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Walden University

College of Education

This is to certify that the doctoral study by

Lisa Gaines High

has been found to be complete and satisfactory in all respects, and that any and all revisions required by the review committee have been made.

Review Committee Dr. Kathleen Lynch, Committee Chairperson, Education Faculty Dr. Felicia Blacher-Wilson, Committee Member, Education Faculty Dr. Christina Dawson, University Reviewer, Education Faculty

> Chief Academic Officer and Provost Sue Subocz, Ph.D.

> > Walden University 2019

Abstract

Elementary Principals' Behaviors and Collaborative Professional Learning Communities

by

Lisa Gaines High

MA, University of Virginia 1999

BS, James Madison University, 1992

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Education

Walden University

December 2019

Abstract

Principals need to possess leadership skills and behaviors that help set expectations for collaborative work. The problem in this case study was that little was known about the collaboration-building behaviors principals use that promote effective collaboration between members of the school community. The purpose of this qualitative study was to explore and describe the behaviors principals exhibit when building collaboration through the implementation of Professional Learning Communities (PLCs). The conceptual framework was based on 3 elements: leadership styles and approaches, collaboration, and the implementation of effective PLCs. The primary research question explored how principal behaviors contribute to collaborative professional learning communities. Purposeful sampling was used to recruit 6 elementary principals from a Mid-Atlantic State. Data were collected through semistructured interviews and document review of PLC structures. Data were coded using a Microsoft Word Doc Data Extract tool and analyzed for themes using an inductive process. Emergent themes for building collaboration were identified as *leadership traits, vision, time, collaborative structures,* culture, and the need for professional learning. Results suggest that shared leadership, vision, collective learning, and supportive conditions influence the effective development of PLCs. As a result, professional learning opportunities are recommended for school leaders on strategies that successfully develop supportive and collaborative structures in schools. Implications for social change are that PLCs may strengthen professional practice in classrooms, schools, districts, and communities.

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Dedication

This dissertation is dedicated to those whom I love most: God; my husband, Eric; my mother, Mildred; and my mother-in-law, Virginia. Thank you for your encouragement, unwavering love, and support. To my sister, Teresa, and her family -Leon, Sean, and Deana, you have always been an inspiration and have helped me keep the faith. It is my family who has helped me to become the woman of faith that I am today. I love you all!

This dissertation is also dedicated to fellow leaders who have created teaching and learning environments that positively impact the lives of children. Thank you for your dedication and commitment to the students and families in the communities that you serve.

Acknowledgments

The fortitude to complete this dissertation was inspired by several individuals who supported me throughout the process.

I want to acknowledge my dissertation committee. Dr. Kathleen Lynch, my committee chair, who continually inspired me by sharing her expertise and providing exceptional guidance and support as I forged forward to gain insight into this body of work. A special thank you goes to Dr. Felicia Blacher-Wilson who served me well through her feedback, insight, and encouragement during my research journey. Your email signatures always encouraged me. Dr. Dawson, thank you for being a constant presence throughout the program. I appreciate your diligence.

To the elementary principals who participated in the study, I am so thankful that I had the opportunity to spend time with you and learn about your school and leadership practices. Your dedication to your teachers and students was an inspiration throughout my research.

Lastly, as I reflect on my journey to get to this point, I am overwhelmed by the grace that God showered upon me when times were tough and I did not know if I could persevere. I realize now that God always nourished me with faith, strength, and endurance to keep moving forward. I give honor and praise to God for this accomplishment.

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Chapter 1: Introduction to the Study

Organizations are made up of people and their interactions. "Within an organization, no one truly acts independently; one's actions and behaviors affect—and are affected by—the actions and behaviors of other members of the organization"; therefore, the members must work interdependently to create a collaborative learning culture (Marzano, Heflebower, Hoegh, Warrick, & Grift, 2016, p. 4). With the continual changes in educational reform including but not limited to the appeal for schools to improve student academic outcomes, educators in school divisions have pressed for the implementation of professional learning communities (PLCs) as an approach for reorganizing and constructing school improvement (Voelkel & Chrispeels, 2017). A PLC is a team of educators who gather systematically, exchange competencies, and work interdependently to approach the goal of enhancing teaching techniques and the academic effectiveness of students (DuFour, DuFour, Eaker, & Many, 2010; Jones & Thessin, 2017). Smaller collaborative learning teams within a PLC are essential to the success of the PLC as an organization (Marzano et al., 2016).

PLCs benefit principals by enhancing their ability to support teacher collaboration and indirectly increase student achievement (Marzano et al., 2016). When adult learning is an integrated component of a PLC, learning increases for students because of the jobembedded process (Knowles, Holton III, & Swanson, 2015). To meet the challenges of education reform, principals need to possess a variety of leadership skills and behaviors that create improvement in schools ("The School Principal," 2013) The purpose of this qualitative case study was to explore and describe the behaviors of principals that contribute to the implementation of PLCs. The behaviors exhibited by principals to support teacher collaboration when implementing PLCs were not clearly documented in the literature. Therefore, it was necessary to explore and describe the behaviors of principals that were integral in supporting teacher collaboration through PLCs. The conceptual framework was drawn from theory on leadership styles and approaches, teacher collaboration, and the implementation of effective PLCs. Principals should be aware of how their behaviors influence collaboration in their schools.

Chapter 1 provides details on the background literature, problem statement, and the purpose of the study. I used an overarching research question and three related questions to frame the study. The nature of the study, definitions of terms, assumptions, scope and delimitations, and limitations are addressed. Chapter 1 concludes with the significance of the study.

Background

Effective principals promote a productive school culture by creating conditions that are collaborative and supportive among the entire staff (Cherkowski, 2016). Researchers have demonstrated that principals, through their role as instructional leaders, have an indirect effect on student achievement through the support that they provide to the teaching staff (Benoliel & Schechter, 2017; Goddard, Goddard, Kim, & Miller, 2015). My literature review revealed a multidimensional conceptual framework that included the following elements: (a) leadership styles and approaches, (b) teacher collaboration, and (c) the implementation of effective PLCs. To move forward and transform the culture, school leaders should understand the why of their work so that they can embrace the challenges of transitioning from a culture of compliance to a culture of committed collaboration (Williams & Hierck, 2015).

Problem Statement

To increase the productivity of school teams, its members work collaboratively and reflect on instructional practices (Williams & Hierck, 2015). Collaborative relationships among educators and principals are necessary for effective school improvement ("The School Principal," 2013). The problem addressed in this study was that there was insufficient research on the specific behaviors principals exhibited to promote effective collaboration between members of the school community as they related to professional learning communities (PLCs). According to Buttram and Farley-Ripple (2016), the actions of school leaders that show support for collaboration among teachers were not documented in the literature. Several researchers outlined the principal's collaboration among teachers and the leadership approach of the principal as separate entities, but a scarce amount of research existed that addressed these lines of inquiry together or captured the distribution of leadership within a school (Buttram & Farley-Ripple, 2016; DeMatthews, 2014). It was necessary to explore and describe the behaviors of school administrators to determine which leadership behaviors supported collaborative teacher teamwork through the PLC approach.

Cherkowski (2016) suggested that a critical aspect of understanding the theory of learning communities is to gain knowledge of the principal's role in the PLC structure to include conditions and the environment for the cultivation of the learning organization. Cherkowski reviewed studies that indicated that leaders function as a primary broker in the execution of a learning community culture. Gaining insight into how school-based leadership engages adult learners in meaningful learning opportunities warranted further exploration.

As a result of the time that teachers work independently and in isolation, principals encounter opposition and difficulties in implementing PLCs (Anrig, 2013). Schools are the foundation of learning communities; therefore, principals supply teachers with the basic proficiencies needed to provide students with instructional programming and frameworks essential to overcome obstacles to academic success (Willis & Templeton, 2017). The role of the school leader was identified as an individual who creates a secure, cooperative learning environment for exchanging knowledge and building interpersonal relationships (Benoliel & Schechter, 2017). Because so little was known about the exact behaviors of principals that led to creating a secure, collaborative learning environment for exchanging knowledge and building interdependent relationships, an exploration and description of those behaviors was needed to increase principals' awareness of effective strategies.

Purpose of the Study

The purpose of this qualitative multiple case study was to explore and describe the behaviors principals exhibited when building teacher collaboration through the implementation of PLCs. The participants included elementary school principals from a school division in a Mid-Atlantic state in the United States. Data were collected through semistructured interviews and a review of PLC documents. Describing the behaviors principals exhibited in the pursuit of building collaborative cultures added to the existing knowledge of how principals develop collaborative working conditions that promote a schoolwide focus on learning for students and teachers.

Research Questions

The central research question was the following: How do principal behaviors contribute to collaborative professional learning communities? The following research questions were used to guide the study:

- 1. What leadership approaches influence the implementation of effective collaborative learning teams in positive ways?
- 2. What strategies or processes do principals use when building collaboration for the implementation of effective PLCs?
- 3. What are the challenges principals face when building collaborative learning teams?

Conceptual Framework

The conceptual framework of this study focused on three elements: (a) leadership styles and approaches, (b) teacher collaboration, and (c) the implementation of effective PLCs. Several leadership styles and approaches of principals were researched and studied through the literature review. A focus was on transformational, transformative, and transactional leadership styles to explore the behaviors associated with teacher collaboration. According to Goddard et al. (2015), teacher collaboration for instructional improvement correlated to the principal's instructional leadership approach. Principals as instructional leaders were accountable for establishing structures to encourage teacher collaboration in their schools (Goddard et al. 2015). PLCs were recognized by leaders in education as a systematic and effective structure to improve teacher collaboration and the successful implementation of new reforms (Benoliel & Schechter, 2017). Hord's (2007) five dimensions of effective PLCs including shared and supportive leadership, shared values and vision, collective learning and application, shared personal practice, and supportive conditions existed as a conceptual lens for this study. Some prerequisites for PLC development and sustainability were physical conditions (having a convenient location for meetings), time allocation for teacher collaboration, available resources for data review and analysis, and developed processes that promote cooperation among staff members (Benoliel & Schechter 2017; Gray & Summers, 2015).

Nature of the Study

The nature of this study was a qualitative multiple case study. According to Burkholder, Cox, and Crawford (2016), qualitative methodology is used to investigate a complex social phenomenon in its natural setting through data collection methods such as observations, descriptions, and thematic analysis of respondents' behaviors to provide insight to and understanding of the phenomenon of study. The current multiple case study addressed the behaviors of principals when building collaboration through PLCs. A welldeveloped case study includes various data sources that enhance the credibility of the study. I conducted semistructured interviews with elementary principals to address the research questions. The principals served as information-rich cases. The organization of data was important because of the variety of data collection sources allowed in a case study. According to Saldana (2016), coding is not a precise science but is instead an interpretive process that can be used to analyze qualitative data. In qualitative research, the data analysis process moves from real data and codes toward abstract categories and themes (Ravitch & Carl, 2016). Theories do not directly surface from the data; the researcher constructs and conceptualizes themes through the analysis of data (Ravitch & Carl, 2016).

Definitions

The following terms were defined to assist in clarifying concepts:

Collaboration: A method to leverage teachers to work interdependently to examine the impact of their instructional practices and to influence their colleagues to focus on continuous improvement of student outcomes (Carpenter, 2015; Hallam, Smith, Hite, Hite, & Wilcox, 2015).

Collaborative learning teams: Teacher teams who work together to transform teaching and learning (Marzano et al., 2016). Collaborative teams focus on collective teaching and learning through shared expertise and removing barriers to learning (Wang, 2015).

Dimensions of a professional learning community: The five characteristics that schools exhibit when characterizing themselves as a PLC are shared and supportive leadership, shared values and vision, collective learning and application, shared personal practice, and supportive conditions (Hord & Summers as cited in Wilson, 2016). The work of PLCs is data informed, standards driven, and focused on instruction (Wilson, 2016).

Professional learning communities: A learning organization of inquiry-based social interactions in which teachers meet systematically, share best instructional

practices, and work interdependently toward the target of enhancing their teaching practice (DeMatthews, 2014; Jones & Thessin, 2017). PLCs are formal structures that became prevalent as a reform effort to increase staff collaboration and impact school improvement (Carpenter, 2018; DuFour et al., 2010).

Shared leadership: A group of individuals collaborating to achieve the goals of the group or the organization (Mokoena, 2017). Shared leadership is a central component of effective PLCs. Shared leadership provides the venue for continuous improvement and shared values and vision (Carpenter, 2015).

Transactional leadership: A leadership approach in which the leader influences followers through compliance. Rewards are used to motivate followers to perform, and punishment is used when followers fail to perform (Lamm, Lamm, Rodgriguez, & Owens, 2016). Transactional leaders typically maintain the status quo (Allen, Grigsby, & Peters, 2015).

Transformational leadership: An ongoing process that consists of four components: (a) individualized consideration, (b) intellectual stimulation, (c) inspirational motivation, and (d) idealized influence (Burns, 1978). Transformational leadership is a person's ability to engage staff to build trust and provide motivation toward organizational outcomes (Allen et al., 2015).

Transformative leadership: A leadership approach that deals with issues of social justice such as social betterment, equity, and forms of oppression or bias (Shields, 2010; Wilson, 2016).

Assumptions

Several assumptions were necessary in this study. The first assumption was that participants would be familiar with the basic tenets of a PLC and would have experience leading the PLC process. I assumed that participants had been engaged in and knowledgeable about the tenets of PLCs so that they could provide responses that enriched the study. I also assumed that principals believed that they had a critical role in fostering teacher collaboration and that the leadership approach of the principal influences teaching and learning practices. Next, I assumed that when responding to research questions, principals would be honest and as clear as possible when they shared strategies they used to build effective collaboration between members of the school community through the implementation of PLCs in their schools. From honest communication, I assumed that open and authentic dialogue would occur. These assumptions were necessary to gain information-rich cases for the study.

Scope and Delimitations

Little was known about the specific behaviors elementary principals exhibited that build effective collaboration between members of the school community as they relate to PLCs. The framework focused on three dynamics: (a) leadership styles and approaches, (b) teacher collaboration, and (c) the implementation of effective PLCs. The population for this study included principals from elementary schools in a school division from a Mid-Atlantic state in the United States. The study was limited to principals from one school division who were engaged in a PLC or some variation of a collaborative learning team process. There were 25 elementary principals in the school division. Selecting a smaller sample of the elementary principals to participate in the study increased the likelihood of securing principals whose schools had well-established collaborative structures in place to ensure information-rich cases. Six principals were selected to interview because this sample size was feasible for me to manage as the individual conducting the study. Elementary principals were recruited to participate in interviews that were designed to address the behaviors that support collaboration among teachers and build structures that successfully implement PLCs. Adult learning theory was a framework that was considered for this study, but I decided not to use this theoretical framework and chose the conceptual framework that included (a) leadership styles and approaches, (b) teacher collaboration, and (c) the implementation of effective PLCs. The study was conducted to elicit data to describe the behaviors principals use to contribute to the effective implementation of PLCs or collaborative learning teams.

Limitations

Limitations in methodology existed. I used semistructured interviews of elementary principals as the primary method of data collection, which limited the scope of the study because results were based on the perspective of the small group of principals interviewed. Conducting the study in a single school division was another limitation; therefore, findings could not be generalized beyond this case. However, the study's findings were transferable to other school divisions. A bias that could have influenced the study was my relationship to the topic. I was responsible for the development of PLCs in the school division in which I worked. I believe that collaborative, job-embedded professional learning is essential for school improvement, and I used DuFour's PLC model in training sessions. To mitigate this bias, I studied principals from a neighboring school division where I had no authority over professional learning. To further mitigate this bias, I used member checking to allow participants to reflect on their contributions to the study. Due to the limitations of the study, the review of documents extended to division-level practices that were in place in K-12 regarding collaboration and PLCs.

