the teachers from these two sites to help other schools in

the district that are in the process of implementing PLCs by having discussion groups or professional development trainings to assist in the implementation of PLCs.

The results from this study were analogous to the results from other similar studies. Teachers' overall perception of PLCs was favorable. In 2005 when Jackl (2010) began collecting data for his study on teachers' perceptions of PLCs the initial data showed that teachers had a negative view of PLCs. Jackl (2010) asserted that this information was due to the fact that PLCs were at the beginning stages in most districts. Teachers were unfamiliar with the procedures and benefits of PLCs. However, after a 5 year study Jackl (2010) saw drastic changes in the data from the first year to the last year. In 2010, the majority of teachers recognized the contributions of PLCs and changed their perceptions to a much more favorable view. This was a mixed methods study that incorporated descriptive statistics to analyze the quantitative data. Jackl (2010) used a self-developed survey and interpreted the results from that survey using descriptive statistics.

Vescio (2008) collected data during the early stages of PLC implementation for a group of teachers and noted negative perceptions from participants in the qualitative study. However, as implementation of PLCs flourished and more training was provided, the initial perceptions of these same teachers changed to positive. The data from these two studies focused on the attitudes and perceptions of general and special education teachers in elementary, middle, and high schools. I wanted to determine if there was a difference between general and special education elementary school teachers. Thus, one of the reasons I chose to focus on PLCs and the difference in perceptions between special education and general education is because the research is limited. There is a plethora of qualitative research surrounding PLCs and general education teachers, but after exhaustive research I

found very little on the perceptions of special education teachers. Research focusing on PLCs is primarily qualitative in nature. There are several mixed methods studies that use descriptive statistics for quantitative analysis. However, the quantitative studies that I researched all use descriptive statistics. The research is extremely limited for studies using an ANOVA to determine differences of perceptions for PLCs between two groups. The results of the aforementioned studies have shown that general education teachers most often have positive perceptions of PLCs when the study has occurred over a period of 3 or more years (Vescio et al., 2008). This is because over a substantial amount of time, teachers implementing PLCs are more likely to witness a positive increase in student achievement (Jackl & Baenen, 2010). Jackl (2010) conducted a study that clearly showed that when the study commenced general education teachers had a negative or unfavorable view of PLCs. However, after months of professional development trainings and years of a collaborative implementation, the participants had a much more favorable perception of PLCs. This is partly due to the fact that they had an increase in student achievement in all grade levels and subjects across the district (Jackl, 2010). DuFour (2007) believed that special education teachers have been isolated from the implementation of PLCs and are more wary of the practice. Therefore, the overarching question in this study focused on general and special education teachers' overall perceptions of PLCs.

Limitations

There are several limitations associated with this study that require cautious interpretation of the results. I provided the PLCA–R survey to the teachers at two elementary schools. Of the 25 general education teachers and 5 special education teachers at each site, a total of 33 surveys were returned. There were 23 surveys returned by general education

teachers and all 10 special education teachers participated in the study. Each mean score for the six dimensions of the PLCA-R fell in the agreement range for both groups of participants. I conducted tests to determine if either group achieved normality because the results did not yield discrepancy in any dimension between the two groups. Shapiro-Wilk test and the skewness test proved the achievement of normality. However, I took it a step further and conducted a post hoc power test. This test showed that the Post hoc Power for this study is 52% (Appendix D). The G-Power estimates the power level percentage to detect Type 2 errors. This percentage should be above 80%, so a percentage of 52 is significantly lower. This lower percentage may be due to the sample size, which is a limitation in the study (Triola, 2012). With a larger sample size, the percentage would most likely increase.

Another limitation of this study was the responses from the participants. It was an assumption that the participants would reveal their true beliefs and understanding of PLCs. True revelations may not have been the case, and, therefore, the results should be interpreted with caution. Two of the participants at the same school site scored the PLCA-R with relatively low scores; whereas the rest of the participants at the same site scored the survey with mostly agree and strongly agree responses. The reasons for this abnormality are numerous. Some possible explanations may be that these two teachers did not attend the professional development trainings centered on PLCs; they may not agree with the values and vision of their site administrator, or these particular participants do not agree with the fundamentals of PLCs. Nevertheless, these two outlier scores need to be analyzed with caution.