Significance

One of the notable aspects of the existing research was the absence of clarity regarding the approaches used to implement PLCs in a manner that was productive for school teams (Marzano et al., 2016). This study contributed to the literature regarding the behaviors principals exhibit when building teacher collaboration through PLCs. The results of this study may inform school-based and central office administrators regarding the behaviors principals employ when implementing practices and structures for effective collaboration through PLCs.

A productive learning culture influences positive social change. School leaders help to create the climate of the school by outlining expectations for the collective work and ensuring individuals are accountable for their actions. Principals influence instructional change by transforming the school culture to emphasize teaching and learning (Buttram & Farley-Ripple, 2016). This study addressed principals' behaviors that promoted social change by strengthening professional practice in classrooms, schools, districts, and communities.

Summary

Researchers who studied innovative schools suggested that a lack of time, effective leadership, and long-range planning created barriers to the implementation and sustainability of PLCs (DeMatthews, 2014). DeMatthews (2014) pointed out that because of the growing expectations of school leadership and instructional practices, principals look beyond traditional practices to build teacher capacity. PLCs have been recognized by leaders in education as an effective framework to improve collaboration among instructional teams and increase academic outcomes for students (Benoliel & Schechter, 2017). The purpose of this multiple case study was to explore and describe the behaviors principals exhibited that contributed to building teacher collaboration through the implementation of PLCs. In Chapter 2, I review the literature that addressed the multidimensional conceptual framework, which encompassed the following: (a) leadership styles and approaches, (b) teacher collaboration, and (c) the implementation of effective PLCs. Leadership styles and the dimensions of PLCs were the lenses I used to explore and describe the behaviors that principals exhibited when building collaboration among instructional teams. This study provided an original contribution because it addressed the gap in practice regarding the behaviors principals exhibited that supported teacher collaboration through the implementation of PLCs.

Chapter 2: Literature Review

The research problem was little was known about the behaviors principals exhibited that built effective collaboration among members of the school community through the implementation of PLCs. It is imperative for the principal to fully grasp the needs, culture, and context of a school before implementing a change such as PLCs (Coviello & DeMatthews, 2016). PLCs, revered as a meaningful strategy for school improvement, require more research and guidance to provide useful structures and protocols for maximizing effectiveness (Reeves, Pun, & Chung, 2017). Although there were multiple studies on PLCs, little research existed that targeted the effective behaviors and actions of the principals leading them (Zhang, Yuan, & Yu, 2017). The purpose of this study was to explore and describe the behaviors of principals in building teacher collaboration through the implementation of PLCs.

Goddard et al. (2015) focused on the effect of school leadership on teacher collaboration for instructional improvement. The overarching research question of the study addressed "whether school principals can lead in ways that foster teacher collaboration" (Goddard et al., 2015, p. 503). Goddard et al. determined that principals exhibited behaviors that set high expectations for teaching and learning, including being well informed about and seeking the consultation of teachers regarding instructional practices, curriculum content, and assessment. Principals must be present in classrooms so that they gain an understanding of what pedagogical practices are happening in the school (Goddard et al., 2015).

Literature Search Strategy

I searched databases with an emphasis on education-specific databases and search engines. The databases Education Source, ERIC, Sage Journals, Science Direct, Academic Search Complete, Thoreau, and Google Scholar. Peer-reviewed articles selected for this study were published between 2014 and 2019. The following key terms were used in the literature review search: *leadership, instructional leadership, transformational leadership, transactional leadership, transformative leadership, principals, principal behaviors, collaboration, teacher collaboration, collaborative practices, principal's role in collaboration, professional learning communities, collaborative teams, dimensions of PLCs, professional learning,* and *principal's role in school improvement.* Education Source and Thoreau databases were used to search most of the terms concerning leadership, collaboration, and professional learning communities.

Conceptual Framework

I used a multidimensional conceptual framework including three components: (a) leadership styles and approaches, (b) teacher collaboration, and (c) implementation of effective PLCs. Although much of the foundational literature on the theory of transformational leadership and the constructs of PLCs was older than 5 years, the inclusion of this research was critical because of the context that it brought to building collaborative learning environments in schools. Behaviors of principals were explored through Burns's (1978) seminal study in which he coined two concepts: transactional and transformative leadership. According to Burns, transforming leadership brought about meaningful change to members of an organization. Hord's (2007) five dimensions of a

PLC were combined with the components of Burns's theory of transformational leadership in which leaders were eager to focus on the needs of their staff members by seeking opportunities to motivate them and increase their levels of engagement and collaboration within the organization. The character traits of leaders had a significant impact on the development of learning teams (Burns, 1978).

Hord's five dimensions of effective PLCs provided one of the lenses that I used to explore and describe the behaviors of principals in establishing collaboration among teachers. The five dimensions included shared and supportive leadership, shared values and vision, collective learning and application, shared personal practice, and supportive conditions (Hord, 2007).

Shared and supportive leadership. School-based administrators and teachers work together to investigate, seek clarification, and lead the school improvement process (Hord, 1997; Hord & Sommers, 2008; Wilson, 2016). School-based administrators support the organizational structures to promote collaborative working relationships and display a willingness to enlist collective dialogue to share decision-making with teaching staff (Morrissey, 2000).

Shared values and vision. All members of the community are involved in developing and embracing the values and vision that govern the decisions about teaching and student learning (Hord, 1997; Hord & Sommers, 2008; Wilson, 2016).

Collective learning and application. This dimension was initially named collective creativity (Hord, 1997). All professional staff are engaged in a joint inquiry to acquire new knowledge and reflect on the current strategies to determine strengths and

areas needing attention. Learning is ongoing and job embedded (Hord, 2007; Wilson, 2016).

Shared personal practice. Staff interact in a nonevaluative manner to review current practices and facilitate the work of adjusting the instructional practices with one another (Wilson, 2016).

Supportive conditions. Structural aspects and collegial relationships are the two aspects of this dimension. Structural conditions included the physical space, use of time, procedures for communicating, and the professional learning process (Wilson, 2016). The professional relationships include mind-set, sense of inclusion, norms for collaborating, trust, and caring. All the dimensions are integrated, and some researchers described establishing supportive structures as the most impactful factor for enhancing the effectiveness of the school environment (Morrissey, 2000). Key concepts of the conceptual framework are shown in Figure 1.

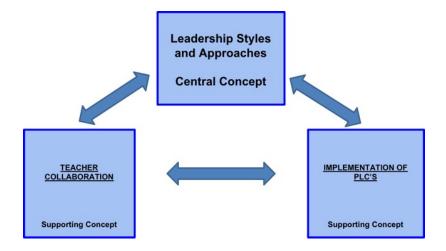


Figure 1. Conceptual framework key concepts.

The primary focus of the current study was to describe how principals' behaviors support collaboration among teacher teams and build structures to sustain the productive PLCs. Gray, Kruse, and Tarter (2015) hypothesized that PLCs provide a framework to build trust and therefore create environments which foster change and innovation. Mutual trust between school leaders and teachers is a significant element in ensuring that PLCs are productive and sustainable (Wilson, 2016). Principals must develop systems that provide appropriate space and time for practitioners to connect, and frameworks to guide the practitioners through the collaborative learning process (Dufour & Marzano, 2011). Determining effective actions of principals that build strong relationships and structures for a collaborative process constituted an original contribution to the local and regional settings by providing school staff with a structure for increasing collaboration and positively impacting student achievement. The influence of leadership is fundamental to the sustainability of a school culture focused on teaching and learning.

Leadership

Researchers have shown that after teachers, principals are the most important school-related influence on student learning. Principals have a multiplier effect influencing all classrooms in the school (Council of Chief State of School Officers, 2017). Li, Hallinger, and Ko (2016) used a multidimensional model in their study of the effects of a principal's leadership development on teaching and learning processes. The seven dimensions included instructional leadership, strategic management, teacher development leadership, staff management, external communication, resource management, and quality management. Although each of these constructs provided support to teaching and learning, instructional leadership had the most significant impact. Principals were accountable for organizing and supporting the professional learning of teachers by empowering them to adapt to the changing needs for the improvement of their instructional practices (Li et al., 2016). Li et al. also sought to determine the relationship between school leadership and school capacity using the nine organizational structures of trust, communication, teacher professional learning, alignment, workload, resource capacity, support for students, dimensions for cooperation, and organizational commitment. Li et al. determined that of the nine aspects of organizational conditions, trust had the most meaningful relationship between school leadership and teacher professional learning in schools, which was followed by the structure of teacher cooperation. Lit et al. found that principals possessed instructional leadership skills that allow them to build trusting relationships with their staff to create a collaborative learning environment for students.

School Leadership Styles and Approaches

Fullan (2014) referred to the role of the principal as the learning leader who embodies the attributes of lifelong learners and frames the school culture. Principals leading this work are critical in maximizing the professional development of all teachers so that student outcomes can be enhanced. Somprach, Tank, and Popoonsak (2017) explored leadership styles of principals that encourage teacher engagement in PLCs. The nine styles studied were strategic, transformational, invitational, ethical, learning, political, entrepreneurial, collaborative, and sustainable. The results indicated that four of the leadership styles were significant to the promotion of teachers' participation in PLCs: transformational, learning, collaborative, and invitational (Somprach et al., 2017). According to Wilson (2016), principals should have a leadership approach that models shared decision-making because the principal sets the tone for the school's culture by fashioning the organizational competence of PLCs and the advancement of teachers as leaders. Although several leadership approaches were used to determine how leadership approaches could be used in schools, transformative, transactional, and transformational leadership were used to frame this study.

Distributed Leadership

Distributed leadership is a style used for empowering teachers and providing a democratic environment within the school (Brinia & Papantoniou, 2016). The distributed leadership approach promotes shared leadership and actions of leaders and leadership practice (Diamond & Spillane, 2016; Spillane, 2006). According to Spillane (2006), distributed leadership goes beyond shared leadership to the collective interactions among leaders, followers, and their experiences. Diamond and Spillane (2016) shared three themes: "how leadership practice stretched people, how school subject matter shaped leadership practice, and how processes of authority and legitimacy influenced the link between the environment and instruction" (pp. 148-150). Leadership cannot remain exclusively in the hands of a school leader because of the requirements, responsibilities, and expertise needed to support teaching and learning (DeMatthews, 2014). Leadership distributed among school administrators and teachers who share knowledge and expertise increases their community's ability to address the needs of students (DeMatthews, 2014). With the distributed leadership approach, leadership opportunities spread throughout the

organization. Principals have the responsibility of recognizing who is capable of leading in a particular area of the learning organization. Principals become the catalyst for cultivating teacher leaders and building relationships that foster opportunities for teachers to develop, collaborate, and innovate (DeMatthews, 2014). The distributed leadership approach focuses on leadership practices and social interaction (Diamond & Spillane, 2016).

Transformative Leadership

Many researchers identified transformative leadership as an approach that brings individuals together to shape human behavior and supports a healthy school culture (Tan, Hee, & Piaw, 2015). Tan et al. (2015) conducted a study using Bolman and Deal's fourframe model to compare how a Malaysian university vice chancellor identified his leadership style in comparison to how other interviewees perceived his leadership style. The university leader displayed three of the four frames. He was able to inspire organizational effectiveness through being goal oriented (structural frame), empowering employees and valuing human relationships (human resource frame), and inspiring others by framing experiences (symbolic frame). The political frame was not an attribute seen from the vice chancellor.

Strong leadership is necessary to transform curriculum, assessment, instruction, and teacher development (Marzano et al., 2016). According to Marzano et al. (2016), there have been many discussions regarding the importance of leadership in school improvement. However, Marzano et al. noted that the leadership behaviors that assist in that improvement are not well known. Marzano et al. posed a question that implicated leadership as the agent for transforming the PLC process: "How will we coordinate our efforts as a school?" (p. 103). DuFour and Marzano (2011) identified 21 leadership responsibilities that could redefine the PLC process. The leadership responsibilities that foster the development of effective PLCs are establishing structures for effective communication, focusing on clear goals and pursuing the school's purpose and priorities, soliciting input, establishing positive working relationships, and providing teachers with time, resources (Marzano et al, 2016). Leaders who foster these responsibilities have greater success in developing high functioning professional learning communities (Marzano et al., 2016). These responsibilities provide a blueprint for transformative leadership.

Transactional and Transformational Leadership

Researchers Burns and Bass defined the concept of leadership under two titles, transactional and transformational leadership (Avci, 2015). Transformational leaders and Transactional leaders approach their staff differently. Transactional leaders focused on using rewards or the power of influence involving an exchange between leaders and followers, where transformational leaders developed a link between the leader and the employees and increased motivational levels of the staff members (McCarley, 2016; Avci, 2015). Transactional leadership is based on the premise that team members conform to the expectations of the leader because of the rewards that they receive for obeying(Brinia & Papantoniou, 2016). Transactional leaders work to manage existing working environments and maintain the status quo, while transformational leaders envision a future by building on the aspirations of all members of the community (Brinia & Papantoniou, 2016). According to Boundless as cited in Brinia and Papantoniou, (2016), there are five key differences between transactional and transformational leadership:

- Transactional leadership reacts to problems as they arise, whereas transformational leadership were more likely to address the issue before they become problematic;
- Transactional leaders work within an existing organizational culture; while transformational leaders emphasize new ideas and thereby "transformed" organizational culture;
- Transactional leaders reward and punish in traditional ways according to organizational standards; transformational leaders attempt to achieve positive results from employees by keeping them invested in projects, leading to an internal, high-order reward system;
- 4. Transactional leaders appealed to the self-interest of employees who seek out rewards for themselves, in contrast to transformational leaders who appealed to group interest and notions of organizational success; and
- Transactional leadership was more akin to the common notions of management, whereas transformational leadership adhered more closely to what was colloquially referred to as leadership. (p. 523-524).

Some studies found that the coexistence of both transactional and transformational leadership had a positive impact on school performance (Brinia & Papantoniou, 2016). Transactional leadership did not provide an adequately strong style of leadership effectiveness; therefore, the theory of transactional leadership yielded to the development of transformational leadership (McCarley, 2016).

Transformational Leadership

Transformational leadership focused on the goals of the organization as well as the goals of staff members. Boberg and Bourgeois (2016) studied integrated transformational leadership, which used Bandura's social cognitive theory. Through surveys, Boberg and Bourgeois sought to grasp insight into how structures in a school influence student learning and achievement. Boberg and Bourgeois determined that the level of collective teacher efficacy influenced student achievement. Transformational leaders encourage staff to create a shared vision, beliefs, values, and common goals.

The research of Bolman and Deal (2017) focused on both managers and leaders. Bolman and Deal summarized the difference between managers and leaders using the adage of Bennis and Nanus, Managers do things right. Leaders do the right thing (Bolman & Deal, 2017). There needed to be a counterbalance between management and leadership (Bolman and Deal, 2017). Bolman and Deal (2017) developed a multi-frame leadership model consisting of (a) structural, (b) human resource, (c) political, and (d) symbolic frames. These frames identified how people in organizations viewed the world.

 Structural Frame - Emphasized clear goals, rules, and formal relationships. Leaders valued analysis and data for holding people accountable. Organizations were seen as factories and machines;

- Human Resource Frame Emphasized needs, attitudes, and building trust and caring among staff. Leaders sought to lead through facilitation and empowerment. Organizations were seen as families;
- Political Frame Emphasizes power, conflict, and bargaining and negotiating to move the organization forward. Leaders spent time building networks with key stakeholders. Organizations were seen as jungles;
- Symbolic Frame Emphasized a shared culture that influences decisionmaking. Symbolic leaders build support through rituals and managed by walking around. Organizations were seen as temples (Bolman & Deal, 2017; Tan et al., 2015).