Implications for Social Change

The findings from this study showed that special and general education teachers have a favorable perception of PLCs and believe that they have adequately implemented PLCs in each school site. Learning that the majority of teachers have a positive understanding of PLCs may have a direct relationship for positive social change. Specifically, the first step in social change is to believe in the process. According to the data, teachers understand the practice of PLCs and believe that PLCs have a direct impact on students' academic success.

The research examined the overall understanding special and general education teachers have of PLCs and the implementation of this practice. Using the PLCA-R to guide their understanding or misunderstandings provides administrators an authentic survey to gain insight into their staff's perceptions. Using this survey helps administrators acknowledge strengths and weaknesses of their implementation of PLCs and will enable them to provide workshops or staff development seminars to correct any misconceptions and strengthen the practice of PLCs at their site. The results of this study provided administrators with data related to teachers' perceptions of PLCs and may help these administrators make decisions that will allow them to implement PLCs effectively.

Providing teachers with continuous professional development in the area of PLCs will benefit the overall implementation of PLCs and move school sites from the initiating phase or implementation phase of PLCs to the sustaining phase of PLCs. Additionally, continuous professional learning will secure the understanding of better teaching practices that will benefit the academic progress of all students. Understanding that special education teachers also have a positive understanding of PLCs indicates that students with special needs are growing academically and hopefully learning the skills needed to graduate from high school

or pursue other honorable avenues. Improving special education teachers' ability to assist special needs students' academics has a direct effect on communities. The importance of providing a high standard of education for all students may exhibit a higher percentage of students entering the workforce and becoming prosperous citizens in their communities.

Recommendations for Action

The analysis of the data produced results that the null hypotheses were not rejected due to the similarity in mean scores between special and general education teachers. This limited the recommendations for action because the majority of participants already had positive perceptions of PLCs. The total positive percentages for special education teachers and general education teachers for each of the six dimensions were above 72% in all areas. This means that almost three-fourths of the participants in this study had positive perceptions of PLCs. In fact, Shared Values and Vision and Collective Learning and Application exceeded 80% in total positive responses for both groups of participants. These responses mean that the majority of participants had a favorable view of PLCs and believed that they were implementing PLCs effectively at their sites. This data are important for administrators at the site and district level to acknowledge. If these two sites are implementing effectively and have a majority of teachers at these two sites with positive perceptions of PLCs, it would be advantageous for these administrators to utilize these teachers in additional trainings or discussions.

One recommended action for the two school sites with teachers who participated in this study is for the administrators to pursue the next stages of the PLC implementation process. Huffman and Hipp (2010b) developed diagnostic and planning tools that are used by school sites to create plans and develop next steps in the implementation of PLCs. A

recommendation would be for each site to use the Professional Learning Communities – Innovation Configuration Map (PLC-ICM) as a rubric. Use of this tool determines if the PLC is in the initiating phase, implementing phase or the sustaining phase. Based on where the site falls into the category for each of the dimensions allows the administrators and staff to devise a plan for next steps. For example, if the sites agree that they are in the implementing phase of Shared and Supportive Leadership, the PLC-ICM shares what the team needs to do to achieve the sustaining phase of PLCs. This roadmap is necessary to ensure that the practice of PLCs does not remain stagnant, and administrators and staff are continually seeking new ways and options to implement PLCs.

Additionally, based on the data the district may be interested in applying this survey to other schools in the district. It is the goal of the superintendent to implement PLCs at each school site within the district. Having two sites that have teachers with positive perceptions of PLCs may encourage the superintendent to utilize the teachers at these two sites to provide discussions or trainings to other teachers in the district. It is always best practice for colleagues to promote a new practice rather than have a top down approach where their administrators put demands upon teachers. Having teachers buy into PLCs may ensure the success of this practice.