Effective leaders possessed several of the frames which allowed the leader to think about situations from more than one angle, therefore, developing alternative options and strategies for handling the situations that arose (Bolman & Deal, 2017; Tan et al., 2015).

Somprach et al. (2017) shared dimensions of transformational leadership as conceptualized by Leithwood, (1994) which include "building school vision, establishing school goals, providing intellectual stimulation, offering individualized support, modeling best practices and important organizational values, demonstrating high performance expectations, creating a productive school culture, and developing structure to foster participation in school decisions" (p.161). Principals who exhibit the transformational leadership style encourage teachers to change and make improvements in their practice. Principals assess teachers motives and satisfy the needs of teachers (Somprach et at, 2017). Another model of transformational leadership was a model by Kouzes and Posner (2016) defined transformational leadership as learning leadership. The basis of Kouzes and Posner's model is directive outcomes at both the micro and macro levels of school operations (Somprach et al., 2017). This leadership style equipped principals with a mind-set that allow them to approach life differently when approaching challenges and overcoming barriers. Kouzes and Posner interviewed leaders in the field to identify best practices in leadership. Kouzes and Posner (2012) developed five practices of exemplary leadership:

- Model the Way: Leaders act in ways that are consistent with their beliefs and values. They are persistent in the pursuit of their vision and earn the respect of others in the organization.
- Inspire a Shared Vision: Leaders have the desire to make something great happen. They enlist others in their vision by relating to their constituents and appealing to their shared aspirations.
- Challenge the Process: Leaders take-action and challenge the status quo. They look for innovative ways to improve their processes and services. Leaders are learners.
- Enable Others to Act: Leaders enlist the support of others by building trust and facilitating relationships. They empower others by developing competence and creating a sense of ownership.
- Encourage the Heart: Leaders uplift others and draw people forward through acts of caring. They recognize and show appreciation for individual excellence creating a spirit of community.

Behavioral similarities exist between the four frames, the five practices of exemplary leadership, and the five dimensions of PLCs leadership models. Each of the approaches highlight the importance of relationships and trust, shared vision and values, and empowerment of members of the community when building collaborative teams (Bolman & Deal, 2017; Hord, 2007; Kouzes & Posner 2012). Transformational leadership approaches and the dimensions of effective PLCs are associated when developing collaboration within the organization. Transactional, transformative, and transformational leadership approaches were studied to determine how the approaches impact school cultures. The distinctions are listed in Table 1.

Table 1

Elements	Transactional leadership	Transformational leadership	Transformative leadership
Emphasis	Means	Organization	Deep and equitable change in social changes
Processes	Immediate cooperation through mutual agreement and benefit, Status Quo	Understanding the school culture; setting direction, developing people and redesigning the organization; Visionary	Deconstruction and reconstruction of social/cultural knowledge frameworks; Change Agent
Key Values	Honesty, responsibility, fairness, honoring commitments	Liberty, justice, equity, trust	Liberation, democracy, equity, justice
Goal	Agreement, mutual goal advancement	Organizational change, inspirational, distributed leadership	Individual and organizational, & societal transformation
Structures	Rewards, Power of Influence; conform to expectations	Relationship building, collaboration increase motivation	Shape human behavior, demonstrate flexibility
Leader	Ensures smooth and efficient organizational operation through transactions	Shared decision-making, develops a common purpose, focuses on school goals, leading learner	Lives with tension & challenge; requires courage, activism
Related Theories	Bureaucratic leadership, management	School effectiveness, school improvement, instructional leadership; Bandura's Social Cognitive Theory	Critical theories (race and gender) cultural and societal reproduction; leadership for social change
Theorist	Burns, Bass	Burns, Bass, DuFour, Fullan, Hord, Carpenter, Leithwood. Spillane, Kouzes, and Posner), DuFour (2011), Fullan (2014)	Bolman and Deal, DuFour, Marzano et al., Hord

Distinctions Among Three Leadership Approaches

Note. Adapted from Shield (2010, p. 563), DuFour (2011), Fullan (2014), and Marzano et al. (2016).

Collaboration

Goddard et al. (2015) defined collaboration for instructional improvement as a multidimensional design that combined a focus on educational policy, the regularity of collaboration, and the formalness of the structures in place for the collaborative work of teachers. The social cognitive theory provided a theoretical link to the constructs of school leadership, collaborative teacher practice, and collective efficacy (Goddard et al., 2015). Goddard et al. (2015) found that the support principals provided through their instructional leadership affected the collaborative instructional improvement among teacher teams. According to Honingh and Hooge (2014) teacher collaboration is influenced by how teachers perceive the support of school leaders; therefore, teachers who perceive support from their school leaders engage in collaboration. Leaders encourage, support, and nurture a culture based on norms of high expectations, respect, shared responsibility, and relational trust so that all educators are engaged in effective professional learning to address the needs of student and educator performance (Goddard et al., 2015; Honingh & Hooge, 2014).

Voelkel and Chrispeels (2017) studied collaborative teams and determined that teams that function at high levels of collaboration perceive greater support from their principals than teams who do not work collaboratively. Teams that function at high levels of collaboration report stronger team autonomy and feel more empowered to make decisions. When principals put formal structures in place to support teachers in collaborative efforts, teachers overcome barriers such as time, trust-building, and social interactions; and participate in purposeful collaboration (Goddard et al., 2015). Garmston and Wellman (2016) adopted a set of collaboration norms as tools to create valuable communication between team members of a working community. The norms are as follows:

- Pausing Pausing before responding or asking questions allows time for thinking and enhances dialogue, discussion, and decision-making.
- Paraphrasing Using a paraphrase starter such as So you are thinking that... or the starter communicates that you are trying to understand and therefore value what is said.
- Posing Questions The intention of posing questions is to explore thinking and to specify thinking.
- Putting Ideas on the Table Ideas are at the heart of meaningful dialogue and discussion.
- Providing Data Data drive productive group work. Collaborative work in schools requires data as well as interpretation.
- Paying attention to Self and Others Dialogue and discussion are more meaningful when team members are conscious of themselves and others. This includes paying attention to learning styles when planning, facilitating, and participating in team conversations.
- Presuming Positive Intentions Assuming that the intentions of others are positive encourages respect and encourages honest conversations. (p. 42-51).

When the seven norms of collaboration become a consistent practice of the team, the energy, coherence, and commitment to collaboration increase.

Learning Forward, a professional learning association provides standards and strategies to build the capacity of leaders to develop and sustain highly effective professional learning organizations ("Learning Forward," n.d.). Learning Forward commissioned Fullan and Hargreaves (2016) to perform a study on professional learning and development (PLD). Fullan and Hargreaves concluded that a collaborative culture of professionalism was foundational to the creation of a seasoned and responsive professional community of practitioners. "Collective efficacy the shared belief among teachers that they can make a positive difference for all their students together has one of the largest effect sizes of any improvement strategy and intervention" (p. 14).

Hallam et al. (2015) studied the five facets of trust and the impact of trust on a group's combined practices rather than on individual teacher practices. Trust was defined as an individual's willingness to be vulnerable to another individual based on the confidence that the latter individual holds the five facets which are benevolence, honesty, openness, reliability, and competence (Hallam et al. 2017). The outcomes of Hallam et al study indicates that the behaviors of principals influence teacher job satisfaction, teacher motivation, and learning, which links to the trust that team members have in their leader. The three traits that teachers relate to trust were openness, benevolence, and reliability in the principal. Hallam et al. found distributed leadership and shared decision-making assist in the development and maintenance of positive school culture.

Teacher collaboration is framed as an essential component that drives change in school restructuring and teacher professional development (Carpenter, 2015; Hallam et al., 2015; Honingh & Hooge, 2014). PLCs are used to leverage teachers to work

interdependently to discuss and weigh the impact of their instructional practices on student performance and affect change in their colleagues to have a continuous focus on improving student achievement. (Carpenter, 2015; Hallinger & Heck, 2014).

Background of Professional Learning Communities

According to Cherkowski (2016) a plethora of research on PLCs exists; however, a detailed definition is absent. There is agreement about the importance of shared vision and values, and the need for educators to take collective responsibility for student learning through collaboration and reflective professional learning. There is a lack of consistency in recognized strategies and approaches which promote effective implementation of PLCs in schools (Cherkowski, 2016).

Although many school personnel believe PLCs are implemented successfully in their schools, the fundamental aspects of the PLC process have not been adopted, and as a result, the structures do not lead to greater results in teacher collaboration or outcomes for student achievement (DuFour & Reeves, 2016). Sims and Penny (2015) found that PLCs fail because the focus of the collaborative team is too narrow, and there is a lack of time for teachers to work collaboratively. Sims and Penny discussed that to implement successful PLCs, an emphasis should be placed on developing a sense of community (Sims & Penny, 2015). The true tenets of the PLC process include working in collaborative teams, developing a guaranteed and viable curriculum, utilizing common formative and summative assessments, and analyzing data to inform instruction. DuFour and Reeves (2016) developed four questions that distinguished between a genuine PLC and a school that is participating in practices similar to a PLC structure:

- 1. What do you want students to learn?
- 2. How will we know if they have learned it?
- 3. What will we do if they have not learned it?
- 4. How will we provide extended learning opportunities for students who have mastered the content? (p.70).

Marzano et al., (2016) expounded on DuFour and his colleagues four critical questions and introduced two additional questions for schools to consider when engaging in the PLC process:

- 1. What is it we want our students to know?
- 2. How will we know if our students are learning?
- 3. How will we respond when students do not learn?
- 4. How will we enrich and extend the learning for students who are proficient?
- 5. How will we increase our instructional competence?
- 6. How will we coordinate our efforts as a school? (p14).

The development of a true PLC is a multiplex course of action, and school staff was assembled in a manner that energized them to perform the hard work. The six questions with an emphasize of the areas of teaching and learning are listed in Table 2.

Table 2

The Six PLC Questions and Their Emphasis

PLC questions	Areas of emphasis	
What is it we want our students to know?	Curriculum	
How will we know if our students are learning?	Assessment	
How will we respond when students do not learn?	Instruction	
How will we enrich and extend the learning for	Instruction	
students who are proficient?		
How will we increase our instructional competence?	Teacher Development	
How will we coordinate our efforts as a school?	Leadership	

Note. Adapted from Collaborative Teams That Transform Schools (1st ed., p. 4), Marzano et al., 2016.

Jones and Thessin (2017) studied a process used by a high school principal who worked to develop and sustain a PLC framework. A focus was placed on the three phases of initiation that include developing, implementing, and sustaining. Jones and Thessin found a gap in the literature encompassing the change process that a school goes through when becoming an organization of learners. There was no delineation between the three phases of initiation. The four areas that served as roadblocks to the framing and cultivating of a collaborative culture were time, isolation, incongruent views, and an inability to resolve conflict (Jones & Thessin, 2017). Principals should mobilize and build on the strengths of the team members in the organization when developing, implementing, and sustaining the work of a PLC.

Behaviors of Principals Through the Lens of PLC Dimensions

The following section was a review of literature that outlined leadership behaviors through the lens of the dimensions of a PLC. The work of Hord (1997) and the Southwest Educational Development Laboratory (SEDL) led to the conceptualization of the five dimensions of PLCs (shared and supportive leadership, shared values and vision, collective learning and application, shared personal practice, and supportive conditions).

Dimension 1: Shared and Supportive Leadership

Balyer, Karatas, and Alci (2015) found that principals had a compelling role in establishing and sustaining PLCs. Balyer et al. found that principals see the benefit of PLCs but are challenged by the amount of time it takes to develop a strong PLC because of the other priorities that compete for time. Mutual respect and trust between teachers and administrators are critical to the successful progression of collaborative learning teams. Principals must establish and maintain relationships of trust with staff members while navigating personality tendencies to improve the social interactions among staff members (Benoliel and Schechter, 2017). Benoliel and Schechter (2017) focused on the following personality traits, known as the big five typologies: extraversion, agreeableness, conscientiousness, neuroticism, and openness to experiences. The typologies could influence how the teams function and share knowledge with each other.

Garmston and Wellman (2016) outline four hats of shared leadership in the adaptive schools' research. Garmston and Wellman conclude that members of a team wear four hats or plays four roles. Members share leadership roles in meetings:

- 1. Facilitating directing the processes used in the meeting, maintains the energy in the group, and focus on one content and one focus at a time.
- Presenting extending and enriching knowledge, skills, or attitudes. The presenter can take on several stances – expert, colleague, novice, or friend while utilizing various strategies of presentation.

- Coaching intervening with the group and helping them work toward the expected goals through problem-solving and decision-making.
- Consulting providing technical knowledge to the group and influences the group's methodology. (p. 34).

Dimension 2: Shared Values and Vision

Principals and teacher leaders have an influential role in facilitating PLCs. The principal has the role of supporting the development of the school's mission and vision, and teacher leaders and other teachers have the role of generating and executing that mission (DeMatthews, 2014). Wilson (2016) studied the perceptions and experiences of secondary teachers involved in PLCs. He determined that the school culture must shift from the idea of a PLC as a program to thinking of the structure as a process to reform the school climate and culture. Teachers must embrace a mindset that PLCs were more than "what we do" but rather "PLCs are who we are" (Wilson, 2016, p. 57). Leaders must use social capital to empower teachers to lead with their building and then capitalize on the power of social connections. Social capital increased the ability for trusting networks and the promotion of shared decision-making among principals and the staff.

Dimension 3: Collective Learning and Application

Adams and Vescio (2015) identified three solutions to improve the individual learning of members in the collaborative teams: (a) Connect to students learning in each teacher's classroom, (b) Follow up on improvement in teaching as a result of group learning, (c) Improve norms and processes that foster diversity of thought. These solutions help link learning to the classroom with a focus on student learning. According to Hattie (2015) additional research was warranted to broaden the techniques used to help collaborative teams focus on evidence with an evaluative lens on instructional practices and not the anecdotal information shared through stories and beliefs of the educators. Principals must possess the expertise to encourage teachers to work collaboratively, examine their effectiveness, and create opportunities for them to understand the impact on the school culture (Hattie, 2015).

Dimension 4: Shared Personal Practice

Central to the PLC construct was the idea that a group of educators share and critically review practices in an ongoing, reflective, and learning oriented process (DeMatthews, 2014). Carpenter (2015) shared that principals serve as change agents who empower team members to immerse themselves in the PLC process. Most effective PLCs function on the premise that the work to increase student learning is a continuous and a job embedded endeavor for both teachers and leaders. Zheng, Yin, Liu, & Ke, 2016 study showed a correlation between the approach of the leaders and the five dimensions of a PLC. Zheng et al suggest that the leadership actions of a principal influences how teachers perceive support from their principals and their willingness to engage in collaborative work.

Dimension 5: Supportive Conditions

Collaboration is how teachers interact and exchange information. The ability for teachers and administrators to connect in a shared workspace both physically and intellectually to address instructional practices associated with teaching and learning is a crucial component to building an active PLC (Carpenter, 2018).

Hord and Summers (2008) described seven action steps that principals could use to inspire and strengthen professional learning communities.

- 1. The principal would provide effective *communication* by taking a proactive viewpoint to promote the school vision.
- 2. The principal would foster *collaboration* by seeking input and feedback from professional colleagues.
- Principals would help through *coaching*. This would include modeling, feedback, and ongoing dialogue.
- 4. The principal would serve as a *change agent* and a *conflict manager*.
- 5. The principal would exhibit *courage* and *creativity* when fostering an innovative mindset to meet the goals and vision of the PLC.

According to Carpenter (2018) there continues to be a lack of synergy between what teachers collaborate around and how the collaborative interactions influence the practices of teachers. Schools that had shared leadership and decision-making structures were more successful in developing and maintaining a collaborative culture (Carpenter, 2018). PLC teams that function under top-down management experiences do not have strong intellectual interactions or healthy levels of trust (Carpenter, 2018). As professionals increase their intellectual discourse through PLCs, they gain more opportunities to grow personally and professionally, which results in increased trust in the work environment (Carpenter, 2018).

The research suggested that the applications of shared leadership, collaborative inquiry for instructional improvement, and the sharing of the workspace should be

considered when seeking to develop an effective school culture (Carpenter, 2018). DuFour et al. (2016) offered another model regarding the leadership behaviors in a PLC. Like Hord's dimensions of PLCs, DuFour et al. included shared vision and collective learning as major aspects of the framework. The slight differences in the components of DuFour's et al. model were forming a collaborative culture, participating in action research, and targeting results. The model of DuFour et al. was an extension of Hord's five dimensions of PLCs. The two models are complementary to each other.

According to Marzano et al. (2016) strong leadership is required to effect changes in schools. Leadership is the factor that transforms the PLC process, which can then transform curriculum, instruction, assessment, and teacher development (Marzano et al., 2016). Marzano and his colleagues studied what leadership looked like if a school was engaged in second-order change as opposed to first-order change. First-order change involves small changes that do not require stakeholders to have a significant shift in their thinking, and second-order change makes a fundamental shift in the direction, innovation, and thinking of the stakeholders and the school culture (Marzano, 2016). There are seven of the twenty-one leadership responsibilities outlined by Marzano that promote secondorder change. The seven leadership responsibilities are correlated to the PLC dimensions, as listed in Table 3.

Table 3

Principal responsibility/ leadership approach	Application to collaborative teams	PLC dimension
Demonstrating interest in	Providing collaborative teams with access to	Collective Learning
and knowledge of curriculum, instruction, and assessment	information on best practices in the areas of curriculum, instruction, and assessment and participating in the learning process as the knowledge is applied	and Application
Creating the conditions that optimize school improvement efforts	Use data within teams to encourage teachers to be innovative in their practices	Supportive Conditions
Engaging staff in ongoing review and discussion of the most promising practices for improving student learning	Share relevant research and theory with teams and involving them in action research that addresses the instructional strategies that affect student learning	Shared personal practice
Challenging the status quo as a change agent	Understand the work of collaborative teams and push them to go beyond their current beliefs and practices	Shared and Supportive Leadership
Creating processes to provide ongoing monitoring of the school's practices and their effect on student learning	Monitoring the contributions of individual team members and the team as a whole and provide teams with knowledge and means to monitor their own development	Collective Learning and Application and Shared Personal Practice
Demonstrating flexibility in meeting the different needs of teams and being willing to make modifications to school procedures	Acknowledging the appropriate guidance and assistance needed for individual collaborative teams and providing the actions necessary for the success of the team	Shared and Supportive Leadership and Supportive Conditions
Articulating the ideals and beliefs that drive the day to day work of the school	Systematically interact with teams and provide the vision, values, and beliefs for the school	Shared Values and Vision

Second-Order Change: Leadership Behaviors in the PLC Process

Note. Adapted from Collaborative Teams That Transform Schools (1st ed., p. 104-105) Marzano et al. (2016), Hord (1997).

Summary and Conclusions

Through my research, PLCs were characterized by a set of values, dimensions, working relationships, and practices. Several studies on the implementation of PLCs reported that schools around the world claimed that they successfully implement PLCs but the leaders and staff have not embraced the key dimensions of the process (Carpenter, 2015; Cherkowski, 2016; DuFour & Reeves, 2016). There have been many studies on the implementation of PLCs, but little research existed that targeted the specific behaviors that principals exhibit that developed effective PLCs (Zhang et al., 2017). Researchers revealed that school leaders must value collaboration between staff members, build the capacity of teachers, and develop collective responsibility to ensure student growth and greater academic outcomes (Donohoo, 2016; Hattie, 2015). The term "leadership for learning" has gained national recognition and draws upon two conceptualizations for school improvement leadership: instructional leadership and transformational leadership which were approaches that supported to frame my study (Heck & Hallinger, 2014). Carpenter (2015) found that the implementation of PLCs brought about a cultural shift within a school when principals became leaders of learners. The major themes that emerged from the literature were that leadership styles and approaches, the recognition of the importance of collaboration in the organization, and that the behaviors principals exhibit encouraged collaboration among staff in the school building. The literature pointed out that leadership behaviors were critical to building collaboration among teacher teams. My study addressed the gap that little was known about the specific behaviors principals exhibit that built effective collaboration through PLCs. Integrating

an understanding of Hord's PLC characteristics, leadership approaches, and the importance of collaboration among teams provided valuable insight into strategies principals used when building collaboration. In Chapter 3, I review the methodology for a qualitative case study regarding the behaviors' principals exhibited that built collaboration through the implementation of professional learning communities.

Chapter 3: Research Method

Little was known about the specific behaviors principals exhibit that build effective collaboration between members of the school community through the implementation of PLCs. The purpose of this case study was to explore and describe the behaviors principals contributed when building collaboration through PLCs. Teacher collaboration was framed as a fundamental component that initiated change in school restructuring and teacher professional learning (see Carpenter, 2015; Hallam et al., 2015; Honingh & Hooge, 2014). PLCs were used as a structure to leverage teachers to work interdependently to examine and contemplate the impact of their instructional practices on student performance and effect change in their teammates to have a continuous focus on improving student achievement (Carpenter, 2015; Heck & Hallinger, 2014).

Chapter 3 includes the research design and rationale, the role of the researcher, and the methodology that was used for the study. In the methodology section, I discuss the participant sampling strategy chosen, recruitment of participants, instrumentation, and data collection procedures. Lastly, I outline the data analysis plan, issues with trustworthiness, and ethical procedures.

Research Design and Rationale

In a qualitative case study, the researcher seeks to understand groups of people or phenomena in their natural setting and interpret how their experiences influence their daily lives (Ravitch & Carl, 2016). Qualitative research involves the collection of nonstatistical data, which allows the researcher to investigate the why, how, and what of the phenomenon. There are five main qualitative designs: case study, ethnography, phenomenology, grounded theory, and narrative (Burkholder et al., 2016). Burkholder et al. (2016) noted that the researcher should consider the purpose, unit of analysis, and data collection tools when selecting the design for a study. Yin (2018) defined a case study as an approach to gain an in-depth understanding of one or more cases in a real-world context. A multiple case study design was appropriate to explore the behaviors used by principals when building collaborative professional learning communities. A case study approach prevents the scope of the research from expanding beyond the original intent because the focus is confined to a specific space and time and a small number of cases (Burkholder et al., 2016). A case study includes various data sources that enhance the credibility of the study and allow the data to be triangulated. Data sources included participant interviews and a review of relevant documents, resources, and materials. The current study was conducted to describe the strategies, actions, and behaviors that principals use when building collaborative teams in their schools. The case study was framed using the lens of three key concepts: leadership styles and approaches, norms of collaboration, and the implementation of effective PLCs or collaborative structures.

Research Questions

The central research question was the following: How do principal behaviors contribute to collaborative professional learning communities? Three research questions were used to guide the study:

1. What leadership approaches influence the implementation of effective collaborative learning teams in positive ways?

- 2. What strategies or processes do principals use when building collaboration for the implementation of effective PLCs?
- 3. What are the challenges principals face when building collaborative learning teams?

Qualitative data collection included responses from a small group of respondents in their natural setting who provided insight into the area of study. From the data gathered, descriptions and themes developed. Because so little was known about the behaviors principals used when building collaboration through professional learning communities, the exploration of leadership styles and approaches may provide information to gain a deeper understanding of the gap in practice. The knowledge that principals brought to the position based on their educational training and work experiences influenced the outcome of the study.

Role of the Researcher

As the sole researcher, my role included collecting, recording, transcribing, analyzing, and storing the data. In my role, I sought to establish a trusting researcherparticipant relationship to help principals feel comfortable sharing the leadership approaches, behaviors, and structures they use to build collaborative relationships or PLCs in their schools. I had not worked directly with any of the respondents in the study; however, there was some familiarity with respondents because of training that we attended. I had no supervisory or instructor relationship with any of the participants. Data were collected via participant interviews. It was my responsibility to frame interview questions that elicited responses from the participants. The questions were open-ended to encourage the respondents to elaborate on their answers, and questions did not provide any direction for how the respondents should answer the questions. It was important for me to be reflexively engaged in interactions with the respondents. "Reflexivity is an active and ongoing awareness and monitoring of your personal role and significant, ongoing influence on the research" (Ravitch & Carl, 2016, p. 386). As the researcher, I had the responsibility to behave ethically and ensure no harm to the respondents as a result of the study. The names of school sites and the principals were kept confidential. No incentives were offered to participate in the study because incentives could have biased the responses received from participants. Bias was a possibility because I had some responsibility for the development of PLCs in the school division in which I worked, and I was passionate about the importance of job-embedded professional learning. I used DuFour's PLC model in training sessions. To mitigate researcher bias, I conducted this study in a neighboring school division. In addition, I asked respondents to review the interview transcripts to ensure their perspectives were captured accurately.

Methodology

Participant Selection

Qualitative research often relies on small sample sizes chosen by design (Burkholder et al., 2016). When conducting a multiple case study, researchers employ a selection method known as purposeful sampling (Burkholder et al., 2016). Purposeful sampling involves a small sample size and allows for a deeper focus on the phenomenon (Burkholder et al., 2016). Purposeful sampling was used to recruit principals who served as information-rich cases to provide insights into the specific research questions. Information-rich cases were those from which I learned about the behaviors or actions of principals related to collaboration. The cases were recruited from elementary schools in one school division of a Mid-Atlantic U.S. state. Principals from the elementary school level were chosen for all cases so that there would be consistency and familiarity of programs and processes at the school level. Six principals were selected for interviews because the sample size was feasible for me to manage as the sole researcher and support data saturation of the information. The goal was to obtain informed consent from the principals and to yield an in-depth understanding of principal behaviors rather than empirical generalizations. Narrowing the focus to a small group of principals allowed for a thorough study of participants and their school structures. This method allowed me to explore and identify common themes regarding the phenomenon.

To gather initial information about schools and to determine which principals would serve as information cases, I reviewed the websites of the 25 elementary schools in the division. The school overview, mission statement, team structures, and principal's message were analyzed for PLC processes. The criteria for a principal to participate in the study were current engagement in a PLC or some variation of a collaborative learning team process and a leadership approach that contributed to the effective implementation of collaboration. An e-mail was sent to principals to explain the study and to gain informed consent to participate in a leader interview (see Appendix B). The e-mail indicated that a review and analysis of documents would be conducted. The e-mail also included an explanation of the process for data collection and that the data would be kept confidential. Once participants were confirmed and informed consent was obtained, I contacted principals to set up interviews and began collecting documents on collaborative structures or PLCs. Study codes were used during data collection to protect the confidentiality of the participants. Each participant received a study code before data collection. I recorded notes throughout the interview and audiotaped the interview of each principal.

Instrumentation

Interviews are an important source of data in a qualitative case study (Yin, 2018). According to Yin (2018), the researcher has two jobs during the interview process: to follow the line of inquiry based on the purpose of the case study protocol, and to verbalize questions in a conversational, unbiased manner that serves the purpose of the study. An interview protocol was used to gather data for the study. The interview protocol was developed based on literature on leadership (see Bass, 1985, 2008; Bolman & Deal, 2017; Burns, 1978; Kouzes & Posner, 2016; Marzano et al., 2016; Shields, 2016), collaboration (Garmston & Wellman, 2016; Marzano et al., 2017; Reeves et al., 2017), PLCs (DuFour et al, 2010; Hord, 1997, 2007, 2008; Morrissey, 2000) and collaborative structures (see Appendix B). The interview instrument included open-ended questions to collect data on the specific behaviors principals employed in relation to Hord's (2007) five dimensions of PLCs and the leadership approaches and styles described in the literature review (see Appendix B). I ensured that the data collected in response to the questions provided answers to the research questions. Table 4 show the alignment between research questions, interview questions, and PLC dimensions.

Table 4

Interview Questions to Address Research Questions

Research questions	Interview questions	PLC dimensions
(a) What leadership approaches influence the implementation of effective collaborative learning teams?	 How do you define leadership? What is your leadership style or approach? Please describe the characteristics and attributes that you exhibit as a leader. What is your vision for collaboration in your school? Describe leadership opportunities that exist for teachers in your school? How do you feel school leadership motivates and provides encouragement to teachers and staff members? 	Shared and supportive leadership, shared values and vision, shared personal practice
(b) What strategies or processes do principals use when building collaboration for the implementation of effective PLCs?	 What process do you use to encourage collaboration among teacher teams? Please describe the professional learning in your school. Please describe specific examples of behaviors or actions that you have implemented in your schools to encourage collaborative learning communities. How do you create supportive conditions that build collaboration between teacher teams? If you were asked by another principal, how collaborative learning teams should be 	Shared and supportive leadership, collective learning and application, supportive conditions
(c) What are the challenges principals face when building collaborative learning teams?	 implemented, how would you answer? What have been your greatest barriers or challenges with PLC's or collaborative teams in your schools? What do you believe is a contributing factor to the 	Shared values and vision, collective learning and application

Summary Question	 barriers or challenges? What have you done to overcome the barriers or challenges? Is there anything else you feel you would like to share that will help me understand how you build collaboration in your school?
Background Information	 How many years of leadership experience, including the current year, do you have? What leadership positions have you held? How many years of experience do you have as an elementary principal? How long has you worked as a principal in this school division?

Documents about collaborative structures or PLCs were reviewed and triangulated against the principal interview responses. All data were collected to explore the behaviors that principals exhibited when building collaboration through PLCs.

Principals participated in semistructured interviews. Interviews are typically used in qualitative studies because they provide rich, individualized, and contextualized data (Ravitch & Carl, 2016). In-depth interviews were conducted using an interview protocol developed by me based on literature on leadership approaches, collaboration, and the dimensions of PLCs. During each interview, I asked open-ended questions that had been prepared to elicit responses from principals regarding the behaviors that were successful in building collaborative teams (Appendix B). Respondents were able to answer in as much detail as they chose. I adjusted or modified questions or changed direction as the interview transpired based on the responses of the interviewee. This method allowed for flexibility and the opportunity to delve deeper into the topic. I asked clarifying questions

until comprehension was achieved. The goal was to gather and analyze data to reach saturation, which occurs when no new information emerges during data collection (Saldana, 2016).

Procedures for Recruitment, Participation, and Data Collection

Permission was granted from a school division in a Mid-Atlantic state to collect data over the 2019 spring semester. I sent an e-mail to principals requesting that they participate in an in-depth interview. Respondents understood that participation was voluntary. Selecting a smaller sample of principals to participate in the study increased the likelihood of recruiting principals whose schools had well-established collaborative structures in place to obtain information-rich cases. Six principals were selected to participate in interviews. Each interview took between 45 and 60 minutes.

- An e-mail was sent to principals requesting participation in the research study.
- E-mails were sent to recruit principals to choose dates to conduct the interviews.
- Documents available for analysis of evidence of collaborative structures and behaviors of principals were collected. Documentation was provided electronically and hard copy paper. I collected information available on the school division website relevant to professional development.
- Interviews were conducted over six weeks. The principal interviews were held at each school, lasting 45-60 minutes each. Principals were e-mailed the interview protocol before the interview to allow principals to develop their responses and seek any clarification regarding the process.

- Audiotaped interviews were transcribed after each session.
- I followed up with participants about interview responses and documents after the completion of interviews.
- Data collected were analyzed, then coded for categories, patterns, and themes over the next four to six weeks.
- Final approval of the study should occur by November 2019.