Recommendations for Future Research

The research study failed to reject the six null hypotheses and based on the post hoc analysis this may be due to the small sample size. Therefore, a recommendation for future research would be to increase the sampling across the entire district. This research study focused on two school sites and gathered the maximum amount of surveys from the special education teachers. A recommendation for further research would be to sample

approximately 50 more special education teachers across preschool to the Adult Transition Center (ATC). The district in which I sampled has programs ranging from preschool to students 22 years of age who attend the ATC. By sampling a range of teachers from all district programs would provide a more comprehensive scope of the data.

Another recommendation is to compare teachers' perceptions of PLCs at school sites rather than between general and special education teachers. The research showed that there was similarity of perceptions of PLCs between special and general education teachers at both school sites. However, some of the results demonstrate lower ratings in specific dimensions, such as Shared and Supportive Leadership and Shared Values and Vision from one of the sites compared to the other site. These lower ratings may indicate the difference in leadership skills among administrators at these sites. Further research may be warranted to determine whether there is a difference in perceptions among the school sites rather than solely between special and general education teachers.

Reflection

The data from this study did not produce results from the mean scores or the ANOVA that indicated a discrepancy between the perceptions of special education teachers and general education teachers in regards to PLCs. However, the results did provide insight into the thoughts and understandings of these two groups of participants. Simply knowing that these two groups of educators have positive perceptions of PLCs and believe that they are implementing PLCs to the fullest extent is informative.

I came into this study without bias. However, throughout my research in speaking with teachers and administrators in the district, I thought that there might be a discrepancy in results between special and general education teachers. The research for general education

teachers was plentiful in regards to PLCs, but sparse for special education teachers. Much of my understanding of PLCs and special education teachers came directly from conversations I had with these teachers. The results of this study indicated that general and special education teachers have positive perceptions of PLCs and these results indicated that these two schools are on the right path to implementing PLCs.

Overall this study challenged me mentally, physically, and emotionally. Although the writing was often tedious, the satisfaction of completing each portion of the study was electrifying. I began this coursework thinking that a qualitative study was the route I wanted to take, so it was a surprise when I chose a quantitative study. Statistics is not my forte, but this study proved that I was capable of conquering my fear of statistics. I began this journey several years younger and not fully understanding the magnitude of a doctoral study, but as I finish the last chapter in this study I feel empowered to begin the next chapter of my life.

Conclusion

In this chapter I provided a detailed analysis of the research, including the limitations of the study. This quantitative study determined that general and special education teachers have favorable perceptions of PLCs and the implementation process of PLCs. Although rejection of the null hypotheses did not occur, the results collected from this study were useful because they provided information to the administrators of the site that their teachers have a favorable view of PLCs and that the teachers believe that the implementation of PLCs at their site has been beneficial. However, it was noted that there are several limitations that must be considered when interpreting these results. Additionally, I reviewed the implications of social change and the possibility of future action that should be considered to continue the positive perceptions of PLCs for both groups of participants. Another part of

this chapter included a recommendation for future research. Given some of the limitations of this study, future research may be necessary to ensure that the entire district is on the right path for implementing PLCs. A reflection was also written to articulate fully my final thoughts on this process and understand the implications of this study. At first, I was hoping for a rejection of the null hypothesis to support my theory that general education teachers had a positive perception of PLCs, whereas special education teachers had negative perceptions of PLCs because they did not have a fundamental understanding of PLCs, but in turn the opposite was proven. Overall, teachers in both sample groups had positive perceptions of PLCs, and these participants believed that they understood the PLC implementation process and were currently implementing this practice at their sites.