Data Analysis Plan

To study the research problem, a researcher utilizes a qualitative approach of inquiry to collect data in the natural setting of the participants and used data analysis that is both inductive and deductive to establish categories, patterns, or themes (Burkholder et al., 2016). Creswell (2012) described the six steps of analyzing qualitative data as (a) prepare and organize data, (b) use coding as the initial exploration of the data, (c) use the codes to develop categories and themes, (d) create narrative or visual representations of the data, (e) personally reflect on the impact of the findings and from the literature to interpret the meaning of the findings, and (f) validate the accuracy of the results.

Data collected throughout the process were kept electronically in a computer file. After each interview, notes and recordings from the interviews were transcribed. The researcher conducted a review of documents such as meeting agendas, guidelines for meetings, electronic google sites, and any materials, including group norms or working group agreements, and the collaborative learning team process. Document analysis was used to triangulate data from principals. The initial data analysis consisted of reading and re-reading the information collected to determine the consistencies and discrepancies within the data. Discrepant information is when information did not align with the other information collected. If discrepant information emerged, the information was reevaluated to seek other potential themes and reported in the findings. The analysis included open coding, axial coding, and thematic coding. Axial Coding and Thematic coding are second cycle coding and explore how categories and subcategories relate to each other and progress to identify primary themes of research (Saldaña, 2016). Member checks or respondent validation help to improve the accuracy, credibility, and validity of a study. Participants have the opportunity to review the transcriptions and notes from the interview and comment to affirm that the summaries reflected the participants views, experiences, actions, and behaviors.

Trustworthiness

Qualitative researchers rely on the dimensions of dependability, credibility, transferability, and confirmability to establish the trustworthiness of the study (Guba & Lincoln as cited in Burkholder et al., 2016). Credibility was an essential component in establishing the validity of a qualitative study. A question that researchers ask to address credibility is, "How congruent are the findings with reality?" (Shenton, 2004, 64). Case studies allow the researcher to gain an in-depth understanding of cases in real-world context. To establish credibility, I used semistructured interviews and document reviews to collect data regarding the behaviors of principals that contributed to collaboration through lived experiences. The prepared interview questions, additional probing questions, and document analysis allowed me to gain insight into the behaviors of principals that contributed to the effective implementation of PLCs. Semistructured interviews allowed me to gain different perspectives of principals on how collaboration was implemented, therefore assisting in developing the trustworthiness of the data. The problem, purpose, and research questions were aligned therefore allowing me to explore and describe the behavior of principals that contribute to the collaboration of effective PLCs. Member checks are vital in strengthening the study's credibility because it creates a check for the accuracy of the data collected. According to Carpenter (2018) providing transcripts, codes, and themes to participants for member checking ensures the authenticity and trustworthiness of the data.

Transferability means that the results of the study apply to other groups, populations, or settings. There are several factors such as data collection methods, the sampling of participants, the timeframe of when the research is conducted, and participants can increase transferability (Shenton, 2004). The findings include a description of the school setting and participants in the study to include evidence of the findings in the form of quotes from participants during interviews. According to Lincoln and Guba, as cited in Shenton (2004), credibility and dependability are closely related. Dependability addresses reliability, and if the repetition of the study is feasible. Notes were kept to detail how data were collected and the derision of the categories and themes. Confirmability is a component that factors in the trustworthiness of a study. It was critical that the findings come from the respondent's experiences and ideas and not the researcher's thoughts and preferences (Shenton, 2004). "Reflexivity is an active and ongoing awareness and monitoring of your personal role and significant, ongoing influence on the research" (Ravitch & Carl, 2016 p 386). Reflexivity in this study was documented through notes from the transcriptions of the interviews. These dimensions influence the quality of the study. Each participant reviews the transcription for accuracy.

Ethical Procedures

There are several critically important aspects of research ethics which include the institutional review board, ethics committees, informed consent, assent, research relationships and boundaries, transparency, and confidentiality (Ravitch & Carl, 2016). A relational approach to research examined the relationship between the researcher and participants and the experiences of the participants (Ravitch & Carl, 2016). This approach requires the researcher to become reflexively engaged in interactions with respondents. The institutional review board has a responsibility to review research proposals and oversee ongoing projects to ensure "beneficence." Beneficence means that the researcher should keep the interest of the research participants at the forefront and minimize any harm to the participants (Ravitch & Carl, 2016). Researchers should behave ethically by showing respect, honor promises, and not pressuring the interviewees (Rubin & Rubin, 2012). Respect should be given to the respondent and promises should not be made. The researcher should not give assurances of confidentiality or allege that there will be a benefit to the research that might not come to fruition (Rubin & Rubin, 2012). When interviewing respondents, I behaved ethically and ensured no harm to the respondent as a result of my research. Informed consent was obtained, and before an interview began, I reminded the interviewee that he or she might stop the conversation at any time. If the interviewee decided to discontinue the interview, I would allow the respondent to end and not persuade the interviewee to continue or offer incentives to continue. Data were kept

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confidential. Study codes were used on data collection instruments to protect the confidentiality of the participants. Each participant was given a study code before data collection. All data collected was kept on a usb flash drive stored in my home office. Paper documents collected were kept in my home office. Some documents were scanned and uploaded onto the usb flash drive. Data were not disseminated to anyone other than the participant who served as the source of the data. The researcher maintains the files for five years.

Summary

In summary, the research questions guided the research and aligned with the problem and purpose of the study. This study addressed the behaviors principals exhibit that contribute to building teacher collaboration through the implementation of PLCs. After receiving approval from the Institutional Review Board, recruitment for participants began. My Institutional Review Board Approval # is 04-17-19-0752411. Principal respondents were selected from a school division in a Mid-Atlantic state through purposeful sampling. The sampling size was six elementary principals. Principals were interviewed to determine the effective strategies and actions of principals that build teacher collaboration through a PLC process. Documents were triangulated to confirm or negate the approaches identified in the case study. Through reflection and documentation, biases were mitigated. Chapter 4 discussed the results and findings of the research study.

Chapter 4: Reflections and Conclusions

The purpose of this qualitative case study was to explore and describe the behaviors of principals when building teacher collaboration through the implementation of PLCs. This qualitative multiple case study included face-to-face semistructured interviews and a review of archival documents of PLC structures in the schools. In this chapter, I outline the research questions, setting, demographics, and the number of participants. The process of data collection, analysis, and coding and the evidence of trustworthiness are also presented.

Research Questions

There was insufficient research on the specific behavior's principals exhibited that contributed to effective collaboration between members of the school community as they related to PLCs. Through this study, I gained insight into the behaviors that six elementary principals exhibited to build collaborative PLCs. The research questions guided the leader interviews, and the archival documents were used to confirm or negate the collaborative structures. The primary research question was the following: How do principal behaviors contribute to collaborative professional learning communities? Three related questions were used to address the central research question: (a) What leadership approaches influence the implementation of effective collaborative learning teams? (b) What strategies or processes do principals use when building collaboration for the implementation of effective PLCs? (c) What are the challenges principals face when building collaborative learning teams? Open-ended interview questions were developed based on insights from sources found during the literature review. Setting

The setting of this qualitative case study was a face-to-face school environment. The study took place with elementary school principals in a school division in a Mid-Atlantic state in the United States. The school district website was examined to gather the contact information for 25 elementary schools in the district. I reviewed each elementary school webpage and extracted the principal's name, school address, school phone number, and e-mail address of each of the elementary principals and put the information into an Excel document for easy access when contacting potential participants. When reviewing school webpages, I looked for information regarding PLCs, collaboration, leadership approaches, vision, mission statement, and demographics. An e-mail was sent to the 25 elementary principals to request participation in my study through semistructured interviews. Appendix C displays a summary of the information collected from the participants' school website reviews. This information provided insight into the values of the school and the demographics of the student population served. Although I am an educator in a nearby school division, I had no direct work or supervisory interaction with any of the principals in this district. I did not have any influence on participant responses.

Data Collection

After receiving approval from Walden's Institutional Review Board, I began recruiting participants for my study. Initially, 25 e-mails were sent to elementary principals to request their participation. In the body of the initial e-mail were the invitation and consent to participate in the study. I attached the approval to conduct research from the school division (Appendix A) for the potential participants to review. My goal was to recruit four to eight principals to participate in the study. Participation in the study included face-to-face semistructured interviews with the principal and review of documents on collaborative processes and PLCs in schools that were provided by the participants. Of the 25 e-mails sent, seven principals responded to the request. One principal responded that she was not interested in participating in the study. Over 6 weeks, several follow-up emails were sent to the principals asking for their participation. Six individuals agreed to participate in the study.

The identities of the principals who agreed to participate remained confidential at all times throughout the study. Whether the respondent was male or female, feminine pronouns were used to protect the identities of the principal. Each respondent received a study code for identification in the study. The study code identified the participants as Principal 1–6. Once consent was confirmed, pseudonyms were used to identify the participants throughout the study. The respondents were e-mailed with access to my calendar to sign up for a face-to-face interview session. Each principal brought their different experiences, beliefs, and mind-sets to the study. Once a date and time were selected, each respondent received an e-mail containing the interview protocol at least 5 days before the scheduled interview meeting. In this e-mail, the respondents were asked to provide any documentation that pertained to the structures of PLCs in their schools.

The six principals were interviewed in their respective elementary schools. Each principal seemed receptive to the process. The interviews ranged in length from 30 to 60 minutes, depending on the responses and follow-up questions. The interview protocol

was divided into three sections: (a) background, (b) interview questions related to the research questions, and (c) closure. Background questions addressed the leadership experiences and the number of years as a principal, and the closure section focused on closing comments or sharing of information that the participant wanted to share that was not captured through the interview questions. Interview questions were designed not to lead the principal toward any desired response but were open-ended to solicit open and honest communication to gain the perspective of the principal. At the beginning of the interview, I reiterated the purpose of the study, that participation was voluntary, and that the interview could be discontinued at any time for any reason if the respondent chose to discontinue participation. Participants received a reminder that the interview would be audio-recorded. During each interview, I read the interview question before the response of the respondent. Notes were taken throughout the interview to capture the responses to each interview question. Participants received a request to share documents about the PLC process. Once the interviews were completed, I transcribed the information collected into the interview protocol based on the research questions posed.

Each principal selected had at least 5 years of experience as an administrator. All respondents were implementing PLCs in their schools and believed collaboration was essential to the work. Most principals participating in the study had more than 10 years of leadership experience as shown in Table 5.

Table 5

Principal number	Administrator experience
Principal 1	17
Principal 2	11
Principal 3	12
Principal 4	5
Principal 5	19
Principal 6	18
Total average years of experience	13.6–14 years

Administrator Experience of Participants

Each of the six interviews began with background questions that provided information about years as an administrator, leadership positions held, and experience as an elementary principal.

Notes were taken about the educators' experiences and were recorded based on their responses.

Principal 1

Principal 1 has been an administrator for 17 years, including 6 years as an elementary principal. She had served in several other leadership positions prior to this position, including human resources and middle school assistant principal. She shared that her leadership style had shifted as the school population and needs had shifted. When working with the staff, she reported, "I do not ask anyone to do something that I would not do myself, big or small." She indicated that she is still refining her leadership approach.

Principal 2

Principal 2 has been an administrator for 11 years, including 7 years as an elementary principal. She has also served as an administrator for an early childhood program, a nonprofit organization, and as a principal overseas. She explained that "You must see what is working and seek out what might not be working and then begin to make changes." She shared that the work of leaders is "hidden work" and that the most critical work of the leader is to listen, have courageous conversations, and be strategic in the work.

Principal 3

Principal 3 has been an administrator for 12 years, including 8 years as an elementary principal. She was a product of the school division and has served as a teacher, assistant principal, and principal in the same school. She described herself as a facilitator who worked collaboratively with staff when making decisions. She shared that "At the end of the day in a school, there needs to be one person who takes the final burden and makes the difficult decisions." That burden falls to the principal.

Principal 4

Principal 4 has been an administrator for 5 years, including 2 years as an elementary principal. She has served as a teacher, assistant principal, and principal in this school. Her goal for leadership was to lead by example while focusing on the mission and vision of the school division. She stressed that when working with others, she capitalizes on the strengths that people have. She shared that in her 2 years as principal, there was a shift in the staff's understanding of what collaboration means.

Principal 5

Principal 5 has been an administrator for 19 years, including 12 years as an elementary principal. She has served as a teacher and an assistant principal. When asked about her leadership style, she stated, "No leader fits one style 100%." She shared that, "leadership is not about your position and salary but more about how your actions, attitudes, and beliefs influence others around you." She reported that principals must influence positively, be straightforward, and be honest in their approach.

Principal 6

Principal 6 has been an administrator for 18 years, including 16 years as an elementary principal. She described herself as a coach. When she became the principal of this school, enrollment had decreased to around 270 students. She shared that the superintendent told her that she needed to increase enrollment and create a school environment that students and families wanted to join. Enrollment has increased to approximately 625 students. She believes in collaborative leadership. "I look at things and see what changes are needed and bring people on board because I am not a one-person show. We do it together!"

Data Analysis

This study was guided by the primary research question: How do principal behaviors contribute to collaborative professional learning communities? Three related questions were used to address the central research question: (a) What leadership approaches influence the implementation of effective collaborative learning teams? (b) What strategies or processes do principals use when building collaboration for the implementation of effective PLCs? (c) What are the challenges principals face when building collaborative learning teams? Data collection included an audio recording of the principal interviews, notes taken by me, and a review of documents. There were four rounds of coding to explore and gain insight into the themes that resulted from the study of the behaviors principals contribute to building collaborative professional learning communities.

First Round

The first round of data analysis was to transcribe the interviews using the feature on the audio recorder. After each interview, I connected the audio recorder to my laptop and used the function to transcribe the data into a Word document. As the interview was transcribed, I listened to the recording to ensure it was correctly documenting the conversation. After reviewing the transcription, I reviewed the notes that I had taken during the interview and completed thoughts and sentences based on what I heard from the participants. Using the open coding process, I printed out the transcript from each principal interview and underlined key words or phrases that addressed the research questions. I followed this same process for the notes that I had taken.

Second Round

The second round of coding consisted of reviewing the underlined key points from each principal transcription. I reviewed the six principal interview transcriptions several times to determine similarities, commonalities, and discrepant points between each principal's perspective. I highlighted chunks of data to create tentative labels for the data to summarize the perspectives of principals regarding their leadership styles and the behaviors exhibited to build collaborative PLCs in their schools. During the process of highlighting chunks of data, categories began to emerge. There were six different highlighter colors used to identify the categories with similarities, commonalities, and discrepancies in the responses from principals, as shown in Table 6.

Table 6

Highlight color	Codes and categories	PLC dimensions
Pink	Leadership Styles/Traits,	Shared and Supportive
	Decision making	Leadership
Yellow	Vision, Values	Shared Values & Vision
Orange	Feedback, Listening	Shared Personal Practice
Blue	Collaborative Structures, Conditions, Collaboration, Environment	Supportive Conditions
Purple	Professional Learning, Implementation	Collective Learning and Application
Green	Obstacles, Barriers, Challenges	Shared leadership, Shared personal practice, Supportive Conditions

Categories That Emerged Through Transcriptions

The highlighted data were categorized by color to identify the similarities and discrepancies between the respondents.

Third Round

The third round of coding was the use of the Microsoft Word Doc Tools Extract Data 1.3 to create categories based on data collected. I highlighted comments from the transcribed interviews and then typed a word or phrase indicating the categories or themes that emerged through the interpretive process. Using the axial coding process, I identified central phenomena from my data. Once the categories were developed, an extract of the comments was created using macros. An excel document was the format used to save the extract of data.

Fourth Round

The fourth round of coding consisted of creating a excel spreadsheet of the interview transcriptions and my notes. I filtered the comments based on the categories and themes that were created during the earlier rounds of coding. The doc tools process provided another method to ensure that the categories were distributed. Years of experience, leadership styles and traits, collaboration, implementation, values, vision, collaborative structures, decision-making, feedback, environment, barriers, and challenges were the categories extracted from the collected data. The themes that emerged from the study centered around the components of the conceptual framework: leadership styles and approaches, collaboration, and Hord's five dimensions of PLCs (a) shared and supportive leadership, (b) shared values and vision, (c) collective learning and application, (d) shared personal practice, and (e) supportive conditions for effective PLCs.

The second data source used for analysis was the documentation of the professional learning structures utilized in the school division and schools. The researcher reviewed the division level framework to understand the division level expectations for professional learning. The division framework consisted of four phases of understanding. The phases outlined criteria to ensure the implementation of high-quality learning experiences for students. The four phases emphasized building the infrastructure for teaching and learning, content knowledge, blending infrastructure and content

knowledge, and leadership. The modalities for creating professional learning opportunities were face-to-face, blended, and online modules. One of face-to-face training delivered at the district level was the Adaptive Schools Seminar which focused on the process of building collaboration. The principals interviewed indicated that many of their teacher leaders were trained in Adaptive Schools Training. I utilized the work of Garmston and Wellman (2016) to provide context to my analysis. Each principal closely aligned their PLC structures to the division level framework. Each principal brought their perspectives of the collaborative process. Their experiences, beliefs, and mind-sets influenced the structures present in the schools. Most of the documentation of the school collaborative structures were published and shared in electronic formats. Teams documented the PLC process through google sites, which I was not able to access. I was not authorized to access the structures because of division proprietary and student privacy. There were live data on student achievement included on the google sites. Two of the principals displayed google sites during the interview to share some of the structures. I was able to briefly look at the information displayed on the sites and take notes to capture the essence of the processes used by school teams. The data collected were included in the results.

Results

The findings for this case study were based on the primary research question: How do principal behaviors contribute to collaborative professional learning communities? The following research questions were used to guide the study: (a) What leadership approaches influence the implementation of effective collaborative learning teams? (b) What strategies or processes do principals use when building collaboration for the implementation of effective PLCs?, (c) What are the challenges principals face when building collaborative learning teams? Appendix D displayed the interview questions that addressed each of the research questions. Interview questions 1, 2, 4, 5, and 13 addressed the research question: What leadership approaches influence the implementation of effective collaborative learning teams? Interview questions 6, 7, 8, 9, and 12 addressed the research question: What strategies or processes do principals use when building collaboration for the implementation of effective PLCs? Interview questions 10 and 11 addressed the research question: What are the challenges principals face when building collaborative learning teams?

Research Question 1

What leadership approaches influence the implementation of effective collaborative learning teams?

These questions focused on the principal's leadership styles, vision for collaboration, and leadership opportunities that exist in schools. The themes that emerged were *leadership styles and traits, vision, and shared decision-making*.

Theme 1: Leadership styles and traits. All principals shared the leadership style or traits that described their approach to leadership. Four of the principals discussed the importance of facilitation as a leadership trait. Principal 1 defined her approach as transformational and servant leadership. Principal 1 believed:

It was important to be a listener, solicit feedback and opinions, and problem solve with staff. My style has shifted as the school population and needs have shifted. The school was a "focus" school when I started, so I needed to be a transformational leader. A "focus" school is not meeting the expectations for student achievement. Now that we are refining and sustaining through continuous improvement, I have moved toward a servant leadership approach.

Principal 2 identified her leadership as a coach and facilitator. According to Principal 2:

The attributes that a leader must possess were a good listener, keen observer, ability to understand the perspectives of others before making a change. She reported that principals must seek what is working and not working before making changes. To successfully create change, principals must be respectful of where people are and build relationships and accept the hopes and dreams of others.

Principal 3 identified coaching as her leadership style. She coached her teams but believed that "at the end of the day in a school, there needs to be one person who takes the final burden or makes the decision." Principal 4 described her leadership style as a present but quiet leader who "keeps the big picture in mind."

Principal 5 identified herself as a transformative leader and believed that no leader fits one style completely. She clarified:

Leadership is not about your position and salary but more about your actions, attitudes, and beliefs because they influence others around you. Understand that you may hold a powerful position and not be a leader. You can't get people to follow or buy into the vision if you cannot influence positively. Principal 6 described herself as a coach and transformational leader. She stated I do not have time to have my thumb on the teachers. I prefer to sit down and have meaningful conversations with staff members. I look at things and see what changes are needed and bring people on board because I am not a one-person show. We do it together!

All six principals identified listening as an essential leadership trait. When expounding upon the importance of listening, principals shared that by listening, they were able to understand the needs of the staff and gain the thoughts and perspectives of others because a principal does not know it all. Seeking feedback and reflecting was highlighted as traits throughout the interviews with principals. Each principal utilized transformational traits in their leadership approach to build trust among their staff to increase collaboration throughout the school. The data collected showed that the leaders who exhibited transformational leadership traits exhibited a shared leadership approach and had more structures in place for team collaboration.

Theme 2: Vision. The vision for collaboration from all of the principals was to have fidelity of the PLC process. Several principals indicated that teachers should work from the lens of meeting the needs of the students. Principals want to implement structures where teachers understand teaching and learning from the perspective of the student. Principal 1desired for her teachers to work collaboratively to understand how their instruction influenced the students with whom they worked. She asked the teachers to complete an assignment during their collaborative team meetings that they had provided to students during an instructional lesson. She posed the following questions to the collaborative teams to determine the validity of the assignment: Look at how we taught? Who received the best results from students? What did the data tell us? and What can/did we do differently? These questions were not posed to compare teachers but to help them look at their instructional practices. She reported: I wanted this exercise to inform instructional practices moving forward. The team created common assessments to ensure students received similar learning experiences.

Principal 2 shared:

My vision for collaboration was to ensure every student receives an excellent education. Excellent education means that students are receiving tasks and experiences that address their needs and accelerate them in areas where they are academically strong. My teachers work in cross-collaborative teams to get the instructional work done. We make a promise to every parent and child that they will have access to a great education. We guarantee positive experiences for students.

Principal 4 conveyed that her hope for collaboration was:

We get to a place where the instructional coaches and administrators do not have to attend all of the grade-level meetings and that the team is engaged in the process with fidelity and address all of the components of the PLC cycle. The PLC cycle includes norms, agenda, meeting notes, focus on instructional practices. Everyone will see the value in all to the steps of the process.

Principal 5 believed it was essential to have a common understanding among teams to become high functioning teams.

Principal 6 was proud of her staff for their work to create collaborative learning teams. She shared:

Our Motto is: Whatever it takes! To gain fidelity of the process, teams must communicate about instructional initiatives and practices. We were the first school in the division to implement a Foreign Language in Elementary School (FLES) program. We built trusting relationships during this initiative and as a result, willingly shared resources and lesson plans horizontally and vertically among teams. Other schools in the division are now integrating the FLES program into their elementary school program. We had a vision for making a

Each of the principals interviewed shared a vision for collaboration in their schools. They stressed the importance of working collaboratively with a lens toward ensuring every student finds academic success. All principals acknowledged that their vision for collaboration had not been fulfilled; however, the push for collaboration was intentional to move toward the goal of fidelity in instructional practices.

difference for our student population, and we did through the FLES program.

Theme 3: Shared decision-making. Principals interviewed unanimously stated that the work to implement effective PLCs must be done strategically. The work must be done in collaboration with others. The leadership approach must be one that is shared and supportive. Each principal developed a core group of staff to support the development and implementation of PLCs. They created authentic opportunities for teacher leadership.

Principal 1 asked the team leaders to lead on aspects of school functions such as meeting agendas and schedules. She elaborated by explaining:

Creating organic opportunities for teacher leadership is important. When I became the principal, I welcomed any staff member who wished to attend the leadership team meetings. The meetings were responsive to the needs of the staff. I would never ask anyone to do something that I would not do myself small or large. Principal 2 focused on two-way communication. She reflected:

One hour per week, the instructional team of coaches and facilitators meet to discuss areas of concern. Our goal is to create a common message throughout the school staff. Team members play to the strengths of each other by sharing and dividing the work according to those strengths.

Principal 3 expressed that:

Teachers and staff have opportunities to lead. Everyone in the school should act like a leader. We hold each other accountable. I work to build consensus around decision-making, but there were times when a decision is made and I work through the decision with the faculty.

Principal 5 worked to achieve consensus among her staff. She shared, "there are times when decisions are already made, and I have the responsibility to tell the staff the decision and discuss how we will proceed if there is discourse."

Principal 6 expressed:

Building effective collaborative teams is a continual process and that as a group, we share in the process to identify areas to collaborate and communicate around. We have a constant flow of information. We ask our students to collaborate with their classmates. Having our students focus on collaboration is intentional because having the kids collaborating encourages the adults to collaborate. If we see something not working, we look at the matter using a different lens and determine what changes needed to be made.

Although principals acknowledged that leadership should be shared, there were times that the decision lies at the principal level. Each principal highlighted the importance of principal leadership and the varied approaches used when building a culture of collaboration. The data collected around shared decision making highlighted the importance of creating structures that promoted shared leadership, collective learning and application, and supportive conditions that align with the five dimensions of an effective PLC.

Research Question 2

What strategies or processes do principals use when building collaboration for the implementation of effective PLCs?

Interview Questions:

- What process do you use to encourage collaboration among teacher teams?
- Please describe the professional learning communities or collaborative teams in your school.
- Please describe specific examples of behaviors or actions that you have implemented in your schools to encourage collaborative learning communities.
- How do you create supportive conditions that build collaboration between teacher teams?

• If you were asked by another principal, how collaborative learning teams should be implemented, how would you answer?

These questions focused on actions and behaviors that principals utilized to build collaboration that supported the implementation of effective PLCs. All principals underscored the importance of a process. The themes that emerged from the conversations with principals were *time allocation, collaborative structures, collaborative planning, and professional learning opportunities.*

Theme 1: Time allocation. All principals noted that providing time for staff to meet was imperative to the success of collaboration. Principal 1 worked with her teams to set up meetings that were responsive to the needs of the team.

Teams meet weekly to unpack standards and create common assessments to ensure that students receive similar experiences. We have a language arts and a math PLC meeting each week. Team members attend the meetings so that the time spent together as a team shifts and impacts teaching practices and impacts the academic course of a child's life.

Principal 2 conveyed:

This process takes time. Grade level teams meet one time per week for 70 minutes to plan cross-curricular lessons. During the structured meetings, teams focus on continuous improvement and reflection. I remind team members to be patient with each other and to focus on continuous improvement of instructional practices.

Principal 4 worked with her teams to set up designated meeting times. She explained:

Time has been provided for teams to meet two sessions per week. One day, a team meets to unpack the English language arts standards, and the other day, they unpack the mathematics standards. Teams review their unit planners. To use time wisely, teams standardize their agenda. During the math meetings, the math coach poses a rich task which is a great way to unpack standards. The tasks can be used later for a component of the students unit assessment. The plan for next year is to build upon the documents that have been created this year by reviewing the current documents and spending additional time to develop additional components.

Principal 6 scheduled dedicated time for grade levels to meet weekly. She revealed:

Meeting twice per week is preferred to implement the PLC process successfully, but it is difficult to schedule, so at least we create a 'sacred time' for a PLC meeting, and then additional time is scheduled based on the needs of the team that week. The common planning time focuses on determining the instructional strategies that match the needs of our kids.

Many of the principal designated common planning as a time for teams to work collaboratively to unpack standards. This focus ensured that teacher teams had a common understanding of the standards that they were responsible for teaching.

Theme 2: Develop collaborative structures. Principals indicated that having structures in place to encourage collaboration is critical. Each principal designated leader groups to lead the collaborative process with their team. Some of the designated groups

were team leaders, grade level chairs, teacher-led focus groups, action teams, and staff advisory groups. Each leader group worked with the principal to build structures to successfully implement PLCs. Principal 1 expressed that all stakeholders must be committed to the work.

Collaboration begins with planning together and allowing everyone at the table. The meetings are set up to be responsive to the needs of the members of the team. We peel back the layers of the work. We launch the collaborative by working together and sharing our expertise.

Principal 2 shared that she used grade-level chairs to lead the process. The grade level chairs shared and divided the work among their team members. Principal 2 further explained:

Teams meet horizontally and vertically to address logistical and instructional matters. A google site is used to organize the whole school and the individual

team structures. We provide students what they need through our collaboration. When asked if collaboration was important, she replied, "Collaboration is an essential element for schools." Principal 2 highlighted some of the structures that teams utilized in electronic format. Each grade level had a common agenda that included team norms, meeting notes, areas of focus, items for the next agenda, and a parking lot. Some of the student work and data were uploaded onto the site.

Principal 3 selected team leads that she met with every other week. She stated that the purpose of this group was to "create a feedback loop." Each team leader had the responsibility to bring forward ideas or matters that needed to be addressed. They

discussed potential solutions to address matters. The ideas were shared with the whole grade level team to gain feedback. An example of the problem-solving process was with the homework policy. The homework policy needed to be addressed to create consistency among grade levels and teacher expectations. A teacher-led focus group was developed to include teachers and parents. The focus group looked at the research, created and distributed surveys, and held question and answer sessions to ensure that perspectives were heard. It took two years to develop a policy that encompassed the beliefs and values of the school community.

Principal 4 developed collaborative learning teams (CLTs) who met weekly for forty minutes to problem-solve issues that influenced the instructional program or school culture. She reflected on her conversation with teams:

I stress the importance of structured conversations in the grade-level team meetings. My teams have a standardized agenda for each meeting. When visiting classrooms, I provide written notes. The notes acknowledge the instructional strategies that are observed when visiting the classroom. In my Monday Memo to staff, I have a section where I give "shout outs" to staff for their instructional work.

Principal 5 expressed the importance of providing teachers and staff opportunities to lead. She believed everyone in the school should act like a leader. Principal 5 created three teams to share in the decision making. The team types were leadership, action, and advisory. The leadership team consisted of coaches, lead teachers, instructional technology coordinator, and the assistant principal. This team focused on the curriculum for each content area. The lead teachers ran the vertical instructional team meetings. The action team spearheaded school events. The third team was the staff advisory group who worked with staff members who had concerns and helped to create solutions and communicated the decisions to the larger group. Each principal ensured that their teams had common planning time to enhance the opportunity for collaboration. The principals utilized their teacher leaders for communicating the expectations for collaboration and for helping ensure that each team used a collaborative process when communicating.

Theme 3: Collaborative planning. All of the principals indicated that collaboration was essential to the success of a school. Principals reported teams must plan together and have a voice in the process. Principal 5 shared:

It is critical to build a schedule that allows for collaborative planning time. I create conditions that make things happen. The world is run by those who show up! Staff need to be a part of the discussion and decision-making. I model the behaviors I want to see through active participation in meetings. Listening is an important trait for teams to successfully collaborate. I don't know it all. I try to be self-aware because I can learn something new every day. Some will have a better idea than me, and that is ok. My father told me to surround myself with people who are smarter than me because there is always something else to learn. If you believe you can do something and everyone else around you believes you can do it, then you can.

Principal 6 shared that she believes 100% in collaboration.

I am not a one-person show. Everyone is a part of the same team – If teachers are going to get dirty, I will get dirty. I try to coach at all times. Teachers must have a strong communication so they can work together like a well-oiled machine. To develop our collaborative adult community, I asked staff to participate in a book club and a fitness club. Through our collaborative process, teams meet regularly to plan, discuss areas of success, and areas to be addressed. In the end, we will do whatever it takes to support students.