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Appendix A: Letter of Cooperation

[redacted]

[redacted]

June 16, 2014

Dear Kendra Day,

Based on my review of your research proposal, I give permission for you to conduct the study entitled General and Special Education Teachers' Understanding of Professional Learning Communities within the [redacted] Unified School District. As part of this study, I authorize you to collect data from participants at two specific schools within [redacted] Unified School District. Each participant will need to sign a consent form authorizing willingness to partake in the study. I understand that each teacher asked to participate in the study will have at least three years of teaching experience and at least one year of experience with the implementation of a professional learning community. Individuals' participation will be voluntary and at their own discretion.

We understand that our organization's responsibilities include: the authorization to provide access to two elementary schools within the district. Also, at each school site the principal will oversee the dissemination process and ensure that the data collection is conducted ethically. We reserve the right to withdraw from the study at any time if our circumstances change.

I confirm that I am authorized to approve research in this setting.

I understand that the data collected will remain entirely confidential and may not be provided to anyone outside of the research team without permission from the Walden University IRB.

Sincerely,

[redacted]

Walden University policy on electronic signatures: An electronic signature is just as valid as a written signature as long as both parties have agreed to conduct the transaction electronically. Electronic signatures are regulated by the Uniform Electronic Transactions Act. Electronic signatures are only valid when the signer is either (a) the sender of the email, or (b) copied on the email containing the signed document. Legally an "electronic signature" can be the person's

typed name, their email address, or any other identifying marker. Walden University staff verify any electronic signatures that do not originate from a password-protected source (i.e., an email address officially on file with Walden).

Appendix B: Letter of Approval

Department of Educational Foundations
and Leadership
P.O. Box 43091
Lafayette, LA 70504-3091

April 17, 2014

Kendra Day
4601 Ironwood Ave.
Seal Beach, CA 90740

Dear Ms. Day:

This correspondence is to grant permission to utilize the *Professional Learning Community Assessment-Revised* (PLCA-R) as your instrument for data collection for your doctoral study through Walden University. I believe your research *examining teachers' fundamental understanding of the professional learning community implementation process* will contribute to the PLC literature and provide valuable information related to both perceptions of general and special education teachers. I am pleased that you are interested in using the PLCA-R measure in your research.

This permission letter allows use of the PLCA-R through paper/pencil administration, as well as permission for the PLCA-R online version. For administration of the PLCA-R online version, services must be secured through our online host, SEDL in Austin, TX. Additional information for online administration can be found at www.sedl.org. While this letter provides permission to use the measure in your study, authorship of the measure will remain as Olivier, Hipp, and Huffman (exact citation on the following page). This permission does not allow renaming the measure or claiming authorship.

Upon completion of your study, I would be interested in learning about your entire study and would welcome the opportunity to receive an electronic version of your completed dissertation research.

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.
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Joan D. and Alexander S. Haig/BORSF Professor
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Appendix C: Shapiro-Wilk Test of Normality

Tests of Normality

		Shapiro-Wilk		
Dimension	GSE Grouping	Statistic	df	Sig.
Shared and Supportive Leadership	Special Ed.	.937	10	.524
	General Ed.	.883	23	.012
Shared Values and Vision	Special Ed.	.886	10	.154
	General Ed.	.864	23	.005
Collective Learning and Application	Special Ed.	.856	10	.069
	General Ed.	.958	23	.431
Shared Personal Practice	Special Ed.	.941	10	.561
	General Ed.	.962	23	.505
Supportive Conditions - Relationships	Special Ed.	.889	10	.165
	General Ed.	.923	23	.077
Supportive Conditions - Structures	Special Ed.	.947	10	.628
	General Ed.	.949	23	.275

Appendix D: Post Hoc Test

F tests - ANOVA: Fixed effects, omnibus, one-way

Analysis:	Post hoc: Compute achieved power			
Input:	Effect size f	=	.36	
	α err prob	=	0.05	
	Total sample size	=	33	
	Number of groups	=	2	
Output:	Noncentrality parameter λ	=	4.2768000	
	Critical F	=	4.1596151	
	Numerator df	=	1	
	Denominator df	=	31	
	Power (1-β err prob)	=	0.5175127	