Principal 3 explained collaboration was important, but you cannot collaborate through everything; sometimes you say this is how it is going to be. She shared "when I to make the decision, I explain to the staff my thinking and we work through the questions that surface." Principal 3 shared that her teams do not have set norms for their collaborative meetings.

We embarked on a process to team build norms; however, through this process, we decided that having specific norms did not work for us. We determined that the successful functioning of PLCs came down to let's be professionals. Building professional relationships created opportunities for my teachers to be leaders and have a voice in decision making.

Principal 3 shared that her teams were successful because of the consistency of the staff. She had matriculated through the ranks at this school, so staff members had strong working relationships and trusted her as the principal. Principal 4 felt that relationships set the foundation for collaboration. According to Principal 4, the focus on building relationships caused a shift in her staff's understanding of what collaboration really meant. "People often believe that collaboration means having great relationships with colleagues, but it is shifting from focusing on personal relationships to building professional relationships with staff."

Principals unanimously agreed that time allocation was critical to the implementation of a PLC. Principals shared that having dedicated time to collaborate influenced the outcomes of staff collaboration and therefore influenced learning outcomes. Principals determined that allocating time for collaboration was essential to the successful building of a PLC. Once time was allocated, principals spoke about how collaborative structures and planning contributed to the implementation efforts. To ensure structures were in place principals discussed the importance of providing opportunities for staff members to learn together, hence the fourth theme of creating professional learning opportunities.

Theme 4: Professional learning opportunities. Four of the principals highlighted professional learning opportunities as a key component to enhancing the instructional practices of staff and to build capacity for working collaboratively. Principal 1 and Principal 4 engaged their staff in Adaptive Schools Training, which focused on developing collaborative teams. When staff attended trainings, there was an expectation of returning and sharing the learning with their teams and colleagues. Principal 1 stated "This creates the need to rely on each other for growth." Principal 4 shared that she involves her staff in team building activities the beginning of each year. She engaged her staff in a book study, <u>Five Dysfunctions of a Team</u>. She further shared:

I explain that the title of the book is not a reflection of who we are as a school team, but we can use the information to help us grow. We paused on the planning of Collaborative Learning Teams (CLTs) and focused on the team dynamics. Some of the teams enjoyed the book study, and others did not. Those who did not like the book did not want to reflect on their collaborative practices.

Principal 2 provided time for in-house training twice per month - "Academic Choice." She excitedly explained:

Academic Choice professional learning is teacher-led. Teachers choose to facilitate workshops around topics that they have knowledge of or feel they are experts. Participants in the workshops are able to choose the topics that they want to learn more information. This was a natural way to build capacity in staff on a variety of topics. There are some professional learning offerings that every staff member should be a participant. For example, every new teacher is trained in Sheltered Instruction Observation Protocol (SIOP). Academic Choice offerings allow us to build teams vertically and horizontally.

Principal Six partnered with a local university to provide professional learning for her teachers. She shared:

This partnership is beneficial to our school and the university. Interns are placed at our school for the year as a culmination of their teacher preparation program. During the year, the interns participate in team meetings, professional learning opportunities, and faculty meetings, so they become familiar with our practices. At the end of the internship, if we have teacher vacancies, we hire the interns as teachers. This is an asset to the school because the interns turned teachers understand the structures and expectations for instructional programming and working with teams.

All Principals indicated that they would continue to seek professional learning opportunities that will assist with the effective implementation of PLCs in their schools. Principals reiterated the importance of continuous improvement for staff to continue building their capacity. The division professional learning framework emphasized professional learning opportunities. There were several modalities that staff could use to gain additional training in collaboration and best instructional practices.

Research Question 3

What are the challenges principals face when building collaborative learning teams?

Interview Questions:

- What have been your greatest barriers or challenges with PLC's or collaborative teams in your schools?
- What do you believe is a contributing factor to the barriers and challenges? What have you done to overcome the barriers and challenges?

The interview questions focused on the challenges to building collaborative learning teams and how principals addressed the challenges. The two themes that emerged as challenges were *time* and *culture*. A subtheme of culture was trust and staff turnover.

Theme 1: Time. Four of the six principals conveyed that time was one of the greatest barriers to building collaborative professional learning communities in their schools. Principals struggled with finding the time needed to build strong collaborative school-based teams and grade-level teams. Principal 2 shared that it was difficult to find time to debrief and allow staff to share and give voice to the process. She shared:

When we first began the collaborative process, team members would turn to me as the principal and ask what do you want. They had an item on their agenda - Questions for Principal 2. Team members would write down questions that they wanted me to answer or concerns that they wanted me to address or follow-up. I shared that we need to address the questions and concerns as a team. We changed that agenda item to "parking lot." This small tweak to the agenda item moved the group to a conversation that was collective in addressing the items that needed follow-up. I provided additional support to the coaches who facilitated the process because they had a great impact on the teams' work. We carved out time once per week to meet, and the instructional team leaders had access to the information from all grade levels regardless of the grade level they were a member. Principal 4 revealed that time for a collaborative process was a challenge. She explained:

Many instructional areas pull the staff in many directions. We have high expectations of ourselves, leadership, and our community. We are trying to meet the needs of all of our learners who come to school with a range of skills, abilities, and behaviors. Team dynamics impact the time that we have together because some members have stronger personalities and are not always speaking up for what was right for the students. To address this issue, we put structures in place that guide the teams while still allowing them flexibility. We found a middle ground and took ownership of the decisions made.

Principal 5 reflected on the time that it took to build the foundation for strong collaborative learning teams. She stated:

Anybody who is part of our team needs to understand the framework of PLCs. They have to build a foundation to help their team members gain that common understanding. Once the staff have an understanding, we can move forward and build high functioning teams.

Principal 6 expressed that her teams feel crunched for time. She expressed: There is so much to do and so little time. Teachers have 90 minutes of planning for all content and to address logistical matters. I created a schedule with back to back specials for students, which allowed teachers to have a 90-minute chunk of time for planning.

Principals acknowledged the importance of providing dedicated time for teachers to collaborate. The development of the master schedule was a critical component to creating the time needed for building collaborative learning teams.

Theme 2: Culture. The culture of the schools influenced the way that schools' functioned. It was essential to build a collaborative climate and culture in the school. Principal 1 emphasized the need be to build a collaborative culture. She summed it up with this statement:

Culture eats structures for breakfast. A positive school culture is necessary to effectively implement PLCs in the school. Staff turnover is another component that impacts our culture. The addition of new staff members burdened the entire team, and the dynamics changed. Team members often got upset because their team members were not pulling their weight. I needed to have courageous conversations with some staff members to put the team back on track.

Principal 2 specified staff turnover and onboarding of new staff as a challenge to the culture when building collaborative PLCs. She elaborated by explaining:

As the teams changed each year, it was difficult to maintain consistency and the fidelity of the process. To help eliminate this barrier, I ensured they had the resources and information that they needed to work collaboratively. At the beginning of each year, we focused on building a sense of community. I would reiterate to each team that we are here together to listen and share so we can all be better. As a result, we meet our students' needs.

Principal 3 suggested that "egos" often got in the way of how staff or teams worked together. One example that she shared was:

In a conversation with the staff about appropriate instructional practices for meeting the needs of all students, some staff shared their personal experiences; others brought research to show what they knew or to name drop. In this conversation, the personal experiences shared were more important than the research on the topic. It was more important to build relationships and understand humanity than to show how much the staff member knew. We needed to hold each other accountable to follow the collaborative process.

Principal 5 identified a lack of trust as a challenge to building collaborative working relationships. She shared:

There were strong personalities that impacted our culture. Some staff members had personal conflicts that affected the culture. Building trust was a huge task for us. I was straightforward and honest with the staff. I set expectations for teams and modeled behaviors that I wanted to see. I allowed them to have a choice in how the teams functioned. Grade level members found what worked for their team, and, as a result, we were able to share ideas and resources and effectively plan together. Ultimately, it is my job to create conditions that allow teams to meet and that allow things to happen. The world is run by those who show up. Staff need to be a part of the discussion and the decision making.

To build effective professional learning communities, the principals saw the value in allocating time and building a strong school culture. Concerning providing time, principals were cognizant of the criticality of their role in developing a master schedule, which favored time for collaboration. The principals shared that they held this time as sacred, so their teachers knew that using this time to work collectively was a priority.

Evidence of Trustworthiness

Trustworthiness was established by examining the four dimensions: credibility, dependability, transferability, and confirmability. This quality case study used several data sources that enhanced the credibility of the research study and allowed the data to be triangulated based on evidence from the data. The structured interview protocol, transcriptions of the interviews, and member checks were employed to establish credibility. The transcriptions were sent to each principal for a member check to update any additional information and to validate the accuracy of their responses. The principals were asked to review and respond with any changes and clarification within two weeks. Only two of the participants provided minor clarifications to the transcribed information.

To establish dependability, I utilized field notes and principal transcripts to demonstrate that the research results were consistent, aligned, and possess the ability to be replicated. I reflected on the data collection and analysis to establish dependability. Transferability is another way to establish trustworthiness. Transferability means that the results from the study can be applied to other groups, populations or settings. Purposeful sampling and a structured interview protocol for data collection were used to increase transferability of my study. Reflection on the results was another method to increase transferability. Confirmability was documented through the detailed notes from the interview protocol. The notes highlighted the lived experiences and thoughts of the respondents and not the opinions or biases of the researcher. The results confirmed that principals shared their leadership with teacher leaders and empowered teachers to make decisions that positively influenced students.

Summary

The problem addressed in my study was that there was insufficient research on the behaviors elementary principals practiced that built effective collaboration between members of the school community as they related to PLCs. The purpose of this qualitative study was to explore and describe the behaviors principals exhibited when building collaboration through the implementation of PLCs. The six principals shared their leadership experiences and the behaviors they exhibited relating to developing collaborative professional learning communities. Each identified their leadership as an essential element in building a collaborative process. Principals expressed that having a core team to help develop and support the implementation of collaboration was critical to the success of the PLC process. All principals seemed to value shared leadership and allowed others to help drive the work. They all had a vision for what collaboration should look like in their building but realized that they could not fulfill the vision alone. They needed the support of their entire staff.

Principals specified time and culture as the major challenges to the implementation of collaborative learning communities. Principals communicated that there was a process, and the process took time. Leaders stressed the importance of being patient with each other. To address the challenges or barriers, all principals emphasized the importance of seeking feedback from stakeholders to determine how to move forward with a culture of collaboration. Many of the principals developed schedules that would provide common and back to back planning time for their teacher teams. In Chapter 5, I focused on the interpretation of the findings, limitations of the study, recommendations, implications, and conclusions. Chapter 5: Discussion, Conclusions, and Recommendations

In this qualitative multiple case study, I investigated a social phenomenon by interviewing principals in their natural setting to provide insight into and understanding of the implementation of collaborative PLCs in schools. The purpose of the study was to explore and describe the behaviors principals exhibited when building collaboration through the implementation of PLCs. It was essential for principals to be able to share leadership and build on the strengths of the team members in the organization when implementing PLCs in their schools. The conceptual framework was based on research relating to leadership styles and approaches, collaboration, and the implementation of effective PLCs. The research questions addressed the behaviors principals contributed to building collaborative PLCs. There were stronger collaborative PLCs developed when principals were aware of how their leadership approaches, actions, and behaviors influenced collaboration in their schools. Principals put structures in place and attended meetings to gain input from the school staff.

Interpretation of the Findings

The conceptual framework was based on research relating to leadership styles and approaches, collaboration, and the implementation of effective PLCs. The research study addressed the following central and supporting research questions: How do principal behaviors contribute to collaborative professional learning communities?

1. What leadership approaches influence the implementation of effective collaborative learning teams?

- 2. What strategies or processes do principals use when building collaboration for the implementation of effective PLCs?
- 3. What are the challenges principals face when building collaborative learning teams?

Research Question 1

The three themes that emerged were leadership styles and traits, vision, and decision-making. The themes aligned with Hord's (2007) five dimensions of PLCs, specifically shared and supportive leadership and shared values and vision. The principals in the study spoke clearly about how shared leadership transformed the way teams worked collectively. Sharing leadership enhanced the opportunity to move toward the vision for collaboration. In cultures in which teachers and administrators share similar values and vision for student learning, teachers work harder to create learning environments that meet students' learning needs (Song & Choi, 2017). According to Morrissey (2000), school-based administrators provide the organizational structures to support collaborative working relationships and display a willingness to share decisionmaking with staff. Adams (2016) found that the supportive leadership behaviors that were most distinctive in high-achieving schools included staff involvement in decisions, principals listening to the perspectives of staff, and teacher leaders having the ability to initiate change. These behaviors aligned with what the principals interviewed in the current study reported. Principals explained that when decision-making was shared, there was a higher level of buy-in from staff members. Burns's (1978) theory of transformational leadership supported the importance of shared and supportive

leadership. Transformational leadership is defined as a person's ability to engage staff to build trust and motivation toward organizational outcomes (Allen et al., 2015). All of the principals in the current study indicated that building trust among staff was a factor that contributed to the successful development of PLCs. Each principal exhibited transformational traits in their approaches to leadership.

Research Question 2

When I explored the processes, actions, and behaviors that principals used to build collaboration, four themes emerged from the principals' responses. The themes were time allocation, development of collaborative structures, collaborative planning, and PLCs. With regard to time allocation, all principals noted the importance of their role in creating a master schedule that allowed time for collaboration. Three of the PLC dimensions supported these themes. The themes that the principals encouraged were shared personal practice, collective learning and application, and supportive conditions. According to Benoliel and Schechter (2017), shared physical conditions, time allocation for collaboration, available resources, and developed processes are prerequisites for the development and sustainability of strong PLCs. Most of the principals dedicated time for collaborative planning and held this as sacred time for teams.

The collaboration between the principal and teacher leaders when creating an environment in which teachers felt free to share their knowledge and resources reinforced the importance of shared personal practice and collective learning and application. According to Song and Choi (2017), providing time for face-to-face interactions can make it easier for teachers to collaborate and build trusting relationships. Principals found that designating time for teams to meet collaboratively and providing opportunities for staff to grow and learn through professional learning opportunities were essential behaviors to the success of building collaboration among staff. According to Reeves and Eaker (2019), a leverage point in education is the comprehensive use of PLCs as an organizing principle for schools. Reeves and Eaker found that consistent implementation of PLCs resulted in significant gains in student achievement, and school teams did not give in to the latest fads to help them stay committed to the collaborative process.

Research Question 3

Time and culture were identified as challenges that principals faced when building collaboration among their teams. Many school cultures reflect the values projected by the principal; therefore, when a principal supports the professional learning of teachers, it is evident in the approaches to teaching and learning (Bahous, Busher, & Nabhani, 2016). The principals interviewed were challenged by the need to allocate time to develop strong PLCs because of the many priorities that compete for teachers' available time. Time allocation was an important structural factor for the successful implementation of PLCs. According to Song and Choi (2017), providing the resource of time made it easier for teachers to examine their current instructional practices, and social trust was strengthened when colleagues had face-to-face interactions to exchange ideas. Each principal worked to carve out time for common planning and to increase collaboration. Most principals found that teams needed 60 minutes at a minimum of designated time to collaborate around instructional focuses. Securing designated time to have PLC meetings is a critical systematic condition when launching a PLC in a school or among teams (Ahn, 2017). As a finding of my study, when teams planned together, they shared their collective knowledge and reflected on their current instructional practices to determine strengths and areas needing attention. As one of the principals stated, "Culture eats structure for breakfast." Principals perceived having a strong and productive culture as necessary to implement collaborative structures. Common planning created a culture for continuous learning and application of best practices. The relationships between team members either successfully or unsuccessfully influenced the ways that teams functioned. According to Ahn (2017), the most important condition that team members need when building a collaborative PLC is trust and respect for each other, including not receiving criticism for sharing during the PLC meetings. There needs to be intentionality in developing a culture of understanding as it relates to PLCs.

Limitations of the Study

Limitations of the research study existed in the methodology. The use of semistructured interviews of elementary principals limited the scope of the study because results were based on the perspective of the small group of principals from a single school level. Conducting the study in one school division was a limiting factor because findings could be generalized only to this particular school division. Another limitation was access to documents relating to PLC structures and processes. Principals were not able to easily share their documents because many of the structures were electronic files that I could not obtain access to because of student data. Given the qualitative multiple case study design, the findings cannot be generalized; however, the study's findings may be transferable to similar school settings.

Recommendations

The purpose of the study was to explore and describe the behaviors principals exhibited when building collaboration through the implementation of PLCs. Central to the PLC construct was the idea that a group of educators share and critically review practices in an ongoing, reflective, and learning-oriented process (DeMatthews, 2014). Principals described themselves as facilitators and coaches, which aligned with two of the four parts of shared leadership: facilitating, presenting, coaching, and consulting (see Garmston & Wellman, 2016). A recommendation would be to include a broader sample of principals to seek additional perspectives on the leadership approaches and behaviors that contribute to collaboration. Another recommendation would be to include professional learning opportunities and coaching for school principals on leadership approaches and the strategies that have been successful when developing collaborative professional learning communities. Over time, principals will use the strategies learned to determine whether professional learning has an impact on the implementation of PLCs.

According to Psencik and Brown (2018), district and school leaders must shift their relationship from compliance to collaborative learning leaders. The relationship becomes lateral when district and school leaders work in conjunction to set expectations and goals, demonstrate a willingness to learn new skills, and coach each other (Psencik & Brown, 2018). A comparative study could be conducted to address the similarities and differences between what district leaders and principals deem as essential behaviors and approaches to leadership when building collaborative PLCs.

Implications

The study findings showed that leadership approaches and behaviors of principals impact the ability to build collaborative PLCs. Principals should be observant of how their leadership approaches and behaviors influence collaboration among their learning teams. Zheng et al. (2016) found a correlation between the leadership approaches of the leaders and the five dimensions of a PLC. The leadership actions of the principals have an impact on how teachers perceive support from their principals and their willingness to engage in collaborative work (Zheng et al., 2016). Song and Choi (2017) studied the factors that influence PLCs in Korean elementary schools and found that principals should encourage collaborative relationships among teachers and that time allotment for collaboration is essential to the successful implementation of PLCs. Principals established the culture of the school by setting expectations for collaborative work and holding individuals accountable for their actions (Li et al., 2016). Principals influenced instructional change by transforming the school culture to emphasize teaching and learning (Buttram & Farley-Ripple, 2016). I explored the behaviors principals exhibited that promoted social change by strengthening professional practice in classrooms, school buildings, and communities. The work of the principals was strategic and was a continuous process toward building collaborative learning communities.

Conclusion

Principals play a pivotal role in the development and implementation of PLCs in their schools. My qualitative study addressed the viewpoints of six elementary principals regarding their leadership approach and the behaviors they exhibited when building collaborative learning communities. Marzano et al. (2016) revealed that the development of PLCs is a complex course of actions and that structures need to be in place that energize staff to perform complex work. According to Carpenter (2015) principals need to possess a variety of leadership skills and behaviors that encourage adult learning to ensure continuous improvement in schools. Carpenter (2015) suggested that principals serve as change agents who empower their team members to engage in the PLC process.

The framework of this study focused on leadership approaches and how the behaviors of principals supported collaboration among teacher teams and built structures that allowed for the productive implementation of PLCs. The findings revealed the leadership approaches and behaviors that elementary principals believed were necessary to build collaboration. Each principal detailed their approach regarding the PLC process and the conditions that they deemed important for the success of the collaborative process. These principals created learning environments that set expectations for collaboration among their staff. Their leadership style and behaviors influenced the culture of the school and the effective development of PLCs.

Principals cannot build and implement PLCs alone. It takes a collaborative effort from other stakeholders to build and sustain the process with fidelity. Having a core team of teacher leaders to partner with the principal to build collaboration creates additional buy-in from other teachers to implement the collaborative process with fidelity. The principals in the current study reported that they needed to be knowledgeable of the structures needed to build successful collaboration and that they could share that responsibility with instructional coaches and team leaders. Principals highlighted the importance of setting expectations, promoting collaboration, and holding staff accountable to share personal practice and maintain supportive conditions for effective communication around the work. Most principals defined clear roles for their teacher leaders to ensure that they understood and could be engaged in the process.

Findings from this study may be used to help personnel address the challenges that pose barriers to a successful PLC process. Professional development offerings could be developed to provide strategies and structures to address the barriers faced by principals. Research could use Garmston and Wellman's (2016) framework for structuring collaboration among teams. The professional learning offerings could be provided to staff to build the capacity of all staff members. Leaders must persist when promoting effective collaborative professional practices. Leaders should not abandon practices because they are challenging; rather, leaders should persevere so that practices become stronger in their implementation (Reeves & Eaker, 2019).

Qualitative research takes time and patience. It took time to gain the trust of the participants, which was critical to obtaining information that was meaningful to the study. Through initial e-mail communication with principals, I was able to ensure that the principals understood the purpose of the study and that the information they shared would be kept confidential. Principals felt comfortable during the interviews; therefore, I was able to garner rich data vital to the study. The results of the study will be transferable to other school divisions and organizations that seek to build collaborative learning communities.

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Appendix A Approval to Conduct Research

December 21, 2018

Lisa Gaines High	

Dear Ms. High:

Our research committee has completed its review of your application to conduct the research study entitled, "Behaviors of Principals that Contribute to Building Collaborations through Professional Learning Communities" in **Descent** Public Schools **Descent**. The committee has approved your research contingent on the following requirements:

- 1. The participation of any staff member, student, or family who might be involved is completely voluntary at all times. Each participant (or parent of participating students) must be informed in writing of the scope and potential impact of their participation. You should be prepared to provide proof of their informed consent, if requested.
- 2. You must maintain the total anonymity of all students, staff, and schools associated with in any discussions or reports. Any disclosure that may reveal the participation of an student, staff member, school, or the school system must be approved in advance by the Good Office of Planning and Evaluation.
- 3. Any change to the proposed research must be submitted to and approved by the Office of Planning and Evaluation in advance of implementation.

We wish you success as you carry out this study.

Sincerely,

Assistant Director for Program Evaluation

Appendix B: Elementary Principal Interview Protocol

Elementary Principal Interview Protocol

These questions will be used with principals during the semi-structured interviews to address the research questions of the study.

Research Questions:

The central question: How do principal behaviors contribute to collaborative professional learning communities?

Related Research Questions:

- (a) What leadership approaches influence the implementation of effective collaborative learning teams?
- (b) What strategies or process do principals use when building collaboration for the implementation of effective PLCs?
- (c) What are the challenges principals face when building collaborative learning teams?

Introduction:

- 1. Thank you for agreeing to participate in this study
- 2. The interview is part of research on behaviors of principals that contribute to professional learning communities in schools
- 3. Your participation is voluntary. You may stop the interview if at any time you feel uncomfortable answering a question.
- 4. The interview should take about 45 60 minutes.
- 5. All responses are confidential. There are no correct or incorrect answers.
- I am interested in your honest response in order to determine the actions of principals that contribute to building collaborative professional learning communities.

Time: _____

Location:

Interviewee: _____

Consent form signed at time of interview:

PART A: Background Information

- 1. How many years of leadership experience, including the current year, do you have?
- 2. What leadership positions have you held?
- 3. How many years of experience do you have as an elementary principal?
- 4. How long has you worked as a principal in this school division?

PART B: Interview questions

1. How do you define leadership?

There are many leadership styles and approaches such as transactional, transformative, transformative to name a few.

- 2. Please describe the characteristics and attributes that you exhibit as a leader.
- 3. Do you believe it is important for school staff to collaborate?
- 4. What is your vision for collaboration in your school?
- 5. Describe leadership opportunities that exist for teachers in your school?
- 6. What process do you use to encourage collaboration among teacher teams?
- 7. Please describe the professional learning communities or collaborative teams in your school.
- 8. Please describe specific examples of behaviors or actions that you have implemented in your school to encourage a collaborative learning community.
- 9. How do you create supportive conditions that build collaboration within or among teacher teams?
- 10. What have been your greatest barriers or challenges with PLC's or collaborative teams in your schools?

- 11. What do you believe is a contributing factor to the barriers or challenges? What have you done to overcome the barriers or challenges?
- 12. If you were asked by another principal, how collaborative learning teams should be implemented, how would you answer?
- 13. How do you feel school leadership motivates and provides encouragement to teachers and staff members?

Part C. Closure:

- 1. Is there anything else you feel you would like to share that will help me understand how you build collaboration in your school?
- 2. Thank you for your participation.
- 3. Let me remind you, your responses are confidential.
- Do I have your permission to follow-up with you regarding your responses to the research questions? _____

School	Mission & Vision	Title I	Student Enrollment	Student Demographics	Notes
Principal 1	A Professional Learning Community This school is a diverse community of students, families and staff who are engaged and motivated to learn. We collaborate to ensure high levels of learning while nurturing all learners' interests and abilities.	Yes	Approximately 570 Students	Racial & EthnicGroupsWhite- 30.8% Black - 7.8% Hispanic - 48.8% Asian - 6.4% Two or MoreRaces - 5.5% American Indian5%AcademicStudent GroupsSpecialEducation -19.8%English Learners- 56.9%EconomicallyDisadvantaged -61.1%Accredited	Focused on meeting student needs through a "Workshop Model" approach in reading, writing, and math – this allows teachers to provide differentiation and individualization daily. Our teachers work closely with each other and with our highly trained math coach, reading coach and resource teacher for gifted to plan and deliver instruction that provides rigor and support.
Principal 2	This school commits to all students achieving academic success in two languages. This division instills a love of learning in its students and prepares them to be responsible and productive global citizens. Students are bilingual, global citizens, caring and kind team players, effective communicators, independent problem solvers, and persistent, life-long learners. This division is a diverse	No	Approximately 750 Students	RecretationRacial & EthnicGroupsWhite - 34.0%Black - 4.7%Hispanic - 53.5%Asian - 2.5%Two or MoreRaces - 5.1%American Indian3%AcademicStudent GroupsSpecialEducation -11.9%English Learners- 33.7%EconomicallyDisadvantaged -	Dual Immersion Program We collaborate, work as a team We recognize that teaching is a reflective process and we actively reflect together

Appendix C: Review	of Participants School	Webpages
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	and inclusive school community, committed to academic excellence and integrity. We provide instruction in a caring, safe, and healthy learning environment, responsive to each student, in collaboration with families and the community.			36.5% Accredited	
Principal 3	To provide a safe and welcoming environment where the achievement gap is eliminated, and all students are happy, healthy and engaged learners who excel academically. Through purposeful teaching, every child will be a lifelong learner and critical, global thinker.	No	Approximately 780 Students	Racial & EthnicGroupsWhite - 47.3%Black - 18.2%Hispanic - 15.2%Asian - 12.1%Two or MoreRaces - 6.4%American Indian5%Native Hawaiian3%AcademicStudent GroupsSpecialEducation - 8.5%English Learners- 34.2%EconomicallyDisadvantaged -23.2%Accredited	This school is proud of our cultural and global diversity, our strong and supportive community and our lovely neighborhoods. We invite you to join us! We are a friendly, academically excellent school and welcome you to join us in learning about ourselves and each other as we continue to grow as citizens of the world.
Principal 4	This school seeks to continuously improve student achievement while supporting the development of the whole child. Parents are an integral part of the educational process and the staff is committed to working in partnership with them to provide the best possible education to each child. The school community sets high expectations for all	No	Approximately 640 Students	RecretationRacial & EthnicGroupsWhite – 39.8%Black – 9.0%Hispanic – 32.9%Asian – 11.8%Two or MoreRaces – 6.3%Native Hawaiian3%AcademicStudent GroupsSpecialEducation –14.6%	The students and staff are guided by the school motto "Do your personal best today and all life long."

	students and provides each student with the support needed to reach his/her fullest potential.			English Learners – 37.6% Economically Disadvantaged – 31.8% Accredited	
Principal 5	Our vision is to develop creative, literate thinkers who will become contributing members of their community. The school's primary mission is to teach and empower students to be lifelong learners. As a national award-winning community school. Differentiated instruction allows teachers to meet the diverse needs of students by planning instruction that is responsive to their readiness, interests and learning styles.	Yes	Approximately 600 Students	Racial & EthnicGroupsWhite – 6.3% Black – 12.2% Hispanic – 67.7% Asian – 10.5% Two or MoreRaces – 2.6% American Indian6%AcademicStudent GroupsSpecialEducation – 16.5% English Learners- 71.3%EconomicallyDisadvantaged – 84.4% Accredited	Community School - used as a base to support students and their families by addressing not only academic needs, but also social, emotional, and health needs through linkages to community partners.
Principal 6	To be an inclusive community that empowers all students to foster their dreams, explore their possibilities, and create their futures To ensure all students learn and thrive in safe, healthy, and supportive learning environments.	No	Approximately 580 Students	Racial & EthnicGroupsWhite - 57.0%Black - 8.0%Hispanic - 16.6%Asian - 10.6%Two or MoreRaces - 7.8%AcademicStudent GroupsSpecialEducation -12.8%English Learners- 17.6%EconomicallyDisadvantaged -16.7%Accredited	Integrity: Build trust by acting honestly, openly, ethically, and respectfully. Collaboration: Foster partnerships with families, community, and staff to support the success of our students Innovation: Engage in forward-thinking to identify bold ideas that enable us to be responsive to the expectations of our organization and community while cultivating creativity, critical thinking, and resourcefulness in our students.

Appendix D: Research Questions and Interview Protocol Questions

Research Questions and Interview Protocol Questions: Principal Behaviors and Collaborative PLCs

Background Information: To gain information about the participants who were used to		
triangulate the data.		
Background Question 1	How many years of leadership experience do you	
	have, including the current year?	
Background Question 2	What leadership positions have you held?	
Background Question 3	How many years as an elementary principal?	

Research Question: What leadership approaches influence the implementation of effective collaborative learning teams?

1113 :
How do you define leadership?
What is your leadership style or approach? Please
describe the characteristics and attributes that you
exhibit as a leader.
What is your vision for collaboration in your school?
Describe leadership opportunities that exist for
teachers in your school.
How do you feel school leadership motivates and
provides encouragement to teachers and staff
members?

Research Question: What strategies or process do principals use when building collaboration for the implementation of effective PLCs?

conadoration for the implem	nentation of effective PLCs?
Interview Question 6	What process do you use to encourage collaboration
	among teacher teams?
Interview Question 7	Please describe the professional learning communities
	or collaborative teams in your school.
Interview Question 8	Please describe specific examples of behaviors or
	actions that you have implemented in your schools to
	encourage collaborative learning communities.
Interview Question 9	How do you create supportive conditions that build
	collaboration between teacher teams?
Interview Question 12	If you were asked by another principal, how
	collaborative learning teams should be implemented,
	how would you answer?

Research Question: What are to collaborative learning teams?	the challenges principals face when building
Interview Question 10	What have been your greatest barriers or challenges
	with PLC's or collaborative teams in your schools?
Interview Question 11	What do you believe is a contributing factor to the
	barriers or challenges? What have you done to
	overcome the barriers or challenges?

Summary: Opportunity for the participants to share any additional information		
Summary Question 1	Is there anything else you feel you would like to share	
	that will help me understand how you build	
	collaboration in your school?	